FRANCIS BUTTLE AND STAN MAKLAN

CUSTOMER RELATIONSHIP MANAGEMENT

Concepts and Technologies

Fourth Edition

CUSTOMER RELATIONSHIP MANAGEMENT

Customer Relationship Management, Fourth Edition continues to be the go-to CRM guide explaining with unrivalled clarity what CRM is, its uses, benefits and implementation. Buttle and Maklan take a managerial perspective to track the role of CRM throughout the customer journey stages of acquisition, retention and development. Theoretically sound and managerially relevant, the book is liberally illustrated with examples of technology applications that support marketing, sales and service teams as they interact with customers, but assumes no deep technical knowledge on the reader's part. The book is structured around three core types of CRM – strategic, operational and analytical – and throughout each chapter, case illustrations of CRM in practice and images of CRM software demystify the technicalities.

Ideal as a core textbook for advanced undergraduate and postgraduate students on CRM or related courses such as relationship marketing, digital marketing, customer experience management or key account management, the book is equally valuable to industry professionals, managers involved in CRM programs and those pursuing professional qualifications or accreditation in marketing, sales or service management.

NEW TO THIS EDITION:

- New and updated international case illustrations throughout
- New and updated screenshots from CRM applications
- Fully updated to reflect the evolving CRM landscape, including extended coverage of:
    - Big data and its influence on CRM
    - Artificial intelligence (AI)
    - Advances in CRM analytics
    - The relationships between CRM and customer experience management
    - The role of social media in customer management strategy
    - Real-time marketing
    - Chatbots and innovative customer self-service
    - Privacy and data security.
- Updated lecturer support materials online.

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PREFACE

Welcome to the fourth edition of *Customer Relationship Management: Concepts and Technologies* by Francis Buttle and Stan Maklan.

This book provides a comprehensive and balanced review of customer relationship management. It explains what CRM is, the benefits it delivers and the costs it creates across the many contexts in which it is used. Businesses of all sizes are the main adopters of CRM, but government agencies and not-for-profits are also users. Adopters use CRM principally to achieve their own objectives but also recognize that CRM has a major impact on customer – or citizen – experience.

CRM is widely, but incorrectly, thought to be synonymous with the use of information technologies to manage customer relationships. In our opinion, this is a narrow and restrictive view of CRM. The three-letter acronym CRM is, of course, shorthand for customer relationship management, and those three words should tell you plenty about CRM. It involves a focus on customers; it is about the relationships that firms wish to build with customers; and it is about active management of the processes and resources that enable those relationships to survive and prosper for the benefit of both firms and their customers. Those processes are typically housed in marketing, selling and customer service units, and include a wide range of touch points on the customer journey including, for example, customer on-boarding, cross-selling, loyalty management and customer win-back. The resources used to manage customer relationships include data, IT infrastructure, software applications, devices, workflow and people. People are critical to CRM success. People design customer management processes, apply those processes and interact with customers. Clearly, there is more to CRM than IT, though technology was an essential catalyst for its early development and remains fundamental to today's near universal adoption.

IT had been first deployed by businesses to streamline administration with a strong focus on accounting, billing and financial reporting, resulting in IT heads reporting to the CFO or VP Finance. The next waves of IT deployment focused on personal productivity (desktop computing) and supply chain management (e.g. enterprise resource planning – ERP). Then, in the early 1990s, IT was applied to customer relationship management, and most recently to customer experience management (CXM). CRM's emergence as a business discipline happened because advances in IT enabled adopters to capture, store, interpret and distribute customer-related data cost effectively in the execution of their relationship management strategies.

CRM has changed massively since the first edition of this book was published in 2004, and even since the last edition was published in 2015.

- CRM practice has conventionally relied upon on its exploitation of structured data about customers, prospects and partners housed in company-owned databases. This has changed. Structured data can be easily stored in two-dimensional tables (column and rows) and subjected to statistical analysis. However, much of the data customers generate, for example on social media platforms, is unstructured and requires complex new technologies if it is to be useful for relationship management. Unstructured data includes text, audio, photographic and video data such as call center agent notes, recordings of customer engagement center conversations and uploads to YouTube and Instagram.

- Software-as-a-Service (SaaS) has largely replaced on-premise CRM implementations. SaaS essentially means that CRM users store their customer data in the cloud, and read, analyze and exploit that customer data using software applications accessed through their web browsers. Most CRM vendors/developers now have a SaaS-first, or SaaS-only, approach to service provision.

- The sheer volume and variety of data that organizations can access is growing exponentially. Big data are data that are typified by their volume, velocity and variety. Big data, including the data resident on social media platforms, are impacting the practice of relationship marketing and CRM more particularly.

- No longer do businesses set the rules about how they will interact with customers through their control of communication channels and brand messaging. Customers now decide when and how they will interact with companies, and they have multiple channels for doing so, ranging from email, to face-to-face and chatbot.

- Customers can also create and communicate their own brand-related messages on social media platforms like Facebook and Twitter. These may be very different in content and tone from the brand owner's messaging.

- New CRM solutions continue to emerge as technology firms innovate. Two solutions are generating high levels of interest and investment: chatbots and social CRM solutions. We explore how social CRM fits into the CRM landscape, and particularly whether it is a fundamental type of CRM, equivalent to strategic, operational and analytical CRM.

- Artificial intelligence is playing a more important role in CRM. AI enables companies to make sense of apparently random or chaotic datasets, and to respond automatically without human intervention in real-time.

- CRM is now aligned with customer experience management (CXM). CXM has become a hot topic in customer management. Businesses are trying to understand what it is like to be a customer of their company, and to design moments-of-truth at customer touchpoints that improve customer experience. We view CRM and CXM as two sides of the same coin. CRM resources including technologies and human skill sets change customer experience, and excellent customer experience on a large scale can only be delivered with CRM programs. We even thought about retitling the book *CRM/CXM: concepts and technologies*! Maybe you have an opinion on that – our email addresses appear at the end of this Preface.

- Privacy and data security have become very important issues for regulators, and, in turn, for CRM practitioners. Questions about data ownership and use have become critical as customers surrender personal information, in particular to online entities such as Amazon and Facebook.

- We are seeing the emergence of the next wave of technology-supported innovation in CRM featuring new business models founded on real-time, mobile data, particularly customer-generated data. CRM, the most mature of the IT-enabled customer-facing management disciplines, has an enhanced role in such an environment and we believe remains the cornerstone for marketing, sales and customer service in the future.

In producing this fourth edition we knew we had to reflect this evolving landscape, and in true, customer-oriented manner, we also surveyed readers and adopters of the previous edition. They told us what they wanted in this revision, and we have followed their guidance. We have also refined the focus of the book. We have removed content that was not valued by readers and adopters and streamlined and updated what has been retained. This fourth edition continues to draw on academic and independent research to ensure that it is both theoretically sound and managerially relevant. Research from a wide range of academic disciplines contributes to the book. These include marketing, sales, customer service, human resources, technology management, strategy, change management, project management, leadership, operations, management accounting, finance and organizational behavior. Supplementing these academic credentials, the book also makes use of research conducted by independent analysts such as Gartner and Forrester, two organizations that conduct leading edge, state-of-the-art research into CRM and related areas.

AUDIENCE FOR THE BOOK

This book has been written for a number of audiences, all of whom share an interest in improving their understanding of CRM.

- MBA and master's students, and upper-level undergraduates studying CRM or related advanced courses such as relationship marketing, database marketing, digital marketing, social media marketing, customer management, customer portfolio management, customer experience management, sales management, key account management, strategic management, customer value management and customer service management.

- Students or independent learners seeking CRM education or certification through organizations such as AARM (Association for the Advancement of Relationship Marketing) and CRMAA (CRM Academy of Asia).

- Those pursuing professional qualifications or accreditation in marketing through international organizations such as the Chartered Institute of Marketing, the Digital Marketing Institute, and the Institute of Direct and Digital Marketing, or national bodies such as the Marketing Institute of Ireland or the Canadian Institute of Marketing.

- Senior and mid-level managers who are involved in CRM programs and system implementations, whether in a marketing department, the sales force or service center.

- Students pursuing professional qualifications or accreditation through international organizations such as the Institute of Sales & Marketing Management, or corporate-based sales academies.

- CRM users who want a better understanding of this complex area. CRM tools are deployed across all customer-facing parts of organizations. Users include sales representatives and account managers, marketing managers, market analysts, campaign managers, market managers, customer relationship managers, and customer service managers. These users are exposed to just a fragment of the CRM universe. This book can put their role into broader context.

KEY FEATURES OF THE BOOK

- The book provides a helicopter view, an overview, of the domain of CRM. As an impartial review of the field, it is not tied to any particular perspective on CRM. Indeed, the book identifies a number of holistic models that provide different and competing overviews of CRM.

- Although CRM is in widespread use, there is still some misunderstanding about what CRM is. The book identifies three different types of CRM – strategic, operational and analytical. The book is structured so that the chapters on each of these types of CRM are clustered together. Several chapters are dedicated to each type of CRM.

- The book defines CRM as the core business strategy that aims to create and maintain profitable relationships with customers, by designing and delivering superior value propositions. It is grounded on high-quality customer-related data and enabled by information technology. This definition serves as a central point-of-reference throughout the book.

- We don't assume that customers want relationships with suppliers. If CRM is about developing and maintaining relationships with customers, it is important to have clear understanding of what a relationship looks like, and how, if at all, it can be managed. We discuss what is meant by "relationship" and question whether customers want relationships with suppliers and *vice versa*. We also identify attributes of successful relationships and review five different schools of thought that have influenced relationship management in a business context.

- The book emphasizes a managerial perspective on CRM. Although there is plenty of content on technology, it is not a book about technology, *per se*. The technology content of the book has been written so that readers who are unfamiliar with technology, or who are technophobes, can still understand what CRM technologies can deliver. Technology is secondary to management throughout the book. You don't need a degree in information systems to benefit from the book!

- The book has a strong academic foundation provided by research from a number of disciplines.

- The book contains many examples of CRM solutions and their application in marketing, selling or service function. Screenshots from CRM applications are a feature of the book.

- Every chapter contains case illustrations. These are not problem-based cases, but examples of CRM in practice, so that readers can better appreciate how CRM is deployed.

- All chapters follow a common format: learning objectives, text, case illustrations, summary and references.

ACKNOWLEDGEMENTS

We hope you enjoy the book and find it a satisfying read. Writing a book is a little like painting a picture or tending a garden. You never reach a point where you can safely say that the job is finished. There is always more you can do. With that in mind, we invite you to write to us at francis@francisbuttle.com.au and stanmaklan@gmail.com or s.maklan@cranfield.ac.uk. We look forward to hearing from you.

Francis Buttle, Sydney
Stan Maklan, London

UNDERSTANDING CUSTOMER RELATIONSHIPS

This book is organized into six sections. Section A consists of four chapters that introduce you to the fundamentals of CRM. Chapter 1 explains what CRM is, picks out three different types of CRM, identifies CRM's main stakeholders, and describes a number of different contexts in which CRM is used. Chapter 2 explores what we know about relationships and asks why companies and customers might want to develop relationships with each other, and why they sometimes do not. Chapters 3 and 4 investigate the three main stages of the customer journey – customer acquisition, customer retention and customer development.

INTRODUCTION TO CRM

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CHAPTER OBJECTIVES

By the end of the chapter, you will be aware of:

1. Three major types of CRM: strategic, operational and analytical.
2. Where social CRM fits in the CRM landscape.
3. The changing character of CRM.
4. Several common misunderstandings about CRM.
5. A definition of CRM.
6. Constituencies having an interest in CRM.
7. How CRM is deployed in a number of industries and the not-for-profit context.
8. Four models of CRM.

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INTRODUCTION

The expression "Customer Relationship Management (CRM)" has been in use from the early 1990s. Since then, there have been many competing attempts to define the domain of CRM, a number of which appear in Table 1.1.

There are two main clusters of CRM definitions – those of the information technology (IT) industry and those taking a broader strategic or managerial perspective.

IT perspective on CRM

IT companies have tended to use the term CRM to describe the software tools that are used to support the marketing, selling and service functions of businesses. This equates CRM with technology. Although the market for CRM software is now populated with many players, its commercialization was greatly boosted in 1993 when Tom Siebel founded Siebel Systems Inc.

Table 1.1 Definitions of CRM

CRM is an information industry term for methodologies, software and usually Internet capabilities that help an enterprise manage customer relationships in an organized way.[1]

CRM is the process of managing all aspects of interaction a company has with its customers, including prospecting, sales, and service. CRM applications attempt to provide insight into and improve the company/customer relationship by combining all these views of customer interaction into one picture.[2]

CRM is an integrated approach to identifying, acquiring and retaining customers. By enabling organizations to manage and coordinate customer interactions across multiple channels, departments, lines of business, and geographies, CRM helps organizations maximize the value of every customer interaction and drive superior corporate performance.[3]

CRM is an integrated information system that is used to plan, schedule and control the pre-sales and post-sales activities in an organization. CRM embraces all aspects of dealing with prospects and customers, including the call center, sales force, marketing, technical support and field service. The primary goal of CRM is to improve long-term growth and profitability through a better understanding of customer behavior. CRM aims to provide more effective feedback and improved integration to better gauge the return on investment (ROI) in these areas.[4]

CRM is a business strategy that maximizes profitability, revenue and customer satisfaction by organizing around customer segments, fostering behavior that satisfies customers, and implementing customer-centric processes.[5]

(now part of Oracle). Use of the term CRM can be traced back to that period. Gartner, Inc., the information technology research and advisory firm, reported that annual spending on CRM software reached US$26.3 billion in 2015, up 12.3% from $US23.4 billion in 2014, and forecast growth to US$80 billion by 2025.[6] CRM spending includes both software licenses and subscriptions, and fees for cloud services including data storage. Large businesses, for example banks, telecommunications firms and retailers, were early adopters of CRM, but the current growth in CRM spending is fueled by adoptions in other sectors of developed economies, such as small and medium-sized businesses and not-for-profit organizations. Spending is also boosted by corporate investment in new IT capabilities that enable them to exploit new forms of customer data (particularly that collected in social media) and allow them to interact with customers in technology-enabled ways such as the use of chatbots.[7] Additional growth comes from adoptions in developing economies.

Strategic or managerial perspective on CRM

Others take a more strategic or managerial approach to CRM. Rather than emphasizing IT applications, they take the view that CRM is a disciplined approach to managing the customer journey from the initial acquisition of a customer, to that customer becoming a high-spending, profitable advocate, and that technology may or may not have a role in journey management. This equates CRM with customer management strategy, where questions such as the following are answered: which customers should we serve, what sorts of value

propositions should we present to them, and which channels should we use to serve them? Even though technology is not front-and-center in this perspective on CRM, no large organization with millions of customers interacting across multiple channels can implement a customer management strategy cost-effectively without the use of IT support, customer intelligence and carefully designed business processes.

CRM and customer experience management

This managerial perspective on CRM is closely associated with the customer experience (CX) movement.[8] This movement is an approach to customer management that aims to understand and improve the experience of customers as they interact with business. When a company introduces new technology, new processes or new people into customer-facing roles, customer experience is often affected. CRM technologies can fundamentally change CX for the better because it reinvents what happens at customer touchpoints.

Imagine a sales rep who has always carried hard-copy brochures. He is sitting in front of a qualified prospect with a product query, but who otherwise is ready to buy. The rep goes to his briefcase. The brochure he needs is missing, and he cannot answer the query. "I'll get back to you," he says. But he doesn't. He forgets, and the opportunity is lost. Supported by CRM technology, the interaction is very different. The rep carries a tablet with a current, searchable, product database and the customer's record. He answers the query successfully. The prospect asks for a firm quote. The rep activates the quotation engine. A quote is prepared interactively with the customer. The rep requests the order. He wins the order. The rep converts the quote to an order by checking a box on a quotation engine screen. The rep shares the screen information with the customer. An electronic signature is obtained. The order is submitted immediately, confirmation is sent to the buyer's email address and fulfilment process begins.

However, it needs to be said that CX, following a CRM technology implementation, is not always received favorably. Customers who are used to face-to-face calls from sales reps might find they are expected to place orders and pay through a sales portal. Self-service through portals deliver a completely different customer experience. Resistance, resentment and customer churn may result. Weary workers arriving home after a hard day's labor are confronted with cold calls selling products that aren't of the slightest interest. Customers of a multi-channel retailing firm find they receive conflicting or duplicated offers from different channels – a clear indication that customer data are held in silos. The avoidance of negative customer experience from ineptly implemented CRM is an important reason for ensuring the voice-of-the-customer is heard during CRM project planning and implementation. It also signals the importance of monitoring customer response after a CRM implementation.

THREE FORMS OF CRM

We can resolve the debate between managerial and technological schools by conceiving of CRM as taking three main forms: strategic, operational, and analytical, as summarized in Table 1.2 and described below.

Table 1.2 Types of CRM

Type of CRM	Dominant characteristic
Strategic	Strategic CRM is the customer-centric business strategy that aims at winning, developing and keeping profitable customers.
Operational	Operational CRM focuses on the integration and automation of customer-facing processes such as selling, marketing and customer service.
Analytical	Analytical CRM is the process through which organizations transform customer-related data into actionable insight for use in either strategic or operational CRM.

STRATEGIC CRM

Strategic CRM is focused upon the development of a customer-centric business culture dedicated to winning, developing and keeping profitable customers by creating and delivering better value propositions and customer experiences than competitors. The culture is reflected in leadership behaviors, the design of formal systems of the company and the myths and stories that are created within the firm. In a customer-centric culture you would expect resources to be allocated where they would best enhance customer value, reward systems to promote employee behaviors that enhance customer engagement, satisfaction and retention, and customer information to be collected, shared and applied across the business. The heroes of customer-centric businesses deliver outstanding value or service to customers. Many businesses claim to be customer-centric, customer-led, customer-focused, or customer-oriented but few are. Indeed, there can be very few companies of any size that do not claim that they are on a mission to satisfy customer requirements profitably. Customer-centricity competes with other business logics. Philip Kotler identifies three other major business logics or orientations: product, production, and selling.[9]

Product-oriented businesses believe that customers choose products with the best quality, performance, design or features. We use the term product in a very broad sense to include anything that is offered to a customer for purchase. Products, in this sense, extend beyond tangible goods (like a cabbage or an automobile) to also include intangible-dominant services (like massage or accountancy services), experiences (like a kayak tour or a team-building weekend) and bundles of tangibles and intangibles (like a packaged vacation). In short, a product is any offer (or offering) that delivers value to customers.[10] Many new business start-ups are also product-oriented. In product-oriented firms, it is common for the customer's voice to be missing when important marketing, selling or service decisions are made. Little or no customer research is conducted, sometimes because the offering is so innovative it is very tricky for customers to evaluate the offer. Management therefore makes assumptions about what customers want and/or provides visionary leadership for the market. Perhaps the most iconic example of product-orientation is Apple. Apple has created huge demand for products that customers did not know they needed. Leading fashion houses also tend to be product-oriented and try to establish new fashion trends or a distinctive look rather than respond to consumer research. Also known for product-orientation is the design-led consumer electronics firm Bang & Olufsen, and engineering firms GE and Rolls-Royce. However, these

are exceptional. Product-oriented companies risk over-specifying, or over-engineering for the requirements of the market, and therefore risk being too costly for many customer segments. The subset of relatively price-insensitive customers who marketers dub "innovators," are more likely to respond positively to company claims about product excellence, but they are a relatively small segment, perhaps 2.5% of the potential market.[11]

Production-oriented businesses focus on operational excellence.[12] They seek to offer the customers the best value for money, time and or effort. Consequently, they strive to keep operating costs low, and develop standardized offers and routes to market. Complexity, customization and innovation are very costly and unappealing to production-oriented businesses. Production-oriented firms rarely are first to market with truly innovative products. They focus their innovation on supply chain optimization and simplification. They tend to serve customers who want "good-enough," low-priced products and services. Production-oriented businesses choose not to believe that customers have unique needs or wants. It is possible to be highly profitable by being the lowest cost market participant, for example Wal*mart. There is a price and convenience segment in most markets, but the majority of customers have other requirements. Moreover, an excessive focus on operational efficiency might make a business blind to disruptive changes just over the horizon; making cheap products that no one wants to buy is not a sustainable strategy.

Sales-oriented businesses make the assumption that if they invest enough in advertising, selling, public relations (PR) and sales promotion, customers will be persuaded to buy. Very often, a sales orientation follows a production-orientation. The company produces low-cost products and then has to promote them heavily to shift inventory – a "make and sell" approach. The deal-maker and persuader is king in such firms. In markets that are growing rapidly, such an approach can promote strong market share growth and attendant economies of scale. Here the risk is that the firm finds its offer is overtaken by more innovative competitors and it spends increasing amounts pushing products that fewer and fewer customers find desirable.

The business orientation that is most compatible with strategic CRM is **customer or market-orientation.** Such companies share a set of beliefs about putting the customer first. They collect, disseminate and use customer and competitive information to develop better value propositions for customers. A customer-centric firm is a learning firm that constantly adapts to customer requirements and competitive conditions. There is evidence that customer-centricity correlates strongly with business performance.[13]

Many managers would argue that customer orientation must be right for all companies. However, at different stages of market or economic development, other orientations may have stronger appeal.

OPERATIONAL CRM

Operational CRM uses technologies to automate customer-facing business processes. CRM software applications that automate marketing, selling and service processes result not only in efficiency and effectiveness gains, but may also improve customer experience and engagement. Some of the major forms of operational CRM appear in Table 1.3.

Although we cover the technological aspects of operational CRM in Chapters 8, 9 and 10, it is worth making a few observations at this point.

CASE ILLUSTRATION 1.1

STRATEGIC CRM AT HONDA AUSTRALIA[14]

Honda manufactures and markets a range of motorcycle, power equipment and marine products. The Honda brand has a reputation for quality, technology and performance. Honda Australia recognized that while it was diligently nurturing individual relationships with partners, dealers and customers, each segment was closed off from the others. Inevitably, this meant valuable customer data being trapped in pockets within the organization and not available to potential users. Honda realized that consolidating and freeing up the flow of data could have a huge positive impact on the effectiveness and efficiency of the business. Honda developed a strategy themed *Customers For Life*, based on data integration and a whole-of-customer view. Honda found customer-related data in numerous spreadsheets and databases across the business. These were integrated into a single CRM platform, supplied by Salesforce.com, and hosted in the cloud. This was enriched with customer information from Honda Australia Rider Training (HART), Automobile Association memberships, and several other sources to create a single comprehensive data source and reporting system. Honda then removed responsibility for managing customer relationships from individual departments, and moved it to a newly formed CRM unit. An integrated view of the customer has allowed Honda to stop different operating units from bombarding customers with multiple communications. Instead, Honda now consolidates outbound customer contact into meaningful and relevant communications, and accurately measures communications effectiveness. Honda has built workflows into customer touch-points, for example customer satisfaction surveys, guaranteeing follow-up of any negative comments. The immediate effect was a reduction in complaint resolution time from months to minutes. Honda has shifted closer to becoming a unified brand that really knows and understands its customers.

Marketing automation

Marketing automation (MA) applies technology to marketing processes.

Campaign management (CM) modules allow marketers to use customer-related data in order to develop, execute and evaluate targeted communications and offers. CM applications generally aim to lift customer engagement with the brand – be that a product brand or an organizational brand. These campaigns are predominantly digital and range from simple SMS or email campaign messaging to more sophisticated multi- or omni-channel programs that encourage engagement at various stages of the customer journey. We have more to say about customer engagement in Chapter 4.

Customer segmentation for campaigning purposes is, in some cases, possible at the level of the individual customer, enabling unique communications to be designed.

In multi-channel environments, campaign management is particularly challenging. Some fashion retailers, for example, have multiple transactional channels including free-standing stores, department store concessions, one or more branded websites, home shopping catalogs, catalog stores and perhaps even a TV shopping channel. Some customers may be unique to a single channel, but many will be multi-channel prospects, if not already customers of several channels. Integration of communication and offer strategies, and evaluation of performance, requires a substantial amount of technology-aided coordination across these channels. We

Table 1.3 Operational CRM – some applications

Marketing automation
Campaign management
Event-based (trigger) marketing
Marketing optimization
Sales force automation
Account management
Lead management
Opportunity management
Pipeline management
Contact management
Product configuration
Quotation and proposal generation
Service automation
Case (incident or issue) management
Customer communications management
Queuing and routing
Service level management

discuss how modern marketing clouds provide such coordination across online channels in the introduction to Section C that precedes Chapter 8.

Event-based, or trigger, marketing is the term used to describe messaging and offer development to customers at particular points-in-time. An event triggers the communication and offer. Event-based campaigns can be initiated by customer behaviors, or contextual conditions. A call to a contact center is an example of a customer-initiated event. When a credit-card customer calls a contact center to enquire about the current rate of interest, this can be taken as indication that the customer is comparing alternatives and may switch to a different provider. This event may trigger an offer designed to retain the customer. Examples of contextual events are the birth of a child or a public holiday. Both of these indicate potential changes in buyer behavior, initiating a marketing response. Event-based marketing also occurs in the business-to-business context. The event may be a change of personnel on the customer-side, the approaching expiry of a contract, or a request for information (RFI).

Real-time marketing combines predictive modeling and work flow automation enabling companies to make relevant offers to customers as they interact with different touchpoints such as website and retail outlet. As consumers share more data with companies, and as the company's ability to analyze that data improves, online and mobile marketing increasingly occurs in real-time. Customer behavior online is married to their profiles, and the profiles of similar people, to enable firms to predict which communication and offers are most likely to

lead to a desired outcome: this is often called the NBO or Next Best Offer and is refreshed in real-time. E-retailers such as Amazon continually refresh recommendations as a result of customer searches, and Google changes the advertising it pushes to searchers as a function of their location and search behaviors.

More information about marketing automation appears in chapter 8.

Sales force automation

Sales force automation (SFA) was the original form of operational CRM. SFA systems are now widely adopted in B2B environments and are seen as an "imperative"[15] that offers "competitive parity."[16]

SFA applies technology to the management of a company's selling activities. The selling process can be decomposed into a number of stages such as lead generation, lead qualification, lead nurturing, needs discovery, proposition development, proposal presentation, negotiation and closing the sale. SFA software can be configured so that it is modeled on the selling process of any industry or organization.

Automation of selling activities is often linked to efforts to improve and standardize the selling process. This involves the implementation of a sales methodology. Sales methodologies allow sales team members and management to adopt a standardized view of the sales cycle, and a common language for discussion of sales issues.

SFA software enables companies to assign leads automatically and track opportunities as they progress through the sales pipeline towards closure. Opportunity management lets users identify and progress opportunities-to-sell from lead status through to closure and beyond, into after-sales support. Opportunity management software usually contains lead management and sales forecasting applications. Lead management applications enable users to qualify leads and assign them to the appropriate salesperson. Sales forecasting applications may use transactional histories and salesperson estimates to produce estimates of future sales.

Contact management lets users manage their communications program with customers. Customer records contain customer contact histories. Contact management applications often have features such as automatic customer dialing, the salesperson's personal calendar and email functionality.

Product configuration applications enable salespeople, or customers themselves, automatically to design and price customized products, services or solutions. Configurators are useful when the product is particularly complex, such as IT solutions. Configurators are typically based on an "if … then" rules structure. The general case of this rule is "If X is chosen, then Y is required or prohibited or legitimated or unaffected." For example, if the customer chooses a particular feature (say, a particular hard drive for a computer), then this rules out certain other choices or related features that are technologically incompatible or too costly or complex to manufacture.

Quotation and proposal generation allow the salesperson to automate the production of prices and proposals for customers. The salesperson enters details such as product codes, volumes, customer name and delivery requirements, and the software automatically generates a priced quotation. This functionality is often bundled together with product configuration in what is known as CPQ – Configure, Price, Quote.

CASE ILLUSTRATION 1.2

SALES FORCE AUTOMATION AT ROCHE

Roche is one of the world's leading research-based healthcare organizations, active in the discovery, development and manufacture of pharmaceuticals and diagnostic systems. The organization has traditionally been product-centric and quite poor in the area of customer management. Roche's customers are medical practitioners prescribing products to patients. Customer information was previously collected through several mutually exclusive sources, ranging from personal visits to handwritten correspondence, and not integrated into a database, giving incomplete views of the customer. Roche identified the need to adopt a more customer-centric approach to better understand their customers, improve services offered to them and to increase sales effectiveness. Roche implemented a sales force automation system where all data and interactions with customers are stored in a central database, which can be accessed throughout the organization. This has resulted in Roche being able to create customer profiles, segment customers and communicate with existing and potential customers. Since implementation Roche has been more successful in identifying, winning and retaining customers.

More information about sales force automation appears in Chapter 9.

Service automation

Service automation involves the application of technology to customer service operations. Service automation helps companies to manage their service operations, whether delivered through call center, contact center, field-service, web, chatbot or face-to-face with high levels of efficiency, reliability and effectiveness.[17] Service automation software enables companies to handle in-bound and out-bound communications across all channels. Software vendors claim that this enables users to become more efficient and effective by reducing service costs, improving service quality, lifting productivity, enhancing customer experience and lifting customer satisfaction.

Service automation differs significantly across contexts. The first point of contact for service of consumer products is usually a retail outlet or call center. People working at these touchpoints often use online diagnostic tools that help identify and resolve customers' problems. A number of technologies are common to service automation. Call routing software can be used to direct inbound calls to the most appropriate handler. Technologies such as interactive voice response (IVR) enable customers to interact with company computers. Customers can input to an IVR system after listening to menu instructions either by telephone keypad (key 1 for option A, key 2 for option B), or by voice. If first contact problem resolution is not possible, the service process may then involve authorizing a return of goods, or a repair cycle involving a third-party service provider. Increasingly, firms are integrating artificial intelligence to this process and ever-improving chatbots – robots capable of conversation with customers – are being deployed to reduce costs and ensure consistent service quality standards.

Most large organizations now respond to customer complaints in social media such as Facebook and Twitter in close to real-time. Social media have greatly increased the risks of consumer complaints remaining unanswered. Real-time engagement in the social conversation enables companies to intervene immediately and resolve an issue before a social media storm erupts. Some companies employ people and/or technologies to monitor and respond to tweets and other social media content. Other participants in the conversation, for example other users of Twitter, might also be able to contribute to the resolution of a consumer's problem, through what is known as crowd-sourced customer service.

CASE ILLUSTRATION 1.3

CUSTOMER SERVICE AT JETBLUE

JetBlue is a US low-cost airline known not only for its prices, but for friendly and helpful customer service, winning multiple JD Power customer service awards. It created its first Twitter account in 2007.[18] Initially, like so many new technology users, the company felt that Twitter would be a sales promotion channel. Indeed, JetBlue has been imaginative in building its following and promoting ticket sales over the new channel. As its competence grew, JetBlue was able to use Twitter for real-time customer service. One story is about a customer who'd tweeted that he had left sunglasses at one of the stages before boarding. The head office team monitoring the Twitterfeed arranged for them to be found and returned to the passenger prior to boarding the aircraft. JetBlue's active engagement with customers over Twitter has improved its ability to feel the experience as a customer does and make necessary improvements quickly.

Service automation for large capital equipment is quite different. This normally involves diagnostic and corrective action taken in the field, at the location of the equipment. Examples of this type of service include industrial air conditioning and refrigeration. In these cases, service automation may involve providing the service technician with diagnostics, repair manuals, inventory management and job information on a tablet or other mobile device. This information is then synchronized at regular intervals to update the central CRM system. An alternative is for diagnostics to be built into the equipment, and back-to-base issue reporting to be automated. Rolls-Royce aero-engines, for example, are offered with a service contract that involves Rolls-Royce engineers monitoring engines in flight to help airlines maximize efficiencies, reduce service cost and most importantly, reduce downtime of the aircraft through preventative service interventions. Rolls-Royce calls this "Power-by-Hour." GE, its chief competitor in aircraft engines, offers a similar service. The Internet of Things (IoT) is accelerating this trend by providing remote diagnostics into items such as locomotives and industrial tires. In addition to diagnostics for after sales service, IoT provides real-time location data. Firms can therefore use smart systems, powered by IoT data, to enhance their offers. We have more to say about the IoT in Chapters 12 and 15.

Turning products into services, or developing combined "product-service systems,"[19] is known as "servitization." This is not a new strategy; indeed, IBM famously made a transition from selling computers to providing solutions and systems. In all such cases, the nature of the customer relationship changes. Modern operational CRM systems permit the delivery of such solutions in a cost-effective manner.

Service automation is equally prominent in the services sector and is often built on the principle of "zero touch" or no human interaction. Indeed, the core service offer may be delivered by automation. The Google search engine, and the in-cloud data storage service Dropbox are examples. Service automation is also used to enhance core offers. The mobile apps for retail banks were initially created to reduce the cost of servicing customers; however, many customers now use apps as their prime interface with the bank. When app use becomes a highly valued part of the customer's relationship with a bank, it becomes less of an enhancement for the customer and more part of the core offer.

Many companies use a combination of direct and indirect channels especially for sales and service functions. When indirect channels are employed, operational CRM supports this function through partner relationship management (PRM). This technology allows partners to communicate with the supplier through a portal, to manage leads, sales orders, product information and incentives.

More information about service automation appears in Chapter 10.

ANALYTICAL (OR ANALYTIC) CRM

Analytical CRM, also called analytic CRM, is concerned with capturing, storing, extracting, integrating, processing, interpreting, distributing, using and reporting customer-related data to enhance both customer and company value.

Analytical CRM depends on customer-related information. Customer-related data may be found in several enterprise-wide repositories: sales data (purchase history), financial data (payment history, credit score), marketing data (campaign response, loyalty scheme data) and service data. To these internal data can be added data from external sources including business partners with whom companies have data sharing agreements (subject to customer acceptance) and third party organizations such as research firms that provide geo-demographic and life-style data. These are typically structured datasets held in relational databases. A relational database is like an Excel spreadsheet where all the data in any row is about a particular customer, and the columns report a particular variable such as name, postcode and so on. See Chapter 11 for more detail. With the application of data mining tools, a company can interrogate the data and advance their customer relationship objectives.

Although most companies depend on these conventional forms of customer-related data to support strategic and operational CRM, there has been a recent revolution in customer insight spawned by companies' use of "big data". The expression "big data" has been around since 2000, but it's only since 2010 that businesses have been able to manage the large volumes of ever-changing big data. According to IBM, big "data comes from everywhere: from sensors used to gather climate information, posts to social media sites, digital pictures and videos posted online, transaction records of online purchases, and from cell phone GPS signals to

name a few."[20] Big data thus extends beyond structured data, including unstructured data of all varieties: text, audio, video, click streams, log files and more. The tools for searching, making sense of, and acting on unstructured data differ from those available for data-mining structured datasets. Some technology firms offer what are called "social CRM" solutions that are designed to help users understand and exploit big data. We discuss this further below.

Analytical CRM delivers insights that support intelligent strategic and operational CRM decisions, including answers to questions such as "which customers should we serve?" and "what offer should we make?" From the customer's point of view, analytical CRM can deliver timely, customized, and appropriate solutions to the customer's problems, thereby enhancing customer satisfaction and loyalty. From the company's point of view, analytical CRM offers the prospect of more powerful cross-selling and up-selling programs, and more effective customer retention and customer acquisition programs.

CASE ILLUSTRATION 1.4

ANALYTICAL CRM AT AXA SEGUROS E INVERSIONES (AXA)[21]

Spanish insurer AXA Seguros e Inversiones (AXA) has revenues of over €1.8 billion (US$2.3 billion), 2 million customers and is a member of global giant The AXA Group.

AXA runs marketing campaigns in Spain for its many products and services. The company wanted a better understanding of its customers, in order to be able to make more personalized offers and promote customer loyalty.

AXA used CRM vendor, SAS's, data-mining solution to build a predictive policy cancellation model. The solution creates profiles and predictive models from customer data that enable more finely targeted campaign management, call center management, sales force automation and other activities involved in customer relationship management.

The model was applied to current and cancelled policies in various offices, so as to validate it before deploying it across Spain. Moreover, the model was used to create two control groups (subdivided into high and low probability) that were not targeted in any way, while other groups, similarly divided into high and low probability, were targeted by various marketing actions. The outcome was that the auto insurance policy cancellation rate was cut by up to nine percentage points in specific targeted segments.

With the customer insight obtained from the model, AXA is now able to design and execute personalized actions and customer loyalty campaigns tailored to the needs and expectations of high-value customers.

WHERE DOES SOCIAL CRM FIT?

We have identified three different types of CRM – strategic, operational and analytical. Another expression that has recently found widespread traction is "social CRM." This term was first used by technology firms to describe tools they had developed to identify, capture, interpret and exploit data found in social media platforms such as Facebook and Twitter. More recently, these social CRM tools have become integrated into more comprehensive cloud-based solutions.

CRM as a management practice was popularized by advances in database technology that allowed companies to create a single view of the customer by integrating data from various organizational silos. The data that originally fueled CRM was largely generated and held within organizations' operational systems: sales, call centers, customer service, etc. Now, data about customers is as likely to be found in customers' Facebook or Twitter activities and user-generated content posted to YouTube. There is, therefore, a desire to integrate organization-owned data with that generated socially to create a more comprehensive view of the customer.

The customer-related data residing in social media can be used by companies to help them manage customer relationships. It is a relatively simple matter to establish a corporate Facebook page and use it to acquire new customers (for example, by viral distribution of content), sell product, and service customer queries. It is an altogether different matter to select and use social CRM tools that enable a business to detect sentiment in unstructured data such as Twitter feeds and YouTube video content, and take appropriate strategic actions.

We do not regard social CRM as a fundamental type of CRM, equivalent to strategic, operational and analytical. Social CRM focusses on different forms of customer-related data, but that data are used for the same strategic and operational customer management purposes as conventional siloed organizational data.

We discuss social CRM in more detail in Chapter 8.

THE CHANGING FACE OF CRM

CRM today has evolved dramatically from the early systems discussed above. We can think of this earlier form of CRM as CRM 1.0. In the early years, the customer data that provided the foundation for strategic CRM decisions, and the insights for campaigns and events delivered by operational CRM, were mostly sourced from corporate silos – sales, marketing, service and finance. There was some enrichment of data from third parties such as market research firms and government sources. The data, which were typically structured, were stored in corporate databases behind firewalls, and CRM functionality was delivered through software applications that were licensed from vendors and loaded onto company servers. This type of CRM implementation is called on-premise CRM. Analytics included established statistical procedures such as cluster analysis (for market segmentation), and logistic regression (to predict buy/not buy).

Today, the quantity and character of customer data has changed significantly. Although businesses still rely on a solid foundation of internal data to underpin their customer management strategies, there is also a massive amount of potentially valuable additional data in big data sources. A significant portion of that data is unstructured, and contemporary users of CRM are beginning to find ways to exploit that data for customer management purposes. Analytics for unstructured data such as natural language processing and video analytics are available, and machine learning applications such as neural networks and artificial intelligence are available to find meaning in large and apparently amorphous datasets. Nowadays, customer data is typically stored in the cloud – in global or regional data centers – and accessed through CRM software that is delivered as a service though the Internet. We can think of this form of CRM as CRM 2.0. This software as a service (SaaS), or cloud, model is the dominant form of CRM now, particularly in small-and medium-sized businesses and not-for-profits. SaaS adopters generally pay a monthly fee per user instead of buying an outright software license.

Table 1.4 How CRM has changed over time

	CRM 1.0	CRM 2.0
Period	1990 >	2010 >
Customer data sources	Mostly internal corporate silos	Internal silos plus external big data sources
Data character	Structured	Structured and unstructured
Data storage	Corporate servers	Cloud
Analytics	Standard multivariate statistics	Standard multivariate statistics plus artificial intelligence
Mobile CRM access	Rare	Common
Customer interactions	Pre-planned	Real-time
Dominant CRM model	On-premise	Software as a service

Some of the differences between CRM 1.0 and CRM 2.0 are summarized in Table 1.4. These will be explored further in future chapters.

MISUNDERSTANDINGS ABOUT CRM

As with all major management initiatives, there are a number of common misunderstandings about the nature of CRM. Four of these are outlined below.

1   **CRM is about making sales teams more effective and efficient.** This is certainly a goal of many sales force automation implementations, particularly in B2B contexts, but operational CRM is much wider in scope and includes automation of marketing and sales functions. During the early years of CRM, sales force automation modules were often the first to be adopted.

2   **CRM is a new term for database marketing.** Database marketing is concerned with building and exploiting high-quality customer databases for marketing purposes. Companies collect data from a number of sources. These data are verified, cleaned, integrated and stored on computers, often in data warehouses or data marts. They are then used for marketing purposes such as customer segmentation, running campaigns and events, and conducting market research. CRM is much wider in scope than database marketing.

3   **CRM is about loyalty schemes**. Loyalty schemes are but one part of a wide range of customer management initiatives. They are common in many industries: car hire, airlines, food retail and hotels, for example. Customers accumulate credits such as points from purchases. These are then redeemed at some future time. Many loyalty schemes require new members to complete an application form when they join the program. This demographic information is typically used together with purchasing data to help companies become more effective at customer communication and offer development. Whereas some CRM implementations are linked to loyalty schemes, not all are. Loyalty schemes may play two roles in CRM. First, they generate data that can be used to guide customer acquisition, retention and development. Second, loyalty schemes may serve as

an exit barrier. Customers who have accumulated credits in a scheme may be reluctant to exit the relationship. The credits accumulated reflect the value of the investment that the customer has made in the scheme, and therefore in the relationship.

4   **CRM is an IT issue**. In the authors' experience, this is the most serious of the misunderstandings. There is no doubt that IT is a necessary enabler of CRM in most organizations given the need to store, analyze and distribute huge amounts of data quickly throughout the organization and its business partners. CRM technology keeps advancing and can be costly. It is therefore too easy for senior management to look to the IT function for CRM leadership. Too many CRM implementations are framed at the outset as IT initiatives, rather than broader strategic initiatives. It is critical for businesses to be clear about what they are trying to achieve with CRM – those business goals will determine which parts of the business are involved in CRM's acquisition and deployment. CRM technology provides tools that can be used to generate better value for customers and company alike. However, two other important parts of most CRM projects are people and process. People develop and implement the processes that are enabled by the IT. IT cannot compensate for bad processes and inept people. However, not all CRM initiatives involve IT investments. An overarching goal of many CRM projects is the development of relationships with, and retention of, highly valued customers. This may involve behavioral changes in customer contact employees, education of call center staff, and a focus on empathy and reliability from salespeople. IT may play no role at all.

DEFINING CRM

Against this background of three types of CRM, and the misunderstandings about CRM, it is no easy matter to settle on a single definition of CRM. However, we can identify a number of core CRM attributes, and integrate them into a definition that underpins the rest of this book.

> **CRM is the core business strategy that aims to create and maintain profitable relationships with customers, by designing and delivering superior value propositions. It is grounded on high-quality customer-related data and enabled by information technology.**

CRM is a "core business strategy." This clearly denotes that CRM is not just about IT. CRM is a basic business discipline focused on managing the firm's relationships with customers.

CRM "aims to create and maintain profitable relationships with customers." This implies that customers go through a series of stages in their relationship with a supplier; CRM practitioners call this a customer life cycle or customer journey. The "create" phase means that CRM is used to acquire or on-board a new customer. The "maintain" phase means that CRM is used to retain the customer. The qualification that the relationship should be "profitable" indicates that not all potential customers may be worth acquiring or retaining. Some customers may be so costly to acquire that they have no prospect of turning a profit; equally, the costs of maintaining a relationship may prove to be too heavy, meaning that customer managers may implement strategies for delisting or sacking customers. The definition suggests that the basic strategy for building and maintaining relationships is "designing and delivering superior value

propositions." Businesses develop value propositions (offers or offerings) and present and promote them to customers through communication and distribution channels. When customers own or use these offers they experience value. Businesses that succeed ensure that the value customers experience from use and ownership is superior to what they experience from competitive offerings.

CRM is "grounded on high quality customer-related data and enabled by information technology." "High quality customer-related data" underpins strategic CRM decisions (for example, which customers should we serve?) and operational CRM decisions (for example, what offer should we make in what channel to which customer?) We emphasize the words "high quality." Quality is always relative to purpose. For example, when a customer contacts a call-center with a specific query, the agent must have access to that particular customer's record. However, if operational CRM is being used to run a campaign into a cohort of customers, it is desirable but not essential that the message be customized for each particular customer. Access to "customer-related data" allows selling, marketing and service functions to be aware of each other's interactions with customers. Furthermore, back office functions such as operations and finance can learn from and contribute to customer-related data. "Customer-related data" allows suppliers and other members of a business's network of partners, for example distributors, value-added resellers, and agents to align their efforts with those of the focal company.

Historically, most companies were located close to the markets they served and knew their customers intimately. Very often there would be face-to-face, even day-to-day, interaction with customers in which knowledge of customer requirements and preferences grew. However, as companies have grown larger, they have become more remote from the customers they serve. The remoteness is not only geographic; it may be cultural also. Even some of the most widely admired American companies have not always understood the markets they served. Disney's development of a theme park near to the French capital, Paris, was not an initial success because they failed to deliver to the value expectations of European customers. For example, Disney failed to offer visitors alcohol on-site. Many Europeans, however, are accustomed to enjoying a glass or two of wine with their food.

Geographic and cultural remoteness, together with business owner and management separation from customer contact, means that many companies, even small companies, do not have the intuitive knowledge and understanding of their customers so often found in micro-businesses such as neighborhood stores and hairdressing salons. This has given rise to demand for better customer-related data, a cornerstone of effective CRM.

Underpinning this "core business strategy" in the majority of cases is IT – software applications and hardware. Software provides analytical capability and operational support for marketing, sales and service functions. Hardware is also important to CRM. Sales people and field service technicians are heavy users of mobile devices; contact center agents interact with customers using telephony and desktop hardware. Customers may also be using desktop and portable devices to contact companies.

In summary, we take the view that CRM is a technology-enabled approach to management of the customer journey. Most CRM initiatives expect to have impact on the costs-to-serve and revenue streams from customers. The use of technology also changes the customer's experience of transacting and communicating with a supplier. For that reason, the customer's perspective on CRM is an important consideration in this book. CRM influences customer experience, and that is of fundamental strategic significance.

CRM CONSTITUENCIES

There are several important constituencies having an interest in CRM:

1. **Companies** implementing CRM. Early adopters were larger companies in financial services, telecommunications and manufacturing, in the US and Europe. Medium-sized businesses have followed. The CRM message is reaching smaller companies, other worldwide markets, not-for-profits and new business start-ups.

2. **Customers and partners** of those companies. The customers and partners of companies that implement CRM are a particularly important constituency. Because CRM influences customer experience, it can impact on customer satisfaction, customer engagement and customer loyalty.

3. **CRM software houses**. Major CRM brands at the time of writing include Oracle, Salesforce.com, Microsoft Dynamics and Adobe. However, there are hundreds of other players, some of which specialize in particular sub-disciplines of CRM such as analytics, social CRM, marketing automation and lead management. There has been considerable consolidation of CRM software developers over the years. IBM has acquired analytics specialists as it built a comprehensive analytical CRM capability. IBM now offers Watson Campaign Automation. Oracle acquired and integrated many solutions providers into its customer experience cloud.

4. **Social media players.** Facebook, Twitter and other social media platforms are building enormous communities that generate huge amounts of potentially valuable data about people's preferences, activities, friends and wants. Technology firms developing social CRM applications are competing to offer clients functionality that enables them to learn from and use social media data for customer management purposes.

5. **Vendors of CRM hardware and infrastructure.** Hardware and infrastructure vendors provide the technological foundations for CRM implementations. They supply technologies such as servers, computers, hand held and mobile devices, call center hardware, and telephony systems.

6. **Management consultants**. Consultancies offer clients a diverse range of CRM-related capabilities such as strategy, business, application and technical consulting. Consultants can help companies implementing CRM in several ways: choosing between different vendors, or developing implementation plans and project management as the implementation is rolled out. Most CRM implementations are composed of a large number of smaller projects, for example: systems integration, data quality improvement, process engineering and culture change. Major consultancies such as McKinsey, Bearing Point, and CGEY (Cap Gemini Ernst and Young) all offer CRM consultancy. Accenture has bought some advertising companies and is building a comprehensive one-stop shop for customer management, mixing agency, CRM systems and analytics capabilities. Smaller companies sometimes offer specialized expertise. Peppers and Rogers provide strategy consulting. Dunnhumby is known for its expertise in data science in fast-moving consumer goods.

COMMERCIAL CONTEXTS OF CRM

CRM is practiced in a wide variety of commercial contexts, which present a range of different customer relationship management problems. We'll consider four contexts: banks, automobile manufacturers, technology solution vendors and consumer goods manufacturers.

- **Banks** deal with a large number of individual retail customers. They want CRM for its analytical capability to help them manage customer defection (churn) rates and to enhance cross-sell performance. Data-mining techniques can be used to identify which customers are likely to defect, what can be done to win them back, which customers are hot prospects for cross-sell offers, and how best to communicate those offers. Data mining can also improve predictions of payment default. Banks often want to win a greater share of customer spend (share of wallet) on financial services. In terms of operational CRM, most banks initially transferred service out of branches into contact centers and online; a second wave of CRM innovation have involved banks in delivering service by mobile applications (apps). This is proving popular with some customer segments but banks are finding they now compete against new players from outside the traditional banking industry including Apple Pay, Google Wallet, PayPal, Simple, Moven, T-Mobile and WeChat. Banks have been slow to introduce innovative technologies that digitize the mobile customer experience, allowing these nonbanking competitors to gain significant share of the fee stream associated with retail payments.

- **Auto manufacturers** sell through distributor/dealer networks. They have little contact with the end-user owner or driver. They use CRM for its ability to help them develop better and more profitable relationships with their distribution networks and to help their dealers improve their customer management. Being physically disconnected from drivers, they have built websites that enable them to interact with these end-users and generate qualified sales leads for the dealer network. This has improved their knowledge of customer requirements and builds capability throughout their distribution network. Ultimately, they hope CRM will enable them to win a greater share of end-user spend across the car purchase, maintenance and replacement cycle.

- **Technology solution vendors** manufacture or assemble complex bundles of hardware, software and implementation that are generally sold by partner organizations. Historically, small innovative software developers have traditionally partnered with established companies to obtain distribution and sales. Dell's direct-to-customer (DTC) channel strategy for PCs and Apple's for smartphones have bypassed this practice. This process of avoiding established channels and going DTC is called disintermediation. CRM helps these DTC companies to collect customer information, segment their customer base, automate their sales processes with product configurator software and deliver their customer service online. Modern solutions are often entirely web /software based so the DTC model is increasingly popular.

- **Consumer goods manufacturers** deal with the retail trade. They use CRM to help them develop profitable relationships with retailers. CRM helps them understand costs-to-serve and customer profitability. Key account management practices are applied to strategically significant customers. IT-enabled purchasing processes deliver higher levels of accuracy in stock replenishment. Manufacturers can run CRM-enabled marketing campaigns that are highly cost-effective.

THE NOT-FOR-PROFIT CONTEXT – THE "THIRD SECTOR"

Most of this chapter has been concerned with CRM in the for-profit context. However, CRM is also found in the not-for-profit context. The "third sector," the not-for-profit community (charity, non-government organization (NGO), education and government), is very active in implementing CRM. Universities wish to maintain relationships with alumni, charities campaign to raise income and government increasingly is interested in changing citizens' behavior gently, through "nudges" (behavioral economics). It is sometimes difficult to translate concepts developed for commercial, profit-centric organizations to the third sector. One key element of strategic CRM is the customer selection and targeting process: there are some customers for whom a business does more, and some customers for whom it does less. Governments interact with citizens, not customers. Governments provide services to all citizens, but typically provide more services to the most vulnerable. Operational CRM solutions are often used to improve government service delivery. For example, the UK's annual licensing

CASE ILLUSTRATION 1.5

THE UK DVLA

The UK's Department of Vehicle Licensing Agency (DVLA) organizes the annual licensing of road vehicles. It has radically overhauled this process twice in the past 15 years or so. Traditionally, car owners had to buy a physical "tax disc" to display on the windscreen. Before the disc was issued, owners had to prove that they were insured and that their vehicle was roadworthy by passing a test at an authorized service point. The process for most citizens then consisted of waiting for hard-copy papers to be mailed from the DVLA as the tax disc reached its expiry, and taking a certificate of insurance, and roadworthiness certificate to a post office, where other forms would be completed, evidence presented and payment made. The physical disc would then be supplied. A call center in Wales managed a large volume of calls to support car owners as they engaged this process. The center was frequently overwhelmed by call volumes and customer experience suffered.

In the first wave of change, the DVLA re-engineered the process by building an online database comprising roadworthiness certificates generated at the testing centers and data supplied by all car insurers to verify that a vehicle is insured. The about-to-lapse notification was still sent to the car owner, who went online and entered the reference number on the notification; computer systems verified that the vehicle was insured and roadworthy, the owner was asked to pay online and the tax disc came via the post in a few days. For government, compliance was improved, and costs reduced. For car owners, time, effort and errors are taken out of the process.

The second wave of change omits the issuing of a physical disc altogether. The citizen still completes the annual licensing process as described in wave one above, but police and other authorities can enter a vehicle registration number into a database to ensure compliance. This type of online self-service is an example of how operational CRM (citizen relationship management, rather than customer relationship management) systems can improve outcomes for both parties in a not-for-profit context.

of private road vehicles is online, and charities segment donors by regularity and size of gift, trying to migrate small donors up the value ladder to major bequests.

MODELS OF CRM

A number of comprehensive CRM models have been developed. We introduce four of them here.

The IDIC model

The IDIC model was developed by Don Peppers and Martha Rogers, of the Peppers & Rogers Group and has featured in a number of their books.[22] The IDIC model suggests that companies should take four actions in order to build closer one-to-one relationships with customers:

- **Identify** who the customers are and build a deep understanding of them.
- **Differentiate** customers to identify which customers have most value now and which offer most for the future.
- **Interact** with customers to ensure that a deep understanding of customer expectations and customers' relationships with other suppliers or brands.
- **Customize** the offer and communications to ensure that the expectations of customers are met.

The CRM value chain

Francis Buttle's model of CRM, shown in Figure 1.1, consists of five primary stages and four supporting conditions leading towards the end goal of enhanced customer profitability. [23] The primary stages of customer portfolio analysis, customer intimacy, network development,
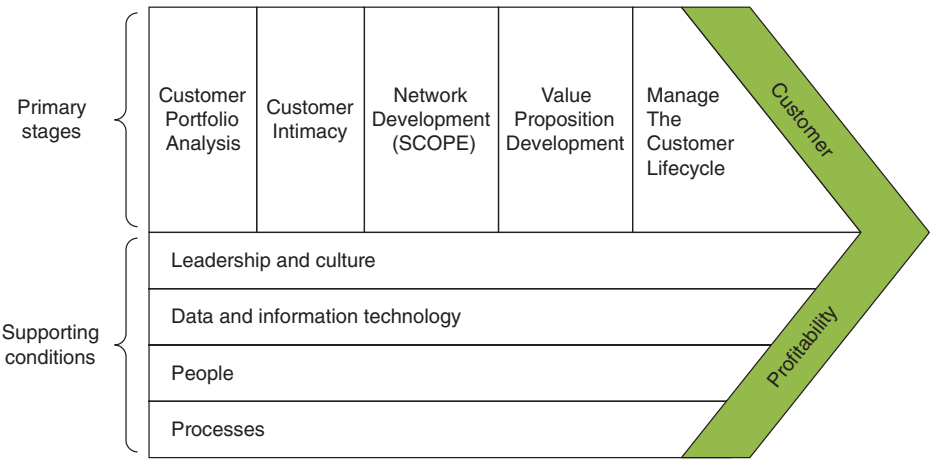
Figure 1.1 The CRM value chain
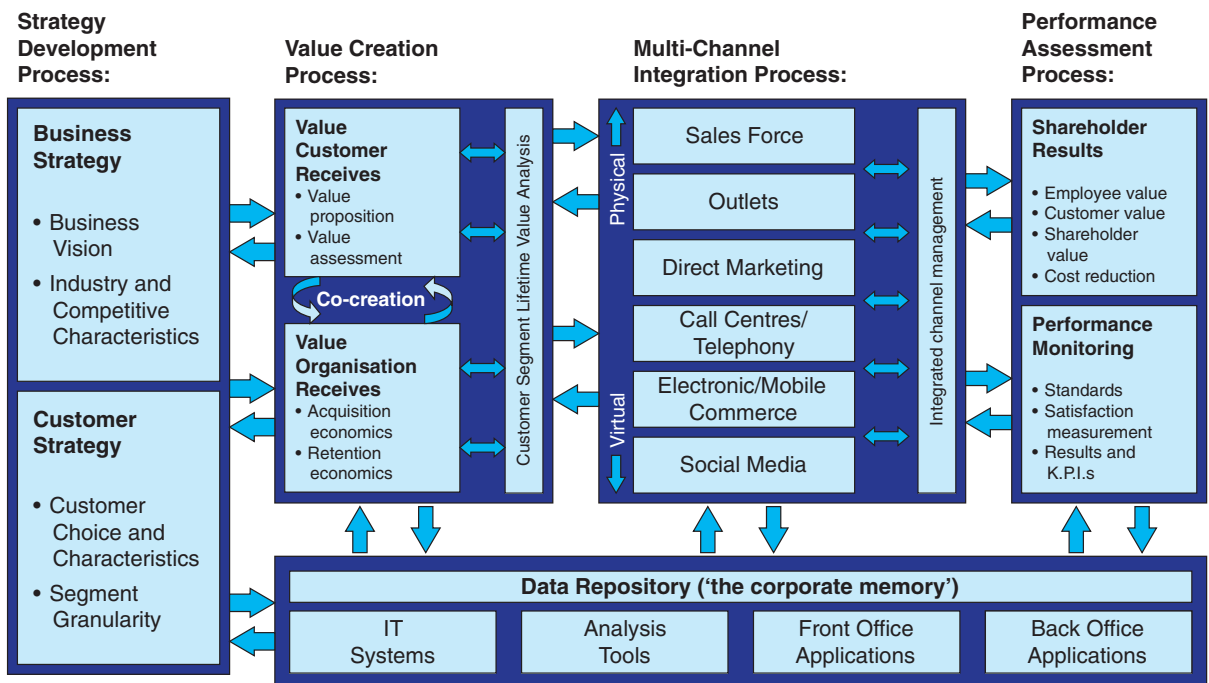
Figure 1.2 Payne and Frow's model of CRM

value proposition development and managing the customer lifecycle, are sequenced to ensure that a company, with the support of its network of suppliers, partners and employees (SCOPE in Figure 1.1), creates and delivers value propositions that acquire and retain profitable customers. The supporting conditions of leadership and culture, data and IT, people, and processes enable the CRM strategy to function effectively and efficiently.

The five-process model

Adrian Payne and Pennie Frow developed the five-process model of CRM.[24] This model (Figure 1.2) clearly identifies five core processes in CRM: the strategy development process, the value creation process, the multi-channel integration process, the performance assessment process and the information management process. The first two represent strategic CRM; the multi-channel integration process represents operational CRM; the information management process is analytical CRM.

The SCHEMA model

The SCHEMA model is a commercial property developed as a benchmarking tool by TCF (The Customer Framework, www.thecustomerframework.com). The model, as shown in Figure 1.3, aims to help companies strike an optimal balance between customer engagement and profitability.[25] The model proposes a key financial goal for customer management – the

Figure 1.3 The SCHEMA model of customer management

achievement of sustainable incremental profitability. This goal is achieved when the identified foundations enable the successful execution of strategies designed to win, keep and develop customers cost-effectively. The model identifies four key foundations that underpin success-ful customer engagement: direction and leadership (e.g. clarity of strategy, cross-functional ownership, budgets, measurement); IT and data management capabilities; organizational cul-ture (ways of working); and competencies of people. The model identifies five enablers of good customer management, including the deep customer insight that is necessary for well-targeted marketing, selling and service; the alignment of brand positioning with cus-tomer experience, and the integration of channels and media and the way content is created and used. The agility and workflow required to support real-time engagement (including compliance and decision making) is a critical enabler as are the activities that get measured, as they will drive action by management and front-line staff.

CONCLUSION

In this chapter, you have learned that the expression CRM has a variety of meanings. Three major types of CRM have been identified: strategic, operational and analytical. There are many misunderstandings about CRM. For example, some people wrongly equate CRM with

loyalty programs whereas others think of CRM as an IT issue. Although CRM is generally associated with for-profit organizations, it is also applied in the not-for-profit context. Different industries such as automobile manufacturing, consumer goods firms, banks and technology firms use CRM for different purposes. A number of different constituencies have an interest in CRM, including CRM consultancies, CRM software houses, CRM hardware and infrastructure vendors, companies that are implementing CRM, and their customers.

We have produced a definition that underpins the rest of this book. CRM is the core business strategy that aims to create and maintain profitable relationships with customers, by designing and delivering superior value propositions. It is grounded on high-quality customer-related data and enabled by information technology.

Finally, we have introduced four models of CRM that try to scope the field.

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UNDERSTANDING RELATIONSHIPS

CHAPTER OBJECTIVES

By the end of the chapter, you will understand:

1. What is a relationship?
2. Attributes of successful relationships.
3. The importance of trust and commitment within a relationship.
4. Why companies and customers are sometimes motivated to establish and maintain relationships with each other, and sometimes not.
5. The meaning, importance and calculation of customer life-time value.
6. The meanings of, and the relationships between, customer satisfaction, customer loyalty and customer engagement.
7. How Net Promoter Score (NPS) works.
8. The five different schools of thought that contribute to our understanding of relationships and relationship management.

WHAT IS A RELATIONSHIP?

The "R" of CRM stands for "relationship." But what do we really mean by the expression "relationship"? Certainly, most of us would understand what it means to be in a personal relationship, but what is a relationship between a customer and supplier?

At the very least a relationship involves interaction over time. If there is only a one-off transaction, like buying a vacuum cleaner from a specialist outlet, most of us wouldn't call this a relationship. Thinking in terms of a dyadic relationship, that is a relationship between

two parties, if we take this interaction-over-time as a critical feature, we can define the term "relationship" as follows:

A relationship is composed of a series of interactive episodes between two parties over time.

Let's be clear about what is meant by "interactive episode." Episodes are time bound (they have a beginning and an end) and are identifiable; you can put names to the episodes. Within a sales rep–customer relationship it is often possible to identify a number of discrete episodes, such as making a purchase, enquiring about a product, making a sales call, negotiating terms, dealing with a complaint, resolving an invoicing dispute and playing a round of golf. For consumers taking on a mobile phone contract there is the enquiry-to-purchase episode, the on-boarding (getting connected), billing and other customer service episodes – mostly over the phone.

Each episode in turn is composed of a series of interactions. Interaction consists of action, and response to that action. Within each episode, each participant will act towards, and interact with, the other. The content of each episode is a range of communicative behaviors including speech, deeds (actions) and body language.

Some authorities think that it is insufficient, even naïve, to define a relationship as interaction-over-time. Jim Barnes, for example, suggests that there needs to be some emotional content to the interaction.[1] This implies some type of affective connection, attachment or bond.

Similarly, a relationship has been said to exist only when the parties move from a state of independence to dependence or interdependence.[2] When a customer buys an occasional latte from a coffee shop, this is a transaction, not a relationship. If the customer returns repeatedly because she likes the store's atmosphere, the way the coffee is prepared, or has taken a shine to the barista, this looks more like a relationship. And while in this instance there is dependence (of customer on coffee shop), there is no interdependence.

This suggests the parties may have very different ideas about whether they are in a relationship. For example, in a professional procurement context for a multi-national organization, corporate buying staff may think they are being tough and transactional. Their suppliers, however, may feel that they have built a relationship. Woodburn and McDonald have explored the potential mismatching of buyer and seller preferences for their relationship.[3] They identify five hierarchical levels of relationship: exploratory, basic, cooperative, interdependent and integrated. Suppliers and buyers each have their own preference of the level they wish to achieve. Ideally, they match, but often they don't. The zone of delusion is when a supplier is investing in building a higher-level partnership with the customer, while the buyer is merely interested in the basic transaction. Conversely, the zone of frustration is where the buyer would like to partner but the supplier is focused only on the next transaction.[4]

Of course, modern business relationships are typically more complex than simple dyads. In a business-to-business relationship, there may be many inter-personal relationships formed between people on both sides. The CEOs may be talking about building a formalized partnership; the customer's engineers may be talking with the supplier's product

management about product quality; the customer's product users may be talking to the supplier's customer service team about product training and so on. Sometimes, when purchasing large complex business solutions, a customer will build relationships with companies in the supplier's own supply chain, so as to ensure that the right levels of product functionality, quality and innovation are built into future offerings. And to make it even more complex, one can imagine many customers dealing with many suppliers in a collaborative network of relationships.

Change within relationships

Relationships change over time. Parties become closer or more distant; interactions become more or less frequent. Because they evolve, they can vary considerably, both in the number and variety of episodes, and the interactions that take place within those episodes. Dwyer has identified five general phases through which customer–supplier relationships can evolve.[5]

1 Awareness

2 Exploration

3 Expansion

4 Commitment

5 Dissolution.

Awareness is when each party comes to the attention of the other as a possible exchange partner. Exploration is the period of investigation and testing during which the parties explore each other's capabilities and performance. Some trial purchasing may take place at this stage. If the trial is unsuccessful the relationship can be terminated with few costs. Expansion is the phase in which there is increasing interdependence. More transactions take place and trust begins to develop. The commitment phase is characterized by increased adaptation on both sides and mutually understood roles and goals. Automated purchasing processes are a sure sign of commitment.

Not all relationships will reach the commitment phase. Many are terminated before that stage. There may be a breach of trust that forces a partner to reconsider the relationship. Relationship termination can be bilateral or unilateral. Bilateral termination is when both parties agree to end the relationship. They will probably want to retrieve whatever assets they invested in the relationship. Unilateral termination is when one of the parties ends the relationship. Customers exit relationships for many reasons, such as repeated service failures or changed product requirements. Suppliers may choose to exit relationships with customers because of the relationship's failure to contribute to sales volume or profit goals. One option to resolve this problem and continue the relationship may be to reduce the supplier's cost-to-serve the customer.

This discussion of relationship development highlights two attributes of highly developed relationships: trust and commitment. These have been the subjects of a considerable amount of research.[6]

Trust

Trust is an issue particularly in the early stages of relationship development when the parties have little knowledge about or experience with each other and feel vulnerable. Trust emerges as parties share experiences and interpret and assess each other's motives. As they learn more about each other, risk and doubt are reduced. For these reasons, trust has been described as the glue that holds a relationship together across time and different episodes.[7]

Trust is focused. That is, although knowledge and experience of the other party may create a generalized sense of confidence and security, these feelings are directed. One party may trust the other party's:

- **Benevolence**. A belief that one party acts in the interests of the relationship, not out of self-interest.
- **Honesty**. A belief that the other party's word is reliable or credible.
- **Competence**. A belief that the other party has the necessary expertise to perform as promised or expected.

In the B2B context, trust reduces both cost and risk as businesses work together without needing to monitor each other's compliance with contractual terms, thereby reducing transaction costs for both parties.[8] Trust also motivates partners to invest additional capital in a relationship. These investments, which serve as exit barriers, may be either tangible (e.g. property), intangible (e.g. knowledge) or legal (e.g. joint ventures). Such investments may not be retrievable if the relationship breaks down and hence where trusts exists, the risk associated with the investment is reduced.

If trust is absent, conflict and uncertainty rise, and cooperation falls. Lack of trust clearly provides a shaky foundation for a successful customer–supplier relationship.

As more and more purchases are made online, trust has been confirmed as a major concern for customers. Online customers are in a highly vulnerable position, communicating personal information about their needs and identity, with no tangible evidence of the item they are buying, revealing sensitive financial information as they select their payment options, in a context where there is no face-to-face interaction. The following definition indicates that online trust is not materially different from offline or face-to-face trust. Online trust has been defined as "an attitude of confident expectation in an online situation of risk that one's vulnerabilities will not be exploited."[9]

It is well established that trust is an antecedent of commitment to a relationship, and that a strong relationship can impact positively on a range of desired business outcomes including share of customer spending, word-of-mouth and profit.[10]

Commitment

The concept of commitment has transferred into CRM from the organizational behavior literature. Commitment is seen as a form of 'stickiness' that reflects a desire to maintain a relationship (indefinitely, some have suggested), a pledge of continuity between parties, a

willingness to make sacrifices should the relationship end, or simply an absence of competitive offerings.[11] Morgan and Hunt, for example, define relationship commitment as follows:

> **Commitment is shown by an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum effort to maintain it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely.[12]**

These various perspectives suggest two major dimensions of relationship commitment: affective commitment and calculative commitment. Calculative commitment is a more rational, economic-based commitment to a relationship due to a perceived lack of alternatives or high switching costs. Affective commitment is a more emotional, trust-based, form of commitment that develops through reciprocity or personal bonds between a customer and supplier.

Commitment therefore may arise from trust and shared values, or the belief that partners will be difficult to replace. Commitment motivates partners to co-operate in order to preserve relationship investments. Commitment means partners forego short-term alternatives in favor of more stable, long-term benefits associated with current partners. Where customers have choice, they make commitments only to trustworthy partners, because commitment entails vulnerability, leaving them open to opportunism. For example, a corporate customer that commits future purchasing of raw materials to a particular supplier may experience the downside of opportunistic behavior if that supplier raises prices.

Evidence of commitment is found in the investments that one party makes in the other. One party makes investments in the promising relationship and if the other responds favorably, the relationship evolves, and the partners become increasingly committed to doing business with each other. Investments can include time, money, and the sidelining of current or alternative relationships. A partner's commitment to a relationship is directly represented in the size of the investment in the relationship, since these represent termination costs. Highly committed relationships have very high termination costs since some of these relationship investments may be irretrievable, for example, investments in capital equipment made for a joint venture. In addition, there may be significant costs incurred in switching to an alternative supplier. Commitment is regarded as an essential ingredient for successful, long-term, relationships.

RELATIONSHIP QUALITY

This discussion of trust and commitment suggests that some relationships can be thought to be of better quality than others, that is, higher in levels of trust and commitment. Researchers began investigating relationship quality in the 1990s.[13] Athanasopoulou's review of the research into relationship quality suggests that trust, commitment and relationship satisfaction are the core attributes of relationship quality.[14] The higher the levels of these three attributes, the higher the quality of the relationship. However, a number of other attributes

UNDERSTANDING CUSTOMER RELATIONSHIPS

have also been identified, including conflict, cooperative norms, opportunism, mutual goals, power, adaptation, atmosphere, and social and/or structural bonds.

Relationship satisfaction is not the same as commitment. Commitment to a supplier comes as investments are made in the relationship, and investments are generally only made if the committed party is satisfied with their transactional history. In other words, investments are made in relationships that are satisfactory.[15]

WHEN DO COMPANIES WANT RELATIONSHIPS WITH CUSTOMERS?

The fundamental reason that companies want to build relationships with customers is economic. Companies generate better results when they manage their customer base in order to identify, acquire, satisfy and retain profitable customers. These are key objectives of many CRM strategies.

Improving customer retention rates has the effect of increasing the size of the customer base. Figure 2.1 compares two companies. Company A has a churn rate (customer defection rate) of 5% per annum; company B's churn rate is 10%. Put another way, their respective customer retention rates are 95% and 90%. Starting from the same position and acquiring an identical number of new customers each year, company A's customer base is 19% larger than company B's after 4 years: 1268 customers compared to 1066 customers.

Churn rates vary considerably between industries. Energy utilities supplying electricity and gas typically have enjoyed very low churn levels because of their monopoly positions. However, industry deregulation changed that. In the UK about 25% of utility customers changed suppliers within two years of industry deregulation. The industry had been expecting 5–10% churn and were surprised at the actual levels. Most switchers were looking for better prices and to achieve a dual fuel (gas and electricity) discount. Switching remains high with almost 16% of all UK households churning in 2016 alone.[16]

There is little merit in a business growing its customer base aimlessly. The economic goal must be to retain profitable current customers, and recruit new customers who have future profit potential, or are important for other strategic purposes.[17] Not all customers are of equal

Year	Company A (5% churn)			Company B (10% churn)		
	Existing customers	New customers	Total customer base	Existing customers	New customers	Total customer base
1	1000	100	1100	1000	100	1100
2	1045	100	1145	990	100	1090
3	1088	100	1188	981	100	1081
4	1129	100	1229	973	100	1073
5	1168	100	1268	966	100	1066

Figure 2.1 The effect of customer retention on customer numbers

importance. Some customers may not be worth recruiting or retaining at all, for example those who have a high cost-to-serve, are debtors, late payers or promiscuous in the sense that they switch frequently between suppliers.

CASE ILLUSTRATION 2.1

CUSTOMER CHURN AT EIRCOM[18]

Eircom is one of Ireland's biggest telecommunications service providers with over two million fixed-line and mobile customers, just under 5000 employees and an annual turnover of around €1.5 billion. Eircom has 20% share of the country's mobile market, and 40% of the broadband market. Ireland's economic recession following the 2008 financial crisis led to increasing competition between mobile network operators and higher levels of customer churn as customers sought better value.

Eircom routinely collects structured data on important issues for customers, such as dropped calls, and customer satisfaction with service interactions such as customer on-boarding onto the network. The company's customer satisfaction instrument allows customers to explain in free-text boxes why they have assigned a particular satisfaction score. Eircom has a team of analysts working with data-mining tools that allow them to explore both structured and unstructured data. Text analytics help eircom to understand customer sentiment at different points along their journey, as reported in the free-text boxes.

Eircom uses automated churn prediction modeling to enable a quick response when a customer's patterns of behaviour indicate a high probability of churn. Eircom has also improved in-store processes and staff training. The analytics team discovered that customer experience during the on-boarding process had a significant effect on the likelihood of churn. As a result, eircom introduced a new in-store process to enhance the on-boarding experience, based on improving the import of contacts from an old phone to a new one.

Other things being equal, a larger customer base does deliver better business performance. Similarly, as customer retention rates rise (or churn rates fall), so does the average tenure of a customer, as shown in Figure 2.2. Tenure is the term used to describe the length of time a customer remains a customer. The impacts of small improvements in customer retention are hugely magnified at the higher levels of retention. For example, improving the customer retention rate from 75% to 80% grows average customer tenure from 10 years to 12.5 years. Managing tenure by reducing defection rates can be critical. For example, it can take 13 years for utility customers to break even by recovering the costs of their initial recruitment.

Managing customer retention and tenure intelligently generates two key benefits for companies – reduced marketing costs, and better customer insight.

Reduced marketing costs

Improving customer retention reduces a company's marketing costs. Fewer dollars need to be spent replacing churned customers.[19] Loyal customers, by definition, switch less and reduce the heavy cost of new customer recruitment and attendant on-boarding costs such as setting

Customer retention rate (%)	Average customer tenure
50	2 years
67	3 years
75	4 years
80	5 years
90	10 years
92	12.5 years
95	20 years
96	25 years
97	33.3 years
98	50 years
99	100 years

Figure 2.2 Retention rate and average customer tenure

up a new account, or even, in cases such as Internet service providers, installing equipment or software. It has been estimated that it costs an advertising agency at least 20 times as much to recruit a new client than to retain an existing client. Major agencies can spend up to $4 million on research, strategic analysis and creative work in pitching for one major international client, with up to four creative teams working on different executions. An agency might incur these costs several times over as it pitches to several prospective clients to replace a lost client.[20] In addition to reducing the costs of customer acquisition, costs-to-serve existing customers also tend to fall over time. Ultimately, as in some B2B markets, the relationship may become fully automated. Some supply-chain relationships for example, employ electronic data interchange (EDI). EDI is the computer-to-computer exchange of business documents in a standard electronic format – such as ANSI, EDIFACT, TRADACOMS and ebXML – between business partners. This involves no human-to-human interaction. EDI fully automates the ordering, inventory and invoicing processes. EDI is a relationship investment that acts as an exit barrier.

Better customer insight

As customer tenure lengthens, suppliers are able to develop a better understanding of customer requirements and expectations. Their buying histories provide important insights for relationship managers. Customers also come to understand what a supplier can do for them. Consequently, suppliers are better placed to identify and satisfy customer requirements profitably, selling more product and service to the retained customer. Over time, as relationships deepen, trust and commitment between the parties is likely to grow. Under these circumstances, revenue and profit streams from customers become more secure. One study, for example, shows that the average online clothing customer spends 67% more, and grocery customers spend 23% more, in months 31–36 of a relationship than in months 0–6.[21] McKinsey has found that retained customers are significantly less likely to shop around for a new

auto insurance policy than newly recruited customers.[22] Retention is also improved if car insurance is bundled with another insurance product.

To summarize, both the cost and revenue sides of the profit equation are impacted by customer retention.

Some companies employ a model that has been variously called a value ladder[23] or value staircase[24] to help them understand where customers are positioned in terms of their tenure with the company. Customers typically buy from a portfolio of more or less equivalent offers or suppliers. For example, large and medium-sized businesses often do business with more than one bank, and consumers may select a beer from a small portfolio of alternatives. When customers climb the ladder, their value to a company grows. The company's share of the customer's portfolio expands. Put another way, its share of customer spending, or customer wallet, grows.

In Table 2.1 we present a seven-stage customer journey from suspect status to advocate status.[25]

As in the Dwyer model cited earlier, not every customer progresses uniformly along the path from "never-a-customer" to "always-a-customer." Some may have a long maturity phase (i.e. loyal customer) and others will have a shorter life, perhaps never shifting from first-time customer to repeat customer; others might never convert from prospect to first-timer.

Operational CRM technology allows companies to trace where customers are on this pathway and to allocate resources intelligently to advance suitable customers along the value trajectory with appropriate and timely offers.

Costs and revenues vary from stage to stage of the journey. In the early stages, a company may invest significant sums in converting a prospect into a first-time customer. These costs include marketing campaign costs, pay-per-click costs, touch costs (human interactions with prospects), commissions to third parties or corporate sales people, referral fees, and even an allocation of brand advertising expenditure. The investment in initiating a relationship may not be recovered for some time. For example, Reichheld and Sasser have shown that it can take a credit card company two years to recover the costs of customer acquisition.[26] Another study shows that the average online clothing customer takes four purchases (typically over 12 months) to recover the costs of their acquisition, whereas online grocery customers take 18 months to break even.[27]

Table 2.1 The customer journey or loyalty ladder

Suspect	Does the potential customer fit your target market profile?
Prospect	The customer fits the target market profile and is being approached for the first time.
First-time customer	The customer makes a first purchase.
Repeat customer	The customer makes additional purchases. Your offer plays a minor role in the customer's portfolio.
Majority customer	The customer selects your company as supplier of choice. You occupy a significant place in the customer's portfolio.
Loyal customer	The customer is resistant to switching suppliers and has a strong positive attitude to your company or offer.
Advocate	The customer generates additional referral dollars through positive word-of-mouth.

CUSTOMER LIFE-TIME VALUE

This leads to the core CRM idea that a customer should not be viewed as a set of independent transactions but as a life-time income stream. In the auto industry for instance, it has been estimated that a General Motors retail customer is worth $276,000 over a lifetime of purchasing cars (11 or more vehicles), parts and service. Fleet operators are worth considerably more.[28] It is also claimed that the average Ritz-Carlton guest spends $250,000 with the hotel chain over a life-time of stays.[29] When a GM customer switches to Ford, or Ritz-Carlton guest switches to Marriott the revenue streams, and associated profit margins from that customer may be lost for all time. This makes customer retention a strategically important goal for both firms. Customer life-time value (CLV) is even more important if you consider that a small number of customers may account for a high proportion of the entire value generated by all customers. Tukel and Dixet found that the top 28% of customers generate 80% of the total value of all customers.[30] If that relatively small number of high value customers were to churn, there could be catastrophic outcomes for the business.

CASE ILLUSTRATION 2.2

CUSTOMER LIFE-TIME VALUE IN THE BANKING INDUSTRY[31]

One in five banking executives does not measure CLV. Couple this with the 22% who do not measure portfolio or share of wallet, and it is easy to see why cross-selling is such a challenge for financial service providers. Unless a banker knows which of a customer's financial needs are being met, it is exceedingly difficult to suggest additional services. A robust business intelligence system can provide a financial services firm with a 360-degree view of the customer. Transactions can be consolidated with demographic and psychographic data, revenue and profit measures, as well as historical customer service incidents and queries. With this total picture, the provider can see the customer from multiple perspectives and craft programs that will satisfy a broad range of client requirements. Part of this multi-faceted view of the customer is the ability to aggregate multiple customers into a household perspective. The benefits of this consolidated view are clear and strong. Multiple financial service needs can be seen *in toto*, investment opportunities can be tied to life events for cohabiting family members and marketing costs can be driven down by providing a single, comprehensive marketing message.

CLV is a measure of a customer's profit-generation for a company.
CLV can be defined as follows:

Customer life-time value is the present-day value of all net margins earned from a relationship with a customer, customer segment or cohort.

CLV can be estimated at the level of the individual customer, customer segment or cohort. A cohort of customers is a group that has some characteristic or set of characteristics in common. These might be customers recruited in a single year or recruited though a single campaign or channel. This type of cohort analysis is useful, for example, to find out whether certain channels are more effective or more efficient at recruiting high value customers. A European motoring organization knows that it costs an average of $105 to recruit a new member. However, recruitment costs vary across channels. The organization's member-get-member (MGM) referral scheme costs $66, the organization's direct response TV campaign costs $300, and door-drops cost $210 per newly acquired member. The MGM scheme is most cost-effective at customer acquisition, but if these customers churn at a high rate and cost significantly more to serve, they may turn out to be less valuable than customers generated at higher initial cost. In fact, customers acquired through the MGM referral scheme do remain members longer, buy more, and also generate word-of-mouth referrals.

To compute CLV, all historic net margins are compounded up to today's value and all future net margins are discounted back to today's value. Estimates of CLV potential look to the future only and ignore the past.

The focus on free cash flow rather than gross margins is because a customer that appears to be valuable on the basis of gross margin can become less profitable, or even unprofitable, once cost-to-serve the customer is taken into account. Companies that do not have processes such as activity based costing (ABC) in place to allocate costs to customers cannot estimate free cash flow. They must work either with gross margin or sales revenue data.

For most companies, an important strategic objective is to identify and attract those customers or segments that have the highest CLV potential. They are unconcerned with the past. What matters is the future.

Research by Reichheld and Sasser indicates why it is important to look forward to compute CLV.[32] Their data suggest that profit margins tend to accelerate over time, as shown in Figure 2.3. This has four causes.

1 **Revenues grow** over time, as customers buy more. In the credit-card example in Figure 2.3, users tend to grow their balances over time as they become more relaxed about using their card for an increasing range of purchases. Also, a satisfied customer may look to buy additional categories of product from a preferred supplier. An insurance company that has a loyal auto insurance customer is likely to experience some success cross-selling other personal lines, for example home, property and travel insurance.

2 **Cost-to-serve is lower** for existing customers because both supplier and customer understand the other. For example, customers do not make demands on the company that it cannot satisfy. Similarly, companies do not communicate offers that have little or no value to customers.

3 **Loyal customers may pay more**. This could be because: 1, they are not offered the discounts that are often promised to new customers; 2, they exhibit inertia due to perceived high switching costs, or 3, they are satisfied with their customer experience, particularly the convenience that a relationship provides, which reduces their sensitivity to price-based offers from other potential suppliers.[33] Be aware that research evidence does not always support this assertion; for example, loyal business customers purchasing large

	Profit (loss) per customer over time ($)					
	Year					
Service	0	1	2	3	4	5
Credit card	(51)	30	42	44	49	55
Industrial laundry		144	166	192	222	256
Industrial distribution		45	99	121	144	168
Auto servicing		25	35	70	88	88

Figure 2.3 Profit from customers over time

volumes may negotiate deep discounts from their suppliers.[34] The ability to extract higher prices from loyal customers is perhaps the most contentious of the claims for the impact of loyalty on profitability and certainly needs to be assessed by each company in the context of their customers, brand and reputation.

4   **Value-generating referrals** are made by satisfied customers. Every customer not only has their own CLV, but also, potentially, a CRV or customer referral value. That is, satisfied customers can generate additional value for their supplier through referral behaviors, giving positive word-of-mouth to their friends and associates. It has been estimated that including CRV lifts CLV by up to 40%.[35] Word-of-mouth can be powerfully persuasive when it is regarded as independent and unpaid.

Computing CLV

The computation of CLV potential is very straightforward in principle but can be complicated in practice.[36] Several pieces of information are needed. For an existing customer, you need to know:

1   What is the probability that the customer will buy products and services from the company in the future, period-by-period?

2   What will be the gross margins on those purchases period-by-period?

3   What will be the cost of serving the customer, period-by-period?

For new customers, an additional piece of information is needed.

4   What is the cost of acquiring the customer?

Finally, to bring future margins back to today's value, another question needs to be answered for both existing and new customers.

5   What discount rate should be applied to future net margins?

Some commentators suggest that CLV estimates should not be based on future purchasing only, but on word-of-mouth (WOM) influence too.[37] The logic is that a satisfied and retained customer not only buys but also influences others to buy. Lee and colleagues show that incorporation of WOM effects increases customer value significantly.[38] Not all customers have the same customer referral value. Kumar and his co-authors found that the customers with the highest CRV at a telecoms company were not the customers with the highest personal CLV, but those in the mid-levels of CLV. For example, customers in the top decile with an average CLV of $1933 generated an additional $40 of value through referrals, while customers in the 5th decile, having a CLV of $313 generated $1020 of referral value for their telco.[39] As more and more customers interact with each other over social media, the impact of WOM is likely to grow substantially.

Figure 2.4 demonstrates the impact that discount rate has on customer value. Without discounting future profits, the customer appears to have a CLV of $235. However, once a 15% discount rate is applied, the customer's CLV in today's dollar is only $127.43. A common practice is to use the weighted average cost of capital (WACC) as the discount factor. WACC takes into account the costs of the two sources of capital – debt and equity. Each usually has a different cost, and therefore the average cost of capital for a business will reflect the degree to which the business is funded by the two sources. Equally, an argument can be made for differentiating discount rates by the inherent risk of the customer segment targeted. Customers in segments that have inherently high churn might attract a greater discount rate to reflect their higher risk. While we are not aware of many firms practicing such fine-tuning in their CLV calculations overtly, credit-scoring processes used by credit card companies and banks essentially provide a risk-adjusted estimate of customer value.

Computation of a meaningful CLV estimate requires companies to be able to forecast customer buying behavior, product and service costs and prices, the costs of capital (for determining the discount rate) and the costs of acquiring and retaining customers. This is

1. Undiscounted profit earned over 5 years:		2. Discounted profit earned over 5 years (15% discount rate)	
Year	0	-$50	Year	0	-$50
	1	+$30		1	+$30 ÷ 1.15= $26.09
	2	+$40		2	+$40 ÷ 1.15^2= $30.25
	3	+$55		3	+$55 ÷ 1.15^3= $36.16
	4	+$72		4	+$72 ÷ 1.15^4= $41.17
	5	+$88		5	+$88 ÷ 1.15^5= $43.76
		$235			$127.43
			The net present value of 5 years profit earned from this customer is $127.43		

Figure 2.4 Impact of discount rate on CLV

very demanding, especially at the level of the individual customer, but is a challenge that analytical CRM implementations often take on.

A number of companies have developed models that produce approximate CLV estimates. US Bancorp, for example, calculates a customer profitability metric called customer relationship value (CRV) in which they use historical product ownership to generate 'propensity to buy' indices. Overhead costs are not factored into the computation. Within their customer base, they have been able to identify four CRV segments, each having different value, cost, attrition and risk profiles:

- Top tier, 11% of customers
- Threshold, next 22%
- Fence sitters, next 39%
- Value destroyers, bottom 28%.

Each of these segments is treated to different value propositions and customer management programs: product offers, lending decisions, fee waivers, channel options and retention efforts. North Carolina's Centura Bank has 2 million customers. The top customers receive special attention from service staff and senior management, including an annual call from the CEO.

For situations where the cost of generating accurate CLV data is thought not to be prohibitive, Berger and Nasr have developed a number of mathematical models that can be used in CLV estimation.[40]

Figure 2.5 shows how to compute CLV for a cohort of customers. In year 0, the company spent $10 million in marketing campaigns to generate new customers. The result was 100,000 new customers added to the customer base at an acquisition cost of $100 per customer.

In year 1 the company lost 40% of these new customers, but the remaining 60% each generated $50 contribution to profit. If this is discounted at 15%, each retained customer's profit contribution is $43.48. In year 2, the retention rate rises from 60% to 70%, and each of the remaining customers contribute $70 ($52.93 at discounted rate) to profit. You can see from the right-hand column in Figure 2.5 that it takes nearly five years to recover the costs of acquiring this cohort. The data demonstrate a number of well-established phenomena. First, profit per customer rises over time – for reasons set out earlier in this chapter. Second, customer retention rate rises over time.

It is feasible to use data such as these to manage a business for improved profitability. Several strategies are available:

1   Improve customer retention rate in the early years of the relationship. This will produce a larger number of customers to generate higher profits in the later years.

2   Increase the profit earned per customer by

   a   Reducing cost-to-serve

   b   Cross-selling or up-selling additional products and services

Year	$ Profit per customer	$ Net present value at 15% discount	Customer retention rate(%)	No. of customers	$ Total annual profit
0	-100			100,000	-10,000,000
1	50	43.48	60	60,000	2,608,800
2	70	52.93	70	42,000	2,223,060
3	100	65.75	75	31,500	2,071,125
4	140	80.00	80	25,200	2,016,000
5	190	94.53	85	21,420	2,024,833
6	250	108.23	90	19,278	2,086,457
7	320	120.30	92	17,736	2,133,640
8	400	130.72	94	16,672	2,179,364
9	450	127.84	95	15,838	2,024,730
10	500	123.15	96	15,204	1,872,373

Figure 2.5 Computing cohort value

3   Become better at customer acquisition by

    a   Using more cost-effective recruitment channels.

    b   Experimenting to find more effective calls-to-action in campaigns.

    c   Better qualification of prospects. Customers who defect early on perhaps should have not been recruited in the first place.

    d   Careful nurturing of prospects with high CLV potential.

    e   Recruiting new customers matched to the profiles of current customers having a high CLV.

You shouldn't leave this discussion of CLV by believing that if you improve customer retention, business performance will automatically lift. It depends entirely upon which customers are retained and how you manage those relationships. We have more to say about customer retention in Chapter 4.

WHEN DO COMPANIES NOT WANT RELATIONSHIPS WITH CUSTOMERS?

Despite the financial benefits that can accrue from a relationship, companies sometimes don't want to build relationships with customers. We look at both B2B and business-to-consumer contexts. In the B2B context there are a number of reasons for this resistance.

- **Loss of control**. A mature customer–supplier relationship involves give-and-take on both sides. In a relationship, a supplier may have to give up unilateral control over their own business's resources. For example, a supplier of engineering services might not want to provide free pre-sales consultancy for a new project with an established client because of the high costs involved. However, the customer might have clear expectations that this should be done free of charge.

- **Exit costs**. Not all relationships survive, and sometimes the investments that are committed to a relationship are not returned when a relationship breaks down. Relationship investments vary from the insignificant (e.g. co-branding of promotional literature) to highly significant (e.g. setting up a new production line to service a particular customer's requirements).

- **Resource commitment**. Relationships require the commitment of resources such as people, time and money. Companies have to decide whether it is better to allocate resources to customer relationships or some other area of the business such as operations or research and development. Once resources are committed, they can become sunk costs. Sunk costs are unrecoverable past expenditures. These would not normally be taken into account when deciding whether to continue in a relationship, because they cannot be recovered whether the relationship endures or not. However, it is a common instinct to consider them.

- **Opportunity costs**. If resources are committed to one customer, they cannot be allocated to another. Relationships imply high opportunity costs. If you commit resources to customer A, you may have to give up the possibility of a relationship with customer B, even if that does seem to be a better proposition. An engineering consultancy that commits consultants to pre-sales activities with a current client might incur the opportunity cost of losing more lucrative work in business opportunities from other prospective clients.

Let's turn now to the B2C context. Many, maybe most, consumer marketers would like to establish closer, even one-to-one, relationships with their customers, but customer-focus is not the only strategy available to consumer goods and services companies. Some adopt a product leadership strategy and focus on innovation (Apple, Bang & Olufsen). Others opt for an operational excellence strategy and seek to reduce costs through outstanding operational expertise, rather than investing in customer relationships. Low-cost airlines, for example, rarely manage individual relationships actively; they compete on cost rather than on excellence at relationship management. In short, data-driven CRM is not the only road to success for consumer goods and service firms.

WHEN DO CUSTOMERS WANT RELATIONSHIPS WITH SUPPLIERS?

We now reverse the question and examine the situations when customers may want to build relationships with suppliers. First, we look at the B2B context. A relationship with a supplier can reduce the customer's sense of perceived risk. Perceived risk takes many

forms – performance, physical, financial, social and psychological risk. Here are a number of circumstances when perceived risk may be high and a relationship desirable.

- **Product complexity**. If the product or its applications are particularly complex, for example, networking infrastructure, a relationship can reduce performance risk – the risk that the technology will not work as desired or expected.

- **Product strategic significance**. If the product is strategically important or mission-critical, for example, supply of essential raw materials for a continuous process manufacturer, performance risk may be high.

- **Service requirements.** If there are downstream service requirements, for example, for machine tools, a relationship can ensure that the tools will remain serviced and functional.

- **Purchase cost.** If a purchase is particularly costly, for example purchases of large pieces of capital equipment such as earth-moving equipment, financial risk is high.

- **Reciprocity**. A financial audit practice may want a close relationship with a management consultancy, so that each party benefits from referrals by the other.

In the B2C context, relationships with suppliers are likely to be valued by customers if the relationship delivers customer benefits over and above those directly derived from acquiring, consuming or using the product or service. One study reports that consumers may seek and value three different kinds of benefits from a relationship: confidence benefits, social benefits and special treatment benefits.[41]

- **Confidence benefits** are experienced as perceived risk is reduced or eliminated. For example, an automobile owner may develop a relationship with a service station to reduce the perceived performance and financial risks attached to having a car serviced. The relationship provides the assurance that the job has been skillfully performed and that the car is safe to drive. Trust rises as confidence builds.

- **Social benefits** may be experienced when a relationship enhances the consumer's power, status, or affiliation with others. A customer may value being recognized and addressed by name, for example at a coffee shop, or as a frequent flyer. Relationships with suppliers can be empowering for some consumers. For example, some of the usual power asymmetry in relationships between physicians and their patients may be reversed when patients feel that they have a close personal relationship with their doctor. Customers may also feel that their status is enhanced by a relationship with a supplier, such as an elite health club, hotel chain or credit card company. People's needs for social connection or affiliation with others may also be met through commercially based, or non-commercially based, relationships. Many people are customers (members) of professional or community associations, for this reason.

- **Special-treatment benefits** may take several forms. Relationships mean that suppliers are better placed to customize products for customers. For example, over time, a hairdresser may come to understand a customer's particular preferences or expectations. Other special treatment benefits may include prioritized service, better prices and unique or limited offers.

Customer segments can vary in their desire to have relationships with suppliers. In the banking industry, for example, large corporations have their own treasury departments and often get little value from a bank relationship; small private account holders have no need for the additional services that a relationship provides; small and medium-sized business and high net-worth individuals may have most to gain from a closer relationship.

WHEN DO CUSTOMERS NOT WANT RELATIONSHIPS WITH SUPPLIERS?

It is clear that customers do not always want relationships with their suppliers. B2B customers cite a number of concerns.[42]

- **Fear of dependency**. This is driven by a number of worries. Customers may be concerned that the supplier might act opportunistically, once they are in a preferred position, perhaps introducing price rises. They may also fear a reduction in their flexibility to choose alternative suppliers or have concerns over a loss of personal authority and control.

- **Lack of perceived value in the relationship**. Customers may not believe that they will enjoy substantial savings in transaction costs, or that the relationship will help them create a superior competitive position, generate additional revenue, or that there will be any social benefits. In other words, there is no perceived value above and beyond that obtained from the product or service.

- **Lack of confidence in the supplier**. Customers may choose not to enter a relationship because they feel the potential partner is unreliable, too small, has a poor reputation or is insufficiently innovative.

- **Customer lacks relational orientation.** Not all company cultures are equally inclined towards relationship building. Some are much more transactional. For example, some retailers make it a policy to buy a high proportion of their merchandise on special. This preference for transactional rather than relational business operations will be reflected in the company's buying processes, and employee reward systems.

- **Rapid technological changes**. In an industry with rapidly changing technology, commitment to one supplier might mean that the customer misses out on new developments available through other suppliers.

In the B2C context, consumers buy hundreds of different convenience, shopping and specialty products and services. Some research suggests that less than one-fourth of consumers want to develop, or value, relationships with brands.[43] There is, however, likely to be some contextual variation based on whether a relationship delivers benefits. Whereas consumers might want a relationship with their financial service advisor or their physician, they can often find no good reason for developing closer relationships with the manufacturer of their household detergent, snack foods or toothpaste. However, for consumer products and services that are personally important, customers can become more involved and become more emotionally engaged. Many B2C marketers use social channels to message consumers and build engagement; however, this is not why the majority of consumers are online – they are

mostly looking to interact with friends and family, explore the news, or access entertainment. Only a minority are online to interact with brands.[44]

To sum up, customers cannot be forced into relationships with suppliers. There needs to be some benefit associated with the relationship over and above mere product use or ownership.

CUSTOMER SATISFACTION, LOYALTY AND BUSINESS PERFORMANCE

An important rationale for CRM is that it improves business performance by enhancing customer satisfaction and driving up customer loyalty, as shown in Figure 2.6. There is a compelling logic to the model, which has been dubbed the 'satisfaction–profit chain'.[45] Satisfaction increases because customer insight allows companies to understand their customers better and to create improved customer value propositions and better customer experiences. As customer satisfaction rises, so does customer intention to repurchase.[46] This in turn influences actual purchasing behavior that has an impact on business performance.

We'll examine the variables and linkages between them. First, we'll define the major variables customer satisfaction, customer loyalty and business performance.

Customer satisfaction has been the subject of considerable research and has been defined and measured in many ways.[47] We define customer satisfaction as follows:

> **Customer satisfaction is the customer's fulfilment response to a customer experience, or some part thereof.**

Customer satisfaction is a pleasurable fulfilment response. Dissatisfaction is an unpleasurable fulfilment response. The "experience, or some part of it" component of the definition suggests that the satisfaction evaluation can be directed at any or all elements of the customer's experience. This can include product, service, process and any other components of the customer experience.

The most common way of operationalizing satisfaction is to compare the customer's perception of an experience, or some part of it, with their expectations. This is known as the expectations–disconfirmation model of customer satisfaction. This model suggests that if customers believe their expectations have been met, they are satisfied. If their expectations are underperformed, this is negative disconfirmation, and they will be dissatisfied. Positive disconfirmation occurs when
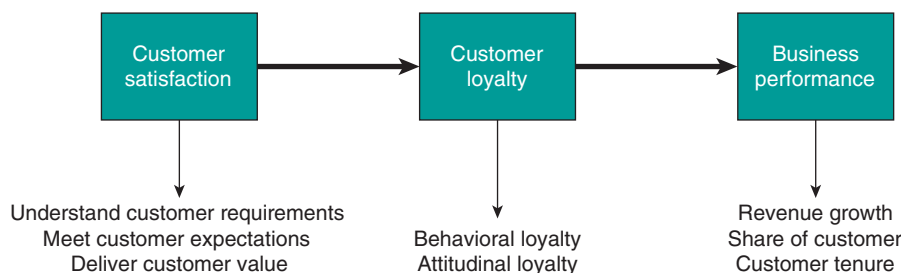
Figure 2.6 The Satisfaction–Profit Chain

perception exceeds expectation. The customer might be pleasantly surprised or even delighted. This model assumes that customers have expectations, and that they are able to judge performance. The expectations–disconfirmation model adopts a cognitive perspective on customer satisfaction. A customer satisfaction paradox has been identified by expectations–disconfirmation researchers. At times customers' expectations are met but the customer is still not satisfied. This happens when the customer's expectations are low. 'I expected the train to be late. It was. I'm unhappy!'

Many companies research customer requirements and expectations to find out what is important for customers, and then measure customers' perceptions of their performance compared to the performance of competitors.

The confirmation–disconfirmation model is not without its detractors despite its wide-spread use. Some experts do not accept that customers make satisfaction judgements by comparing each experience to prior expectations; rather they form judgements over multiple episodes and across numerous channels – in other words, satisfaction judgements are associated with overall customer experience.[48] Satisfaction, from this perspective, is an overall assessment or attitude rather than a gap.[49]

Equally, customer satisfaction judgements may have a strong emotional or affective content that is not picked up when the expectations–disconfirmation approach is used. Customers may simply like or not like their experience and may be unable or unwilling to articulate why in terms of having specific expectations being met or not. Some researchers suggest that emotion and cognition interact, and that the interaction effects on customer satisfaction are both complex[50] and dynamic, that is, they change over time.[51] Affect has a strong influence on satisfaction in the early stages of judgement formation but its role declines as the customer has further experiences.[52] Hence, we should be cautious about viewing customer satisfaction as a simple episodic assessment of performance versus expectations.

Customer loyalty has also been the subject of considerable research. There are two major approaches to defining and measuring loyalty, one based on behavior, the other on attitude.

Behavioral loyalty is measured by reference to customer purchasing behavior. Loyalty is expressed in continued patronage and buying. There are two behavioral aspects to loyalty. First, is the customer still active? Second, have we maintained our share of customer spending? In portfolio purchasing environments, where customers buy products and services from a number of more or less equal suppliers, the share of customer spending question is more important.

Many direct marketing companies use RFM measures of behavioral loyalty. The most loyal are those who have high scores on the three behavioral variables: Recency of purchases (R), Frequency of purchases (F) and Monetary Value of purchases (M). The variables are generally measured as follows:

R = Time elapsed since last purchase

F = Number of purchases in a given time period

M = Monetary value of purchases in a given time period.

Attitudinal loyalty is measured by reference to components of attitude such as beliefs, feelings and purchasing intention.

These perspectives on loyalty have been combined by Dick and Basu, as shown in Figure 2.7.[53] These authors identify four forms of loyalty according to relative attitudinal

strength and repeat purchase behavior. "Loyals" are those who have high levels of repeat buying and a strong relative attitude. "Latent loyalty" exists when a strong relative attitude is not accompanied by repeat buying. This might be evidence of weakness in the company's distribution strategy, the product or service not being available when and where customers want. "Spurious loyals" have high levels of repeat purchase but weak relative attitude. Their repeat purchasing can be explained by inertia, high switching costs or indifference. An empirical test of this model found customers in three loyalty conditions only: (1) the no loyalty, (2) the latent loyalty, and (3) the true loyalty conditions. The spurious loyalty condition was not supported, possibly because switching costs are negligible in the grocery retailing industry, where this study was conducted.[54]

Repeat purchase

	High	Low
Strong	*Loyals*	*Latent loyalty*
Weak	*Spurious loyalty*	*No loyalty*

Relative attitude

Figure 2.7 Two-dimensional model of customer loyalty

From a practical point-of-view, the behavioral definition of loyalty is attractive because sales and profits derive from actions not attitudes. However, taking the trouble to understand the causes of weak or negative attitudes in customers can help companies identify barriers to purchase. It is equally true that knowledge of strong or positive attitudes can help companies understand the causes of competitor–resistant commitment. However, it is not clear from the Dick and Basu model whether attitude precedes behavior or behavior precedes attitude. Researchers generally accept that causation is circular rather than unidirectional. In other words, attitudes influence behavior, and behavior influences attitude.

Business performance can be measured in many ways. The recent trend has been away from simple short-term financial measures such as quarterly profit or earnings per share. Some companies have moved towards a more rounded set of performance indicators, such as represented by the Triple Bottom Line[55] and Balanced Scorecard.[56]

The Balanced Scorecard employs four sets of linked key performance indicators (KPI): financial, customer, process, and learning and growth. The implied connection between these indicators is that people (learning and growth) do things (process) for customers (customer) that have effects on business performance (financial).

Customer-related KPIs that can be used to evaluate business performance following the adoption of CRM include: customer satisfaction levels, customer retention rates, customer acquisition costs, number of new customers acquired, average customer tenure, customer

loyalty (behavioral or attitudinal), sales per customer, revenue growth, market share, share of customer spending (wallet) and customer advocacy (word-of-mouth).

The Balanced Scorecard is highly adaptable to CRM contexts. Companies need to ask the following questions. What customer outcomes drive our financial performance? What process outcomes drive our customer performance? What learning and growth outcomes drive our process performance? The satisfaction–profit chain suggests that the customer outcomes of satisfaction and loyalty are important drivers of business performance.

Share of customer spend (share of wallet or SOW) is a popular measure of CRM performance. If your company makes a strategic CRM decision to serve a particular market or customer segment, it will be keen to measure and grow its share of the chosen customers' spending. As indicated in Figure 2.8, share of customer spend focuses on winning a greater share of targeted customers' or segments' spending, rather than market share.
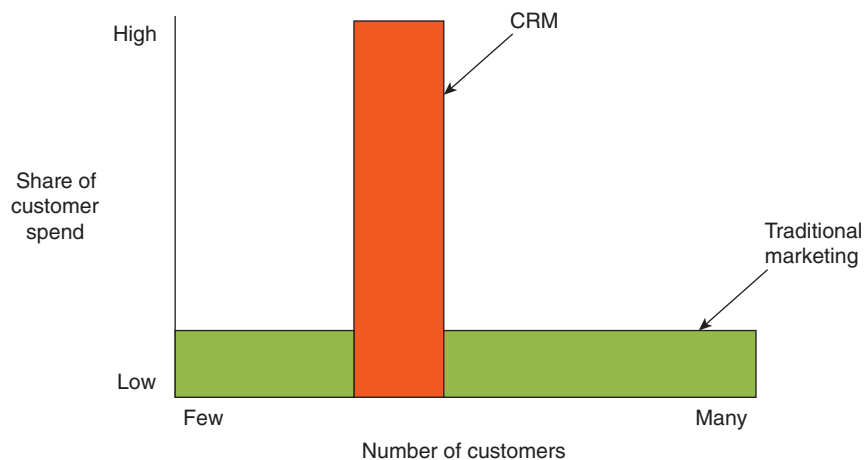
Figure 2.8 Share of market vs. share of customer

Many firms have adopted a commercially available methodology for measuring customer outcomes. Net Promoter Score (NPS®) has its origins in the work of Fred Reichheld and his colleagues at consultancy Bain & Co. NPS is a simple, single, metric that measures customer perceptions of a business's performance. It is based on the belief that satisfied customers spread good news about their experiences influencing the behaviors of others and fueling business growth, while dissatisfied customers spread bad news with a contrary effect.

NPS uses just one question — *How likely is it that you would recommend [name] to a friend or colleague?* — to get an insight into a company's performance through its customers' eyes. Customers respond to the question on a 0–10 point rating scale and are categorized as follows:

- **Promoters** (score 9–10) are loyal customers who will keep buying and refer others, fueling company growth.

- **Passives** (score 7–8) are satisfied but unenthusiastic customers who are vulnerable to competitive offerings.
- **Detractors** (score 0–6) are unhappy customers who are at risk of switching, can damage a brand's reputation and impede growth through negative word-of-mouth.

To calculate NPS, you simply take the percentage of customers who are Promoters and subtract the percentage who are Detractors. So, if 40% of your customers score you at 9 or 10, and 20% score you at between 0 and 6, your NPS is 20. The maximum NPS is 100, and you'd only achieve this if 100% of your customers rated you 9 or 10. According to this model, it makes sense to focus business resources on building positive WOM and reducing negative WOM.

While there is significant adoption of the metric across manufacturing and service firms, it has been subject to considerable criticism.[57]

Researching the Satisfaction–Profit Chain

We'll now look at some of the research into the links between customer satisfaction, loyalty and business performance. Analysis has been done on national data, industry data, corporate data and individual customer data.

The American Customer Satisfaction Index (ACSI) was established in 1994. It has tracked the relationships between customer satisfaction and a number of antecedents and consequences, including customer loyalty as measured by customers' probability of buying at different price points. The ASCI model appears in Figure 2.9. Data are collected in telephone interviews with current customers of the larger companies in a number of industries.[58] Results from the multi-industry study show that there is a strong correlation between customer satisfaction scores and corporate earnings in the next quarter. According to the ACSI organization, "the reason is that a satisfied customer is more profitable than a dissatisfied
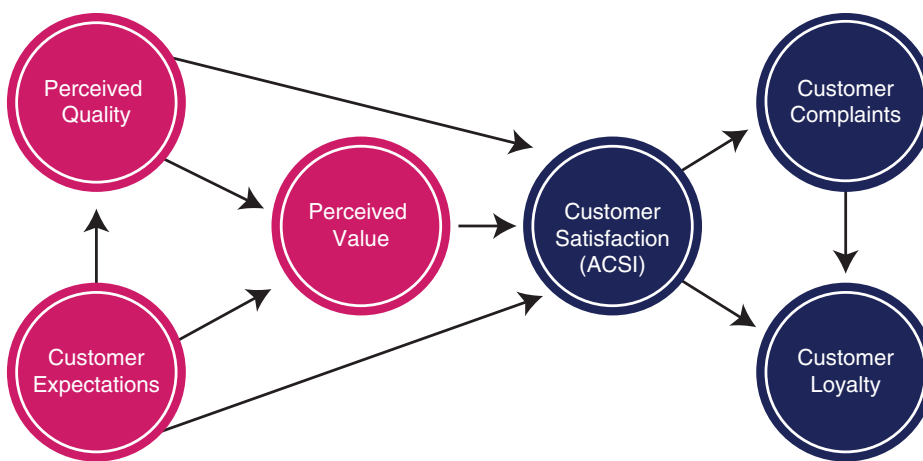
Figure 2.9 The American Customer Satisfaction Index (ACSI) model

one. If satisfaction declines, customers become more reluctant to buy unless prices are cut. If satisfaction improves the opposite is true."[59] An independent study, using data from the ACSI has also found that customer satisfaction had a considerable effect on business performance, although there was variation across sectors.[60]

The ACSI model underpins customer satisfaction research in many countries including Colombia, Honduras, India, Kuwait, Malaysia, Portugal, Singapore, South Africa, South Korea, Turkey and the UK.

A number of studies in different industries and companies – telecommunications, banking, airline and automobile distribution – support the relationship between customer satisfaction, loyalty and business performance.

- **Telecommunications**. One study of the telecoms industry found that a 10% lift in a customer satisfaction index predicted a 2% increase in customer retention (a behavioral measure of loyalty) and a 3% interest in revenues. The researchers concluded that customer satisfaction was a lead indicator of customer retention, revenue and revenue growth.[61]

- **Banking**. Another study found that customer satisfaction in retail banking correlated highly with branch profitability. Highly satisfied customers had balances 20% higher than satisfied customers, and, as satisfaction levels went up over time, so did account balances. The reverse was also true, as satisfaction levels fell, so did account balances.[62]

- **Airlines**. A study in the airline industry examined the link between customer dissatisfaction, operating income, operating revenue and operating expense. The study identified the drivers of dissatisfaction as high load factors (i.e. seat occupancy), mishandled baggage and poor punctuality. The study concluded that as dissatisfaction rose, operating revenue (an indicator of customer behavior) and operating profit both fell, and operating expense rose.[63]

- **Car distribution**. A study of Volvo car owners examined the links between customer satisfaction with the car purchase experience, workshop service and the vehicle itself, and dealer business performance. The results indicated that a 1 scale-point increase in overall customer satisfaction was associated with a 4% increase in dealer profitability at next car purchase.[64]

- **Multi-industry**. Using 400 sets of matched corporate-level data obtained from two databases – the ACSI (see above, which provided customer satisfaction scores) and Standard and Poors' Compustat (which provided business profitability data) – Yeung and colleagues found a linear relationship between customer satisfaction scores and business profitability. They rise and fall together in the same time period.[65] Another study demonstrates that customer satisfaction improves cash flow and reduces its variability. Lower variability of cash flow is associated with lower risk. These two effects – improved cash flow and reduced risk – combine to enhance shareholder value.[66]

Research into the Satisfaction–Profit Chain has also been performed at the level of the individual customer. Using data collected from both customers and exporters in the Norwegian fishing industry, Helgesen finds support for both steps in the Satisfaction–Profit Chain.[67]

Satisfaction is positively associated with behavioral loyalty, which in turn is positively associated with customer profitability. However, he notes that "the satisfaction level has to pass a certain threshold if it is to have any influence on customer loyalty," and that as satisfaction increases it has a diminishing effect on loyalty. The same effects are observed in the relationship between loyalty and customer profitability. Furthermore, only 10% of the variance in each independent variable was accounted for by the dependent variable.

According to one review of the research, there is "growing evidence that the links in the Satisfaction–Profit Chain are solid" but that the relationships can be both asymmetrical and non-linear.[68] The asymmetric nature of the relationships is found by comparing the impact of an increase in one variable with an equivalent decrease. For example, a one scale-point shift up in customer satisfaction (say from 3 to 4 on a 5-point scale) may not have the same impact on customer retention rates as a one-scale point downward shift (say from 3 to 2 on the same 5-point scale). Second, links can be non-linear. Non-linearity is sometimes reflected in diminishing returns, other times in increasing returns. For example, increasing returns may be observed in repeat purchase levels as customers progress up the customer satisfaction scale, as shown in Figure 2.10. Diminishing returns may set in if customer expectations are already largely met. Investments in increasing customer satisfaction at already high levels of performance do not have the same impact as investments at lower levels of performance.

A more recent review of the published research into the Satisfaction–Loyalty link of the Satisfaction–Profit Chain confirms that there is a positive relationship between customer
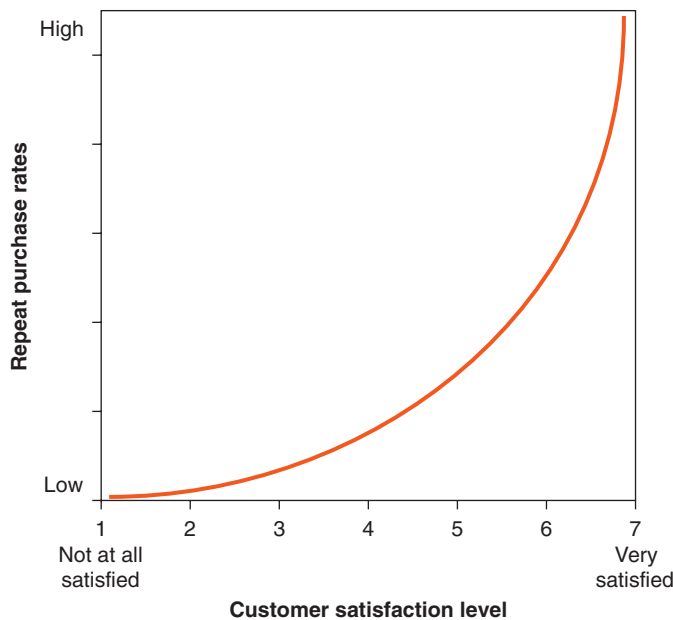
Figure 2.10 Non-linear relationship between customer satisfaction and repeat purchase

satisfaction and loyalty but concedes that the variance explained by satisfaction alone is rather small. This review concludes that

> Customer satisfaction is not enough to fully explain loyalty; other variables need to be included in the relationship model to depict a more complete picture. In particular, it is clear from the review that variables such as customer perceived value, switching costs, and relational variables such as trust, commitment, relationship age [tenure], loyalty program membership, and level of customer involvement, seems to be the most desirable candidates for inclusion in the model.[69]

It is clear from this research that "I am satisfied" does not necessarily mean "I will remain a customer." CRM practitioners also need to work at building higher levels of customer perceived value by creating superior value propositions, designing pain-free customer experiences, lifting customer involvement in the brand and building trust.

Customer engagement and customer loyalty

Earlier in the book we identified how CRM practitioners often use tools such as campaign management to build customer engagement (CE). CE is an emerging construct in the customer management discipline, where it has been imported from organizational behavior (c.f. employee engagement).[70] There was very little discussion of CE before 2005, but since then there have been several research studies that have been summarized in a number of literature reviews.[71] As we write this chapter, there is no unified agreement about what CE is, how to define it, how to measure it, or what consequences it has – if any – for a business.[72] This is not unusual for an emerging construct; indeed, competing claims have been made for CRM itself, as you read in Chapter 1.

We identify two main schools of thought on CE.

The first school thinks of CE as a two-dimensional construct with a behavioral and an emotional component.[73] Highly engaged customers not only commit a significant share-of-wallet to the brand with which they are engaged but are also emotionally committed to the brand. For example, if you were highly engaged with the Apple brand, you'd own a range of products across the Apple ecosystem and you'd be devout adherent of the brand. You'd likely be a member of the "Cult of Mac." This school of thought makes CE hard to distinguish from the customer loyalty construct, which is also defined as having a behavioral and attitudinal component (see earlier discussion of the Dick and Basu model).

The second school presents CE as a multi-dimensional construct. From this perspective, an engaged customer is not just a buyer of a firm's products but co-creates value for the brand in a number of other, indirect, ways.[74] This school focuses on brand owners' efforts to elevate customers' indirect participation with the brand. The broad goal is to convert the customer into an additional, unpaid, marketer, working in the brand's interests. Whereas direct participation means purchasing, indirect participation can take many different non-transactional forms.[75] We identify four such forms: behavioral, social, cognitive and emotional.

- **Behavioral**. The engaged customer acts favorably towards the brand, for example by taking part in brand research or passing on positive word-of-mouth (thereby creating customer referral value or CRV, as described above).

- **Social**. The engaged customer interacts with the brand and other customers in social channels, for example by creating, viewing or sharing online content, participating in crowd-sourced customer service, blogging, recording reviews or complaints, posting product-use pictures to Instagram, subscribing to a newsletter, liking the brand's web-page, or joining a Twitter conversation.

These two forms of engagement are underpinned by the following intra-personal attributes of the customer:

- **Cognitive**. the engaged customer knows a lot about the brand, for example the brand's values, price-point, benefit profile relative to competitors, status or country of origin.

- **Emotional**. The engaged customer feels a strong liking for and attachment to the brand.

We can also say that engagement is not binary, i.e. customers cannot simply be divided into engaged and disengaged clusters. Rather, customers are highly variable in their level of engagement. Some customers will be highly engaged in all these forms; others will not even know what brands they have bought.

The key CE question that marketers and other customer managers have is: what is the role of CE in building and maintaining relationships with customers? Our view is that engagement can only happen after a relationship is established on the basis of trust and commitment. Once a relationship is established, the supplier has an opportunity to build CE in its many forms. However, as we note earlier in the chapter, not all customers want a close relationship with a supplier, and they are therefore unlikely to engage.

The evidence we review above of the Satisfaction–Profit Chain shows clear associations between customer satisfaction, loyalty and business performance. Given that customer satisfaction is largely driven by customer experiences in buying and using products, we can conclude that the direct form of CE (buying) is usually a consequence of customer satisfaction. It seems reasonable that the other, indirect forms, of CE would also only be evident if the customer is satisfied. If this is true, then highly engaged customers may also deliver longer customer tenure, higher customer retention, and higher Net Promoter Scores, and perhaps enhanced business performance variables such as profitability. Research still has to confirm these possibilities, but CRM practitioners are currently pursuing CE with great energy, believing perhaps that highly engaged customers are less likely to churn and more likely to deliver high customer lifetime value (CLV) to the firm.

RELATIONSHIP MANAGEMENT THEORIES

There are five main schools of thought that offer different perspectives on relationships between customers and suppliers. Although some schools are quite similar, they generally describe relationships in different terms and have different implications for relationship management. The major schools of thought are the Industrial Marketing and Purchasing (IMP) school, the Nordic school, the Anglo-Australian school, the North American school, and the Asian (*guanxi*) school. Each is briefly reviewed in the following sections. Concepts and themes from these schools have been incorporated into the preceding discussion.

The Industrial Marketing and Purchasing school

The Industrial Marketing and Purchasing school (IMP) has a dedicated focus on B2B relationships. The IMP school first emerged in the late-1970s when a number of European researchers began investigating B2B relationships with the simple goal of describing them accurately. Some of the major contributors to the IMP school are Malcolm Cunningham, David Ford, Lars-Erik Gadde, Håkan Håkansson, Ivan Snehota, Peter Naudé and Peter Turnbull.[76]

The IMP school argues that B2B transactions occur within the context of broader, long-term relationships, which are, in turn, situated within a broader network of relationships. Any single B2B relationship between supplier and customer is composed of activity links, actor bonds and resource ties. IMP researchers were among the first to challenge the view that transaction costs determined which supplier would be chosen by a customer. IMP researchers identified the importance impact of relationship history on supplier selection.

The characteristics of B2B relationships, from an IMP perspective, are as follows:

- Buyers and sellers are both active participants, pursuing solutions to their own problems rather than simply reacting to the other party's influence.
- Relationships between buyers and sellers are frequently long term, close in nature, and involve a complex pattern of interaction between and within each company.
- Buyer–seller links often become institutionalized into a set of roles that each party expects the other to perform, and expectations that adaptations will be made on an ongoing basis.
- Interactions occur within the context of the relationship's history and the broader set of relationships each firm has with other firms – the firm's network of relationships.
- Firms choose whom they interact with and how. The relationships that firms participate in can be many and diverse, carried out for different purposes, with different partners, and have different levels of importance. These relationships are conducted within a context of a much broader network of relationships.
- Relationships are composed of actor bonds, activity links and resources ties, as now described.

Actor bonds are defined as follows:

Actor bonds are interpersonal contacts between actors in partner firms that result in trust, commitment and adaptation between actors.[77]

Actor bonds are a product of inter-personal communication and the subsequent development of trust. Adaptation of relationships over time is heavily influenced by social bonding.

Activity links can be defined as follows:

Activity links are the commercial, technical, financial, administrative and other connections that are formed between companies in interaction.

Activities might center on buying and selling, technical cooperation or inter-firm projects of many kinds. Activities such as inter-partner knowledge exchange, the creation of inter-partner IT systems, or the creation of integrated manufacturing systems such as just-in-time (JIT) and efficient consumer response (ECR) are investments that demonstrate commitment.

IMP researchers have focused on two major streams of activity-related research: the structure and cost effectiveness of activity links, and the behavioral characteristics the enable relationships to survive. The reduction of transaction costs is an important consideration when customers form links with suppliers. Dyer argues that search costs, contracting costs, monitoring costs and enforcement costs (the four major types of transaction cost) can all be reduced through closer B2B relationships.[78]

Resources are defined as follows:

Resources are the human, financial, legal, physical, managerial, intellectual, and other strengths or weaknesses of an organization.[79]

Resource ties are formed when these resources are deployed in the performance of the activities that link supplier and customer. Resources that are deployed in one B2B relationship may strengthen and deepen that relationship. However, there may be an opportunity cost. Once resources (for example, people or money) are committed to one relationship they might not be available to another relationship.

The Nordic school

The Nordic school emphasizes the role of service in supplier–customer relationships. The main proponents of the Nordic school are Christian Grönroos and Evert Gümmesson.[80]

The Nordic school emerged from research into services marketing that began in the late-1970s particularly in Scandinavia. The key idea advocated by the Nordic school is that service is a significant component of transactions between suppliers and their customers. Their work became influential in the development of the field of relationship marketing, which presents a challenge to the transactional view of marketing that has been dominant for so long. The Nordic school's approach has application in both B2B and B2C environments.

The Nordic school identifies three major characteristics of commercial relationships – interaction, dialogue and value – known collectively as the "Triplet of Relationship Marketing,"[81] as described further below.

Like the IMP school, the Nordic school suggests that inter-firm exchanges occur in a broader context of ongoing interactions. This is a significant departure from traditional notions of marketing where exchanges are conceptualized as discrete, unrelated events, almost as if there is no history. From the Nordic school's perspective, interactions are service-dominant. As customers and suppliers interact, each performs services for the other. Customers supply information; suppliers supply solutions.

Suppliers and customers are in dialogue with each other. Indeed, communication between partners is essential to the functioning of the relationship. Traditional marketing

thinking has imagined communication to be one-way, from company to customer, but the Nordic school emphasizes the fact that communication is bi-lateral.

The concepts of "value," "value creation" and "value creation systems" have become more important to managers over the past 20 years. The Nordic school stresses the mutual nature of value. To generate value from customers, companies need to generate customer-perceived value, that is, create and deliver something that is perceived to be of value to customers. Value creation therefore requires contributions from both buyer and seller. From the Nordic school's perspective, service performance is a key contributor to customer-perceived value.

The Nordic school is closely aligned with service-dominant logic (SDL). SDL's main proponents are Robert Lusch and Stephen Vargo. SDL claims that all firms are service firms, even manufacturing firms. We can all appreciate that a patient visiting a doctor receives a service – medical advice. How can this also be true of manufacturing? SDL argues that although a manufacturer may build printers, the manufacturer is providing a service to users when they use the printer to convert images on a computer screen into text on a page. The printer has no value until it is used. SDL takes a relational view of customer value. Neo-classical economists generally suggest that value is created (or at least measured) at the point of exchange; this is known as value-in-exchange. SDL, however, proposes that value is created when customers use the goods or services; this is known as value-in-use. It is customers who co-create value when they use or interact with products or services; firms do not create value in their factories and ship it to market.[82] The worldview of SDL involves reframing goods as services; they are merely the vessels through which service is delivered to customers.

The Anglo-Australian school

The Anglo-Australian school takes the view that companies not only form relationships with customers, but also with a wide range of other stakeholders including employees, share-holders, suppliers, buyers, and governments. The main proponents of this school are Martin Christopher, Adrian Payne, Helen Peck and David Ballantyne.[83]

Stakeholder relationships vary in intensity, according to the level of relationship investment, commitment and longevity. Unlike the IMP school that takes a descriptive approach, the Anglo-Australian school takes a more prescriptive approach. Their work sets out to help managers to improve relationships with stakeholder groups.

A major conceptual contribution of this school is the Six-Markets Model that has been revised several times (see Figure 2.11). The model suggests that firms must satisfy six major stakeholder "markets": internal markets (employees), supplier/ alliance markets (including major suppliers, joint venture partners and the like), recruitment markets (labor markets), referral markets (word-of-mouth advocates and cross-referral networks), influence markets (these include governments, regulators, shareholders and the business press) and customer markets (both intermediaries and end-users).

The school's researchers have focused on a number of topics: customer retention, customer loyalty, customer satisfaction, customer relationship economics, and value creation.
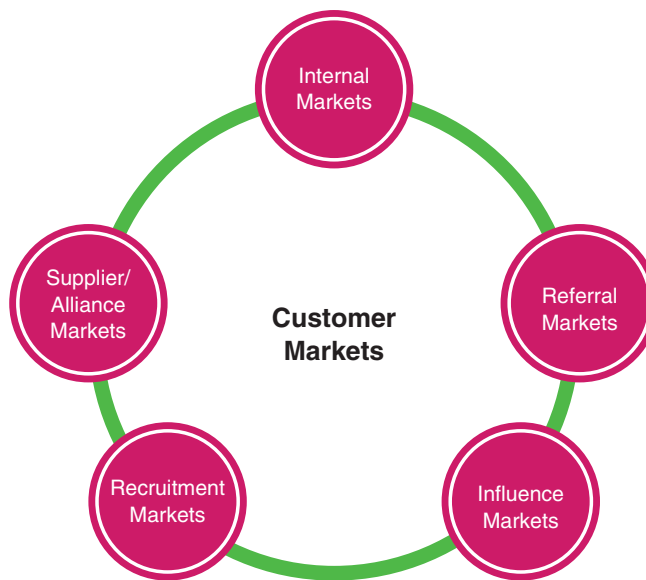
Figure 2.11 The Six-Markets Model

One of their major findings is that customer satisfaction and customer retention are drivers of shareholder value.[84]

The North American school

The North American School receives less emphasis as a separate school of relationship management than other schools. Significant contributors to this school are Jeffery Dyer, Sandy Jap, Shelby Hunt, Robert Dwyer, Jan Heide, Robert Morgan, and Jagdish Sheth. A major theme flowing through this school's work is the connection between successful inter-firm relationships and excellent business performance. The school acknowledges that relationships reduce transaction costs,[85] and that trust and commitment are two very important attributes of successful relationships. Indeed, one of the more important theoretical contributions to come from the North American school is Morgan and Hunt's "Commitment–Trust Theory of Relationship Marketing."[86] This was the first time that trust was explicitly linked to commitment in the context of customer-supplier relationships. According to the theory, trust is underpinned by shared values, communication, non-opportunistic behavior, low functional conflict and cooperation. Commitment, on the other hand, is associated not only with high relationship termination costs, but also with high relationship benefits. [87]

The North American school tends to view relationships as tools that a well-run company can manipulate for competitive advantage. They also focus on dyadic relationships

rather than networks, most commonly buyer-supplier dyads or strategic alliance/joint venture partnerships.

The Asian (guanxi) school

Guanxi (pronounced gwan-she) is, essentially, a philosophy for conducting business and other inter-personal relationships in the Chinese, and broader Asian, context. Therefore, its effects have a significant impact on how Asian societies and economies work.

Guanxi has been known to Western business people since at least 1978. This was the time when the Chinese market began to open up to the West.[88] The foundations of *guanxi* are Buddhist and Confucian teachings regarding the conduct of inter-personal interactions. *Guanxi* refers to the informal social bonds and reciprocal obligations between various actors that result from some common social context, for example families, friendships and clan memberships. These are special types of relationship that impose reciprocal obligations to obtain resources through a continual cooperation and exchange of favors.[89]

Guanxi has become a necessary aspect of Chinese and, indeed, Asian business due to the absence of codified, enforceable contracts such as those found in Western markets. *Guanxi* determines who can conduct business with whom and under what circumstances. Business is conducted within networks, and rules based on status are invoked. Network members can only extend invitations to others to become part of their network if the invitee is a peer or a subordinate.

CONCLUSION

In this chapter, you have learned that there are differing beliefs about what counts as a relationship. Although interactions-over-time are an essential feature of relationships, some believe that a relationship needs to have some emotional content. Although the character of a relationship can change over time, successful relationships are based on a foundation of trust and commitment. The primary motivation for companies trying to develop long-term relationships with customers is the profit motive. There is strong evidence that long-term relationships with customers yield commercial benefits as companies strive to enhance Customer Life-Time Value. However, companies are advised to focus their customer acquisition and retention efforts on those who have profit-potential or are otherwise strategically significant. Although companies generally want to develop long-term relationships with customers, there are good reasons why customers don't always share the same enthusiasm. The Satisfaction–Profit Chain suggests that customers who are satisfied are more likely to become loyal, and high levels of customer loyalty are associated with excellent business performance. Net Promoter Score, a metric of customer advocacy, is used by many companies to measure business performance. Current research into customer engagement is beginning to find out whether highly engaged customers offer significant potential value to businesses. Finally, the chapter closes with a discussion of several schools of management or marketing theory that shed light on customer relationship management. These are the IMP, Nordic, Anglo-Australian, North American and Asian (*guanxi*) schools of thought.

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MANAGING THE CUSTOMER JOURNEY
Customer acquisition

CHAPTER OBJECTIVES

By the end of this chapter, you will understand:

1. The meaning of the terms customer journey, customer lifecycle, customer acquisition and new customer.
2. The strategies that can be used to recruit new customers.
3. How companies can decide which potential customers to target.
4. Sources of prospects in both business-to-business and consumer markets.
5. How to communicate with potential customers.
6. What offers can be made to attract new customers.
7. Key performance indicators for customer acquisition strategies.
8. The operational CRM applications that support customer acquisition.

INTRODUCTION

In the last chapter, we explained why companies generally want to build long-term relationships with customers. In this and the following chapter you'll be introduced to the idea of the customer journey, and its management. The core stages in the customer journey are customer acquisition, customer retention and customer development. Companies develop strategies and processes for moving customers into and through these three stages, often, but not always, with the help of CRM technologies and practices. These strategies and processes enable companies to identify, nurture and on-board new customers, grow their value to the business and retain them for the long term. We examine customer retention and development processes in the next chapter.

CUSTOMER JOURNEY: THE BASICS

The customer journey (also known as customer life cycle) is a representation of the stages that customers go through in their relationship with a company or brand. In essence, a customer journey is a story about how a customer becomes aware of a brand, makes an initial purchase and migrates up the Loyalty Ladder, making additional purchases and influencing others to become customers, as discussed in Chapter 2. Some journeys last years and involve multiple repurchases; others are over in minutes as customers experience difficulties and decide to exit. The story of a customer journey includes the touchpoints encountered by the customer, their experiences at those touchpoints, and their responses to those experiences. Touchpoints include, but are not limited to, the following: websites, social media, service centers, warehouses, calls from and to contact centers, events, seminars, email, advertising, sales calls and retail stores. Customers interact with a company's products, services, communications, places, people, processes or technologies at those touchpoints, forming impressions that influence whether they buy now, do not buy, delay purchase or switch to a competitor. Customers also interact with others, experts, friends and colleagues who can form part of the overall experience with a brand or company.

Customer journeys are extremely varied. Consider how you initially became aware of a brand – maybe it was mentioned in a Facebook post, you saw an ad when browsing the Internet, a friend told you, you saw it in a shop display, a family member was using it, it was mentioned when you called a contact center about a different issue, or it was mentioned by a salesperson. Think now about the channels in which you might make an initial purchase – a company's online store, an auction website, a department store, a specialist store, a home-shopping TV channel, as a direct response to an email campaign, or maybe even from a direct-to-customer salesperson.

Customer journeys vary significantly. A customer may initially become aware of a brand at one touchpoint (say, a department store), gather information at another touchpoint (comparison website), and make an initial purchase at a third touchpoint (company online store); this is a journey that incorporates both physical and digital touchpoints. Other customers may have had different journeys towards that first purchase. To fully understand the customer journey, businesses need to do research. This will involve observing and interviewing customers and customer-contact staff about their experiences at different touchpoints and reviewing other data such as call center performance data and shopping cart abandonment levels at online checkout. The main aim is to understand what customers are trying to achieve, what worked well and what needs improvement.

Shrewd businesses try to manage what happens at these touchpoints, and influence the impressions that customers form. We discuss this further in Chapter 7. Software enables businesses to prepare a visualization or map of the customer journey, either as it is, or as they would like it to be. Tools such as Salesforce Journey Builder, Smaply, Touchpoint and Canvanizer can be used to map the acquisition phase (or any other phase) of the customer journey from lead identification through to on-boarding and handover to sales and service personnel.

CUSTOMER ACQUISITION

The first task in managing the customer journey is to acquire new customers. From a CRM perspective, businesses should only acquire customers that have a strong likelihood of being profitable over time. Customer acquisition is always the most important goal during new product

Figure 3.1 Customer journey example (copyright Smaply)[1]
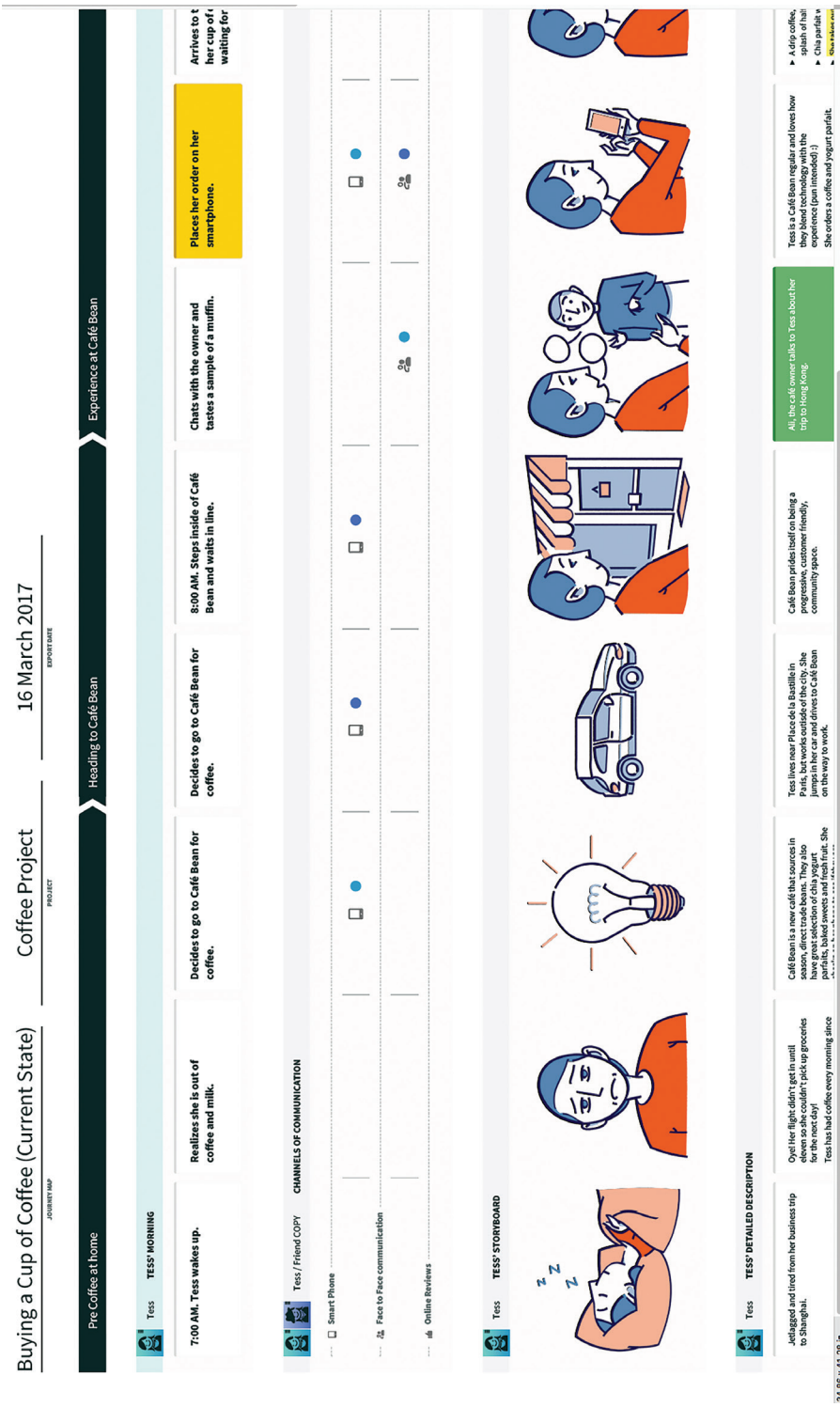
launches and for new business start-ups. For small businesses with ambitions to grow, customer acquisition is often as important as customer retention. A one-customer company, such as BICC (now part of Balfour Beatty PLC) that supplied copper cable to a single customer, British Telecom (BT), could double its customer base by acquiring one more customer. On the other hand, the loss of that single customer could spell the end of the company. With such high stakes, all too often companies feel compelled to acquire as many new customers as possible only to find out that they face problems of retention, service demands that they cannot manage, and low margins.

Even with well-designed and implemented customer retention plans, customers still need replacing. In a B2C context, customers may shift out of a targeted demographic as they age and progress through the family life cycle; their personal circumstances may change, and they no longer find value in your product; they may even die. In a B2B context, you may lose corporate customers due to merger with, or acquisition by, other company with alternative supplier preferences; they may have stopped producing the goods and services for which your company provided input; they may have ceased trading. Customers lost to these uncontrollable causes indicate that customer acquisition will always be needed to replace natural attrition.

A number of important questions have to be answered when a company puts together a customer acquisition plan. These questions concern targets, communication channels, offers and nurturing as below:

1   Which prospects (potential new customers) will be targeted?

2   How will the business communicate with these prospects?

3   What offer will be made?

4   How will the prospect be nurtured until ready to buy?

These issues need to be carefully considered and programmed into a properly resourced customer acquisition plan. Customer acquisition usually is the responsibility of marketers, but many marketing plans fail to distinguish between, or develop separate strategies for, customer acquisition and customer retention. Furthermore, customer acquisition and retention are often managed in different parts of the business, running the risk of recruiting customers who ultimately have little retention value.

WHAT IS A NEW CUSTOMER?

A customer can be new in one of two senses.

1   New to the product category.

2   New to the company.

New-to-category

New-to-category customers are customers who have either identified a new need or have found a new category of solution for an existing need. Consider the B2C context. When a couple has their first child, they have a completely new set of needs connected to the growth and nurturing

of their child. This includes baby clothes, food and toys, for example. As the child grows, the parents are faced with additional new-to-category decisions, such as pre-school and elementary education. Sometimes, customers also become new-to-category because they find a new category to replace an existing solution. Cell phones have now largely replaced card- or cash-operated pay phones and landlines in the developed world. Environmentally friendlier detergents and diapers are growing their share of market, as customers switch from current solutions.

Sometimes, customers beat marketers to the punch, by adopting established products for new uses. Marketers then catch on and begin to promote that use. Church and Dwight found out that their Arm & Hammer brand of baking soda was used for a number of other purposes than baking. Their website, www.armhammer.com, now lists scores of other product applications including cleaning, deodorizing, and personal care. The brand encourages customers to go online and describe novel applications for the product, lifting customer-brand engagement. Auto manufacturers noticed that many utility vehicles were not being bought by tradesmen but as fun vehicles for weekend use. They began promoting this use while at the same time trying to innovate in product design to meet the requirements of that market segment. The result has been the emergence of a completely new and extremely valuable market segment – the market for sports utility vehicles (SUV).

The same distinction between new needs and new solutions also exists in the B2B market place. A customer can be new-to-category if they begin an activity that requires resources that are new to the business. For example, when convenience food firm McDonald's entered the cafe market, they needed to develop a new set of supplier relationships. New-to-category customers may also be customers who find a new solution for an existing problem. For example, many clothing manufacturers now use robot-controlled sewing machines to perform tasks that were previously performed by skilled labor and manual sewing machines.

New-to-company

The second type of new customers are those who are new to the company. New-to-company customers are won from competitors. They might switch to your company because they feel you offer a better solution or because they value variety. Generally, new-to-company customers are the only option for growing customer numbers in mature markets where there are very few new-to-category customers. In developed economies, new players in grocery retail can only succeed by winning customers from established operators. Once the customer is in-store, the retailer will use merchandising techniques such as point-of-sale signs and displays to increase spending.

New-to-category customers are sometimes expensive to recruit, sometimes not. For example, when children leave home for university, banks compete vigorously for their patronage. They advertise heavily in media used by students, communicate direct-to-student, offer free gifts and low or zero-cost banking for the duration of the studentship. On the other hand, supermarket retailers incur no direct costs in attracting these same students to their local stores.

New-to-company customers can be very expensive to acquire, particularly if they are strongly committed to their current supplier. Commitment is reflected in a strong positive attitude to, or high levels of investment in, the current supplier. These both act as barriers to switching. A powerful commitment to a current supplier can be difficult, and often is too expensive, to break as described in Chapter 2. High potential value customers are not always the most attractive prospects because of this commitment and investment. A lower value customer with a weaker commitment to their current supplier may be a better prospect.

PORTFOLIO PURCHASING

New customers can be difficult to identify in markets where customers exhibit portfolio purchasing behaviors. Customers buy on a portfolio basis when they buy from a choice set of several more or less equivalent alternatives. A customer who has not bought from one of the portfolio suppliers for a number of months, or even years, may still regard the unchosen supplier as part of the portfolio. The supplier, on the other hand, may have a business rule that says: "If a customer has not bought for three months, mail out a special offer." In the UK, many grocery customers shop at two or more of the major chains – Tesco, Sainsbury's, Asda, Aldi, Morrisons and Waitrose. These retailers do not just compete to acquire and retain customers. They also compete for a larger share of the customer's spending, that is, to grow share-of-wallet (SOW).

Strategic switching

Companies may encounter evidence of strategic switching by customers. These are customers who shift their allegiances from one supplier to another in pursuit of a better deal. Banks know that their promotional pricing stimulates "hot" money. This is money that is moved across the banking industry in search of a better rate of interest. Sometimes the money may only be in an account overnight.

MCI, the telecoms company, discovered that about 70% of customers newly acquired from competitors stayed for four months or less. These customers had been acquired when MCI mailed a check valued at $25, $75 or more to competitors' customers. When the check was banked, this automatically triggered the transfer of service to MCI. A few months later these customers again switched suppliers when another deal was offered and the check was already cashed. MCI fixed the problem by adjusting the promotion. Instead of mailing an immediately cashable check, the promotion was relaunched as a "staged rebate" promotion. The accounts of new customers who stayed for 3, 9 and 12 months were credited with sums equivalent to the check value that would previously have been sent.[2]

Sometimes, you can think of a customer that has been regained a second or further time as a new customer. For example, if the new parents mentioned previously were to have a second child after four years, they would most likely have been removed from the mother-and-baby databases. A new customer record would have to be created. The customer would need to be targeted afresh. In portfolio markets, a customer who has not purchased in Quarter 1 may be treated as a new customer for promotional purposes in Quarter 2, as the company attempts to reactivate the customer. A customer who has switched to a competitor may be subject to a win-back campaign, with messages and offers customized according to the known or assumed reasons for the customer's earlier defection.

The Conversion Model

Jan Hofmeyr has developed The Conversion Model™, which has been used to guide customer acquisition in a range of industries including publishing and financial services. The model contains a battery of questions designed to assess whether a customer is likely to switch. Hofmeyr's basic premise is that customers who are not committed are more likely to be available to switch to another provider. Commitment, in turn, is a function of satisfaction with the brand or offer, the attractiveness of alternatives, and involvement in the brand

or offer. Involvement is low if the product or its usage context is relatively unimportant to customers. The Conversion Model™ allows customers to be segmented into four subsets according to their level of commitment: entrenched, average, shallow and convertible. There are two clusters of committed customers and two of uncommitted customers, as follows:

Committed customers

- **Entrenched** customers are unlikely to switch in the foreseeable future.
- **Average** customers are unlikely to change in the short term but may switch in the medium term.

Uncommitted customers

- **Shallow** customers have a lower commitment than average, and some of them are already considering alternatives.
- **Convertible** customers are most likely to defect.

Hofmeyr suggests that companies can measure customer commitment by asking just four questions:

1   How happy are you with <whatever it is>?

2   Is this relationship something that you care about?

3   Is there any other <whatever it is> that appeals to you?

4   If so, how different is the one <whatever it is> from the other?

Non-customers are also segmented according to commitment scores into four availability subsets: available, ambivalent, weakly unavailable and strongly unavailable. There are two clusters that are open and two that are unavailable, as follows:

Open non-customers

- **Available** non-customers prefer the alternative to their current offer though they have not yet switched, and are ready to switch.
- **Ambivalent** non-customers are as attracted to the alternative as they are to their current brand.

Unavailable non-customers

- **Weakly unavailable** non-customers prefer their current brands.
- **Strongly unavailable** non-customers have a strong preference for their current brands.

Hofmeyr claims that these profiles can be used to guide both acquisition and retention strategies.[3] He suggests that where the number of open non-customers is greater than the number of uncommitted customers, companies should focus strongly on customer acquisition.

Companies need to nurture their relationships with committed customers, reassuring them that their decision is wise, and finding ways to enrich and enhance their customer experience. The strategy for uncommitted customers is to investigate why there is a low level of commitment and address the causes. Maybe it is a low-involvement category, or maybe customers are dissatisfied with their experience. Whether companies should appeal to open non-customers depends upon the value they can generate. Finally, there are many potential reasons why some market segments are composed of unavailable non-customers. They may have tried your offer, and didn't find it satisfying; they may be committed to their current brand or supplier; they may be aware of your offer but find it unappealing; or, they may simply be unaware of your offer. Businesses might be able to fix this last problem with advertising or other forms of customer communication, shifting these non-customers from the unavailable cluster to the open cluster. Customer experience research might reveal what customers do not like about your offer or doing business with you, and give you some clues about how to make their experience more satisfying.

A core principle of CRM is that customer-related data is used to target acquisition efforts accurately. By contrast, poorly targeted acquisition efforts waste marketing budget and may alienate more prospects than they gain through irrelevant and untimely messaging. We now turn to the practice of new customer prospecting.

PROSPECTING

Prospecting is, of course, a mining term. In that context, it means searching an area thought likely to yield a valuable mineral deposit. In CRM, it means searching for opportunities that might generate value for the company.

Prospecting is associated with the market segmentation and targeting process. Market segmentation is the process of dividing a heterogeneous market into homogenous subsets, maybe even down to the level of the unique customer. Targeting is the process of choosing which market segments, clusters or individuals, to approach with an offer. Prospects are chosen targets. We explain the market segmentation and targeting processes in more detail in Chapter 5.

We'll now look at prospecting from the B2B perspective.

Business-to-business prospecting

In the B2B environment, it is usually the task of marketers to generate leads, and for the salesperson to follow up allocated leads. Leads are individuals or companies that might be worth approaching. The lead then needs to be qualified so that sales and other resources are used wisely to nurture a relationship with higher value prospects.

Once leads are qualified, companies need to decide the best channels for initiating contact. A distinction can be made between **direct-to-customer** (DTC) channels such as salespeople, direct mail, email, SMS and telemarketing, and channels that are **indirect**, either because they use partners or other intermediaries or because they use bought time and space in media. The improved quality of databases has meant that direct channels allow access to specific named leads in target businesses.

Sources of business-to-business leads

Leads come from a variety of sources. In the B2B context this includes the sources identified below.

- Customer referrals
- Online sources
    - o   Search engines/SEO
    - o   Company websites
    - o   Portals
    - o   Social media
    - o   Content marketing
- Networking
- Promotional activities
    - o   Attendee and delegate lists from exhibitions, seminars, webinars, workshops, trade-shows, conferences, events
    - o   Advertising response enquiries
    - o   Publicity
    - o   Email campaigning
- Lists and directories
- Canvassing
- Telemarketing
- Lead generation companies

Many companies turn to satisfied customers for **customer referrals**. Customer satisfaction and Net Promoter Scores enable companies to identify which current customers to approach for referrals. They may be prepared to write an email of introduction, provide a testimonial or host a customer site visit. Sometimes it may be necessary to pay a referral fee or reward the referring customer in other ways.

We discuss five main **online sources** of leads: search engines/SEO, company websites, portals, social media and content marketing.

Search engines provide an indexed guide to websites. Users searching for information type keywords into the search engine's web-form. The engine then reports and lists the number of hits, that is, web pages that are associated with the keyed word or words. Users can then click on a hyperlink to take them to the relevant pages. To ensure that your site is hit when a prospect is searching for a supplier, your website needs to be registered with appropriate search engines or optimized for those search engines. We have more to say about **search engine optimization** in Chapter 8. Major search engines are Google, Yahoo, Bing and Baidu.

In addition to designing your own online presence to attract and gather information from prospects, browsing other **company websites** can be a fruitful source of new customers.

Portals are websites that act as gateways to the rest of the Internet. Portals tend to be focused on particular industries or user groups and offer facilities such as search engines, directories,

Figure 3.2 The CEOExpress portal[4]

customizable home pages and email. For example, the portal www.CEOExpress.com provides a wealth of information and access to other sites that may be of use to busy Chief Executives. Figure 3.2 shows CEOExpress's home page customized for auto industry executives.

An increasing number of suppliers in the B2B market place are developing a presence in **social media** such as Facebook, Instagram and LinkedIn. For example, Salesforce.com has a Facebook page that, in part, aims to appeal to potential customers. Liking, friending or interacting on the page suggests a degree of engagement with the brand.

When prospective customers reach an online destination, they want to find engaging content that is relevant to their reasons for conducting the search. Use of engaging material to identify leads is known as **content marketing**. Content can include blogs, white papers, video demonstrations, presentations, podcasts, reports, case studies, testimonials, competition and games, tools, and surveys. Interactivity can help build engagement. To help qualify a lead, companies like visitors to leave their personal details before they view product demos, register to attend a webinar, or download a case study. Registration effectively provides companies with permission to follow up and qualify the lead.

Networking can be defined as follows:

> **Networking is the process of establishing and maintaining business-related personal relationships.**

A network might include members of a business association, chamber of commerce, friends from university, or professional colleagues in other companies. Networks may interact face-to-face (for example, Chamber of Commerce), online (LinkedIn groups) or both. In

some countries, it is essential to build and maintain personal networks. In China, for example, the practice of *guanxi*, covered in Chapter 2, means that it is well-nigh impossible to do business without some personal connections already in place.

Referral networks are common in professional services. Accountants, banks, lawyers, auditors, tax consultants and estate agents will join together into a cross-referral network in which they undertake to refer clients to other members of the network. Alliance and channel partners may also make referrals.

Promotional activities can also generate useful leads. **Exhibitions, seminars, webinars, workshops, trade shows and conferences** can be productive sources. Companies that pay to participate in these events may either be able to obtain privileged access to delegate and attendee lists, or to generate lists of their own such as a record of visitors to their own stand at a trade show.

B2B marketers generally do very little **advertising**, though this can generate leads. B2B advertising is generally placed in highly targeted specialist media such as trade magazines.

An important activity for some B2B companies is **publicity**. Publicity is an outcome of public relations (PR) activity. Publicity can be defined as follows:

Publicity is the generation of free editorial content relevant to a company's interests.

Successful PR can generate publicity for your product or company in appropriate media. This coverage, unlike advertising, is unpaid. Though unpaid, publicity can create costs; for example, someone may be paid to write the story and submit it to the media. Many magazines, trade papers and online communities are run on a shoestring. They employ very few staff and rely heavily on stories submitted by companies and their PR staff to generate editorial content. Editors are always looking for newsworthy items such as stories about product innovation, original customer applications or human-interest stories about inventors and entrepreneurs. Editorial staff generally will edit copy to eliminate deceptive or brazen claims.

Many B2B companies use **email** for new customer acquisition. Email offers several clear advantages. Most business decision-makers have email, although this does vary by country and industry. It is very cheap, costing as just about the same to send one thousand emails as it does to send one single email. It is quick and simple for recipients to respond. Content can be personalized. Production values can be matched to audience preferences: you can use richly graphical or simple textual content. It is an asynchronous prospecting tool. In other words, it is not tied to a particular time frame like a sales call. Email messages sit in mailboxes until they are read or deleted. It is a very flexible tool that can be linked to telesales follow-up, "call-me" buttons or click-throughs to landing pages.

When email is permission-based, response rates can be extraordinarily high.[5] There is growing resistance to and regulation around spam email; emails are regarded as spammed when they are sent to large numbers of recipients who have not been properly screened. What is spam to one recipient may be valuable information to another. An important ingredient in email marketing is a process by which prospects are encouraged or incentivized to provide email addresses for future contact. We have more to say about email marketing in Chapter 8.

Lists of prospects can be developed from many sources such as telephone **directories**, business lists, chamber of commerce memberships, professional and trade association memberships, website registrations and magazine circulation data. Lists can also be bought ready-made from list compilers and brokers. Lists of prospects, organized by their Standard

Industrial Classification code are widely used (see Chapter 5 for more detail). Some lists are of poor quality: out-of-date, with duplications, omissions and other errors. High-quality lists with full contact details, including phone and email address, tend to be more expensive. Lists can support direct marketing efforts by phone, mail, email, messaging or face-to-face.

Canvassing involves making unsolicited calls, sometimes known as cold calls. This can be a very wasteful use of an expensive asset – the salesperson. Some companies have banned their salespeople from cold calling. Others outsource this activity to third parties. Some hotel chains for example, use hospitality students to conduct a sales blitz that is essentially a telephone-based cold calling campaign.

Telemarketing is widely used as a more cost-effective way of prospecting than use of a salesperson. Telemarketing, sometimes called telesales, is a systematic approach to prospecting using the telephone, and, sometimes, other electronic media such as email or web-chat. Telemarketing is usually done by staff in company-owned customer contact centers, or outsourced. Outbound telemarketers make outgoing calls to identify and qualify leads. Inbound telemarketers receive calls from prospective customers. In addition to prospecting, telemarketing can be used for other customer management purposes – cross-selling, handling complaints, and winning back at-risk or churned customers, for example. We examine telemarketing in greater detail in Chapter 8.

Lead generation companies survive by being successful at generating leads for their clients. The leads they supply are generated by aggregating and synchronizing data from many of the sources described above.

Lead-generation practices change over time in line with advances in technology. Currently, three major sources of leads for B2B firms are search engine optimization, email campaigns and social media.[6]

Lead generation in the B2B context can be challenging. Major challenges include: 1. creating online content that is truly engaging and valuable for site visitors, while also differentiating the brand. Too many brands now have e-newsletters that add little value; 2. engaging in the social conversation. This can involve considerable cost as employees interact, sometimes in real-time, with social content; 3. ensuring that the lead data is accurate and comprehensive; and 4. converting leads into customers. Initial contact may be made by phone, email or through a social network but the goal is the same – to find out more about the prospect's needs and problems.

Business-to-consumer lead generation

In B2C contexts, the distribution of customer acquisition effort is different. More emphasis is put on advertising, sales promotion, buzz or word-of-mouth, social media and merchandising. However, all of the techniques you have just read about are also used, but generally in a different way. We'll turn to them later. First, we'll look at advertising.

Advertising

Advertising is an important method for generating new customers in B2C environments. Advertising can be defined as follows:

Advertising is the creation and delivery of messages to targeted audiences through the purchase of time or space in media owned by others.

Advertising can be successful at achieving two different classes of communication objective: cognitive and affective. Cognition is concerned with what audiences know; affect is concerned with what they feel. Advertising alone is often insufficient to generate behavioral outcomes such as trial purchasing. It can, however, predispose audiences to make an intention-to-buy based on what they know about and feel towards the advertised product.

Cognitive advertising objectives include: raising awareness, developing understanding, and generating knowledge. New customers generally need to be made aware of the product and to understand what benefits it can deliver prior to purchase. Affective advertising objectives include developing a liking for the product and generating preference.

In high involvement purchasing contexts, where products or their usage context are personally significant for the consumer, prospects will normally progress through a learn-feel-do process when making their first purchase. In other words, before they buy, they acquire information that helps them learn about and compare alternatives, thus reducing perceived risk. They then develop a preference for, and intention-to-buy, a particular offer. Customers are essentially engaged in problem-solving. Advertising is one of the sources they can use in the learn-feel part of that learn-feel-do process. It is, however, not the only source of information, nor is it necessarily the most powerful.

High-involvement advertising can employ long copy because prospects use advertising to learn about alternatives. Comparison advertising and copy featuring endorsements by opinion formers may be influential. Media that help prospects to acquire and process information are those that have a long dwell-time such as magazines and newspapers.

Advertising can also evoke powerful emotional responses in audiences. The type of response that advertisers seek in prospects is "I like the look of that. I really must try it." This is an affective response linked to a buying intention. Ads for fashion items, jewelry and vacation destinations often aim for an emotional response. TV ads evoke emotions by their clever mix of voice, music, images, movement and sound effects. Advertisers can pre-test different executions to ensure that the right sort of emotional response is evoked.

In low-involvement contexts, where the product category or its usage context is relatively unimportant, prospects are very unlikely to go through a complex and demanding learn-feel-do process. Rather, there will be little or no pre-purchase comparison of alternatives. The prospect is much more likely to simply become aware of the product and buy it. There may not even be post-purchase evaluation of the experience except in the most elementary of forms. Evaluation may only take place if the product fails to deliver the benefits expected. The purchase model is therefore learn-do. The role of advertising for low involvement products is to build and maintain brand awareness and recognition. Copy needs to be kept short – prospects won't read long advertising copy. Recognition can be achieved with the use of simple visual cues. Repetition of the ad in low involvement media such as TV and radio helps build awareness and recognition.

Advertisers are concerned with three major issues as they attempt to generate new customers: message, media and timing issues. Which messages will generate most new customers, which media are most cost-effective at customer acquisition, and what is the best time to expose the target to the message?

MESSAGE

Although precise measurement has not been conducted, it has been suggested that heavy media users are exposed to over one thousand ads per week.[7] Yet, how many can the person recall? In an increasingly communicated world, it is a first requirement that an advertisement must stand

out from the background clutter and claim the audience's attention. Advertisers call this "cut-through." Without it, no cognitive, affective or behavioral outcomes can be achieved. An ad that stands out is one that differs from the many ads and other stimuli that compete for the prospect's attention. "Standing out" is a matter both of message creativity and execution, and media selection. What stands out? Here are some examples: black and white ads in color magazines, ads that feature movement in largely static media, image-based ads in text-dominated media, loud ads in quiet media, and ads that challenge your comprehension and emotions.

Message execution is an important issue in gaining an audience's attention. Messages can be executed in many different ways. Execution describes the way in which a basic copy strategy is delivered. Basic copy strategy is the core message or theme of a campaign. Execution styles can be classified in a number of ways: rational or emotional, factual or fanciful, funny or serious. Individual forms of execution include slice-of-life (product being used in a recognizable context), aspirational (associates the product with a desirable outcome or life-style), testimonial (the product is endorsed by an opinion-influencer), and comparative (the ad compares one or more alternatives with the advertised product).

Advertisements often close with a "call to action," such as asking the audience to clip a coupon, call a number or register online. These actions generate useful sources of prospects that can then be followed up.

Pre-testing messages on a sample of potential new customers is a way to improve the chances of an ad achieving its objectives. Among the criteria advertisers can assess are the following:

- **Recall**. How much of the ad can the sample recall?
- **Comprehension**. Does the sample understand the ad?
- **Credibility**. Is the message believable?
- **Feelings evoked**. How does the sample feel about the ad?
- **Intention-to-buy**. How likely is it that the sample will buy?

When advertisers buy space or time in media that have local or regional editions, they can conduct post-tests – also known as A/B tests – to assess the effectiveness of different executions in achieving the desired outcomes.

Research shows that creativity in advertising makes an important contribution to the visibility and impact of an ad.[8]

MEDIA

Media selection for new customer acquisition is sometimes quite straightforward. For example, there are print media such as *What Digital Camera* – also online at www.whatdigitalcamera. com – that are targeted specifically at new-to-category prospects for high involvement products. An uninvolved prospect will only learn passively about your product because there is no active search for and processing of information. Consequently, for low-involvement prospects, frequency is a more important media consideration than reach. These are defined as follows:

Reach is the total number of a targeted audience that is exposed at least once to a particular ad or campaign.

Frequency is the average number of times that a targeted audience member is exposed to an ad or campaign.

The total number of exposures is therefore computed by multiplying reach by frequency. If your ad reaches 2 million people an average of four times the total number of impressions or exposures is 8 million. For high-involvement products, lower levels of frequency are generally needed. Advertising agencies should be able to offer advice on how many exposures (frequency) it takes to evoke a particular response in an audience member,[9] and what media are most appropriate.

You can compute various media efficiency statistics to help you get better value for money from your customer acquisition budget. These include response rates and conversion rates.

Response rates provide a first-level indicator of ad effectiveness. Examples include the number of coupons clipped and returned, click-throughs from email campaigns, or calls requesting information (RFI) made to a contact center. **Conversion rates** offer a second-level indicator of ad effectiveness. Examples include sales made as a percentage of coupons returned, number of purchases made following click-through, or proposals submitted as a percentage of RFIs.

Media buying has conventionally been performed by people armed with information about the size and composition of audiences of different media. Today, media buying, particularly for digital media, is becoming increasingly automated. Programmatic media buying employs artificial intelligence (AI) to deliver advertising that is highly targeted. AI automates the process of buying and selling advertising inventory through an exchange that connects advertisers with publishers. This process uses real-time bidding for inventory across mobile, display, video and social platforms. AI gathers audience data and uses algorithms to identify the optimal media mix to reach a targeted audience. Programmatic buying delivers several benefits – enhanced return on investment for advertisers, more cost-effective message delivery, improved audience insights, easier media buying and scalability – but relies on advertiser trust of the underlying intangible algorithm.[10] As we write, programmatic media buying is migrating into television.

Some critics of the use of advertising for customer acquisition argue that ads work on current and past customers and therefore impact more on retention.[11] Others point to the ineffectiveness of advertising at influencing sales at all. Len Lodish, for example, concluded that "there is no simple correspondence between increased TV advertising weight and increased sales."[12] In one study he found that the sales of only 49% of advertised products responded positively to increases in advertising weight.[13]

TIMING

The third issue worrying advertisers is the timing of the ad exposure. Ads can be most effective when delivered when the target is actively making a buying decision. Some digital media allow messages to be delivered at the time the customer is searching for a supplier or product. For example, relevant Google ads are served in real time during an online search, and ads can be delivered to mobile phones based on the phone's location, as identified by the phone's GPS (global positioning system) data.

Sales promotion

Sales promotion can be defined as follows:

> **Sales promotion is any behavior-triggering temporary incentive aimed at prospects, customers, channel partners or salespeople.**

Although sales promotions can be directed at salespeople and channel members, our concern here is only with sales promotions aimed at prospects. As the definition makes clear, sales promotions offer a temporary and immediate inducement to buy a product. They are not part of the normal value proposition. There are many forms of consumer sales promotion:

Sampling is the provision of a free sample of the product. Tangible products can be delivered in a number of ways: mailed or dropped door-to-door, bound or packed with a related item. Sampling can be expensive not only because of distribution costs but also because it may be necessary to set up a special production run with unique promotional packaging. However, sampling is highly effective at generating trial, especially if the sample is accompanied with a voucher or promise of a discount off the first regular purchase. Sampling has been used for coffee, breakfast cereal and moisturizer products. Sampling is also used in the online context. Online publishers often allow readers to read a sample of a newspaper, magazine or book before a pop-up message asks the reader to pay to continue reading. A digital rights mechanism is used to quarantine online content until payment is made.

Free trial. Some companies offer products to customers on an approval basis. If they like the product they keep it and pay. Auto dealers offer test-drives to prospective purchasers. One bedding retailer offers beds on a free trial basis to customers. They deliver the bed to the customer's home and let them try it for a month. If they don't like it the company collects the bed. Charles Schwab, the execution-only stockbroker, offered a free trial of online share trading to attract new customers. It signed up 8500 new customers; over 6000 remained active clients once the three-month trial period ended.

Discounts or money-off deals are temporary price reductions. This reduces perceived risk and improves value for a first-time purchaser. Discounts can be promoted on-pack, at point-of-sale or in media.

Coupons. These act like money. They are redeemable on purchase, generally at the point-of-sale. Coupons may be available in print media, on-shelf at the point-of-sale, on the till receipt at checkout, online, or delivered to a cell-phone. Mobile coupons can be either pushed to the consumer's cell-phone through SMS or multi-media messaging (MMS), based on user demographics, purchase history or location, or consumers can request a coupon. Mobile apps such as Cellfire and Yowza give consumers access to mobile coupons from many retailers.

Rebates or cashback. In consumer goods markets, these are often offered on-pack and require collection of proofs of purchase. Their use has extended into automobile and mortgage markets. Take out a loan to buy a car, and get $500 in cash back from the dealer.

Bonus packs. A bonus pack is a promotion in which the customer gets more volume at an unchanged price. A customer might get 2.5 liters of juice for the price of a 2-liter pack.

Banded packs. A banded pack promotion offers two, or rarely three, products banded together at a bundled price. A customer might be offered a banded pack of shaving gel and aftershave balm.

Free premiums. A free premium is a gift to the customer. The gift may be offered at the point-of-purchase, in packaging, or require the customer to mail, email, text or phone in a request. Free premiums may also be offered electronically, for example buy a particular cell phone and download free ringtones or pay nothing to access voice mail.

Cross promotions. These occur when two of more non-competing brands create a mutual promotion. A proof-of-purchase from a theater entitles the patron to a 25% discount on a restaurant meal, and vice versa.

Lotteries. A lottery is a game of chance, not involving skill. Consumers are invited to purchase the product and be entered into a draw for a prize. Prizes are highly variable. They range from low-value items such as shopping vouchers to high-value prizes such as personal makeovers, exotic vacations and even fully furnished houses.

Competitions. Unlike a lottery, a competition requires skill or knowledge. The prizes are varied, as in the case of lotteries.

Buzz or word-of-mouth

A growing number of companies are trying to attract new customers through word-of-mouth (WOM) influence, also known as buzz. Word-of-mouth can be defined as follows:

> **Word-of-mouth is interpersonal communication about a product or organization in which the receiver assumes the communicator to independent of commercial influence.**

WOM has been shown to influence receivers' knowledge, emotions, intentions and behaviors, and because of its apparent separation from commercial influence is regarded as independent and trustworthy.[14] Brands such as Amazon, YouTube and Krispy Kreme owe much of their success to WOM. Marketers can promote WOM by identifying and sponsoring opinion formers such as radio show hosts or bloggers. Giving people something to talk about is a high priority for buzz marketers – this includes ads, slogans and product innovations that are high in conversational value and capture people's attention and interest.

A number of agencies, such as Buzzador, Soup, and Fizz now offer WOM marketing services. Typically, they maintain a panel of members who agree to sample new products, share them with friends, talk about them and post pictures and stories in social media. Brand owners contract these agencies to kick-start WOM. Sometimes, brand owners take a simple multiplicative approach to computing the effects of a WOM marketing (WOMM) campaign. They assume that if 200 campaign participants each tell 15 people and each of those tells a further 5 people, then the campaign has reached 15,000 people. However, there is evidence that transitivity of social ties constrains campaign reach. The more ties there are between members of a social network, the more transitive it is. Groeger and Buttle found that these assumptions can overestimate campaign reach by over 57%.[15]

Social media

Although we discussed social media in our earlier discussion of B2B prospecting, it is in the B2C context that social media are more widely used. Social media are Internet-based applications that allow the creation and exchange of user-generated content. There are a host of

social media platforms aimed at individual consumers – Facebook, Twitter, Flickr, Instagram, YouTube and Tumblr, to name a few.

Companies can develop a page or create a channel that prospective customers can visit. Engaging, interactive content may motivate visitors to spend time on the page, raising awareness and eventually leading to trial purchase. Some companies offer valuable downloads to visitors – apps, offers or vouchers, for example. Companies can also use social media as an advertising medium. Facebook ads, for example, can be targeted by location, age, gender and behaviors. Technology, in the form of social CRM applications, can be used to search social media for references to competitors' brands, and then join the conversation. Established customers may become fans and benefit from receiving up-to-date news feeds about the company and its products, passing on their enthusiasm in "likes" and "shares" to friends in their social network, thereby generating new customers for the brand.

It is sometimes suggested that encouraging key influencers in social media to promote a brand message into their social networks can be extremely powerful. The thinking is that you identify and build relationships with a small number of influential people who have a following of hundreds of thousands who in turn influence millions. This would be a highly concentrated social media campaign and highly cost effective. While intuitively appealing, few firms have the data and capabilities required to map complex social networks to identify the key individuals and then track the subsequent cascading of influence. Some firms therefore

CASE ILLUSTRATION 3.1

INNOCENT DRINKS – CUSTOMER ACQUISITION THROUGH SOCIAL MEDIA

innocent Drinks is a Dublin-based fruit juice and smoothie brand. innocent decided not to be on every social media platform, but to select the right platforms for its consumer demographic and then to build a strong interactive community, which through likes and shares, would spread word-of-mouth about the brand, encouraging friends to try innocent. innocent's social media platforms include Facebook, Twitter, YouTube, Flickr, Instagram and Pinterest. The brand's Facebook page has about 80,000 likes. innocent gives 10% of its profits to charity, including the innocent foundation that supports sustainable agriculture projects, and emergency relief.

pay celebrities to endorse their products in social media; Calvin Klein used Justin Bieber to launch an underwear collection in 2015. The launch video has been viewed 10 million times on YouTube; Bieber also has over 100 million followers on Twitter who saw his Calvin Klein content, many of whom retweeted it to their own followers. A Marketing Science Institute report suggests that rather than targeting key influencers in social media, identifying a company's revenue leaders – its most profitable customers – can produce a similar effect.[16] The MSI report finds that people with similar characteristics tend to form close friendships (a phenomenon known as homophily) and hence a customer whose needs and wants are satisfied by your offer will tend to associate with others whose needs and wants could be satisfied by your offer.

Merchandising

Merchandising can be defined as follows:

> **Merchandising is any behavior-triggering stimulus or pattern of stimuli other than personal selling that takes place at retail or other points-of-sale.**

Merchandising is designed to influence behavior in-store or at other points of sale such as restaurants, banks or gas stations. Merchandisers have available a large number of techniques. These include retail floor plans, shelf-space positioning, special displays, window displays and point-of-sale print. Some forms of merchandising are particularly useful for generating new customers, for example money-off signs, "as-used-by" and "as advertised" signs. Related item displays place two or more related items together, for example toppings next to ice cream or dressings next to salads. Sales of one category assist sales of the other. Eye-level positions on shelves are generally more productive than "reach" or "stoop" positions. If merchandisers can position new products in these preferred positions sales will be positively influenced.

A growing percentage of shoppers use their cell-phones in-store, particularly for research, product reviews and price comparisons of big-ticket items.[17] This means that relevant in-store messaging and offers can be communicated to shoppers by SMS or MMS as they are in the process of making a buying decision.

Technology is becoming an important influence on customer experience at point-of-sale. For example, the department store Bergdorf Goodman has installed interactive mirrors in-store. Shoppers pose in front of the mirror, which doubles as a computer screen. The mirror switches to screen mode and morphs the customer's image to show what the shopper would look like in a particular dress, jewelry or cosmetic product. This technology reduces risk for the customer and replicates try-before-you-buy.[18]

Other tools for B2C customer acquisition

As mentioned earlier in the section on B2B customer acquisition, B2C companies can also use referral schemes, promotions such as consumer exhibitions, publicity, telemarketing, email and canvassing to generate new customers.

Some companies believe that delighted, or even completely satisfied customers, will naturally speak well of the company. Eismann, the German frozen food manufacturer, estimates that 30% of its new customers are recruited by **referrals** from satisfied customers.[19] Research suggests that customers gained thought his type of organic referral are somewhat more valuable

Figure 3.3 Samsung merchandising

than those recruited through advertising/promotion, partly because they themselves recommend more but mainly because they are retained longer.[20] Despite high levels of naturally occurring referral, companies may still choose to develop a customer referral scheme (CRS). CRSs are also known as member-get-member (MGM) and recommend-a-friend (RAF) schemes. These work by inviting existing customers to recommend a friend and rewarding the recommender with a gift. It is important to choose the right customer and the right time to invite a referral. Broadly, schemes are more effective when targeted at a relevant section of the customer base, for example customers who are satisfied or customers who have just experienced excellent service. For example, companies offering roadside assistance to stranded motorists will ask for a referral when the vehicle is repaired and the customer's anxiety levels reduced.[21] Research suggests that incentivized referral schemes can generate more referrals than organic word-of-mouth.[22]

Lexus, the automobile manufacturer, invites up to 300 potential buyers to stylish **events** such as dinner-and-theatre shows or dinner-and-concert performances. The Lexus vehicles are on display. Also invited are current Lexus owners who sit among the prospects and talk to them. Lexus knows from customer satisfaction surveys which customers to invite. It is a very soft sell. Current owners receive no direct reward for participation other than the opportunity to enjoy the event itself.

Fashion retailers will organize fashion **shows** for current customers who are invited to bring along a friend who might be interested. Party plans have been popular for many years. Distributors of products such as Tupperware and Avon cosmetics organize parties in their own homes. They invite friends and neighbors along. Refreshments are offered, and products are exhibited and demonstrated.

Free **publicity** such as that obtained by Richard Branson, founder of the Virgin Group of companies, enables many companies to spend less than major competitors on advertising. Branson excels at gaining publicity. When Virgin cola was launched in the US, he hired a tank to roll into Times Square and take a "shot" at Coca-Cola's illuminated advertising sign. All the TV networks were invited to film the stunt, as were representatives of the press. A huge amount of free publicity was achieved as the brand sought to build its customer base.

Figure 3.4 Richard Branson launches the Virgin Bride retail venture

Telemarketing and **cold canvassing** to people's homes is a contentious issue. Many customers feel that these methods are too intrusive, and in some countries privacy regulations prevent companies from engaging in these practices. For example, in Australia, people can register their landline and mobile telephone numbers on a "Do Not Call" register. In some other countries, regulation is less restrictive, and some industries, for example telecoms and utilities, still use both telemarketing and door-to-door canvassing for lead generation. Outbound telemarketing can then be used for lead qualification. Selling door-to-door to well-targeted prospects is a different matter. Fuller Brushes and Prudential Insurance have a long tradition of door-to-door selling.

SMS messaging is also used for customer acquisition. Because it is text and not voice, it does not have to be "answered" in the traditional sense. SMS has been used very successfully for local bar and club promotions, among Generation Y and Millennial consumers. As the medium is so immediate, offers can be switched on at the last minute for highly perishable cinema and retail offers. As mobile devices become more popular, so will the distribution of messaging in text, audio and video formats, which will be increasingly targeted to the prospects' known profiles.

Email is also useful for B2C customer acquisition programs. Over 95% of people having Internet access at home use it for email, often on a daily basis.[23] In the UK, organizations such as Dell Computers, Barclays Bank, Comic Relief and Epson Printers have used email to

acquire new customers. The same benefits and reservations outlined in the earlier discussion of email also apply in the B2C context.

Product placement and **product integration** are also used for new customer acquisition. Product placement involves arranging for products to be shown on display or in use in TV, movies, videogames, music videos and other digital productions. There is no explicit promotion of the product. It is simply seen in the production. Actors may use the product, or it may just be a background prop. There are three different compensation models for product placement. First, and commercially most important, a company can pay for placement. Second, the product is donated in exchange for its appearance in the production – a form of barter. Third, the product is donated to the production company to strengthen the storyline or build character but is returned afterwards. A particular form of placement is product integration. This occurs where a product is integral to the story line. Companies can pay considerable sums for their products to appear in movies. In the US alone, the world's biggest product placement market, the value of product placement was estimated at over $6 billion in 2014 and was forecast to rise to over $11 billion by 2019.[24] Over half of product placements are food and beverage, health and beauty, and household brands.[25]

Pitchers or pitchmen approach prospective customers and ask them to buy a product. Pitching is a well-known practice in street trading but has now been extended into other forms of retail. For example, pitchers will approach dancers in a club and ask them if they've tried a new drink, then suggest that they buy some. Pitchers generally are expected to act as if they are unpaid advocates, therefore simulating genuine word-of-mouth.

MAKING THE RIGHT OFFER

In addition to carefully targeting new customers for acquisition, companies need to consider what offer they will make.

Some industries are consistent in their use of entry-level products for customer acquisition. Insurance companies use automobile insurance to acquire new retail customers. Most developed countries require drivers to be insured to at least third party level. Since insurance expires annually, it offers the prospect of repeat purchase. Generally, auto premiums are highly discounted and offer little or no margin to the insurer. However, auto insurance does give the company at least one year in which to cross-sell additional insurance products – home and contents insurance, travel insurance, health insurance, mortgage protection insurance and so on. Churn rates on auto insurance can be as high as 50%, giving average customer tenure of only two years. This is the period that insurers have to make the cross-sales. Banks will often use relatively high interest rates on deposit accounts, or relatively low charges on credit cards to attract new customers. Supermarkets price high demand, frequently purchased items such as bread as loss leaders in order to build store traffic.

Analysis of customer buying behavior may reveal a pattern in first purchases. Perhaps telecommunications customers buy a basic calls-and-text plan first, before adding in data. Perhaps an accountancy firm's clients use its tax-preparation service first before buying investment advice. Online businesses may assume a simple click-browse-buy pattern to customer behavior, but very often customers do not buy after browsing. Companies are advised to do research and discover why browsing does not lead to purchase. Research may show that

shopping carts are abandoned before payment. Cart abandonment has many possible causes: unexpected cost, concern that a better price is available elsewhere, fear about payment security, unavailability of PayPal or other preferred payment options, purchases priced in foreign currency, payment declined, website crashed or timed out, unsuitable delivery options, or discontent with the overall shopping experience. Some of these issues can be resolved. Marketers can reduce perceived risk associated with first purchases by offering unconditional money-back guarantees, price-matching or product-replacement offers.

The "right" offer might also be influenced by the geographic location or browsing behavior of the consumer. Mobile phones provide data on the geographic location of the phone. Location-relevant offers can be directed to the user, for example, special offers at a local supermarket. Browsers to Amazon.com may be offered products from previously browsed but unbought categories.

KEY PERFORMANCE INDICATORS OF CUSTOMER ACQUISITION PROGRAMS

CRM practitioners are concerned with three key performance indicators (KPIs) for these customer acquisition activities:

1   How many customers are acquired?

2   What is the cost per acquired customer?

3   What is the value of the acquired customer over the longer term?

The ideal result would be a low-cost program that generates lots of highly valuable customers.

Some customer acquisition programs may require major capital investment, as well as marketing expense. A supermarket operator may build new stores to increase geographic coverage. A financial services institution may invest in IT infrastructure for a new online channel. A manufacturer of automotive parts may build a new factory close to auto-assembly plants.

Customer referral schemes are very cost-effective methods for acquiring customers. They cost little to operate but they also generate few new customers. However, the customers generated by these schemes tend to more loyal (less likely to churn) and higher spenders. Advertising can generate a lot of enquiries, but these may be very low quality prospects, with low conversion rates into first-time customers, and, ultimately low customer value. This is particularly true if the advertising is poorly targeted. Customers won by a sales promotion may be deal-prone. In other words, they are not acquired for the long term, but switch whenever there is a better opportunity.

Companies can compare the relative costs of customer acquisition per channel before deciding how to spend their acquisition dollars. For example, a telecommunications company reports that it costs £52 to win a new customer through its recommend-a-friend program, compared with an average of £100 and an advertising-generated cost of £200.[26] The costs of acquiring new customers online are variable over time and across categories. Amazon claimed

it was costing them $29 to acquire each new customer[27]; credit card operators thought it cost $50 to $75, and mortgage customers cost $100 to $250 to acquire.[28]

Companies have a choice of acquiring new customers through relatively costly but fast-acting marketing investments or through slower but low- or zero-cost WOM processes. Julian Villanueva and colleagues have researched the effects of marketing-induced customer acquisition versus word-of-mouth customer acquisition on firm performance. Using data from an Internet firm that provided free web-hosting to registered users during a 70-week-long observation period, they found that customers acquired through WOM were themselves productive at generating new customers though their own WOM. They also generated more WOM activity than those acquired by marketing-induced channels. Each customer acquired through marketing was expected to bring around 1.59 new customers throughout his or her lifetime, while a customer acquired through WOM was expected to bring 3.23 customers (including self).[29]

Customer acquisition costs are exclusively incurred during implementation of a firm's customer acquisition strategy, and not experienced again at any other stage in a customer's tenure. The costs might include prospecting costs, advertising production costs, media costs, commissions to salespeople, collateral materials, sales promotion costs, credit referencing, database costs, and the salaries and wages of staff charged with customer acquisition. Many sales managers incentivize their salespeople to find new customers. These incentives, whether cash or merchandise or some other reward, are also a cost of acquisition.

OPERATIONAL CRM TOOLS THAT HELP CUSTOMER ACQUISITION

A number of CRM tools help in the customer acquisition process, including lead management, campaign management and event-based marketing applications. We cover these in more detail in Chapters 8 and 9, but introduce them here.

Lead management

CRM software helps companies to manage the selling process. An important part of that process is lead management. There are hundreds of different lead management software vendors. Many of these enable the recommended lead management practices of published sales methodologies to be implemented, among them the CustomerCentric Selling, Miller Heiman, and Solution Selling methodologies.

The lead management process includes a number of sub-processes, including lead generation, lead qualification, lead allocation, lead nurturing and lead tracking.

Businesses need to develop and apply rules around these processes. For example: who is responsible for creating the database record of inbound customer enquiries? How will leads be qualified? What principles will govern the allocation of leads to salespeople for follow-up? An example of a simple business rule associated with lead management is: "All enquiries will be maintained on the database for a minimum of three years." However, business rules can be considerably more complex. Consider the lead-allocation rule. Sales teams may be organized around geography (North America, Europe, Asia-Pacific), by industry vertical

(automobile, telecommunications), or in some kind of matrix structure. Sales people may vary in their relationship management skills, seniority, experience, language expertise and product knowledge. All of this can mean that businesses develop complex rules around lead allocation. CRM software contains workflow that enables business rules to be defined and actioned.

We have discussed lead generation earlier in this chapter. Lead qualification processes prioritize leads so that a company can invest its selling and marketing resources where they generate the best returns. High-value leads, also called strategically significant leads, are those that will produce high margins, buy in quantity, have a higher likelihood for repeat sales, generate high levels of positive word-of-mouth due customer satisfaction, and are relatively easy to close because they are not committed to current suppliers.

Other important questions for lead qualification are: Does our product or service solve a customer problem? What is the timeframe for the prospect's purchase decision? Does the prospect have authority to buy? Authority to buy may be vested in a named individual, a decision-making unit composed of a group of employees, a group composed of internal employees and external advisor(s), or in some rare cases, an external individual or group. Can the prospect pay? Ability to pay covers both cash and credit. The ability to pay of prospective customers can be assessed by subscribing to credit rating services such as Dun & Bradstreet, and Standard & Poor's. Being a well-known name is no guarantee that a prospect is credit-worthy, as suppliers to Lehman Brothers, the global financial services firm, found out when the company declared bankruptcy in 2008, precipitating the global financial crisis.

CRM software applications allow prospects to be scored against these and other relevant criteria. Higher ranked prospects are then allocated to salespeople. Lead allocation rules ensure that leads are routed to the right salesperson, as described above. Lead nurturing processes ensure that leads receive levels of service and support that help build and maintain trust and confidence prior to becoming buyers. Lead tracking processes trace the conversion of prospects into customers. Lead management software generally allows salespeople to customize their interactions by applying workflow rules that vary according to prospect attributes such as company size and level of qualification. Sales reps may want to reject leads, further qualify them, re-define (convert) them as opportunities, or take other actions as required.

Successful lead management programs are supported by standard reporting and analytics. Sales managers want to know which lead generation programs generate high conversion rates and/or high revenues, which leads are costly to convert, and which territories and account teams have the greatest success at lead generation and conversion.

Campaign management

Campaign management software is widely deployed in B2C environments and increasingly in B2B environments for new customer acquisition. Campaign managers design, execute and measure marketing campaigns with the support of CRM technologies. Campaigns can be single medium, multi-media, or omni-media using direct mail, email, social media, outbound telephony and SMS platforms. The technology assists in selecting and grouping potential campaign targets, communicating the offer, measuring campaign results, and learning from the results how to produce more effective and efficient campaigns in the future.

Campaign management software not only enables companies to manage and execute automated and personalized campaigns, generating leads for sales follow-up, but also to generate, segment and manage contact lists, while simultaneously complying with privacy legislation.

Experimentation is a common feature of campaign management. Experiments can be performed on different messaging strategies or subsets of customers or prospects. For example, different cells of the recency-frequency-monetary value (RFM) matrix can be treated to different offers in order to develop an understanding of the propensities-to-buy of different customer groups. If the results were to show that women aged 15–25 were particularly responsive to a health-and-beauty bundled offer, you could search for prospects matching that profile, or buy additional lists to target.

Event-based marketing

Event-based marketing (EBM) is also used to generate new customers. EBM provides companies with opportunities to approach prospects at times that have a higher probability of making a sale.

In retail banking, an event such as a large deposit into a savings account might trigger an approach from the bank's investment division. A name change might trigger an approach from a financial planner.

Many B2C companies can link purchasing to life stage events. For example, finance companies target mortgages at newlyweds and empty nesters whose children have left home. Clothing retailers target different offerings at customers as they age: branded fashion clothing at single employed females; baby clothes for new mothers and so on. If you can associate purchasing with particular life-stage events you'll be well placed to target your customer acquisition efforts.

Public events such as interest rate falls or hikes, tax law changes, and weather events or competitive events such as new product launches might signal an EBM opportunity. For example, an insurance company might launch a health insurance campaign following announcements in the press of an upcoming influenza epidemic.

Support from CRM reporting and analytics

Clearly, these operational CRM tools have to be supported by sound customer insight to ensure that the right offer is made to the right prospect through the right channel at the right time.

Most CRM tools have standardized reports built in. However, sometimes the insights provided by standard reports may not meet user requirements. In this case, more advanced *ad hoc* analytics may be required. It is often possible to query current customer-related databases for clues to guide customer acquisition. Supermarket operators can mine transactional data to provide insight into the baskets of goods that customers buy. If you were to find that 60% of customers buying frozen apple pies also bought premixed custard, you might think it worthwhile targeting the other 40% with an offer. A bank wanting to generate new customers for its savings account can develop a model predicting propensity-to-buy based upon current product ownership. In the B2B environment, salespeople may have entered data about prospects' satisfaction with competitors' offerings into their sales call records. Those who are less satisfied will likely show a higher propensity to switch and may be worth targeting with an offer.

CASE ILLUSTRATION 3.2

BONOBOS USES PREDICTIVE ANALYTICS TO OPTIMIZE CUSTOMER ACQUISITION STRATEGY[30]

Bonobos is a US men's apparel brand. Bonobos is a data-driven, customer-focused retailer that recognizes the importance of making business decisions around customer lifetime value (CLV). Initially the marketing team had used Excel to compute CLV metrics, but as the company experienced rapid growth and its customer base grew substantially, this became prohibitively time-consuming and tedious and the analysis was not completed as frequently as the team would have liked.

Not having access to real-time CLV insights made it difficult for Bonobos to make agile decisions about customer acquisition. Bonobos then began to use analytics to compute the lifetime value of customers acquired through every marketing channel. This allows Bonobos to understand which acquisition channels are bringing in the most valuable customers and optimize their acquisition strategy accordingly.

For example, Bonobos discovered that its Guideshops, service-oriented stores that enable men to try on Bonobos clothing in person before ordering online, were bringing in customers with the highest CLV across all of its marketing channels. This insight encouraged Bonobos to expand its marketing efforts to support the Guideshops.

Bonobos also uses predictive analytics to identify their highest CLV customers as early as their first purchase. Bonobos then uses this information to ensure these highly valued customers get the attention they deserve. "Top customers" receive additional services, such as handwritten thank you notes from the Bonobos customer service team. Bonobos measured the impact of these notes on incremental revenue and repeat purchase rate, and saw a positive lift. Top customers also receive perks such as exclusive event invitations and early access to new merchandise.

Affiliation data can also be used to guide customer acquisition. Customers may be members or otherwise associated with a number of organizations: a university, a sports club or a charity. Affinity marketers recognize membership as an opportunity. Banks like MBNA have led the way in affinity marketing of credit cards. MBNA, the organization and the member all benefit from the arrangement. MBNA offers a credit card to members of the organization. The organization receives a fee for allowing the bank access to its member data. Members enjoy a specially branded card and excellent customer experience from the bank. Affinity groups include members of the World Wildlife Fund, fans of Manchester United and congregations of the Uniting Church.

CONCLUSION

Customer acquisition is the first issue that managers face as they attempt to build a profitable customer base. There are three major decisions to be made: which prospects to target; how to communicate with them; and what offer to communicate to them. New customers are of two kinds. They are either new to the product category, or new to the company. In principle, the

best prospects are those that have potential to become strategically significant customers, but any customer that generates value over and above their acquisition cost is a net contributor. Companies will certainly want to recruit new customers that generate more profit than they consume in acquisition and retention costs.

B2B prospects are generated in a number of ways, including customer referrals, interpersonal networks, online including social media, promotional activities such as exhibitions, trade shows and conferences, advertising, email and publicity, and canvassing and telemarketing.

New customers for consumer companies can be generated from much the same sources as B2B prospects, but much greater effort is put into advertising, social media, sales promotion, buzz or word-of-mouth marketing, and merchandising.

Operational CRM applications such as lead management, campaign management and event-based marketing are useful tools for customer acquisition. CRM analytics underpin the success of these applications. The transactional histories of current customers can be analyzed and the cost-effectiveness of different customer acquisition strategies can be computed. By analyzing customer data, companies are better informed about which prospects are most promising, and the offers to make. Predictive modeling can identify relationship-starter products, such as automotive insurance that is used to acquire customers in the personal insurance market. When sales have been made and the customer's permission to use their information has been obtained, other products can be cross-sold, turning acquisition into repeat purchase and subsequently into customer retention.

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MANAGING THE CUSTOMER JOURNEY

Customer retention and development

CHAPTER OBJECTIVES

By the end of this chapter, you will understand:

1. What is meant by the terms customer retention and customer development.
2. The economics of customer retention.
3. How to select which customers to target for retention.
4. The distinction between positive and negative customer retention strategies.
5. Several strategies for improving customer retention.
6. Several strategies for growing customer value.
7. CRM technologies that companies can use to grow customer value.
8. Why and how some customer relationships are terminated.

INTRODUCTION

In the last chapter, we explained that the customer journey (or life cycle) is a representation of the stages that customers go through in their relationship with a company, as seen from the company's perspective. The core stages in the customer journey are customer acquisition, customer retention and customer development. Previously, we explored customer acquisition. In this chapter, we turn to customer retention and development.

The major strategic purpose of CRM is to manage a company's relationships with customers throughout the customer journey, so that profit or other commercial objectives are achieved.

A customer retention strategy aims to keep valuable customers by reducing customer defections (churn), while a customer development strategy aims to increase the value of those retained customers to the company. Just as customer acquisition is focused on particular

prospects, retention and development also focus on particular customers. Focus is necessary because not all customers are worth retaining and not all customers have potential for development.

We will deal with the issue of retention first, before turning to development.

A number of important questions have to be answered when a company builds its customer retention strategy. Which customers will be targeted for retention? What customer retention strategies will be used? How will the customer retention performance be measured?

We believe that these issues need to be considered carefully and programmed into a properly resourced customer retention plan. Many companies, perhaps as many as six out of ten, have no explicit customer retention plan in place.[1] Most companies spend a majority of their time, energy and resources chasing new business, with 75% or more of marketing budgets being earmarked for new customer acquisition.[2]

WHAT IS CUSTOMER RETENTION?

Customer retention is the maintenance of continuous trading relationships with customers over the long term. Customer retention is the mirror image of customer defection or churn. High retention is equivalent to low defection.[3]

Conventionally, customer retention is defined as follows:[4]

> **Customer retention is the number of customers doing business with a firm at the end of a financial year expressed as percentage of those who were active customers at the beginning of the year.**

However, it should be made clear that the appropriate interval over which retention rate should be measured is not always one year. Rather, it depends on the customer repurchase cycle. Car insurance and magazine subscriptions are bought on an annual basis. Carpet tiles and cell phones are not. If the normal cell phone replacement cycle is three years, then retention rate is more meaningful if it is measured over three years instead of 12 months. An additional complexity is added when companies sell a range of products and services each with different repurchase cycles. Automobile dealers might sell cars, spare parts, fuel and service to a single customer. These products have different repurchase cycles that make it challenging for the dealer to have a whole-of-customer perspective on retention.

Sometimes companies are not clear about whether an individual customer has defected. This is because of the location of customer-related data, which might be retained in product silos, channel silos or functional silos.

- **Product silos.** Consider personal insurance. Insurance companies often have product-based information systems. Effectively, they regard an insurance policy as a customer. If the policy is renewed, the customer is regarded as retained. However, imagine a customer who shops around for a better price, but, after the policy has expired, returns to the original insurer. The insurer may take the new policy to mean a new customer has been gained, and an old customer has churned. They would be wrong.

- **Channel silos**. In the B2B context, independent office equipment dealers have formed co-operative buying groups to purchase at lower prices and experience other economies of scale. When a dealer stops buying direct from Brother Electronics, and joins a buying group, Brother's customer data may report a defection, but all that has happened is that the dealer has begun to buy through a different channel.[5] Telecoms companies acquire customers through many channels. Consider a customer who buys a 12-month mobile telecoms contract from a Verizon-owned retail outlet. Part way through the year Verizon launches a new pay-as-you-go product with no contractual obligation. The customer allows her current contract to expire, then buys the new pay-as-you-go product not from a Verizon outlet but from a supermarket. Verizon regards her as a lost customer because the contract was not renewed. They would be wrong.

- **Functional silos**. Customer-related data are often kept in functional silos that are not integrated to provide a whole-of-customer perspective. A customer might not have made a product purchase for several years and is therefore regarded as a churned customer on the sales database. However, the same customer might have several open queries or issues on the customer service database and is therefore regarded as still active.

The use of aggregates and averages in calculating customer retention rates can mask a true understanding of retention and defection. This is because customers differ in their sales, costs-to-serve and buying behaviors. It is not unusual for a small number of customers to account for a large proportion of company revenue. If you have 100 customers and lose 10 in the course of a year, your raw defection rate is 10%. But what if these customers account for 25% your company's sales? Is the true defection rate 25%? Consideration of profit makes the computation even more complex. If the same 10% of customers that defected produce 50% of your company's profits, is the true defection rate 50%?

What happens if the 10% of customers lost are at the other end of the sales and profit spectrum? In other words what if they buy very little and/or have a high cost-to-serve? It could be that the churned 10% contributes less than 5% of sales and actually generate a negative profit, i.e. they cost more to serve than they generate in margin. The loss of some customers might enhance the company's profit performance. It is not inconceivable that a company could retain 90% of its customers, 95% of its sales and 105% of its profit!

A solution to this problem is to consider three measures of customer retention:

- **Raw customer retention rate**. This is number of customers doing business with a firm at the end of a trading period expressed as percentage of those who were active customers at the beginning of the period.

- **Sales-adjusted retention rate.** This is the value of sales achieved from the retained customers expressed as a percentage of the sales achieved from all customers who were active at the beginning of the period.

- **Profit-adjusted retention rate**. This is the profit earned from the retained customers expressed as a percentage of the profit earned from all customers who were active at the beginning of the period.

A high raw customer retention rate does not always signal excellent customer retention performance. This is because customer defection rates vary across cohorts of customers. Defection rates tend to be higher for newer customers than longer tenure customers. Over time, as seller and buyer demonstrate commitment, trust grows and it becomes progressively more difficult to break the relationship.[6] Successful customer acquisition programs could produce the effect of a high customer defection rate, simply because newly acquired customers are often more likely to defect.

A high sales-adjusted customer retention rate also needs some qualification. Consider a corporate customer purchasing office equipment. The customer's business is expanding fast. It bought 30 servers last year, 20 sourced from its main supplier. This year it bought 50 but only 30 were from the same supplier. From that supplier's point-of-view it has grown income by 50%, which it might regard as an excellent achievement. However, in a relative sense, its share of customer purchases has fallen from 67% (20/30) to 60% (30/50). How should it regard this customer? The customer is clearly a retained customer in a "raw" sense, has grown in absolute value, but fallen in relative value. Consider also a retail bank customer who maintains a savings account, but during the course of a year transfers all but a few dollars of her savings to a different institution in pursuit of a better interest rate. This customer is technically still active, but significantly less valuable to the bank.

Managing customer retention or value retention?

The discussion above indicates that companies should focus on retaining customers that contribute value. Sometimes this will mean that the focus is not on retention of customers, *per se*, but on retention of share of wallet. In the banking industry, for example, it may be more important for companies to focus on managing the overall downward trend in customer balances than customer retention. Changes in buying behavior may be responsible for greater changes in customer value than defection. One bank, for example, lost 3% of its total balances when 5% of checking account customers defected in a year, but lost 24% of its total balances when 35% of customers reduced the amounts deposited in their checking accounts. The need to manage migration rather than defection is particularly true when customers engage in portfolio purchasing by transacting with more than one supplier.[7]

In conceptualizing retention in terms of value, it is also important to note that customers are worth more than money, particularly in B2B. Longstanding ties with important, prestigious customers are a source of valuable learning, innovation and recommendation[8]. The ability to retain and work effectively with customers is a strong endorsement to prospective new customers.

Improving customer retention is therefore an important objective for most CRM strategies. Its definition and measurement need to be sensitive to the sales, profitability and value issues mentioned above. It is important to remember that the fundamental purpose of focusing CRM efforts on customer retention is to ensure that the company maintains relationships with value-creating customers. It may not be beneficial to maintain relationships with all customers. Some may be too costly to serve. Others may be strategic switchers constantly in search of a better deal. These can be value-destroyers, not value-creators.

ECONOMICS OF CUSTOMER RETENTION

There is a strong economic argument in favor of customer retention, which we first introduced in Chapter 2. The argument goes as follows:[9]

- **Increasing purchases as tenure grows**. Over time customers come to know their suppliers. Providing the relationship is satisfactory, trust grows while risk and uncertainty are reduced. Therefore, customers commit more of their spending to those suppliers with whom they have a proven and satisfactory relationship. Also, because suppliers develop deeper customer intimacy over time, they can enjoy better yields from their cross-selling efforts.

- **Lower customer management costs over time**. The relationship start-up costs that are incurred when a customer is acquired can be quite significant. It may take several years for enough profit to be earned from the relationship to recover those acquisition costs. For example, it can take six years to recover the costs of winning a new retail bank customer.[10] In the B2B context in particular, on-going relationship maintenance costs can be relatively low when compared to the costs of winning the account. Therefore, there is high probability that the account will become more profitable as tenure lengthens. These relationship maintenance costs may eventually be significantly reduced or even eliminated as the parties become closer over time. In the B2B context, once automated processes are in place, transaction costs are effectively eliminated, and portals largely transfer account service costs to the customer. In the B2C context, especially in retailing, the assertion that acquisition costs generally exceed retention costs is hard to prove. This is in part because it is very difficult to isolate and measure customer acquisition costs.[11]

- **Customer referrals**. Customers who willingly commit more of their purchases to a preferred supplier are generally more satisfied or engaged than customers who do not. They are therefore more likely to utter positive word-of-mouth (WOM) and influence the beliefs, feelings and behaviors of others. Research shows that customers who are frequent buyers are heavier referrers. For example, research suggests that online clothing customers who have bought once refer three other people; after ten purchases, they will have referred seven. In consumer electronics, the one-time customer refers four; the ten times customer refers thirteen. These referred customers may spend about 50% to 75% of the referrer's spending over the first three years of their relationship.[12] However, it is also likely that newly acquired customers, freshly enthused by their customer experience, would be powerful WOM advocates, perhaps more than longer-term customers who are more habituated.[13]

- **Premium prices**. Customers who are satisfied in their relationship may reward their suppliers by paying higher prices. This is because they get their sense of value from more than price alone. Customers in an established relationship are also likely to be less responsive to price appeals offered by competitors. There is strong empirical evidence linking customer satisfaction to willingness-to-pay.[14]

These conditions mean that retained customers are generally more profitable than newly acquired customers. Drawing from their consulting experience, Dawkins and Reichheld report that a 5% increase in customer retention rate leads to an increase in the net present value of customers by between 25% and 95% across a wide range of industries including

credit cards, insurance brokerage, auto services and office building management.[15] In short, customer retention drives up customer lifetime value.

WHICH CUSTOMERS TO RETAIN?

Not all customers are worth retaining. The prime targets for a company's customer retention efforts should be those who have greatest strategic value to the company. These are the customers who have high CLV (customer lifetime value), or are otherwise strategically significant as high-volume customers, benchmarks, inspirations or door openers, as described in more detail at the end of Chapter 5.

Some companies prefer to focus their retention efforts on recently acquired customers. They often have greater future lifetime value potential than longer tenure customers. There is evidence that retention rates rise over time, so if defections can be prevented in the early stages of a relationship, there will be a pay-off in future revenue streams and profitability.[16] Another justification for focusing on recently acquired customers comes from research into service failures. When customers experience service failure, they may be more forgiving if they have a history of good service with the service provider. In other words, customers who have been recently acquired and let down are more likely to defect or reduce their spending than customers who have a satisfactory history with the supplier.[17]

There is also some evidence that the most valuable customers change over time. The UK retail organization, John Lewis Partnership, for example, has found that 50% of profits are produced by 5% of their customers, but that the composition of the 5% changes year on year. The company uses data from its loyalty program and credit card to identify the 5% and directs its retention efforts accordingly.[18]

The level of commitment between customer and firm will figure in the decision about which customers to retain. If the customer is highly committed, they will be relatively impervious to the appeals of competitors, and the company may not need to invest so much in their retention. On the other hand, if a company has highly significant customers who are not committed, they may want to invest considerable sums in their retention.

Retention efforts where there is portfolio purchasing can be very difficult. Should effort be directed at retaining the high-share customer with whom you have a profitable relationship, the medium-share customer from whom you might lose additional share to competitors or the low-share customer from whom there is considerable CLV potential? The answer will depend on the current value of the customer, the potential for growing that value, and the cost of maintaining and developing the relationship.

STRATEGIES FOR CUSTOMER RETENTION

Positive and negative retention strategies

An important distinction can be made between strategies that lock the customer in by penalizing their exit from a relationship, and strategies that reward a customer for remaining in a relationship. The former are generally considered negative customer retention strategies, and the latter positive.

Negative customer retention strategies impose high switching costs on customers, discouraging their defection. In a B2C context, mortgage companies have commonly recruited new

customers with attractive discounted interest rates. When the honeymoon period is over, these customers may want to switch to another provider, only to discover that they will be hit with early redemption and exit penalties. Non-financial barriers can be equally effective, such as having to recreate standing payments and direct debits when switching banks. Indeed, governments often regulate in such circumstances, for example enabling customers to retain their telephone number when switching service providers, or forcing banks to have a streamlined process for porting over all the direct debits/standing payments to the new account. In the B2B context, a customer may have agreed to purchase a given volume of raw material at a quoted price. Some way through the contract a lower cost supplier makes a better offer. The customer wants to switch but finds that there are penalty clauses in the contract. The new supplier is unwilling to buy the customer out of the contract by paying the penalties, so the customer remains with the current supplier.

Some customers find these switching costs are so high that they remain customers, though unwillingly. The danger for CRM practitioners is that negative customer retention strategies produce customers who feel trapped. They are likely to agitate to be freed from their obligations, taking up much management time. Also, they are likely to utter negative word-of-mouth; in today's social media environment it is easier than ever and can be very destructive, particularly if it goes viral. They are unlikely to do further business with that supplier. Companies that pursue these strategies argue that customers need to be aware of what they are buying and the contracts they sign. Lenders, for example, would argue that the total cost of ownership (TCO) of a mortgage should and does include early redemption costs.

When presented with dissatisfied customers complaining about high relationship exit (switching) costs, companies have a choice. They can either enforce the terms and conditions, or not. The latter path is more attractive when the customer is strategically significant, particularly if the company can make an offer that matches that of the prospective new supplier.

POSITIVE CUSTOMER RETENTION STRATEGIES

In the following sections, we look at a number of positive customer retention strategies, including building customer engagement, understanding and meeting customer expectations, adding customer-perceived value, and creating social and structural bonds.

Build customer engagement

A major contemporary strategy for improving customer retention is to build customer engagement. Various studies have suggested that customer satisfaction may not be enough to ensure customer longevity. For example, Reichheld reports that 65% to 85% of recently churned customers claimed to be satisfied with their previous suppliers.[19] Another study reports that one in ten customers who said they were completely satisfied, scoring ten out of ten on a customer satisfaction scale, defected to a rival brand the following year.[20] Having satisfied customers is increasingly no more than a basic requirement of being in the game. Today, many commentators are stressing the need for companies to lift levels of customer engagement instead of just focusing on customer satisfaction.

The concept of engagement has migrated into CRM from psychology and organizational behavior, where it was first explored in the context of the workplace – employee engagement.

Although there is still is no clear consensus on a definition of **customer** engagement,[21] engaged consumers are generally thought to have a higher intensity of participation in and connection to a brand or organization.[22] They feel a strong sense of connection to the organization or brand based on their experiences of the firm's offerings, activities and reputation.

Customer engagement can be thought of as a multi-dimensional construct composed of four elements: cognitive engagement, affective engagement, behavioral engagement and social engagement. The cognitive and affective elements reflect the experiences and feelings of customers, and the behavioral and social elements capture brand or organizational participation by consumers, beyond merely buying the firm's offerings. Consumers who are engaged do more than just buy. They may perform acts of "corporate citizenship," by being an active participant in a member-get-member referral scheme, publishing reviews of their customer experiences, participating in company research, attending events, viewing branded online content, registering for a newsletter, contributing to new product or service development, and participating in brand communities and user groups. Engaged customers are therefore likely to have many more touchpoints and activities connecting them to the brand.

Preliminary research indicates that engaged consumers can exhibit greater loyalty to brands than unengaged consumers,[23] and may develop such a close affinity to the brand that they become highly resistant to competitive influence. One report, for example, indicates that the rate of account closure at a bank was 37% lower for emotionally engaged customers than for rationally satisfied customers.[24]

CASE ILLUSTRATION 4.1

CUSTOMER ENGAGEMENT AT JETBLUE[25]

JetBlue is a USA-based airline founded by David Neeleman in 1999. The company employs 17 individuals in its social media department, has a Twitter feed with 1.8 million followers and a Facebook page with more than 880,000 "likes." Moreover, they have 200,000 potential passengers signed up for their cheap deals feed. JetBlue uses these mechanisms to communicate with and respond to customer issues more than to advertise. One time, a disgruntled flight attendant exited a parked JetBlue flight via the emergency slide causing a public relations issue for the company. To relieve the situation, the company made light of the episode in a blog. The first customer comment on the blog read, "I love you JetBlue." That customer is engaged. When snowstorms led to flight cancellations in 2014 JetBlue announced in its blog "Blue Tales" that

We will reach out to customers directly via provided contact information to assist in re-accommodating them on … new flights. We've also established a compensation plan to address the inconveniences our customers faced. The plan addresses those customers who experienced multiple cancellations, and offers TrueBlue points, credit toward a future JetBlue flight, and/or monetary reimbursement based on the level of impact.

Passengers posted comments to the blog, and JetBlue responded individually to each comment whether the comments were favorable or unfavorable.

Managers often try to build engagement by creating interactive relationships with consumers that get them more involved with and connected to their brand, as illustrated in Case illustration 4.1. Much of the interactivity is delivered through social media including blogs, Facebook pages and YouTube channels. LinkedIn's practice of sending weekly emails giving members a summary of "who viewed your profile" aims to keep members engaged even if they are not using the site in a way that generates revenues for its owners. Interactivity allows customers and suppliers to find out more about each. A recent development that lifts interactivity is gamification of brands.

Gamification

Gamification can be defined as follows:

Gamification is the use of game-like mechanics in non-game contexts.

At its heart is the idea that competition and play will build consumer engagement with the brand. The more engaged the gamer the more likely she is to remain an active consumer.

Understand and meet customer expectations

It is very difficult to build long-term relationships with customers if their needs, wants and expectations are not understood and well met. It is a fundamental principle of customer-centricity that companies should intimately understand customer requirements in order

CASE ILLUSTRATION 4.2

GAMIFICATION AT AIR CANADA LOYALTY PROGRAM[26]

In 2013, Air Canada breathed new life into the hackneyed world of airline loyalty programs. These typically involve collecting points redeemable for flights or other goods and services (hotels, car hire). All except the discount airlines offer some kind of loyalty program even though their value has been questioned.[3] Indeed, so prevalent is the practice that the major airlines have grouped into two consortia that recognize each other's collected miles: Star Alliance and One World. This highlights the questionable value of airlines having their own individual scheme: does it really generate loyalty to an airline or is it merely a generic promotion?

Air Canada's game offered 10 million Aeroplan Miles split among the top 25 players who collected badges for destinations achieved (on Air Canada flights of course). A leader-board was created and almost 60,000 loyalty cardholders registered to participate. Leader-boards added a competitive and social aspect to the airline's loyalty scheme, wheras badges give a more immediate sense of gratification and progress than monthly statements, all of which are considered valuable elements of games. Air Canada estimates its ROI on this game to be in excess of 500% represented as a significant increase in the number of flights flown by participants. It plans to continue gamification with its cardholders to create a more engaging and branded loyalty program.

to ensure their satisfaction and retention. Companies cannot hope to retain customers if they do not understand what those customers want and expect from them. Customer satisfaction occurs when customer expectations are met. If expectations are underperformed, then customers are likely to be dissatisfied, and may take all or some of their business to alternative suppliers. Consequently, it is very important for companies to set realistic expectations of what customers should expect, using criteria that are important for customers. Customer communications, online content and salesperson behaviors need to support the management of expectations; case studies of successful applications of a product may be helpful. Service level agreements (SLA) set out formally what customers and suppliers can expect from each other. Furthermore, once customers have bought it is important to ensure that what was promised has been delivered. It is generally accepted that it is better to under-promise and over-deliver than it is to over-promise and under-deliver.

What about customer delight?

But what if customer expectations are exceeded? It has been suggested that customer delight occurs when the customer's experience of doing business with a firm exceeds their expectation.[27]

A number of companies have explicitly adopted "Customer Delight" as their mission, including Audi Group, IHS (www.ihs.com), and, until recently, American Express and Kwik Fit, the auto service chain. One study found that nearly 90% of customer service center heads said their aim was to exceed customer expectations.[28] Others pay homage to the goal but do not organize to achieve it.

Delighting customers, or exceeding customer expectations, means going above and beyond what would normally satisfy the customer. This does not necessarily mean being world-class or best-in-class. It does mean being aware of what it usually takes to satisfy the customer and what it might take to delight or pleasantly surprise the customer. Firms cannot organize to delight the customer if they do not understand the customer's baseline expectations. A firm may stumble onto performance attributes that do delight the customer but cannot consistently expect to do so unless it has deep customer insight. Consistent efforts to delight a customer show commitment to the relationship.

Customer delight can be influenced in two ways: by managing expectations down or by managing performance up. In many commercial contexts, customer expectations exceed customer perceptions of performance. In other words, customers can find some cause for dissatisfaction. A cursory examination of traveler reviews on TripAdvisor shows this to be true! You might think that this would encourage companies to attempt to manage customer expectations down to levels that can be delivered consistently. However, competitors may well be improving their performance in an attempt to meet customer expectations. If your firm's strategy is to manage expectations down, you may well lose customers to a competitor that is lifting performance to meet customer expectations. This is particularly likely if you fail to meet customer expectations on important attributes.

Customers have expectations of many attributes, for example product quality, service responsiveness, price stability, and the physical appearance of people and vehicles. These attributes are unlikely to be equally important to customers. It is critical that businesses

meet customer expectations on attributes that are important to the customer. Online customers, for example, look for rapid and accurate order fulfilment, fair price, high levels of customer service and website functionality. Online retailers must meet these basic requirements. Dell Computers believes that customer retention is the outcome of its performance against three variables that are critical for customers: order fulfilment (on-time, in full, no error (OTIFNE)), product performance (frequency of problems encountered by customers) and after sales service (% of problems fixed first time by technicians). The comments in parentheses are the metrics that Dell uses. Customer research is critical if firms are to identify and understand the important attributes. Managers' intuitions about this might well be wrong.

Customer delight and satisfaction have been of keen interest to marketers for over 20 years, and there is strong evidence for their importance in customer retention. However, today's conversation tends to focus on customer experience, itself a very broadly defined concept,[29] and especially on the integration of multiple touchpoints to generate effective, efficient, enjoyable and consistent customer experiences.[30] The emphasis on customer experience anchored in touchpoint management also embraces Design Thinking, a systematic approach to creating customer centric-customer journeys.[31] You can read more about customer experience in Chapter 7.

Figure 4.1 identifies a number of priorities for improvement (PFIs) for a restaurant company. The PFIs are the attributes where customer satisfaction scores are low, but the attributes are important to customers. In the example, the PFIs are food quality and toilet cleanliness. There would be no advantage in investing in more helpful staff.
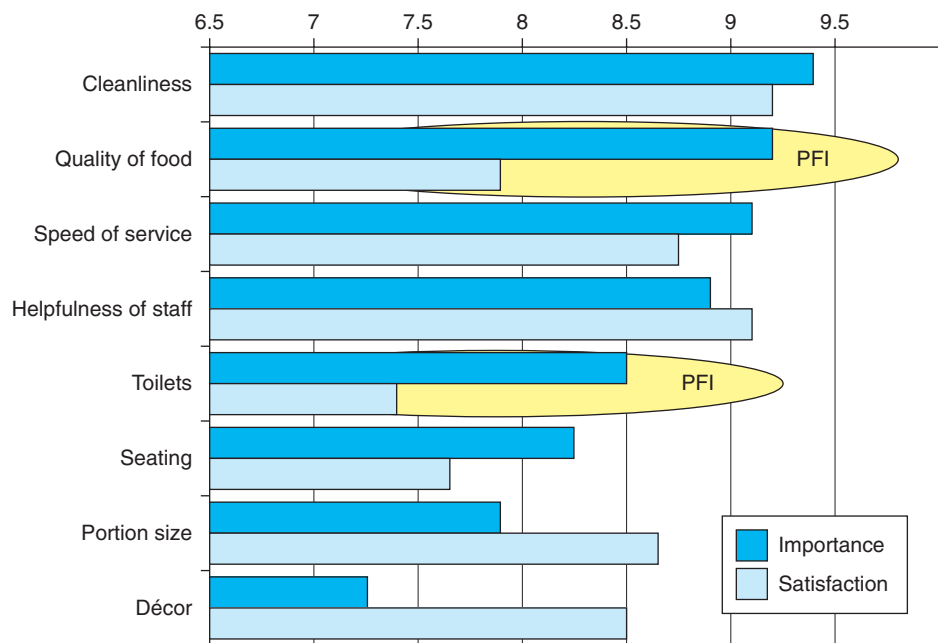

Figure 4.1 Using satisfaction and importance data to guide service improvement

Kano's customer delight model

Noriaki Kano has developed a product quality model that distinguishes between three forms of quality. Basic qualities are those that the customer routinely expects in a product. These expectations are often unexpressed until the product fails. For example, a car's engine should start first time every time, and the sunroof should not leak. The second form is linear quality. These are attributes of which the customer wants more, or less. For example, more comfort, better fuel economy and reduced noise levels. Marketing research can usually identify these requirements. Better performance on these attributes generates better customer satisfaction. The third form of quality is attractive quality. These are attributes that surprise, delight and excite customers. These attributes are latent and unarticulated, and are often difficult to identify in marketing research. As shown in Figure 4.2, Kano's analysis suggests that customers can be delighted in two ways: by enhancing linear qualities beyond expectations and by creating innovative attractive qualities.[32] Although Kano's model focuses on product quality it can equally apply to service firms.

Service companies might like to think about ways to increase attractive service quality – customer service actions that surprise and delight customers. Very often these are anticipatory rather than reactive service responses. For example, a company could alert a customer to the fact that an invoice is coming due in a week, rather than simply sending out an accurate invoice on the correct date; or use text alerts to advise customers when a delivery is due to be made; or thank a customer after a first purchase is made; or offer free advice on how to get the best out of an app. None of these is technically difficult, but many companies do not think creatively about how to enhance customer experience. One approach is to decompose the customer journey into various stages or episodes, and to run a detailed investigation of customer experience in each of those stages. One stage that all companies have is the customer on-boarding process. How can the customer experience at this stage be improved?
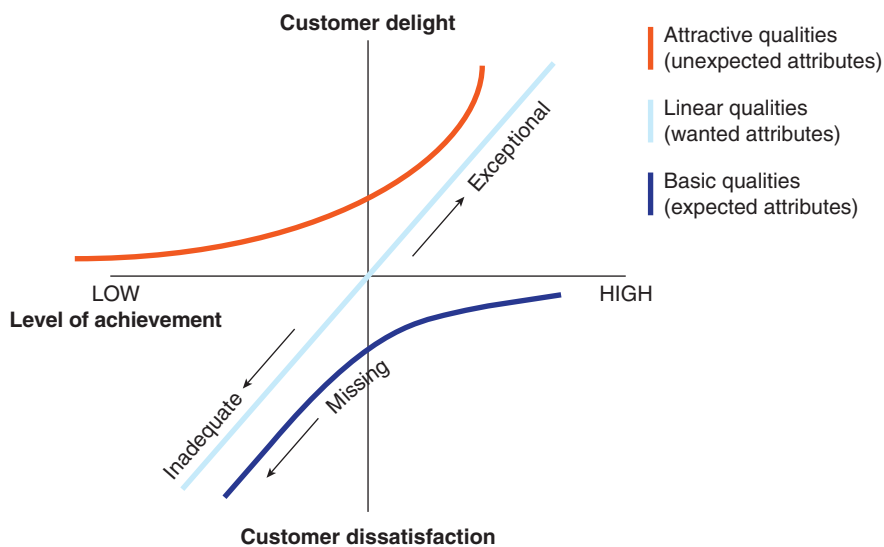

Figure 4.2 Kano's model for creating customer delight

Maybe the process can be speeded up (linear quality); maybe it can be done by automatically populating customer registration details from the customer's Facebook profile.

Critics of the customer delight principle suggest that "customer loyalty has a lot more to do with how companies deliver on their basic, even plain vanilla promises rather than on how dazzling the service may be," and that exceeding expectations makes only a marginal difference to loyalty.[33]

Companies sometimes complain that investing in customer delight is unproductive. As noted earlier, expectations generally increase as competitors strive to offer better value to customers. Over time, as customers experience delight, their expectations change. What was exceptional becomes the norm. In Kano's terms, what used to be an attractive attribute becomes a linear or basic attribute. It no longer delights. Delight decays into normal expectation, and companies have to look for new ways to pleasantly surprise customers. In a competitive environment, it makes little sense to resist the quest for customer delight if competitors will simple drive up expectations anyway.

Exceeding customer expectations need not be costly. For example, a sales representative could do a number of simple things for a customer, such as:

- Volunteer to collect and replace a faulty product rather than issuing a credit note and waiting for the normal call cycle to schedule a call on the customer.

- Offer fit-for-purpose, lower-cost solutions, even though that might reduce the seller's profit margin.

- Help monitor competitor activity in the customer's served market. A packaging sales rep, for example, might alert a fast-moving consumer goods manufacturer customer to upcoming new product launches by competitors.

Where service is delivered interactively, customer delight requires front-line employees to be trained, empowered and rewarded for exceeding customer expectations. It is in the interaction with customers that contact employees have the opportunity to discover and exceed those expectations. The service quality attributes of empathy and responsiveness are on show when employees successfully delight customers.

Some efforts to delight customers can go wrong. For example, sooner is not necessarily better. For example, if a retail store customer has requested delivery between 1pm and 3pm, and the driver arrives an hour early, the truck may clog up goods inwards and interfere with a carefully scheduled unload plan. Many contact centers play music while callers are waiting online. This is to divert the caller's attention and create the illusion of faster passage of time. However, the cycle time of the selected music must not be too fast, otherwise callers will be exposed to the same songs repeatedly. Also, the music needs to be appropriate to the context. Customers may not appreciate "I Can't Get No Satisfaction" by the Rolling Stones if they are waiting online to complain.

Add customer-perceived value

Companies can explore ways for customers to experience additional value as they buy and use products and services. The ideal is to enable additional value to be experienced by customers

without creating additional costs for the supplier. If costs are incurred then customers may be expected to contribute towards cost recovery. For example, an online customer community may be expected to generate a revenue stream from its membership.

There are three common forms of value-adding program: loyalty schemes, customer communities and sales promotions.

Loyalty schemes

Loyalty schemes reward customers for their patronage. Loyalty scheme or program can be defined as follows:

> **A loyalty scheme is a customer management program that offers delayed or immediate incremental rewards to customers for their cumulative patronage.**

The more a customer spends the higher the reward. Loyalty schemes have a long history. In 1844, the UK's Rochdale Pioneers developed a co-operative retailing operation that distributed surpluses (profits) back to members in the form of a dividend. The surpluses were proportional to customer spend. S&H Pink stamps and Green Shield stamps were collected in the 1950s and 1960s and redeemed for gifts selected from catalogs. In the 1970s, Southwest Airlines ran a "Sweetheart Stamps" program that enabled travelers to collect proofs of purchase and surrender them for a free flight for their partner.[34]

Today's CRM-enabled loyalty schemes owe their structure to the frequent flier programs (FFP) that started with American Airlines' Advantage program in 1981. The airline made a strategic decision to use its spare capacity as a resource to generate customer loyalty. Airlines are high fixed cost businesses. Costs do not change much, regardless of whether the load factor is 25% or 95%. American Airlines knew that filling the empty seats would have little impact on costs, but could impact significantly on future demand. The airline searched its reservation system, SABRE, for details of frequent fliers in order to offer them the reward of free flights.

This basic model has migrated from airlines into many other B2C sectors – hotels, restaurants, retail, car hire, gas stations and bookstores, for example. It has also transferred into B2B contexts with many suppliers offering loyalty rewards to long-term customers.

The mechanics of these schemes have changed over time. Initially, stamps were collected. The first card-based schemes were anonymous, i.e. they carried no personal data, not even the name of the participant. Then magnetic stripe cards were introduced, followed by chip-embedded cards that carried a lot of personal and transactional data. Now, some schemes use 'electronic cards' loaded onto members' smart phones. Innovators developed their own individual schemes. Eventually, these transformed into linked schemes, in which, for example, it was possible to collect air miles from various participating companies such as gas stations, credit cards and food retailers. Current schemes are massively different from the early programs. For example, Nectar is a consortium loyalty scheme operating in the UK, with 19 million cards in circulation. It is managed not by the participants, but by an independent third party. Its core retail participants are all numbers one or two in their respective markets. Points can also be earned from over 500 online retailers. Shoppers register in the scheme, then use their loyalty card to collect points that are redeemable in a wide range of retailers including supermarkets, catalog retailers, restaurants, hotels, cinemas, travel outlets and tourist attractions. They can even be donated to charities.
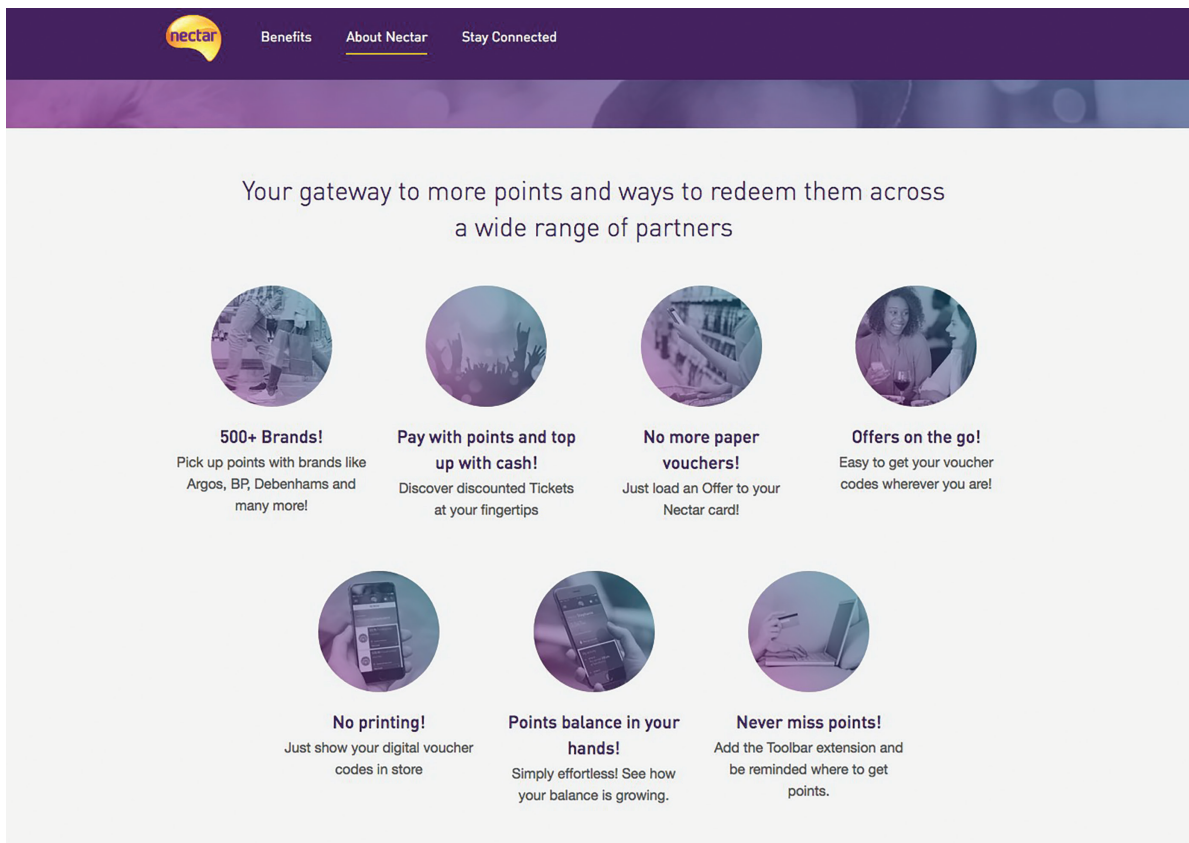
Figure 4.3 Nectar loyalty program

Loyalty programs provide added value to members at two points, during credit acquisition and at redemption. Although the credits have no material value until they are redeemed, they may deliver some pre-redemption psychological benefits to customers, such as a sense of belonging and of being valued, and an enjoyable anticipation of desirable future events. At the redemption stage, customers receive both psychological and material benefits. The reward acts to positively reinforce purchase behavior. It also demonstrates that the company appreciates its customers. This sense of being recognized as valued and important can enhance customers' overall sense of wellbeing and emotional engagement with the firm. However, customers can become loyal to the scheme rather than to the company or brand behind the scheme.[35]

Loyalty schemes are not without critics who question their cost and effectiveness. Certainly, they can be very expensive to establish and manage. In respect of operating costs, retail schemes typically reward customers with a cash rebate or vouchers equivalent to 1% of purchases. This comes straight out of the bottom line so a retailer that is making 5% margin loses one-fifth or 20% of its profit to fund the scheme. There may also be a significant investment in CRM technology to support the scheme, and marketing to launch and sustain the scheme. Supermarket operator Safeway dropped its UK loyalty program that had been costing about £30 million annually. Shell is reported to have spent up to £40 million to develop its smart

CASE ILLUSTRATION 4.3

BIG DATA ANALYTICS SUPPORT CRM AT CARREFOUR TAIWAN[36]

Hypermarket operator Carrefour runs a loyalty program in Taiwan, which was the first pilot country in the Carrefour Asia region. Carrefour introduced a loyalty card called the Hao Kang card, which offers multiple benefits to customers. Currently 65% of Taiwanese households have at least one Hao Kang card.

As customer numbers have kept growing year by year, the marketing budget has also tracked higher, but marketing campaign response rates had reached a point where further gains were very difficult and expensive to achieve. The management team believed conventional marketing campaigning had plateaued and made a commitment to develop data-driven marketing expertise. Carrefour took stock of its data assets, which included several years' loyalty card data, transactional data from point of sale, and additional internal data such as payment methods (including cash, Hao Kang card, co-branded or third party cards, loyalty points, coupons), in-store or online purchasing, campaign responses, store typology (city, urban, suburb, 24 hour), purchase frequency and time of purchase, and external data such as lifestyle (activities, interests, opinions) of customers. Carrefour worked with management consultancy Accenture on this transformation.

Customers are analyzed firstly through the lens of value contribution (profit), and then segmented by both value and lifestyle so that the CRM team can produce bi-weekly customer communications containing relevant customized offers. In addition, analytics and algorithms are used to get a better understanding of purchasing behaviors. For example, the CRM team has used unsupervised clustering algorithms to identify the premium customers who tend to buy higher-priced products across categories, and price-cautious customers who contribute negative margin by only buying lower-tier products when stores are in deep promotion. The CRM team has also developed several supervised logistic regression models and artificial neural networks. Among many other uses, Carrefour is now able to identify important customers who are at risk of churning and take appropriate actions to promote their retention.

card scheme.[37] Unredeemed credits represent liabilities for scheme operators. For example, it has been suggested that if all the unused air miles were redeemed on the same day it would take 600,000 Boeing 747s to meet the demand.[38]

Schemes are also criticized for their effectiveness.[39] Critics claim that schemes have become less distinctive and value-adding as many competitors now operate me-too programs. Indeed, it is very hard to find any hotel chain that does not have a loyalty program. Customers now expect to accumulate credits as part of the standard hotel value proposition. Many supermarket shoppers carry loyalty cards from more than one supermarket.[40] The customer's choice set when grocery shopping might include all suppliers with whom they have a card-based relationship.

One major concern is that loyalty schemes may not be creating loyalty at all. As explained in Chapter 2, loyalty takes two forms – attitudinal and behavioral. Attitudinal loyalty is reflected in positive affect towards the brand or supplier. Behavioral loyalty is reflected in purchasing behavior.[41] There is some longitudinal evidence about shifts in customer behavior after they join a loyalty scheme. One study found that retail shoppers who were heavy buyers when they

joined a loyalty program did not change their patronage behavior after joining. However, shoppers whose initial spending levels were low or moderate gradually became more behaviorally loyal to the firm, spending more of their shopping dollar at the franchise. For light buyers, the loyalty program encouraged shoppers to buy from additional categories, thus deepening their relationship with the franchise.[42] Meyer-Waarden studied the effects of three loyalty programs on retail customer behavior over three years. He found that program members had significantly higher purchase intensities in terms of total and average shopping basket spend, share of category purchases, purchase frequencies and inter-purchase times than non-members.[43]

Whether or not they develop customer loyalty, these schemes certainly reward buying behavior. Accumulated credits represent investments that the customer has made in the scheme or the brands behind the scheme. When customers get no return from this investment, they can be deeply distressed. Members of at least five airlines – Braniff, Midway, MGM Grand, Legend and Ansett – lost their air miles when their airlines folded. Members of Pan Am's FFP were fortunate to have their credits transferred into Delta Airlines when Pan Am stopped flying. Frequent fliers of Ansett forfeited their miles after the airline stopped flying in 2001. Passengers organized themselves into a group to lobby, ultimately unsuccessfully, for their loyalty to be recognized and rewarded by the company administrators, or prospective purchasers of the airline.

Additionally, loyalty schemes are successful enablers of customer insight. Personalized cards are obtained only after registration in the scheme during which the member surrenders much personal information. Then it becomes possible for scheme management to monitor transactional behavior. Chip-embedded smart cards carry the information on the card itself. A huge amount of data is generated that can be warehoused and subjected to data mining for insights into purchasing behavior. These insights can be used to guide marketing campaigns and offer development. Boots, for example, ran a series of controlled experiments mailing health and beauty offers to select groups of carefully profiled customers. It achieved 40% response rates in comparison to 5% from the control group. [44]

Customer clubs

Customer clubs have been established by many organizations. A customer club can be defined as follows:

> **A customer club is a company-run membership organization that offers a range of value-adding benefits exclusively to members.**

The initial costs of establishing a club can be quite high but thereafter most clubs are expected to cover their operating expenses and, preferably, return a profit. Research suggests that customer clubs are successful at promoting customer retention.[45]

To become a member and obtain benefits, clubs require customers to register. With these personal details, the company is able to begin interaction with customers, learn more about them, and develop customized offers and services for them. Customer clubs only succeed if members experience benefits that they value. Club managers can assemble and offer a range of value-adding services and products that, given the availability of customer data, can be personalized to segment or individual level. Among the more common benefits of club

membership are access to member-only products and services, alerts about upcoming new and improved products, discounts, magazines and special offers.

There are a huge number of customer clubs. One report estimates that there are "several hundred" in Germany alone.[46] B2C clubs include:

- Swatch the Club (www.swatch.com)
- The Harley Owners Group (HOG) (www.hog.com)
- The Subaru Owners Club (www.subaruownersclub.com)
- Nestlé's mother and baby club (www.nestlebaby.com).

There are over a million paid-up members of the Harley Owners Group that was established in 1983. They choose from four types of membership, and a variable membership length from one-year to lifetime. Among the many benefits are a membership manual, a touring handbook, a dedicated website, magazines, a mileage recognition program, a theft reward program, a safe riding skills program, a selection of pins and patches, chapter membership, invitations to events and rallies, and a lot more.

Sales promotions

Whereas loyalty schemes and clubs are relatively durable, sales promotions offer only temporary enhancements to customer-experienced value. Sales promotions, as we saw in the last chapter, can be used for customer acquisition too. Retention-oriented sales promotions encourage the customer to repeat purchase, so the form they take is different. Here are some examples.

In-pack or on-pack voucher. Customers buy the product and receive a voucher entitling them to a discount off one or more additional purchases.

Rebate or cash-back. Rebates are refunds that the customer receives after purchase. The value of the rebate can be adjusted in line with the quantity purchased, in order to reward customers that meet high-volume targets.

Patronage awards. Customers collect proofs-of-purchase, such as store receipts or barcodes from packaging, that are surrendered for cash or gifts. The greater the volume purchased the bigger the award.

Figure 4.4 Cash-back sales promotion

Free premium for continuous purchase. The customer collects several proofs-of-purchase and exchanges them for a free gift. Sometimes the gift might be part of a collectible series. For example, a manufacturer of preserves and jams developed a range of collectible enamel badges. This promotion was so popular that a secondary market was established so that collectors could trade and swap badges to obtain the full set.

Collection schemes. These are long-running schemes in which the customer collects items with every purchase. Kellogg's ran a promotion in which they inserted picture cards of carefully chosen sports stars into packets of cereals. Customers didn't know what card they had until they bought and opened the pack. These became collectible items.

Self-liquidating premium. A self-liquidating promotion is one that recovers its own direct costs. Typically, consumers are invited to collect proofs-of-purchase and surrender them together with a sum of money. This entitles the customer to buy a discounted premium such as a camera or gardening equipment. The promoter will have reached a deal with the suppliers of the premiums to buy in bulk at a discounted rate. Margins earned from the sale of product, plus the money paid by the consumer cover the costs of running the promotion that, as a consequence, becomes self-liquidating.

Bonding

The next positive customer retention strategy is customer bonding. B2B researchers have identified many different forms of bond between customers and suppliers, which can be classified as either social or structural.[47]

Social bonds

Social bonds are found in **positive interpersonal relationships** between people. Positive interpersonal relationships are characterized by high levels of trust and commitment. Successful interpersonal relationships may take time to evolve as uncertainty and distance are reduced. As the number of episodes linking customer and supplier grows, there is greater opportunity for social bonds to develop. Suppliers should understand that if they act opportunistically or fail to meet customer expectations, trust and confidence will be eroded.

Strong social bonds often emerge between employees in companies having similar sizes, cultures and locations. For example, small and medium-sized businesses generally prefer to do business with similar-sized companies, and Japanese companies prefer to do business with other Japanese companies. Geographic bonds emerge when companies in a trading area cooperate to support each other.

Social relationships between buyer and seller can be single-level or multi-level. A single-level relationship might exist between the supplier's account manager and the customer's procurement officer. The more layers there are between the companies, the more resistant the relationship is to breakdown, for example, when technical, quality and operations people talk to their equivalents on the other side.

Customers can become highly attached to a company's people. An emotional bond may be formed with an individual person, a work group or the generalized company as a whole. Customers may talk about "my banker" or "my mechanic" or "my builder." They feel a sense of

personal identification with that individual. Often, these are employees who "break the rules" or "go the extra mile." They are reliable, competent, empathic and responsive.

Social bonds characterized by trust generally precede the development of structural bonds. Mutual investments in business relationships serve as structural bonds. These structural bonds be formally recognized in an alliance or joint venture having legal status. Companies are unlikely to commit resources if there is a low level of trust in the partner's integrity and competence.

Structural bonds

Structural bonds are established when companies and customers commit resources to a relationship. Generally, these resources yield mutual benefits for the participants. For example, a joint customer–supplier quality team can work on improving quality compliance, benefiting both companies. Resources committed to a relationship may or may not be recoverable if the relationship breaks down. For example, investments made in training a customer's operatives are non-returnable. On the other hand, a chilled products manufacturer that has installed refrigerated space at a distributor's warehouse may be able to dismantle and retrieve it when the relationship breaks down.

A key feature of structural bonding is investment in adaptations to suit the other party. Suppliers can adapt any element of the offer – product, process, price, and inventory levels, for example – to suit the customer. Customers, on the other hand, also make adaptations. For example, they can adapt their manufacturing processes to accommodate a supplier's product or technology.

Power imbalances in relationships can produce asymmetric adaptations. A major multi-outlet retailer might force adaptations from small suppliers while making no concessions itself. For example, it could insist on a reduction in product costs, or co-branding of point-of-sale material, or even attempt to coerce the supplier not to supply competitors.

Different types of structural bond can be identified. All are characterized by an investment of one or both parties in the other:

- **Financial** bonds – where the seller offers a financial inducement to retain the customer. Insurance companies form financial bonds with customers by offering no-claims discounts, tenure related discounts and multi-policy discounts.

- **Legal** bonds – when there is a contract or common ownership linking the relational partners.

- **Equity** bonds – where both parties invest in order to develop an offer for customers. For example, the owners of airports invest in the shells of the duty-free retail outlets. The retailer invests in the internal fixtures and fittings.

- **Knowledge-based** bonds – when each party grows to know and understand the other's processes and structures, strengths and weaknesses.

- **Technological** bonds – when the technologies of the relational partners are aligned, for example, with Electronic Data Interchange (EDI), and just-in-time logistics and manufacturing.

- **Process** bonds – when processes of the two organizations are aligned. For example, the quality assurance program on the supplier side might be aligned with the quality

inspection program on the customer side. Some suppliers manage inventory levels for their customers, ensuring inventory levels are optimized. This is known as vendor managed inventory (VMI). The chemicals company Solvay Interox uses telemetry systems to perform VMI for its customers. These systems report inventory levels in storage vats and tanks and automate their replenishment.

- **Geographic** bonds exist when companies in a trading area – street, city region or country – create a referral network that supports all members of their group. In the UK, retailers in downtown Leamington Spa have combated out-of-town developments by creating a loyalty program, known as Spa'kle, in which customers can collect and redeem loyalty credits at any member store.

- **Project** bonds – when the partners are engaged in some special activity outside of their normal commercial arrangements, for example, a new product development project. There may be an exchange of resources to enable the desired outcome to be achieved, for example, an exchange of engineers and technologists between the companies.

- **Multi-product** bonds – when a customer buys several products from a supplier, the bond is more difficult to break. There are economies for customers when they deal with fewer suppliers. When a relationship with a supplier of several products is dissolved, the customer may incur significant transaction costs in identifying one or more replacements. Further, the level of perceived risk attached to a new relationship may become uncomfortable.

- **Values-based bonds**. Some companies are renowned for their strong values. Customers may develop a deep sense of emotional attachment when their personal values are aligned with those of the company. Values can be defined as follows:

Values are core beliefs that transcend context and serve to organize and direct attitudes and behaviors.

Customers have many and varied core beliefs such as sustainability, honesty, child protection, independence, family-centeredness and so on. Many of these values reflect cultural norms. Where these values coincide with those of an organization, the customer may develop a strong sense of emotional attachment to the organization. A number of companies benefit from values-based commitment, for example, Body Shop, Harley Davidson, and Virgin.

Body Shop International is a health and beauty retailer that is committed to the principle: "Enrich Not Exploit." The brand is against animal testing, supports fair trade, and strives to reduce its environmental footprint. Body Shop's core customers align themselves with these values and feel a strong sense of brand affinity. Body Shop has influenced other retailers to become more sensitive to these issues.

Harley Davidson, the US motorcycle manufacturer, has a phenomenally committed customer base. When Harley riders replace their bikes, 95% buy another Harley. The bike is a central part of a lifestyle that is grounded on fraternity,

independence and rebellion. Image is critical to the Harley rider. In the US, the average age of a Harley rider is 48 (up from 38 in the late 1980s), and a big challenge for Harley is to develop value propositions that appeal to a younger customer.[48]

The **Virgin Group** is a family of over 200 privately owned strategic business units ranging across airlines, rail, cosmetics, telecommunications, wines and financial services. The values of the Virgin brand are integrity, value-for-money, quality and fun. Virgin Group is chaired by its founder, the renegade but highly visible, Sir Richard Branson. Customers are attracted to the brand because of its reputation for fairness, simplicity and transparency. Customers trust the brand and rely on it in markets that are new to them. For example, Virgin was a late mover into the UK's index-linked mutual fund market place. It still managed to become market leader in 12 months despite having no history as a financial institution.

Just as customers can align themselves with brands consistent with their own values, it is equally true that they can reject opposing or incompatible brands. Companies that are accused of using child labor, damaging the environment or otherwise acting unethically have experienced customer rejection. Nestlé had been accused of marketing infant formula in African countries where the infrastructure made its use dangerous. Many babies died as mothers used unclean water and unsterilized equipment. This is estimated to have cost the company $40 million.[49] When BP's Deepwater Horizon oilrig exploded, claiming 11 lives and releasing 4.9 million barrels of crude oil into the Gulf of Mexico, consumers responded by boycotting BP's products. This resulted in a 52% fall in BP's share price in the 50 days following the catastrophe.[50] Research supports the claim that there is a hierarchical relationship from core values to attitudes to purchase intention and, ultimately, to purchase.[51]

CASE ILLUSTRATION 4.4

CUSTOMER RETENTION AT KOREA TELECOM

Korea Telecom places a high level of importance upon creating valuable relationships with customers, both business and consumer, in the telecommunications markets of South Korea and South East Asia.

The organization places significant emphasis on maintaining high retention rates in markets that are becoming increasingly competitive. Korea Telecom estimates that it costs around US$185 to gain a consumer for a broadband Internet service. It takes almost two years for the organization to recover these costs. Consequently, it uses a number of CRM strategies and tactics to retain customers including bundling together a number of services such as Internet, mobile and home phone at a discount to customers who enter into service contracts for at least two years.

Social bonds are generally easier to break than structural bonds. Structural bonds link organizations. Social bonds link people. If the account manager and procurement officer do not grow to trust each other, they may fall out, but this is unlikely to bring down a joint venture.

CONTEXT MAKES A DIFFERENCE

Context makes a difference to customer retention in two ways. First, there are some circumstances when customer acquisition makes more, indeed the only, sense as a strategic goal. Second, customer retention strategies will vary according to the environment in which the company competes.

When launching a new product or opening up a new market a company's focus has to be on customer acquisition. In contexts where there are one-off purchases such as funerals, or infrequent purchases such as heart surgery, customer retention is subordinate to acquisition.

The impact of contextual conditions on the choice and timing of customer retention practices has not been thoroughly researched. However, we have seen that a number of contextual considerations impact on customer retention practices:

- **Number of competitors**. In some industries, there is a notable lack of competitors, meaning that companies do not suffer badly from customer churn. This typically applies in state-provided services such as education and utilities such as gas, electricity, rail and telecommunications, whether deregulated or not. When customers are dissatisfied they have few or no competitors to turn to. Customers may also believe that the competitors in the market are not truly differentiated by their service standards. In other words, each supplier is as bad as the others. The result is inertia; customers do not churn.

- **Corporate culture**. In corporate banking, the short-term profit requirement of both management and shareholders has resulted in a lack of genuine commitment to relationship banking. Banks have been very opportunistic in their preference for transactional credit-based relationships with customers.[52]

- **Channel configuration**. Sellers may not have the opportunity to maintain direct relationships with the final buyers and users of their products. Instead, they may rely on their intermediaries. Caterpillar, for example, does not have a relationship with the contractors who use their equipment. Instead, it works in partnership with over 1500 independent dealers around the world to provide customer service, training, field support and inventories of spare parts. That said, technology is now making it possible for such suppliers to see the entire supply chain and we can foresee opportunities for blockchain technology in the supply chain that will enable companies such as Caterpillar to manage relationships down to the level of individual end user.

- **Purchasing practices**. The purchasing procedures adopted by buyers can also make the practice of customer retention futile. Customers do not always want relationships with their suppliers, as explained in Chapter 2.

- **Ownership expectations**. The demands of business owners can subordinate customer retention to other goals. For example, Korean office-equipment manufacturers are very focused on sales volumes. They require their wholly owned overseas distributors to buy quotas of product from Korea, and sell them in the served market regardless of whether

or not the products are well-matched to local market conditions and customer requirements. The distributors are put in a position of having to create demand against competitors that do a better job of understanding and meeting customer requirements.[53]

- **Ethical concerns**. Public sector medical service providers cannot simply focus on their most profitable (or lowest cost-to-serve) customers. This would result in the neglect of some patients and a failure to address other areas of disease management. Private sector providers do not necessarily face this problem. The Shouldice Hospital in Ontario specializes in hernia repairs. Their website (www.shouldice.com) reports that they repair 7000 hernias a year, with an "unparalleled" success rate. They even organize annual reunions attended by 1000 satisfied patients.

KEY PERFORMANCE INDICATORS OF CUSTOMER RETENTION PROGRAMS

CRM practitioners wanting to evaluate their customer retention strategies can identify a number of key performance indicators (KPIs) associated with strategic outcomes, processes and costs.

Outcome-related KPI's may include[54]: customer satisfaction, share of customer purchases (share of wallet), raw customer retention rate, sales-adjusted retention rate, profit-adjusted retention rate, customer churn rate per product category, sales region or channel, market share, customer equity and ROI. These outcome-related KPIs measure how well a customer retention strategy has performed.

It is also important to identify **process-related** KPIs. These are KPIs that measure how effectively the selected customer retention strategies are performing. For example, if your company has identified excellent after-sales service as a critical driver of customer retention, you would choose KPIs that measure the performance of that particular strategy. These might include measures related to service availability (number of hours service technicians are available), speed (time elapsed before issue is resolved to satisfaction of the customer), responsiveness (time taken for an initial response to a service issue), parts availability (number of times required parts are out-of-stock), and accuracy (correct first-time diagnosis of an issue).

Because the costs of implementing a customer retention strategy can be quite significant, it's also important for firms to develop **cost-related** KPIs and understand the cost to serve different customers. Recurrent direct costs may include software subscriptions, wages and salaries, space costs, parts costs, freight and travel costs.

A company's most valued customers are also likely to be very attractive to its competitors. If the costs of retaining customers become too great, then they might lose their status as 'strategically significant'.

THE ROLE OF RESEARCH IN REDUCING CHURN

Companies can reduce levels of customer churn by answering a number of questions:

1   Why are customers churning?
2   Are there any lead indicators of impending defection?
3   What can be done to address the root causes?

The first question can be answered by contacting and investigating a sample of former customers to find out why they took some or all of their business elsewhere.

Customers defect for all sort of reasons, not all of which can be foreseen, prevented or managed by a company. For example, Susan Keaveney identified eight causes of switching behaviors in the service industries: price, inconvenience, core service failures, failed employee responses to service failure, ethical problems, involuntary factors, competitive issues and service encounter failures.[55] User trials of new products, and beta testing of services can help companies eliminate some of the product and service reasons for customer churn. Communicating promises that cannot be delivered may drive churn; alternative messaging claims can be tested using tools such as Optimizely and Google Analytics experiments.

There may be industry-specific reasons for churn. One retail study, for example, found that between 20% and 25% of supermarket shoppers changed their primary store in a 12-month period. A total of 24% of switchers changed allegiance because a new competitive store had opened, 14% because they had moved home, 11% for better quality and 10% for better choice.[56]

The second question attempts to find out if customers give any early warning signals of impending defection. If these were identified the company could take pre-emptive action. Signals might include the following:

- Reduced RFM scores (recency–frequency–monetary value)
- Failure to log-in to a website
- Non-response to a carefully targeted offer
- Reduced levels of customer satisfaction
- Dissatisfaction with complaint handling
- Reduced share of customer spending
- Inbound calls for technical or product-related information
- Late payment of an invoice
- Querying an invoice
- Customer touchpoints are changed, e.g. store closes, change of website address
- Customer change of address.

CRM practitioners may be able develop business rules to respond to these events. For example, "if a customer has failed to log in for ten days, send a reminder email."

Customer researchers are advised to analyze the reasons for customer defection, and to identify the root causes.[57] Sometimes management can fix the problems causing churn. For example, if customers churn because of the time taken to deal with a complaint, management can audit and overhaul the complaints management process. This might involve identifying the channels and touchpoints through which complaints enter the business, introducing complaints-management software to ensure issues are resolved to the customer's satisfaction, or training and empowering frontline staff. Root causes can be analyzed by customer segment, channel, and product line. The 80:20 rule may be applicable. In other words, it may be possible to eliminate 80% of the causes of customer defections with relatively few changes and at reasonable cost.

STRATEGIES FOR CUSTOMER DEVELOPMENT

Customer development is the process of growing the value of retained customers. Companies generally attempt to cross-sell and up-sell products into the customer base while still having regard for the satisfaction of the customer. Cross-selling, which aims to grow share-of-wallet, can be defined as follows:

Cross-selling is selling additional products and/or services to an existing customer.

Up-selling can be defined as follows:

Up-selling is selling higher priced or higher margin products and/or services to an existing customer.

CASE ILLUSTRATION 4.5

CUSTOMER RESEARCH DRIVES UP CUSTOMER RETENTION AT ROYAL BANK OF SCOTLAND[58]

The global financial crisis of 2008 forced Royal Bank of Scotland (RBS) to change its strategy dramatically and focus on being more competitive. As part of this effort, it launched a customer charter in 2010 promising unprecedented commitment to customer service. Management picked critical customer journeys and identified the full list of services provided by the Bank at each stage of the journey. For each journey and stage of the journey (moment of truth), it monitored customer satisfaction (CSAT), Net Promoter Score (NPS) and the customer effort expended. The impact of CSAT with each journey upon customer retention and new business was estimated/measured through an extensive program of market research. The operational quality and costs of providing customer-specific services such as changing a customer's details or mailing a credit card was calculated using a method approximating activity-based costing. This gave the bank three vital pieces of data: the customer appreciation of each journey and stage of journey (NPS, CSAT), the quality of individual services (operational effectiveness) and their activity-based cost. The bank then focused its resources on improving those stages of each journey that matter most to CSAT/NPS by improving service operations where customers had to work too hard to achieve their goals and where the experience of those stages failed to meet expectations. Operational improvements were funded in part by reallocating money from costly services that had little impact upon customer satisfaction. The program generated an estimated $570 million in income split equally between cost improvement through improved retention and revenue enhancement.

This means the bank now identifies and provides lower-cost solutions to customer problems, even if it results in a lower margin. Customers may regard up-selling as opportunistic and exploitative, thereby reducing the level of trust they have in the bank and putting the relationship at risk. However, multi-product ownership creates a structural bond that decreases the risk of relationship dissolution.

Customers generally do not respond positively to persistent and repeated efforts to sell additional products and services that are not related to their requirements. Indeed, there is an argument that companies should down-sell where appropriate.

There are a number of CRM technologies that are useful for customer development purposes.

- **Campaign management** software is used to create up-sell and cross-sell campaigns across single, multiple or all communication channels and track their effectiveness, particularly in terms of sales and incremental margin.
- **Event-based marketing**. Up-selling and cross-selling campaigns are often associated with events. For example, a bank will cross-sell an investment product to an existing customer if deposits in a savings account reach a trigger point.
- **Data mining**. Cross-sell and up-sell campaigns are often based on intelligent data mining. Transactional histories record what customers have already bought. Data mining can tell you the probability of a customer buying any other products (propensity-to-buy), based on their transactional history or profile. First Direct, an online and telephone bank, uses propensity-to-buy scores to run targeted, event-driven cross-sell campaigns through direct mail and call centers. They achieve high conversion rates by making follow-up out-bound telephone calls.

CASE ILLUSTRATION 4.6

EVENT-BASED CROSS-SELLING AT USAA[59]

The financial services firm USAA consistently earns high customer loyalty scores for both its US banking and insurance businesses. The high level of trust affords USAA access to copious customer data that it uses to inform personalized cross-selling and upselling. The company does deep data mining through multiple sources to spot signature events in customers' lives. Those events trigger USAA to contact the customer at just the right time, with just the right offer, such as auto insurance when a customer's daughter is about to turn 16. As a result, USAA outperforms most competitors in the number of products held by its customers.

- **Customization**. Cross-sell and up-sell offers can be customized at segment or unique customer level, based upon the transactional history and profile of the target. Also personalized is the communication to the customer and the channel of communication – email, surface mail, social media, SMS or phone call, for example.
- **Channel integration.** Customer development activities can and should be integrated across channels. When different channels make different offers to the same customer

at the same time, this creates bad customer experience. In retail, channel integration is observed when channels such as stores, web and direct-to-consumer channels act in an integrated, customer-centric manner. For this to happen, customer information and customer development plans needs to be shared across channels.

- **Integrated marketing communication**. CRM practitioners generally prefer that the messages communicated to customers are consistent across all channels.

- **Marketing optimization**. Optimization software enables marketers to enjoy optimal returns from up-sell and cross-sell campaigns across multiple channels and customer segments, taking account of issues such as budget constraints, communication costs, contact policies (e.g. no more than two offers to be communicated to any customer in any quarter), and customers' transactional histories and propensities-to-buy.

In professional services, the client audit is often the foundation for cross-selling and up-selling of clients. In B2B environments, sales reps need to be alert to opportunities for cross- and up-selling. This means understanding customers' operations and knowing their product/service innovation plans.

In mature markets, where customer acquisition is difficult or expensive, the development of retained customers is an important source of additional revenues. For example, in the mature mobile telecommunications market, the penetration of handsets is at a very high level. Winning new-to-market customers is regarded as too difficult, since these are the laggards, and expensive to convert. Mobile telecommunication service providers tend to focus on selling additional data services to their existing customers, diversifying beyond voice services.

STRATEGIES FOR TERMINATING CUSTOMER RELATIONSHIPS

Companies routinely assess their human resources in light of an ever-changing environment and regularly reduce headcount and or change the composition of their workforce. In a similar vein, a review of customer strategy might identify customers that will never be profitable and serve no other strategic purpose. Often, the company's value proposition is not aligned with the unprofitable customer's needs and wants. Perhaps there are customers that don't benefit from the full proposition and therefore unwilling to pay for it; they demand discounts, only buy when prices are reduced and or have extremely high and unpredictable service needs (maybe because of location). These customers are either inherently unprofitable, or more likely better served by a competitor whose business model is built to serve them more efficiently. Of course, there are customers whose behaviors make them unprofitable: persistent late payers, serial complainants, those who are capricious and change their minds with adverse cost consequences for the supplier.

Relationships dissolve when one partner no longer views the relationship as worth continuing investment. In a B2B context, activity links, resource ties and actor bonds would be severed. However, even if there is no strategic value in a customer, dissolution of the relationship is not always an attractive option because of contractual obligations, expectations of mutuality, word-of-mouth risks, and network relationships.

McKinsey reports that between 30% and 40% of the typical company's revenues are generated by customers who would be unprofitable if their true cost-to-serve was computed.[60] It is therefore important to conduct regular reviews of the customer base to identify these and take action. Action might be as dramatic as terminating the customer, but this can be controversial for the firm's reputation if handled poorly. Sprint Nexus, the US telephony company, sacked as many as 2000 customers that it said were making excessive demands on its customer service resources.[61] This was widely and adversely reported in the media. If action is not taken, sales, marketing and service resources will continue to be sub-optimally deployed. Nypro, a plastic injection molder, had 800 customers and sales of $50 million when it decided to move out of low value-added manufacturing. Many of these 800 customers served no useful strategic purpose. Ten years later the company had only 65 customers, all of whom were large, and required value-added solutions rather than cheap molded products. However, sales revenue had reached $450 million.

There are a number of strategies for managing relationships with unprofitable customers:

- **Make them profitable by raising prices or cutting cost-to-serve.** A company can simply increase prices to increase margin; customers who pay the higher price become profitable. If most customers are retained at the higher price, it suggests the company was not charging enough in the first place! Customers unwilling to pay the higher price because they find insufficient value in your product effectively remove themselves from the customer base when they stop transacting. When banks introduced transaction fees for unprofitable customers many left in search of a better deal. Similarly, it may be possible to reduce service costs forcing customers to use lower cost channels, such as self-service online or mobile apps.

CASE ILLUSTRATION 4.7

CUSTOMERS SACKED BY CBA

The Commonwealth Bank of Australia (CBA), like many other banks, has been criticized in the media for adopting a strategy of sacking unprofitable customers.

In recent years, the bank has closed branches in many areas that were considered unprofitable, particularly in less populated areas of rural and regional Australia. For bank accounts that it believed to be unprofitable the bank introduced higher bank fees where the balance was less than $500. The bank charged transaction fees when customers withdraw their money over-the-counter in a branch.

The media has widely speculated that actions such as these by many banks will continue to occur as banks and other financial institutions attempt to shift customers to electronic and mobile banking channels where the cost to the bank of performing a simple deposit or withdrawal transaction can be just a few cents as opposed to a few dollars for similar over-the-counter service in a branch.

- **Unbundle the offer**. You could take a bundled value proposition, unbundle it, reprice the components and reoffer it to the customer. Companies offering product-service bundles at a single price will sometimes separate the service component and offer it to customers, priced separately from the tangible product. This makes transparent the value in the offer and enables customers to make informed choices about whether they want to pay the unbundled price.

- **Respecify the product**. This involves redesigning the product so that it no longer appeals to the unprofitable customers the firm wants to terminate. For example, the airline BA made a strategic decision to target frequent-flying business travelers who they regarded as high value. They redesigned the cabins in their fleet, reducing the number of seats allocated to economy travelers.

- **Reorganize sales, marketing and service departments** so that they no longer focus on segments or customers you no longer wish to retain. For example, stop running marketing campaigns targeted at these customers and lengthen sales call cycles.

- **Introduce ABC class service**. A B2B company could migrate customers down the service ladder from high quality face-to-face service by account teams, to sales representatives, or even further to contact center or web-based self-service. This removes cost from the relationship and may lift an unprofitable customer into profit. This applies in the B2C context too. Frontier Bank, for example, introduced a no-frills telephone account for customers who needed no cash processing facilities. A minimum balance was needed for the bank to cover its operating costs. Customers who did not maintain the targeted credit balance in their account were invited to switch to other products in other channels. If they refused, the bank asked them to close their account.[62]

Empirical evidence on how companies terminate customer relationships is sparse. However, one study of German engineering companies reports that very few firms have a systematic approach to managing unprofitable customers. Most respondents confirm that unprofitable relationships are commonplace; indeed, a fifth of firms have a customer base more than half of which is not, or not yet, profitable. Companies fall into three clusters in respect of the customer-sacking behaviors:[63]

1 **Hardliners** take an active and rigorous stance in terminating unprofitable relationships, including the regular evaluation of their customer portfolio. Qualitative implications, such as a potential loss of trust in relationships with other customers or negative word-of-mouth do not seem to hinder their willingness to sack unprofitable customers.

2 **Appeasers** take a more cautious approach concerning the termination of unprofitable relationships, due to strategic considerations such as not playing customers into competitors' hands.

3 The **undecided** cluster is reluctant to terminate unprofitable relationships, mainly because they fear the costs of attracting new customers.

CONCLUSION

In this chapter, we have looked at the important issues of how companies can retain, develop, and if necessary, sack customers. The economic argument for focusing on customer retention is based on four claims about what happens as customer tenure lengthens: the volume and value of purchasing increases, customer management costs fall, referrals increase, and customers become less price sensitive. Measures of customer retention vary across industry because of the length of the customer repurchase cycle. There are three possible measures of customer retention. Raw customer retention is the number of customers doing business with a firm at the end of a trading period expressed as percentage of those who were active customers at the beginning of the same period. This raw figure can be adjusted for sales and profit. Customer retention efforts are generally directed at customers who are strategically significant. These same customers may be very attractive to competitors and may be costly to retain.

A number of alternative strategies can be used to retain customers. A distinction can be made between positive and negative retention strategies. Negative retention strategies impose switching costs on customers if they defect. Positive retention strategies reward customers for staying. There are four main forms of positive retention strategy. These are building customer engagement, understanding and meeting customer expectations, adding customer-perceived value, and creating social and structural bonds. Companies have a number of methods for adding value including loyalty schemes, customer clubs and sales promotions. What is an appropriate customer retention strategy will be contextually determined. Not all strategies work in all circumstances. In addition to customer retention two other customer management activities were discussed in this chapter. These are developing and sacking customers. Customer development aims to increase the value of the customer by cross-selling or up-selling products and services to retained customers. The termination of customer relationships aims to improve the profitability of the customer base by divesting customers who show no signs of ever becoming profitable or strategically significant.

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STRATEGIC CRM

Strategic CRM is the core customer-centric business strategy that aims at winning and keeping profitable customers. The next three chapters examine important strategic CRM issues. Chapter 5 examines the practice of customer portfolio management (CPM). A company's customer portfolio is made up of customers clustered on the basis of one or more strategically important variables. Each customer is assigned to just one cluster in the portfolio, and each cluster is offered a different value proposition. CPM consists of a number of disciplines that allows companies to decide which customers they want to serve, and broadly how to serve them. Chapter 6 explores customer-perceived value. Customers will only be retained if they experience value as a result of their transactions with a company. Chapter 7 investigates customer experience. There is growing recognition that customer experience throughout the journey and at every touchpoint must meet their expectations.

CUSTOMER PORTFOLIO MANAGEMENT

CHAPTER OBJECTIVES

By the end of this chapter you will understand:

1. The benefits that flow from managing customers as a portfolio.

2. A number of disciplines that contribute to customer portfolio management, including market segmentation, sales forecasting, activity-based costing, customer lifetime value estimation and data mining.

3. How customer portfolio management differs between business-to-consumer and business-to-business contexts.

4. How to use a number of B2B portfolio analysis tools.

5. The range of customer management strategies that can be deployed across a customer portfolio.

WHAT IS A PORTFOLIO?

The term portfolio is often used in the context of investments to describe the collection of assets owned by an individual or institution. Each asset is managed differently according to its role in the owner's investment strategy. Portfolio has a parallel meaning in the context of customers. A customer portfolio can be defined as follows:

> **A customer portfolio is the collection of mutually exclusive customer groups that comprise a business's entire customer base.**

In other words, a company's customer portfolio is made up of customers clustered on the basis of one or more strategically important variables. Each customer is assigned to just one cluster in the portfolio. At one extreme, all customers are assigned to a single cluster and offered the same value proposition; at the other, each customer is a unique "cluster-of-one"

and offered a unique value proposition. Most companies are positioned somewhere between these extremes.

Some explanation of the term "value proposition" will be helpful here. A value proposition is a company's promise that customers will experience a specified bundle of benefits from their use or consumption of a company offering. Value propositions typically vary between different clusters of a company's customer portfolio. It is common practice for differentiated bundles of product features and service standards to be assembled and offered to different clusters of a company's customers. We explore value in more depth in the next chapter.

One of strategic CRM's fundamental principles is that not all customers can, or should, be managed in the same way – unless its makes strategic sense to do so. Customers not only have different needs, preferences and expectations, but also different revenue and cost profiles, and therefore should be managed in different ways. For example, in the B2B context, some customers might be offered customized product and face-to-face account management; others might be offered standardized product and web-based self-service. If the second group were to be offered the same product options and service levels as the first, they might end up being unprofitable.

Customer portfolio management (CPM) aims to optimize business performance – whether that means sales revenues, customer profitability, or something else – across the entire customer base. It does this by offering differentiated value propositions, with different cost profiles, to different segments of customers. Customers could be clustered into two groups, for example, relationship- and transaction-oriented customers, and each offered a different value proposition. Relationship-oriented customers might be offered value-adding benefits unavailable to transaction-oriented customers.[1] The UK-based NatWest Bank has clustered corporate banking customers into three segments based upon their size, lifetime value and creditworthiness. As case illustration 5.1 shows, each cluster in the portfolio is treated to a different value proposition. When companies deliver tiered service levels such as these, they face a number of questions. Should the tiering be based upon current or future

CASE ILLUSTRATION 5.1

SERVICE LEVELS VARY BY CUSTOMER TIER AT NATWEST BANK

NatWest Bank's Corporate Banking division identified three tiers of clients ranked by size, lifetime value and credit worthiness.

1. The top tier numbers some 60 multinational clients. These have at least one individual relationship manager attached to them.

2. The second tier, which numbers approximately 150, has individual client managers attached to them.

3. The third tier representing the vast bulk of smaller business clients have access to a "Small Business Advisor" at each of the 100 business centres.

customer value? How should sales and service support vary across tiers? How can customer expectations be managed to avoid the problem of low-tier customers resenting not being offered high-tier service? What criteria and rules should be employed when migrating customers up or down the hierarchy? Finally, does the cost of managing this additional complexity pay off in customer outcomes such as enhanced retention levels, or financial outcomes such as additional revenues and profit?

WHO IS THE CUSTOMER?

The customer in a B2B context is different from the customer in a B2C context. The B2C customer is the end consumer – an individual or a household. The B2B customer is an organization, that may be either a company (producer or reseller) or institution (not-for-profit or government body). CPM practices in the B2B context are very different from those in the B2C context.

The B2B context differs from the B2C context in a number of ways. First, there are fewer customers. In Australia, for example, although there is a population of about 25 million people, there are just over 2 million actively trading businesses. Second, business customers are generally bigger spenders than household customers. Third, relationships between business customers and their suppliers typically tend to be much closer than between household members and their suppliers. Often, business relationships feature reciprocal trading. Company A buys from company B, and company B buys from company A – this is particularly common among small and medium sized enterprises. Fourth, the demand for input goods and services by companies is derived from end-user demand. Household demand for bread creates organizational demand for flour. Fifth, unlike household buyers, procurement officers for companies are often professionals with formal training. Buying processes in organizations can be rigorously formal, particularly for mission-critical goods and services, where a decision-making unit composed of interested parties may be formed to define requirements, search for suppliers, evaluate proposals and make a sourcing decision. Often, the value of a single organizational purchase is huge – buying an airplane, bridge or power station is a massive purchase few households will ever match. Finally, much B2B trading is direct. In other words, there are no channel intermediaries, and suppliers sell direct to customers.

BASIC DISCIPLINES FOR CPM

In this section, you'll read about a number of basic disciplines that can be useful during CPM. These include market segmentation, sales forecasting, activity-based costing, customer lifetime value estimation and data mining.

Market segmentation

CPM can make use of a discipline that is routinely employed by marketing management – market segmentation. Market segmentation can be defined as follows:

Market segmentation is the process of dividing up a market into more or less homogenous subsets for which it is possible to create different value propositions.

At the end of the process the company can decide which segment(s) it wants to serve. If it chooses, each segment can be served with a different value proposition and managed in different ways. Market segmentation processes can be used during CPM for two main purposes. They can be used to segment *potential* markets to identify which customers to acquire, and to cluster *current* customers with a view to offering differentiated value propositions supported by different relationship management strategies.

In this discussion, we'll focus on the application of market segmentation processes to identify which customers to acquire. What distinguishes market segmentation for this CRM purpose is its very clear focus on customer value. The outcome of the process should be the identification of the value potential of each identified segment. Companies will want to identify, target and acquire those customers that can generate profit in the future: these will be those customers that the company is better placed to serve and satisfy than competitors.

Market segmentation is increasingly being transformed by information technology, particularly in consumer markets. The dramatic increase in customer-related data is increasingly used by companies to segment customers according to their attributes and behavior. Regrettably, segmentation remains highly intuitive or habitual in many companies. In a CRM context however, market segmentation is highly data-dependent. Internal data from marketing, sales, service and finance records are often enhanced with additional data from external sources such as marketing research companies, partner organizations in the company's network, social media and other big data sources, and data specialists. Either through data and or intuition, the customer management team will develop profiles of customer groups based upon insight and experience. This is then used to guide the development of marketing strategies across the segments.

Intuitive	Data-based
• Brain-storm segmentation variables	• Obtain customer data
– age, gender, life-style	– internal and external
– SIC, size, location	• Analyse customer data
• Produce word-profiles	• Identify high/medium/low value customer segments
• Compute sizes of segments	• Profile customers within segments
• Assess company/segment fit	– age, gender, life-style
• Make targeting decision	– SIC, size, location
– one/several/all segments?	• Assess company/segment fit
	• Make targeting decision
	– one/several/all segments?

Figure 5.1 Intuitive and data-based segmentation processes

The market segmentation process can be broken down into a number of steps:

1   Identify the business you are in.

2   Identify relevant segmentation variables.

3   Analyze the market using these variables.

4   Assess the value of the market segments.

5   Select target market(s) to serve.

Identify the business you are in

This is an important strategic question to which many, but not all, companies have an answer. Ted Levitt's classic article "Marketing myopia" warned companies of the dangers of thinking only in terms of product-oriented answers.[2] He wrote of a nineteenth-century company that defined itself as being in the buggy-whip industry. Unsurprisingly, it has not survived. It is important to consider the answer from the customer point of view. For example, is a manufacturer of kitchen cabinets in the timber processing industry, or the home-improvement business?

A customer-oriented answer to the question will enable companies to move through the market segmentation process because it helps identify the boundaries of the market served, it defines the benefits customers seek, and it picks out the company's competitors.

Let's assume that the kitchen furniture company has defined its business from the customer's perspective. It believes it is in the home value improvement business. It knows from research that customers buy its products for one major reason: they are homeowners who want to enhance the value of their properties. The company is now in a position to identify its markets and competitors at three levels:

1   **Benefit competitors**: other companies delivering the same benefit. These might include window replacement companies, heating and air-conditioning companies and bathroom renovation companies.

2   **Product competitors**: other companies marketing kitchens to customers seeking the same benefits.

3   **Geographic competitors**: these are benefit and product competitors operating in the same geographic territory

Identify relevant segmentation variables and analyze the market

There are many variables that are used to segment consumer and organizational markets. Companies can enjoy competitive advantage through innovations in market segmentation. For example, before Häagen-Dazs, it was known that ice cream was a seasonally sold product aimed primarily at children. Häagen-Dazs innovated by targeting adults with a different, luxurious and adult product that had all-year round purchasing potential. We'll look at consumer markets first.

Consumer markets

Consumers can be clustered using four main methods – behavioral, geographic, demographic and psychographic – each of which employs a number of variables, as summarized in Table 5.1.

STRATEGIC CRM

Table 5.1 Criteria for segmenting consumer markets

Major segmentation methods	Variables
Behavioral	Benefits sought, usage and purchase occasion, volume consumed, loyalty status (recency–frequency–monetary spend, share of category spend)
Geographic	Country, region, TV region, city, city size, postcode, residential neighborhood
Demographic	Age, gender, occupational status, household size, marital status, terminal educational age, household income, stage of family life cycle, religion, ethnic origin, nationality, language group
Psychographic	Lifestyle, personality, values

Sometimes, managers segment markets using single variables. For example, most tooth-paste brands aim to deliver one or more of three benefits sought by consumers: white teeth, fresh breath or dental caries prevention. More typically, though, several variables are used to identify market segments. Few marketers use only demographic attributes to segment consumer markets. The concern has been that there is too much variance within each of the demographic clusters to regard all members of the segment as more or less homogenous. For example, some 30–40 year-olds have families and mortgaged homes; others live in rented apartments and go clubbing at weekends. Some members of religious groups are traditionalists; others are progressives.

The family life cycle (FLC) idea has been particularly threatened. The FLC traces the development of a person's life along a path from young and single, to married with no children, married with young children, married couples with older children, older married couples with no children at home, empty nesters still in employment, retired empty nester couple, sole survivor working or not working. Life for many, if not most, people does not follow this path. It fails to take account of the many and varied life choices that people make – some people never marry, others are late or serial marriers, and there are also childless couples, extended families, single-parent households and divorced couples.

Occupational status is widely used to classify people into social grades. Systems vary around the world. In the UK, marketers have conventionally used the JICNARS social grading system for segmentation. This allocates households to one of six categories (A, B, C1, C2, D and E) depending upon the job of the head of household. Higher managerial occupations are ranked A; casual, unskilled workers are ranked E. Media owners often use the JICNARS scale to profile their audiences. Sometimes marketers rely on Government data during market segmentation. Government agencies in the UK do not use JICNARS, but a different occupation classification scheme – the NS-SEC (National Statistics – Socio-Economic Classification).[3] There are several versions of this scheme, clustering occupations into three, five or eight groups. The eight groups scheme identifies the following occupational groups:

1   Higher managerial and professional occupations.

2   Lower managerial and professional occupations.

3   Intermediate occupations (clerical, sales, service).

4   Small employers and own account workers.

5   Lower supervisory and technical occupations.

6   Semi-routine occupations.

7   Routine occupations.

8   Never worked or long-term unemployed.

A number of commercial firms have developed geo-demographic classification schemes. CACI, for example, has developed ACORN that segments UK households, postcodes and neighborhoods into 6 categories, 18 groups and 62 types. There is an average of 15 households in each postcode. Most people in the UK live in private households. Five of the ACORN categories, comprising 17 of the groups and 59 of the types, represent the population in private households. The last group is reserved for other kinds of postcode, primarily communal households who live in various kinds of institution rather than in private households, and postcodes with no resident population.

Lifestyle research first became popular in the 1980s. Rather than using a single descriptive category to classify customers, as had been the case with demographics, it uses multivariate analysis to cluster customers. Lifestyle analysts collect data about people's activities, interests and opinions. A lifestyle survey instrument may require answers to 400 or 500 questions, taking several hours to complete. Using analytical processes such as factor analysis and cluster analysis, the researchers are able to produce lifestyle or psychographic profiles. The assertion is made that we buy products because of their fit with our chosen lifestyles. Lifestyle studies have been done in many countries, as well as across national boundaries. A number of companies conduct lifestyle research on a commercial basis and sell the results to their clients.

Behavioral segmentation variables can be particularly useful for CRM purposes. Benefit segmentation has become a standard tool for marketing managers. It is axiomatic that customers buy products for the benefits they deliver, not for the products themselves. Nobody has ever bought a 5mm drill bit because they want a 5mm drill bit. They buy because of what the drill bit can deliver – a 5mm hole. CRM practitioners need to understand the benefits that

Table 5.2 ACORN geo-demographic household classification (UK)[4]

ACORN categories		Approx. % of UK households
1.	Affluent achievers	21
2.	Rising prosperity	9
3.	Comfortable communities	27
4.	Financially stretched	24
5.	Urban adversity	18
6.	Not private households	<1

are sought by the customers they serve. When it comes to creating value propositions for the chosen customers, benefit segmentation becomes very important.

The other two behavioral variables – volume consumed and loyalty status – are also useful from a CRM perspective. Many companies classify their customers according to the volume of business they produce. For example, in the B2C context, McDonald's USA found that 77% of their sales were to males aged 18 to 34 who ate McDonald's three to five times per week, this despite the company's mission to be the world's favorite family restaurant. Assuming that they contribute in equal proportion to the bottom line, these are customers that the company must not lose. The volume they provide allows the company to operate very cost-effectively, keeping unit costs low.

Market segmentation based on recency of purchase, frequency of purchase and the money spent (RFM) adds another level of insight. For example, some customers may purchase large volumes but very infrequently, and others may buy smaller quantities but more often. If a consumer falling into this latter group shows no evidence of recent buying, they might be targeted with a win-back campaign. One hotel chain clusters customers into seven groups based on RFM data, and has created a CRM application that helps check-in staff recognize and welcome customers differently based on when they last visited the hotel, the frequency of their bookings and how much they spend.

Companies that rank customers into tiers according to volume, and are then able to identify which customers fall into each tier, may be able to develop customer migration plans to move lower volume customers higher up the ladder. This only makes sense when the lower volume customers present an opportunity. The key question is whether they buy product from other suppliers in the category. For example, customer Jones buys five pairs of shoes a year. She only buys one of those pairs from "Shoes4less" retail outlets. She therefore presents a greater opportunity than customer Smith who buys two pairs a year, but both of them from Shoes4less. Shoes4less has the opportunity to win four more sales from Jones, but none from Smith. This does not necessarily mean that Jones is more valuable than Smith. That depends on the answers to other questions. First, how much will it cost to switch Jones from her current shoe retailer(s), and what will it cost to retain Smith's business? Second, what are the margins earned from these customers? If Jones is very committed to her other supplier, it may not be worth trying to switch her. If Smith buys high-margin fashion and leisure footwear and Jones buys low margin footwear, then Smith might be the better opportunity despite the lower volume of sales.

Most segmentation programs employ more than one variable. For example, a chain of bars may define its customers on the basis of geography, age and music preference. Figure 5.2 shows how the market for chocolate can be segmented by usage occasion and satisfaction. Four major segments emerge from this bi-variate segmentation of the market.

Business markets

Business markets can also be segmented in a number of ways, as shown in Table 5.3.

The basic starting point for most B2B segmentation is the International Standard Industrial Classification (ISIC), which is a property of the United Nations Statistics Division. ISIC classifies businesses according to their dominant economic activity. ISIC consists of a coherent and consistent classification structure of economic activities based on a set of internationally agreed concepts, definitions, principles and classification rules. While this
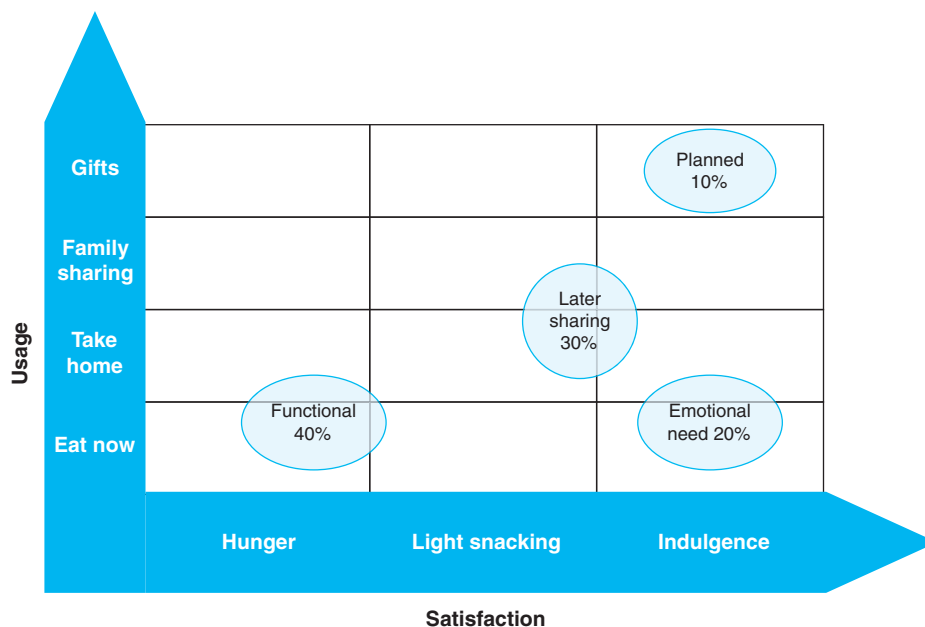
Figure 5.2 Bivariate segmentation of the chocolate market

Table 5.3 How business markets are segmented

Business market segmentation criteria	Illustration
International Standard Industrial Classification	An internationally agreed standard for classifying goods and service producers
Dispersion	Geographically concentrated or dispersed
Size	Large, medium, small businesses: classified by number of employees, number of customers, profit or turnover
Account status	Global account, national account, regional account, A or B or C class accounts
Account value	<$50,000, <$100,000, <$200,000, <$500,000
Buying processes	Open tender, sealed bid, Internet auction, centralized, decentralized
Buying criteria	Continuity of supply (reliability), product quality, price, customization, just-in-time, service support before or after sale
Propensity to switch	Satisfied with current suppliers, dissatisfied
Current share of customer spend in the category	Sole supplier, majority supplier, minority supplier, non-supplier
Geography	City, region, country, trading bloc (ASEAN, EU)
Buying style	Risk averse, innovator

is a standard that is in widespread use, some countries have developed their own schemes. In the US, Canada and Mexico, there is the North American Industry Classification System (NAICS). In New Zealand and Australia there is the Australia and New Zealand Standard Industrial Classification (ANZSIC).

The ISIC classifies all forms of economic activity. Each business entity is classified according to its principal product or business activity and is assigned a four-digit code. These are then amalgamated into 99 major divisions. Table 5.4 details several four-digit codes.

Governments and trade associations often collect and publish information that indicates the size of each ISIC code. This can be a useful guide when answering the question "Which customers should we acquire?" However, targeting in the B2B context is often conducted not at the aggregated level of the ISIC, but at an individual account level. The question is not so much, "Do we want to serve this segment?" as much as "Do we want to serve this customer?"

Several of these account-level segmentation variables are specifically important for CRM purposes: account value, share of category (share of wallet) spend, and propensity to switch.

Table 5.4 Examples of ISIC codes

ISIC 4-digit code	Activity
1200	Manufacture of tobacco products
2511	Manufacture of structural metal products
5520	Camping grounds, recreational vehicle parks and trailer parks
8530	Higher education

CASE ILLUSTRATION 5.2

TOSHIBA TARGETS MANY DIFFERENT INDUSTRIES
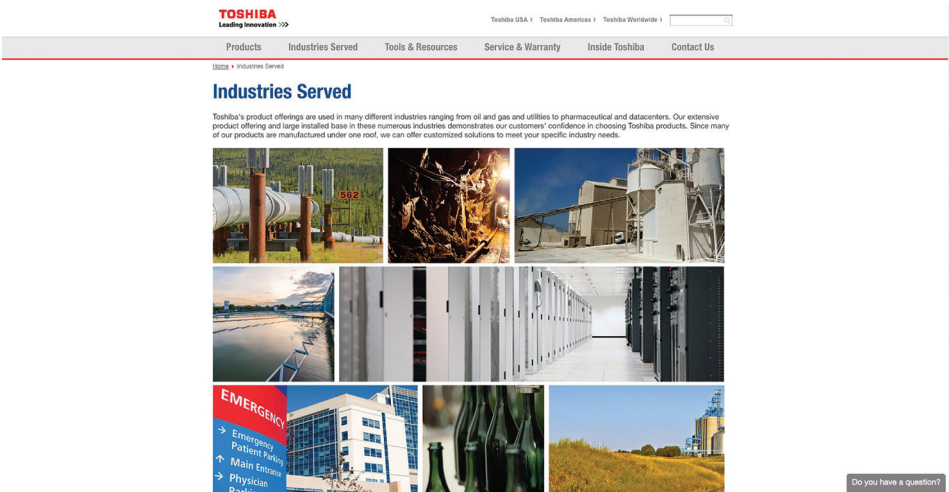
- **Account value.** Most businesses have a scheme for classifying their customers according to their value. The majority of these schemes associate value with some measure of sales revenue or volume. This is an incomplete measure of value, because it takes no account of the costs to win and keep the customer. We address this issue later in this chapter.

- **Share-of-wallet (SOW).** Share of category spend gives an indication of the future potential that exists within the account. A supplier that only has a 15% share of a customer company's spending on some raw material, has, on the face of it considerable potential.

- **Propensity-to-switch** may be high or low. It is possible to measure propensity-to-switch by assessing satisfaction with the current supplier, and by computing switching costs. Dissatisfaction alone does not indicate a high propensity-to-switch. Switching costs may be so high that even in the face of high levels of dissatisfaction, the customer is not motivated to switch. For example, customers may be unhappy with the performance of their telecommunications supplier, but not switch because of the disruption that such a change would bring about.

CASE ILLUSTRATION 5.3

CPM AT SYNGENTA AG

Syngenta AG is a large global Switzerland-based chemicals company that markets seeds and pesticides. Its purpose is "Bringing plant potential to life." Syngenta wanted to segment the global market for crop protection products, such as herbicides and pesticides. Using qualitative and quantitative data, Syngenta identified four segments among farmers.

1. Professionals. These are large spenders and keen to trial new technologies.

2. Progressives. These have large landholdings and are early adopters of new technologies.

3. Traditionalists are older and spend the least on crop protection products.

4. Operators are pessimistic about farming and have difficulty in keeping up to date with new technologies and farming practices.

   Syngenta now uses these four segments to guide all of its customer management activities. Service levels vary between segments. Face-to-face communications are available to Professionals and Progressives and direct mail used for Traditionalists and Operators.

What is missing from such classifications of customers is an understanding of how they wish to work with suppliers to generate value. Needs-based segmentation would consider the customer's desire for strategic partnerships, the degree to which the customer expects the supplier to co-create solutions, and other important issues in the customer's supply chain strategy. As B2B relationships become ever more sophisticated, we expect to see a commensurate increase in the insight suppliers use for market segmentation.

Assessing the value in a market segment and selecting which segments to serve

A number of target market alternatives should emerge from this market segmentation process. The potential of these to generate value for the supplier will need to be assessed. The potential value of the segmentation opportunities depends upon answers to two questions:

1   How attractive is the opportunity?
2   How well placed is the supplier and its network to exploit the opportunity?

Table 5.5 identifies a number of the attributes that can be taken into account during this appraisal. The attractiveness of a market segment is related to a number of issues including its size and growth potential, the number of competitors and the intensity of competition between them, the barriers to entry, and the propensity of customers to switch from their existing suppliers. The question of company fit rotates around the issue of the relative competitive competency of the company and its network members – suppliers, partners and distributors in particular – to satisfy the requirements of the segment.

In principle, if the segment is attractive and the company and network competencies indicate a good fit, the opportunity may be worth pursuing. However, because many companies find that they have several opportunities, some kind of scoring process has to be developed and applied to identify the better opportunities. The matrix in Figure 5.3 can be used for this purpose.[5] To begin, companies need to identify attributes that indicate the attractiveness of a market segment (some are listed in Table 5.5), and the competencies of the company and its network. An importance weight is agreed for each attribute. The segment opportunity is rated against each attribute and a score is computed. The opportunities can then be mapped into Figure 5.3.

Table 5.5 Criteria for appraising segmentation opportunities

Segment value and attractiveness

Size of segment, segment growth rate, price sensitivity of customers, bargaining power of customers, customers' relationships with current suppliers, barriers to segment entry, barriers to segment exit, number and power of competitors, prospect of new entrants, potential for differentiation, propensity for customer switching

Company and network fit

Does the opportunity fit the company's objectives, mission and values? Does the company and its network possess the operational, technological, marketing, people and other competencies, and the liquidity to exploit the opportunity?

Sales forecasting

The second discipline that can be used for CPM is sales forecasting. One major issue commonly facing companies that conduct CPM is that the data available for clustering customers takes a historical or, at best, present-day view. The data identifies those customers who have been, or presently are, important for sales, profit or other strategic reasons. If management
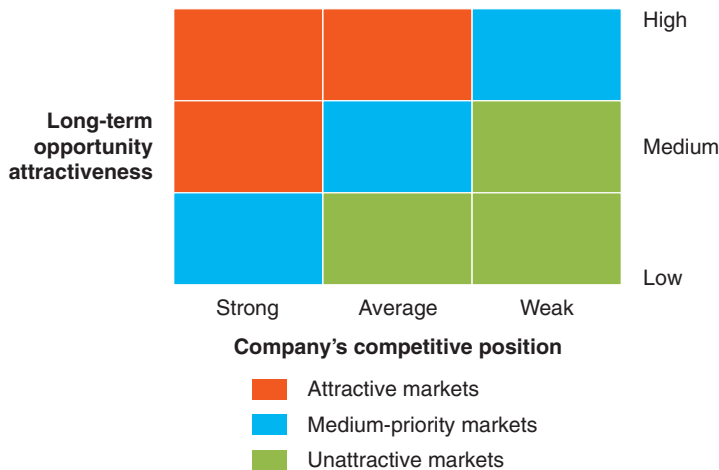
Figure 5.3 McKinsey/GE customer portfolio matrix

believes the future will be the same as the past, this presents no problem. However, if the business environment is changeable, this does present a problem. Because CPM's goal is to identify those customers that will be strategically important in the future, sales forecasting can be a useful discipline.

Sales forecasting, some pessimists argue, is a waste of time, because business environments change rapidly and unpredictably. Major world events such as terrorist attacks, war, drought and market-based disruptors such as new products from competitors or high visibility promotional campaigns can make any sales forecasts invalid. Some companies do construct "what-if" scenarios that set out their responses in the event of any of these occurrences.

That said, a number of sales forecasting techniques can provide useful information for CPM. These techniques, which fall into three major groups, are appropriate for different circumstances.

- Qualitative methods
  - o Customer surveys
  - o Sales team estimates
- Time-series methods
  - o Moving average
  - o Exponential smoothing
  - o Time-series decomposition
- Causal methods
  - o Leading indicators
  - o Regression models.

Qualitative methods are probably the most widely used forecasting methods. Customer surveys or account managers ask consumers or purchasing officers to give an opinion on what they are likely to buy in the forecasting period. This makes sense when customers forward plan their purchasing. Data can be obtained by inserting a question into a customer satisfaction survey. For example, "In the next six months are you likely to buy more, the same or less from us than in the current period?" And, "If more, or less, what volume do you expect to buy from us?" Sometimes, third party organizations such as industry associations or trans-industry groups such as the Chamber of Commerce, or the Institute of Directors collect data that indicate future buying intentions or proxies for intention, such as business confidence.

Sales team estimates can be useful when salespeople have built close relationships with their customers. A key account management team might be well placed to generate several individual forecasts from the team membership. These can be averaged or weighted in some way that reflects the estimator's closeness to the customer. Account managers for Dyno Nobel, a supplier of commercial explosives for the mining and quarrying industries, are so close to their customers that they are able to forecast sales two to three years ahead.

Operational CRM systems support the qualitative sales forecasting methods, in particular sales team estimates, taking to account the value of the sale, the probability of closing the sale and the anticipated period to closure. Many CRM applications also allow management to adjust the estimates of their sales team members, to allow for overly optimistic or pessimistic sales people.

Time series approaches take historical data and extrapolate them forward in a linear or curvilinear trend. This approach makes sense when there are historical sales data, and the assumption can be safely made that the future will reflect the past. The moving average method is the simplest of these. This takes sales in a number of previous periods and averages them. The averaging process reduces or eliminates random variation. The moving average is computed on successive periods of data, moving on one period at a time, as in Table 5.6.

Moving averages based on different periods can be tested on historic data to generate an accurate method. A variation is to weight the more recent periods more heavily. The rationale

Table 5.6 Sales forecasting using moving averages

Year	Historic sales volumes	Two-year moving average	Four-year moving average
2013	4830		
2014	4930		
2015	4870	4880	
2016	5210	4900	
2017	5330	5040	4960
2018	5660	5270	5085
2019	5440	5495	5267
2020		5550	5410

is that more recent periods are better predictors. In producing an estimate for year 2020 in Table 5.6, you could weight the previous four years sales performance by 0.4, 0.3, 0.2 and 0.1 respectively to reach an estimate. This would generate a forecast of 5461. This approach is called **exponential smoothing.**

The **decomposition** method is applied when there is evidence of cyclical or seasonal patterns in the historical data. The method attempts to separate out four components of the time series: trend factor, cyclical factor, seasonal factor and random factor. The trend factor is the long-term direction of the trend after the other three elements are removed. The cyclical factor represents regular long-term recurrent influences on sales; seasonal influences generally occur within annual cycles.

Causal sales forecasting methods include both the use of leading indicators and regression models. A **leading indicator** is some contemporary activity or event that indicates that another activity or event will happen in the future. At a macro level, for example, housing starts are good predictors of future sales of kitchen furniture. At a micro level, when a credit card customer calls into a contact center to ask about the current rate of interest, this is a strong indicator that the customer will switch to another supplier in the future.

Regression models work by using data for a number of predictor variables to estimate future demand. The variable being predicted is called the dependent variable; the variables being used as predictors are called independent variables. For example, if you wanted to predict demand for cars (the dependent variable) you might use data on population size, average disposable income, average car price for the category being predicted, and average fuel price (the independent variables). Regression equations can be tested and validated on historical data before being adopted. New predictor variables can be substituted or added to see if they improve the accuracy of the forecast.

Activity-based costing

The third discipline that is useful for CPM is activity-based costing (ABC). Many companies, particularly those in a B2B context, can trace revenues to customers. In a B2C environment, it is usually only possible to trace revenues to identifiable customers if the company operates a billing system requiring customer details, or a membership scheme such as a customer club, store-card or a loyalty program.

In a B2B context, revenues can be tracked in the sales and accounts databases. Costs are an entirely different matter. Because the goal of CPM is to cluster customers according to their strategic value, it is desirable to be able to identify which customers are, or will be, profitable. Clearly, if a company is to understand customer profitability, it has to be able to trace costs as well as revenues to customers.

Costs do vary from customer to customer. Some customers are very costly to acquire and serve, others are not. There can be considerable variance across the customer base within several categories of cost:

- **Customer acquisition costs.** Some customers require considerable sales effort to shift them from prospect to first-time customer status: more sales calls, visits to reference

customer sites, free samples, engineering advice, guarantees that switching costs will be met by the vendor.

- **Terms of trade**. Price discounts, advertising and promotion support, slotting allowances (cash paid to retailers for shelf-space), extended invoice due-dates.

- **Customer service costs**. Handling queries, claims and complaints, demands on sales-person and contact center, small order sizes, high order frequency, just-in-time delivery, part-load shipments, breaking bulk for delivery to multiple sites.

- **Working capital costs.** Carrying inventory for the customer, cost of credit.

Traditional product-based or general ledger costing systems do not provide the type of detail necessary for companies to estimate customer profitability. Product costing systems track material, labor and energy costs to products, often comparing actual to standard costs. They do not, however, cover the customer-facing activities of marketing, sales and service. General ledger costing systems do track costs across all parts of the business but are normally too highly aggregated to establish which customers or segments are responsible for generating those costs.

Activity-based costing (ABC) is an approach to costing that splits costs into two groups: volume-based costs and order-related costs. Volume-related (product-related) costs are variable against the size of the order but fixed per unit for any order and any customer. Material and direct-labor costs are examples. Order-related (customer-related) costs vary according to the product and process requirements of each particular customer.

Imagine two retail customers, each purchasing the same volumes of product from a manufacturer. Customer 1 makes no product or process demands. The sales revenue is $5000; the gross margin for the vendor is $1000. Customer 2 is a different story: customized product, special overprinted outer packaging, just-in-time delivery to three sites, provision of point-of-sale material, sale or return conditions, and discounted price. Not only that, but customer 2 spends a lot of time agreeing these terms and conditions with a salesperson who has had to call into the account three times before closing the sale. The sales revenue is still $5000, but after accounting for product and process costs to meet the demands of this particular customer, the margin retained by the vendor is $250. Other things being equal, customer 1 is four times as valuable as customer 2.

Whereas conventional cost accounting practices report **what** was spent, ABC reports what the money was spent **doing**. The conventional general ledger approach to costing identifies resource costs such as payroll, equipment and materials, but the ABC approach shows what was being done when those costs were incurred. Figure 5.4 shows how an ABC view of costs in an insurance company's claims processing department gives an entirely different picture from the traditional view.[6]

ABC gives the manager of the claims-processing department a much clearer idea of what activities have created cost. The next question from a CPM perspective is "which customers create the activity?" Put another way, which customers are the cost drivers? If you were to examine the activity cost item "Analyze claims: $121,000" and find that 80% of the claims were made by drivers under the age of 21, you'd have a clear understanding of the customer group that was creating that activity cost for the business.

General ledger: claims processing dept.			
	$	$	$
	Actual	Plan	Variance
Salaries	620,400	600,000	(21,400)
Equipment	161,200	150,000	(11,200)
Travel expenses	58,000	60,000	2,000
Supplies	43,900	40,000	(3,900)
Use & Occupancy	30,000	30,000	
Total	914,500	880,000	(34,500)

ABC view: claims processing dept.	
	$
Key/scan claims	31,500
Analyze claims	121,000
Suspend claims	32,500
Receive provider enquiries	101,500
Resolve member problems	83,400
Process batches	45,000
Determine eligibility	119,000
Make copies	145,500
Write correspondence	77,100
Attend training	158,000
Total	914,500

Figure 5.4 ABC in a claims processing department

CRM needs ABC because of CRM's overriding goal of generating profitable relationships with customers. Unless there is a costing system in place to trace costs to customers, CRM will find it very difficult to deliver on a promise of improved customer profitability.

Overall, ABC serves customer portfolio management in a number of ways:

- When combined with revenue figures, ABC tells you the absolute and relative levels of profit generated by each customer, segment or cohort.
- ABC guides you towards actions that can be taken to return customers to profit.
- ABC helps prioritize and direct customer acquisition, retention and development strategies.
- ABC helps establish whether customization, and other forms of value creation for customers, pays off.

ABC sometimes justifies management's confidence in the Pareto principle, otherwise known as the 80:20 rule. This rule suggests that 80% of profits come from 20% of customers. ABC tells you which customers fall into the important 20%. Research offers some support of the 80:20 rule. For example, one report from Coopers and Lybrand found that in the retail industry the top 4% of customers account for 29% of profits, the next 26% of customers account for 55% of profits and the remaining 70% account for only 16% of profits.

Customer lifetime value estimation

The fourth discipline that can be used for CPM is customer lifetime value (CLV) estimation, which was first introduced in Chapter 2. CLV is measured by computing the present-day value of all net margins (gross margins less cost-to-serve) earned from a relationship with a customer, segment or cohort. CLV estimates provide important insights that guide

companies in their customer management strategies. Clearly, companies want to protect and ring-fence their relationships with customers, segments or cohorts that will generate significant amounts of profit.

Sunil Gupta and Donald Lehmann suggest that customer lifetime value can be computed as follows:

$$CLV = m\left[\frac{r}{1+i-r}\right]$$

where

CLV = customer lifetime value

m   = margin or profit from a customer per period (e.g. per year)

r   = retention rate (e.g. 0.8 or 80%)

i   = discount rate (e.g. 0.12 or 12%).[7]

This means that CLV is equal to the margin (m) multiplied by the factor $r/(1 + i - r)$. This factor is referred to as the *margin multiple*, and is determined by both the customer retention rate (r) and the discount rate (i). For most companies, the retention rate is in the region of 60% to 90%. The weighted average cost of capital (WACC), which was discussed in Chapter 2, is generally used to determine the discount rate. The discount rate is applied to bring future margins back to today's value. Table 5.7 presents some sample margin multiples based on the two variables – customer retention rate and discount rate. For example, at a 12% discount rate and 80% retention the margin multiple is 2.5. From this table, you can see that margin multiples for most companies, given a WACC of 10% to 16% and retention rates between 60% and 90%, lie between 1.07× and 4.5×. When the discount rate is high, the margin multiple is lower. When customer retention rates are higher, margin multiples are higher.

The table can be used to compute customer value in the following way. If you have a customer retention rate of 90% and your WACC is 12%, and your customer generates $100 margin in a year, the CLV of the customer is $409 (i.e. 4.09 × $100). The same mathematics can be applied to segments or cohorts of customers. Your company may serve two clusters of

Table 5.7 Margin multiples

Retention rate	Discount rate			
	10%	*12%*	*14%*	*16%*
60%	1.20	1.15	1.11	1.07
70%	1.75	1.67	1.59	1.52
80%	2.67	2.50	2.35	2.22
90%	4.50	4.09	3.75	3.46

customers, A and B. Customers from cluster A each generate an annual margin of $400; cluster B customers each generate a $200 margin. Retention rates vary between clusters. Cluster A has a retention rate of 80%; cluster B customers have a retention rate of 90%. If the same WACC of 12% is applied to both clusters, then the CLV of a customer from cohort A is $1000 ($400 × 2.50), and the CLV of a cohort B customer is $818 ($200 × 4.09). If you have 500 customers in cluster A, and 1000 customers in cohort B, the CLV of your customer base is $1,318,000, computed thus: ((500 × $1000) + (1000 × $818)).

Application of this formula means that you do not have to estimate customer tenure. As customer retention rate rises there is an automatic lift in customer tenure, as shown in Chapter 2. This formula can be adjusted to consider change in both future margins and retention rates, either up or down, as described in Gupta and Lehmann's book *Managing Customers as Investments*.[8]

The table can be used to assess the impact of a number of customer management strategies: what would be the impact of reducing cost-to-serve by shifting customers to low-cost self-serve channels? What would be the result of cross-selling higher margin products? What would be the outcome of a loyalty program designed to increase retention rate from 80% to 82%?

An important additional benefit of this CLV calculation is that it enables you to estimate a company's value. For example, it has been computed that the CLV of the average US-based American Airlines customer is $166.94. AA has 43.7 million such customers, yielding an estimated company value of $7.3 billion. Roland Rust and his co-researchers noted that given the absence of international passengers and freight considerations from this computation, it was remarkably close the company's market capitalization at the time their research was undertaken.[9]

Data mining

The fifth discipline that can be used for CPM is data mining. It has particular value when you are trying to find patterns or relationships in large volumes of data, as found in B2C contexts such as retailing, mobile telephony, and financial services.

Supermarket retailer, Tesco, for example, has about 17 million Clubcard members in the UK alone. Not only does the company have the demographic data that the customer provided on becoming a club member, but also the customer's transactional data. If 10 million club members use Tesco in a week and buy an average basket of 30 items, Tesco's database grows by 300 million pieces of data per week. This is certainly a huge cost, but potentially a major benefit.

Data mining can be thought of as the creation of intelligence from large quantities of data.

Customer portfolio management needs intelligent answers to questions such as these:

1   How can we segment the market to identify potential customers?
2   How can we cluster our current customers?
3   Which customers offer the greatest potential for the future?

Data mining can involve the use of statistically advanced techniques, but fortunately customer managers do not need to be data scientists. It is generally sufficient to understand what the software tools can do, how to interpret the results, and how to use the tools that perform data mining.

Before any analysis starts, the first step is to define the business problem you are trying to solve (such as the three examples listed above). Then you have to create a database that can be subjected to data mining. Best practice involves extracting historical data from the data warehouse, creating a special mining data mart, and exploring that dataset for the correlations, patterns and rules that can solve the business problem. Trying to conduct analysis on operational databases can be very troublesome – hence the advice to create a special dataset for mining. The problem-solving step involves an iterative process of developing a hypothetical solution to the problem (also known as model building), testing and refinement. Once a model is developed that appears to solve the business problem it can be used by management. As new data is loaded into the data warehouse, further subsets can be extracted to the data mining data mart and the model can be subjected to further refinement.

Data-mining tools can be classified as either directed or undirected. Directed data mining, also called supervised or predictive data mining, explores datasets trying to explain some target variable. The target variable might be "customers who churn," "customers who default on payment" or "buyers of the Dyson AM07 Tower fan." The objective is to create a predictive model. Undirected, or unsupervised data mining has no target variable to predict. The software simply explores the dataset looking for patterns, correlations and rules. These are reported to management who must then decide whether there is commercial value in the information.

Directed data mining

CRM practitioners are interested in the future behaviors of customers – segment, cohort or individual – because a customer's lifetime value is determined by their propensity to buy products in the future.

Data analysts scour historic data looking for target variables and associated predictor variables. The predictor variables might be based on managerial insight, or previous research. Then a model is built and validated on these historic data, with new predictor variables being added and others dropped, until management is satisfied with the model's predictive performance. When the model seems to work well on the historic data, it is run on contemporary data, where the predictor data are known but the outcome data are not. This is known as "scoring." Scores are answers to questions such as the propensity–to-buy, default and churn questions listed above.

Predictive modeling is based on three assumptions, each of which may be true to a greater or lesser extent:[10]

1   The past is a good predictor of the future … but, this may not be true. Sales of many products are cyclical or seasonal. Others have fashion or fad lifecycles.

2   The data are available … but, this may not be true. Data use to develop the model may no longer be collected. Data may be too costly to collect, or may be in the wrong format.

3   Customer-related databases contain the target variable you want to predict … but, this may not be true. The data may not be available. If you want to predict which customers are most likely to buy mortgage protection insurance, and you only have data on life policies, you will not be able to answer the question.

One tool that is used for predicting future behaviors is the decision tree.

Decision trees are so called because the graphical model output has the appearance of a branch structure. Decision trees work by analyzing a dataset to find the independent variable that, when used to split the population, results in nodes that are most different from each other with respect to the variable you are trying to predict. Table 5.8 contains a set of data about five customers and their credit risk profile.[11]

We want to use the data in the first four columns to predict whether a customer is a good or poor risk as shown in the fifth column. A decision tree can be constructed for this purpose.

In this decision tree analysis, Risk is in the dependent or target variable. The other four columns are independent or predictor variables. It is unlikely that the customer's name is a predictor of Risk, so we will use the three other pieces of data as independent variables – debt, income and marital status. In the example, each of these is a simple categorical item, each of which only has two possible values (High or Low; Yes or No). The data from Table 5.8 are represented in different form in Table 5.9 in a way that lets you see which independent variable is best at predicting risk. As you examine the data, you will see that the best split is income. Two of the three high-income customers are good credit risks, but both low-income customers are high credit risks. The risk splits for the other two predictors, debt and marital status, do not produce such a clear differentiation. The diagonal indicated by the double-headed arrow

Table 5.8 Credit risk training set

Name	Debt	Income	Married?	Risk
Joe	High	High	Yes	Good
Sue	Low	High	Yes	Good
John	Low	High	No	Poor
Mary	High	Low	Yes	Poor
Fred	Low	Low	Yes	Poor

Table 5.9 Cross-tabulation of dependent and independent variables

Predicted risk	High debt	Low debt	High income	Low income	Married	Not married
Good	1	1	**2**	0	2	0
Poor	1	2	1	**2**	2	1
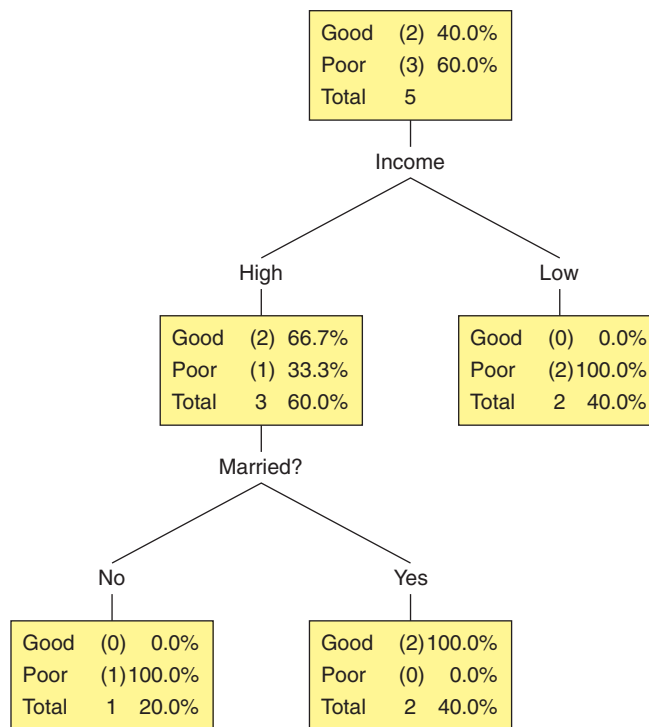
Figure 5.5 Decision tree output

sums to four, which is greater than the diagonals for either of the other two predictor variables. This indicates that income is the best predictor.

Once a node is split, the same process is performed on each successive node, either until no further splits are possible or until you have reached a managerially useful model.

The graphical output of this decision tree analysis is shown in Figure 5.5. Each box is a node. Nodes are linked by branches. The top node is the root node. The data from the root node is split into two groups based on income. The right-hand, low-income box, does not split any further because both low-income customers are classified as poor credit risks. The left-hand, high-income box does split further, into married and not-married customers. Neither of these split further because the one unmarried customer is a poor credit risk and the two remaining married customers are good credit risks.

As a result of this process we know that customers who have the lowest credit risk will be high income and married. They will also note that debt, one of the variables inserted into the training model, did not perform well as a predictor of creditworthiness. Decision trees that work with categorical data such as these are known as classification trees. When decision trees are applied to continuous data they are known as regression trees.

Neural networks, also called artificial neural networks (ANN), are another way of fitting a model to existing data for prediction purposes. The expression "neural network" has its origins

in the work of machine learning and artificial intelligence. Researchers in this field have tried to learn from the natural neural networks of living creatures as reflected in this definition:

ANNs are computational models designed for emulating the simplest functions and the properties of neurons of the human brain.[12]

Neural networks can produce excellent predictions from large and complex datasets containing hundreds of interactive predictor variables, but the neural networks are neither easy to understand and visualize, nor straightforward to use. Neural networks are represented by complex mathematical equations, with many summations, exponential functions and parameters.[13] They work well when there are many potential predictor variables some of which are redundant.

Like decision trees, neural networks need to be trained to recognize patterns on sample datasets. Once trained, they can be used to predict customer behaviors such as purchase or churn, using, for example, real-time data obtained during customer on-boarding. Their predictive capability improves as the computational models learn from each iteration; neural networks are self-learning.

ANNs are also used for many other CRM-related purposes such as predicting call-center loading, estimating responses to sales promotions and customer voice or face recognition. For example, an ANN was used to predict the response rate to a direct mail marketing campaign. Data about the campaign audience, including both purchasing and demographic data, was supplied for the analysis. The ANN predicted the campaign audience members' response correctly in 83% of cases.[14]

Undirected data mining

Undirected data mining does not aim to develop a model that predicts a target variable. Rather, it works by finding hidden structures, patterns or relationships in data sets. Cluster analysis is a statistical procedure that is widely used for purposes such as discovering naturally occurring market segments or clusters of customers sharing similar buying behaviors. As applied to customer data, cluster analysis generally functions as follows:

- Each customer is allocated to just one group. The customer possesses attributes or behaves in ways that are more closely associated with that group than any other group.

- Each group is relatively homogenous.

- Each group is significantly different from others.

In other words, clustering techniques generally try to maximize both within-group homogeneity and between-group heterogeneity. There are a number of clustering techniques, including CART (classification and regression trees) and CHAID (chi-square automatic interaction detection).[15] Once statistically homogenous clusters have been formed they need to be interpreted.

Many CRM applications offer embedded data-mining functionality. Alternatively, data can be exported to third-party data-mining applications such as RapidMiner, Sisense and IBM Cognos.

CASE ILLUSTRATION 5.4

CUSTOMER PORTFOLIO ANALYSIS AT TESCO

Tesco, the largest supermarket chain in the UK, has developed a CRM strategy that is the envy of many of its competitors. Principally a food retailer, in a mature market that has grown little in the last 20 years, Tesco realized that the only route to domestic growth was taking market share from competitors. Consequently, the development of a CRM strategy was seen as being imperative.

In developing its CRM strategy, Tesco firstly undertook customer portfolio analysis (CPA) to examine its customer base. It found that the top 100 customers were worth the same as the bottom 4000. It also found that the bottom 25% of customers represented only 2% of sales, and that the top 5% of customers were responsible for 20% of sales.

The results of this analysis were used to segment Tesco's customers and to develop its loyalty programs.

You can read more about data mining in Chapters 11 and 12, which are about analytical CRM.

CPM IN THE BUSINESS-TO-BUSINESS CONTEXT

B2B researchers have been exploring ways to cluster customers for many years. A very common business practice is to cluster customers into tiered groups, based on the sales revenue they generate, and to offer differentiated value propositions to each tier. Since the 1980s, this practice has been called into question, and alternative CPM models have been developed. We explore some of these models in more detail below.

The dominant univariate CPM model

Many B2B companies classify their customers into groups based on sales revenue. They believe that their best customers are their biggest customers. Some of these companies consciously apply the Pareto principle, recognizing that 80% of sales are made to 20% of customers, as shown in Figure 5.6.

Having clustered their customers by volume, they may then assign their best sales reps, and offer the best service and terms of trade to these, their biggest customers. This may make strategic sense if the business's goal is to generate high sales volumes.

However, the assumption is often made that large accounts are also profitable accounts. Activity-based costing tells us that this is not necessarily so. It is not uncommon to find that small customers are unprofitable because the process costs they generate are greater than the margins they generate. Similarly, many companies also find that their largest accounts are unprofitable. Why? Large accounts create more work, more activity. The work of
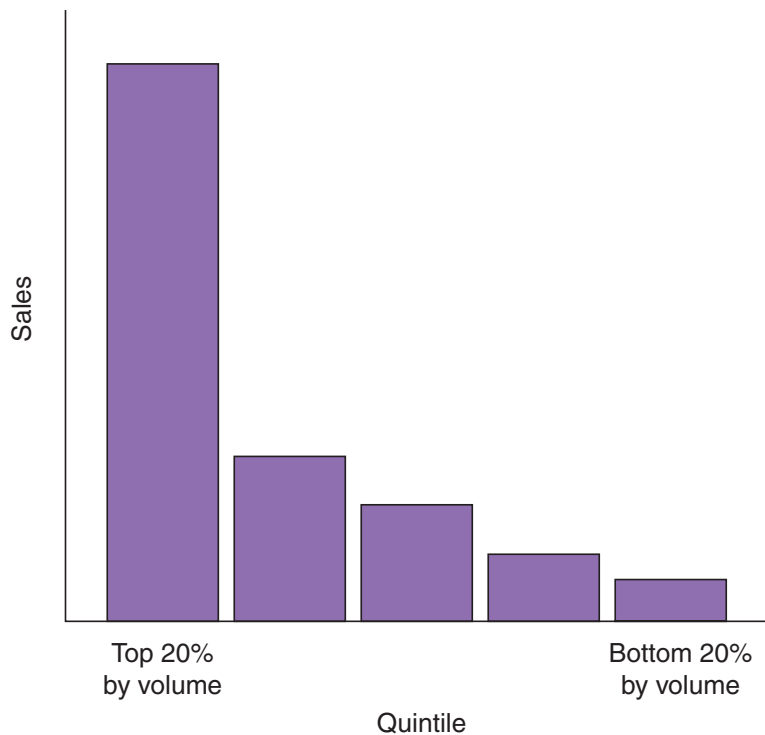
Figure 5.6 The Pareto principle, or 80:20 rule

managing the account might require the services of a large number of people – sales manager, customer service executive, and applications engineer among others. The customer might demand and receive customized product, delivery in less-than-container loads, just-in-time, extended due dates for payment, and deep discounts on price. These costs-to-serve erode margin and might ultimately make the big customers unprofitable. Very often it is the mid-range sales volume customers that are the most profitable. Figure 5.7 shows the profitability of customers who have been previously clustered according to volume. The chart shows that the top 20% of customers by volume are unprofitable, just like the bottom 20% by volume.

When Kanthal, a Swedish manufacturer of electrical resistance heating elements, introduced activity-based costing, they found that only 40% of their customers were profitable. Two of their top three customers by sales volume were among the most unprofitable. The most profitable 5% of customers generated 150% of profits. The least profitable 10% lost 120% of profit. A major challenge for Kanthal was deciding what to do with the unprofitable customers.[16] Their options included implementation of open-book accounting so their customers could see how much it cost to serve them, negotiation of service levels with customers, introducing transparent rules for migrating customers up and down the service level ladder, simplifying and standardizing the order process, introducing a self-service portal, negotiating
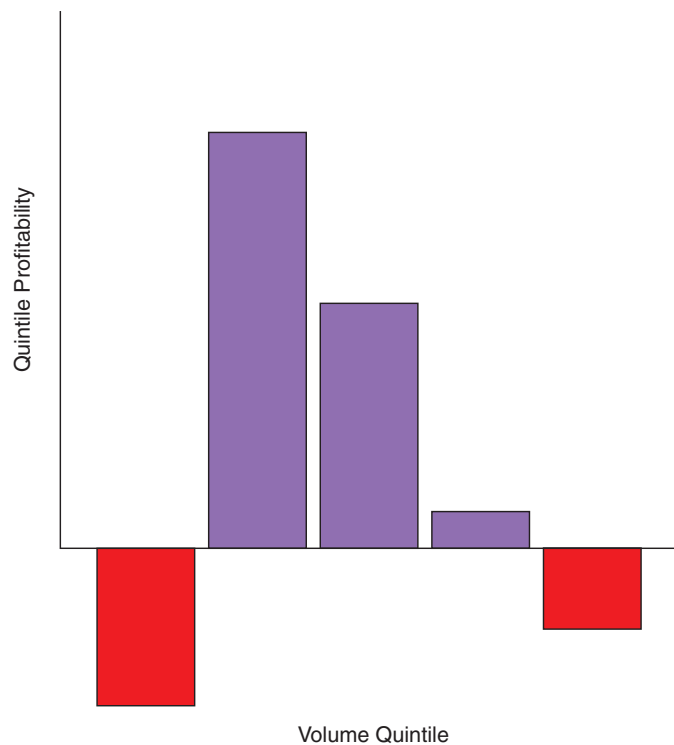
Figure 5.7 Customer profitability by sales volume quintile

price increases, sorting product lines into those that could be delivered ex-stock and others for which advance orders were required, and rewarding account managers for customer profitability – both *per cent* margin and total krona (crown) value.

Since the early 1980s a number of alternative models have been proposed for assessing B2B companies' customer portfolios.[17] They generally classify existing customers using a matrix and measurement approach. Many of these contributions have their origins in the work of the IMP (Industrial Marketing and Purchasing) group that we introduced in Chapter 2.[18] Many of the models are conceptual, but some models have been applied or subjected to empirical testing.[19]

Bi-variate CPM model

Benson Shapiro and his colleagues developed a customer portfolio model that importantly incorporated the idea of cost-to-serve into the evaluation of customer value.[20] Figure 5.8 presents the matrix they developed.

In this model, customers are classified according to the price they pay and the costs incurred by the company to acquire and serve them. Four classes of customer are identified: carriage trade (often newly acquired customers who are costly to serve but pay a relatively high price), passive customers, aggressive customers and bargain basement customers. The important contribution of this customer portfolio model is that it highlights the
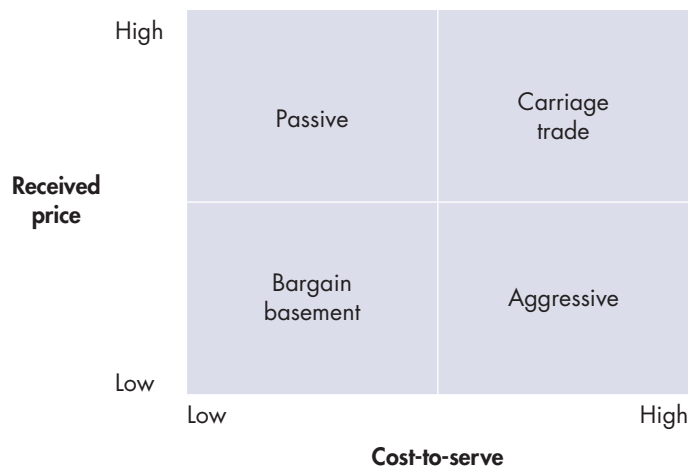
Figure 5.8 Shapiro et al.'s customer portfolio matrix

issue of customer profitability, by recognizing that costs are not evenly distributed across the customer base. Some customers are more costly to win and serve than others, and, if this is accompanied by a relatively low received price, the customer may be unprofitable. Table 5.10 shows how costs-to-serve can vary before the sale, in production, in distribution and after the sale.

Although this bi-variate customer portfolio model uses cost-to-serve and received price to estimate customer profitability, it fails to recognize that customers may create other forms of value for suppliers. A number of tri-partite CPM models have tried to address this deficiency.

Table 5.10 How costs vary between customers

Pre-sale costs	Production costs	Distribution costs	Post-sale costs
Geographic location: close v. distant	Order size	Shipment consolidation	Training
Prospecting	Set-up time	Preferred transportation mode	Installation
Sampling	Scrap rate	Back-haul opportunity	Technical support
Human resource: management v. reps	Customization	Location: close v. distant	Repairs and maintenance
Service: design support, applications engineering	Order timing	Logistics support, e.g. field inventory	

Tri-variate CPM models

Peter Turnbull and Judy Zolkiewski have developed the three-dimensional CPM framework shown in Figure 5.9.[21] The dimensions they propose are cost-to-serve, net price and relationship value. The first two variables are adopted from the Shapiro model. Relationship value, the third dimension, allows for other strategic issues to be taken into account. Relationship value is "softer" or more judgmental than the other two dimensions. Among the questions considered when forming a judgement on relationship value are the following:

- Are the goods or services critical to the customer?
- Is the customer a major generator of volume for the supplier?
- Would the customer be hard to replace if they switched to another supplier?
- Does the customer generate cost savings for the supplier?

Thomas Ritter and Henrik Andersen's more recent modeling also takes a broader view of customer value, by incorporating not only the profitability of the customer, but their growth potential and level of commitment, using both objective data and judgments from account managers.[22] This model produces a portfolio of six different clusters of customer, two of which produce neither profit nor growth potential as shown in Figure 5.10. The authors have subjected the model to empirical testing and conclude that it "is a useful tool for managers to gain a better understanding of their customer portfolio". They find that each
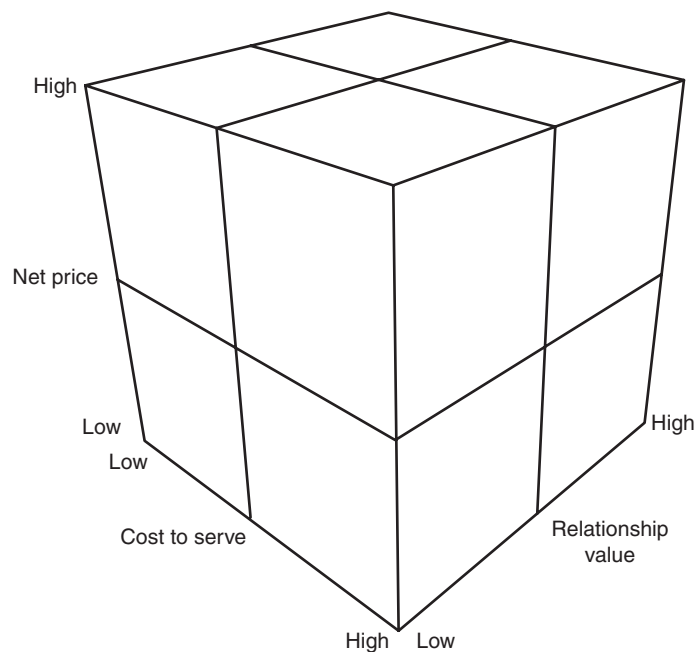
Figure 5.9 Turnbull and Zolkiewski's 3D Customer Classification Matrix
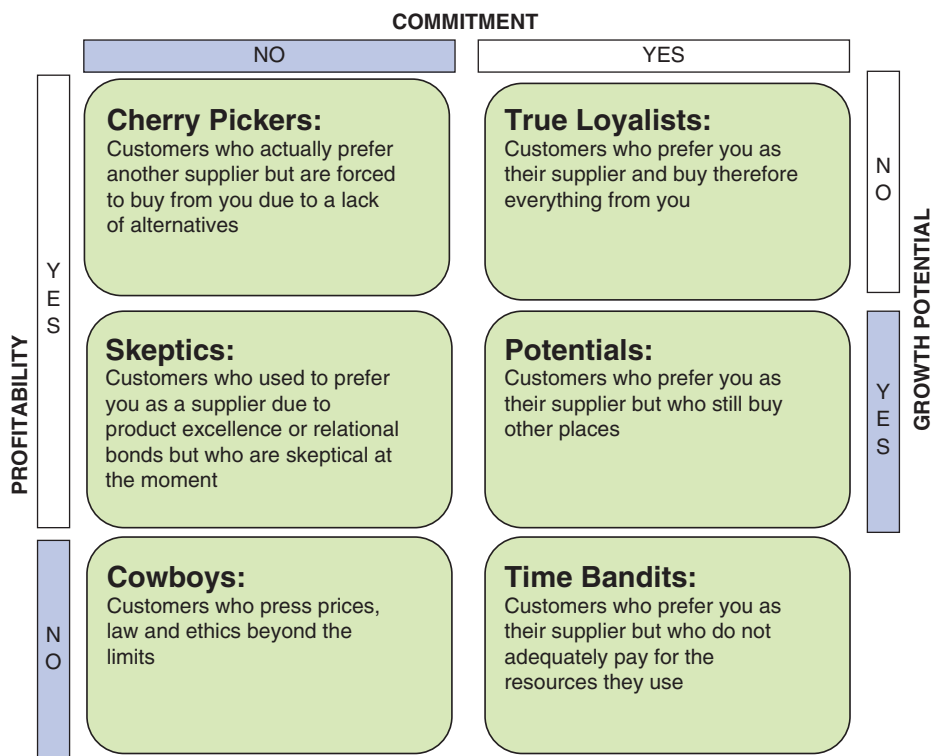
Figure 5.10 Ritter and Andersen's 6-pack model

CASE ILLUSTRATION 5.5

OILCO'S CPM STRATEGY[23]

OilCo takes a dyadic approach to CPA. Rather than just considering the supplier's expectations of value from the relationship with the customer, it integrates the customer's expectation of value from the relationship with the supplier. Customer research suggested that customers could be clustered into three groups: core value seekers, added value seekers and future-oriented value seekers aligned on a transactional-relational continuum. Core value seekers were far more likely to view the bought product as a commodity, be price sensitive, less willing to adapt, require lower service levels and less interaction, and draw less often on supplier expertise than either value added seekers, and more especially future oriented value seekers. Given that the oil company wished to optimize profitability across the customer portfolio it developed three broad relationship management strategies: cost excellence (for core value seekers), value added selling relationship management (for value added seekers) and sustainable collaborative relationship management (for future oriented value seekers). Within these broad relationship management strategies, the value delivered to each customer varies considerably dependent upon the complexity of the customer's business, the customer's preference for interaction, the strategic relevance of the customer, and the profitability of the customer.

category in the portfolio has its own relationship management implications, for example, not offering loyalty program benefits to transactional customers, minimizing discounts for cherry pickers in the mistaken hope that they will show growth potential, or eliminating free seminar invitations for time bandits. They also suggest that different relationship management key performance indicators should be considered for each cluster, for example, customer satisfaction would be inappropriate for "cowboys," but share of wallet would be appropriate for "potentials."

ADDITIONAL CUSTOMER PORTFOLIO MANAGEMENT TOOLS

In addition to the CPM tools described above, there are a number of other useful tools that are in common use for strategic planning. These tools, however, operate at company-specific level. This means that a CRM strategist could apply these tools to assess a particular customer's attractiveness and to choose between customers for relationship-building investment. We explore two tools: SWOT analysis and the growth-share matrix.

We'll introduce them here briefly. For a fuller report, refer to any basic corporate strategy or marketing strategy book.

SWOT

SWOT is an acronym for strengths, weaknesses, opportunities and threats. When used for CRM purposes in the B2B context SWOT analysis explores the internal environment (S and W) and the external environment (O and T) of a current or potential business customer. Properly done, SWOT helps firms identify opportunities best suited to their competitive advantages, and threats that potentially exploit their weaknesses. The internal (SW) audit looks for that customer's strengths and weaknesses relative to competitors in the business functions of sales, marketing, manufacturing or operations, finance and people management. It then looks cross-functionally for strengths and weaknesses in, for example, cross-functional processes (such as new product development) and organizational culture. It is essential that strengths and weaknesses are always expressed comparative to competitors. Therefore a "good reputation among customers" is only a strength if it is a **better** reputation than competitors.

The external (OT) audit analyses the macro- and micro-environments in which the customer operates. These opportunities or threats present in market growth or contraction, changes in legislation, new technology, competitive conditions, evolving customer attitudes and so on.

A CRM-oriented SWOT analysis would be searching for customers or potential customers that emerge well from the analysis. These are customers that:

- Possess relevant strengths to exploit the opportunities open to them.
- Are overcoming their own weaknesses by partnering with other organizations to take advantage of opportunities.

- Are investing to exploit opportunities in their served markets.

- Are responding to competitive threats by diversification.

The growth-share matrix

The growth-share matrix was designed to analyze a company's product portfolio so that companies can develop strategies that enhance their profit and cash flow. The analysis takes into account two criteria – relative market share and market growth rate – to identify where profits and cash flow are earned. Figure 5.11 is a sample growth-share matrix. This analysis proposes that the best indicator of a market's attractiveness is its growth rate (hence the vertical axis of the matrix) and that the best indicator of competitive strength is relative market share (the horizontal axis) compared to the strongest competitor in the target market or segment. There are two theories that support the strategy prescriptions. First, the product lifecycle suggests that all high growth markets eventually stop growing or decline. Therefore, over time all company offerings move to the lower quadrants in the matrix. Second, the firm with the greatest output enjoys the lowest cost due to economies of scale.

The matrix categorizes products into one of four quadrants and prescribes certain strategies: milk the cows, invest in the stars, ditch the dogs and sort the question marks into those that you want to support as they become stars, and the remainder that you expect to convert into dogs.
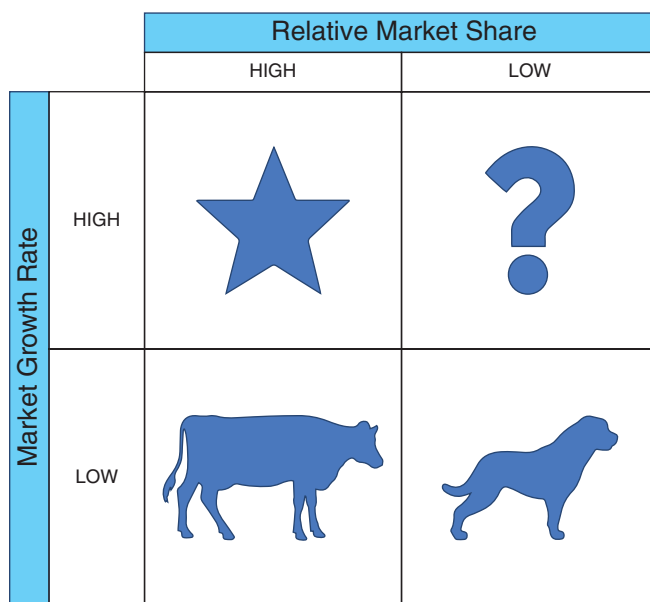
Figure 5.11 The growth-share matrix (Boston Consulting Group)[24]

A balanced portfolio of products contains question marks, stars, and cash cows. Cash cows generate the cash flow that support development of the attractive question marks and the growth of the stars. As the question marks grow their relative market share, and become stars, they establish a position in the market that will eventually yield strong positive cash flows. This happens when a leading product maintains that position in a mature market.

From a CRM perspective, a customer with a balanced portfolio of products of its own has greater CLV potential for a supplier than a customer with an unbalanced portfolio. A company with no or few new products in the pipeline will struggle to remain viable when the existing cash cows dry up. This happens as competitors fight to win market share and substitutes emerge.

STRATEGICALLY SIGNIFICANT CUSTOMERS

The fundamental goal of CPM is to cluster customers into groups so that differentiated value propositions and relationship management strategies can be applied. One outcome will be the identification of customers that are strategically significant for the supplier's future. We call these strategically significant customers (SSCs). There are several classes of SSC, as follows:

1   **High future lifetime value (CLV) customers**. These high CLV customers will contribute significantly to the company's profitability in the future.

2   **High volume customers**. These customers might not generate much profit, but they may be strategically significant because of their absorption of fixed costs, and the economies of scale they generate to keep unit costs low.

3   **Benchmark customers**. These are customers that other customers follow. For example, Nippon Conlux supplies the hardware and software for Coca-Cola's vending operation. While they might not make much margin from that relationship, it has allowed them to gain access to many other markets. "If we are good enough for Coke, we are good enough for you," is the implied promise. Some IT companies create "reference sites" at some of their more demanding customers, and invite prospective customers to visit those sites.

4   **Inspirations**. These are customers who bring about improvement in the supplier's business. They may identify new applications for a product, product improvements, or opportunities for cost reductions. They may complain loudly and make unreasonable demands, but in doing so, force change for the better.

5   **Door openers**. These are customers that allow the supplier to gain access to a new market. This may be done for no initial profit, but with a view to proving credentials for further expansion. This may be particularly important if crossing cultural boundaries, say between West and East.

One company, a Scandinavian processor of timber, has identified five major customer groups that are strategically significant, as in case illustration 5.6.

CASE ILLUSTRATION 5.6

STRATEGICALLY SIGNIFICANT CUSTOMERS AT A SCANDINAVIAN TIMBER PROCESSOR

The forestry industry is extremely important in Scandinavian countries. In Norway, 30,000 people are employed in forestry, and over half the production is exported. One leading Norwegian forestry company uses five criteria to identify customers that are strategically significant.

1. **Economic return**. This considers the gross and net margins currently earned from the relationship.

2. **Future business potential**. Even if the current economic return isn't strong, the forestry company looks to the future, and estimates future sales and margins from the customer.

3. **Learning value**. A customer can be strategically significant if the forestry company can learn from it. For example, product innovation, quality improvement and cost savings.

4. **Reference value**. A customer can be strategically significant if it occupies an established and respected position in its industry. This position can be leveraged by the forestry company to gain access to new customers.

5. **Strategic value**. A customer may be strategically significant for a number of broader strategic reasons, such as

   a. Providing access to new markets

   b. Strengthening incumbent positions

   c. Building barriers to new entrants

THE SEVEN CORE CUSTOMER MANAGEMENT STRATEGIES

Customer portfolio analysis pays off when it helps companies develop and implement differentiated CRM strategies for each cluster of customers in the portfolio. There are several core customer management strategies:

1. **Start a relationship**. This makes sense when a supplier has identified a prospect as having potential strategic significance for the future. The company will need to develop an acquisition plan to recruit the customer onto the value ladder. You can read about customer acquisition strategies in Chapter 3.

2. **Protect the relationship**. This makes sense when the customer is strategically significant and attractive to competitors. We discuss the creation of exit barriers in our review of customer retention strategies in Chapter 4.

3. **Grow the relationship**. Like the strategy above, the goal is to migrate the customer up the value ladder. This is done by increasing your share of customer spend on the category, and by identifying up-selling and cross-selling opportunities.

4   **Harvest the relationship**. When your share of wallet is stable, and you do not want to invest more resources in customer development, you may feel that the customer has reached maximum value. Under these conditions you may wish to harvest, that is, optimize cash flow from the customer with a view to using the cash generated to develop other customers. This may be particularly appealing if the customer is in a declining market, has a high cost-to-serve or has a high propensity-to-switch to competitors.

5   **Re-engineer the relationship**. This strategy makes sense when the customer is currently unprofitable or less profitable than desired but shows profit potential if costs were trimmed from the relationship. This might mean reducing or automating service levels or servicing customers through lower cost channels.

6   **Terminate the relationship**. Sacking customers is generally anathema to sales and marketing people. However, when the customer shows no sign of making a significant contribution in the future, it may be the best option. We discuss sacking customers in Chapter 4.

7   **Reactivate the relationship**. Sometimes customers take some or all of their business to other suppliers. If they are not strategically significant, it may make sense to let them go. However, when the customer is important, companies will want to develop and implement win-back strategies. The starting point must be to understand why they took their business away.

CONCLUSION

In this chapter, you have learned about customer portfolio management. CPM is an essential component of strategic CRM. CPM is underpinned by analysis that clusters customers into groups that can then be treated to differentiated value propositions and customer management strategies. It strives to do this by estimating the current and future value of each group, taking into account the revenues each group will generate and the costs that will be incurred in acquiring and serving those customers. A number of basic disciplines underpin the CPM process – market segmentation, sales forecasting, activity-based costing, customer lifetime value estimation, and data mining. Market segmentation needs to have a clear focus on customer value when used for CPM purposes. A number of qualitative and quantitative sales forecasting techniques can also be used to estimate what customers are likely to buy in the future. Activity-based costing enables companies to understand the costs of marketing, selling and servicing customers, and consequently customer profitability. Customer lifetime value estimation models can be used to evaluate a customer's future worth to a company, and data mining techniques are particularly useful for detecting patterns and relationships within historic customer data that can be useful for predicting future purchasing behaviors.

The CPM process tends to differ between B2C to B2B contexts. Not only have a number of portfolio analysis tools been developed specifically for B2B contexts, but activity-based costing is more easily applied in B2B contexts, whereas data mining is more visible in B2C contexts.

The purpose of all this analysis is to disaggregate potential and current customers into subsets so that different value propositions and relationship management strategies can be developed for each group. We close the chapter by identifying seven core customer management strategies that can be applied selectively across the customer portfolio.

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MANAGING CUSTOMER-EXPERIENCED VALUE

CHAPTER OBJECTIVES

By the end of the chapter, you will understand:

1. The meaning of the term value.

2. How customers weigh up benefits and sacrifices.

3. Three major types of value proposition.

4. How marketers enable customers to experience value through the 7Ps.

5. The importance of customization in creating customer-experienced value.

6. How the Internet has changed the way that customers experience value.

INTRODUCTION

This chapter is the second of three on the topic of strategic CRM. A core assumption in CRM is that customers are more likely to experience the value they seek if they build a relationship with a company that has a good understanding of, and is responsive to, their needs, than if they were to buy transactionally on the open market. In this chapter you'll learn about how companies enable customers to experience value. You'll find out what customers mean when they talk about value, and the various elements that make up a company's value proposition.

Our definition of CRM, repeated below, stresses the centrality of value creation and delivery.

CRM is the core business strategy that aims to create and maintain profitable relationships with customers, by designing and delivering superior value propositions. It is grounded on high-quality customer-related data and enabled by information technology.

The task of enabling the creation and delivery of value to customers is a role for strategic CRM.

UNDERSTANDING VALUE

Although, the term "value" is used in a number of different ways,[1] in a CRM sense it can be thought of as follows:

Value is the customer's perception of the balance between benefits received from a product or service and the sacrifices made to experience those benefits.

It is possible to represent this definition in the form of an equation:

$$\text{Value} = \frac{\text{Benefits}}{\text{Sacrifices}}$$

Although our definition shows that it is the customer who establishes whether they experience value or not, it also implies that managers can do two things to enhance customer-experienced value: offer improved benefits to customers, and reduce the sacrifices they make to experience those benefits.

Let's first look at sacrifices. Customers make several types of sacrifice.

- **Money**. This is the price of the product or service, which may or may not be the listed price. There may be additional costs such as credit card surcharges, interest charges on extended payments or warranty costs. There may be discounts applied for relationship customers, early payment or volume purchases.

- **Transaction costs.** Oliver Williamson[2] is acknowledged as the creator of Transaction Cost Economics. In addition to money, he proposed that customers incur transaction costs when searching for solutions, negotiating with suppliers, and receiving and integrating the goods and services into their homes or workplaces. Particularly for B2B, the purchasing process may include exhaustive pre-purchase work in searching for solutions and comparing alternatives. Major tenders for new IT systems or infrastructure may take years to complete and cost the buying organization millions of dollars. Negotiations and performance monitoring can also be complex and costly to conduct and monitor; think of major long-term contracts for building and operating hospitals or power plants. Transaction costs are normally lower when search costs are eliminated, and purchasing processes are routinized. Some suppliers are prepared to take on the costs of managing inventory for important customers, so that they are less tempted to search for alternative solutions. Known as vendor managed inventory (VMI), it reduces search and reorder costs for customers. Building trust is another way of lowering transaction costs; the level of negotiation and monitoring can be substantially reduced. In B2C, transaction costs are also important. You might have a favorite clothing store that reduces your search costs because you trust their fashion sense. Apple users often buy multiple devices for their seamless integration. Reduced transaction costs may explain a buyer's desire to build relationships with suppliers.

- **Psychic costs**. Purchasing can be very stressful and frustrating, especially for customers who lack experience and confidence. Making decisions, choosing, can be exhausting. It demands a cognitive effort that consumers often wish to avoid.[3] Inertia may be a consequence. Famously, people are reluctant to switch between banks even if they are thoroughly dissatisfied with their current bank's performance.

One major class of psychic cost is the perceived risk that customers experience when making a buying decision. Will this new device work? Will I feel foolish for buying now when something much better is coming out in a few months? Is this outfit unflattering? Will this gift be appreciated or cause me shame?

Marketing researchers have identified a number of forms of perceived risk: performance, physical, financial, social and psychological. Performance risk occurs when the customer is not fully sure that the product will do what is required. Physical risk is when the customer feels that there may be some bodily harm done by the product. Financial risk is felt when there is danger of economic loss from the purchase. Social risk is felt when customers feel that their social standing or reputation is at risk. Psychological risk is felt when the customer's self-esteem or self-image is endangered by a purchase. When perceived risk is high, psychic cost is correspondingly high. Research suggests that we are not totally rational in our ability to assess perceived risk. We tend to worry too much about potentially bad outcomes, even if their probability of happening is very small, and we assess gains differently from losses.[4] Traditional economic theory suggests that rational decision-makers consider the expected utility (risk multiplied by outcome) and therefore treat expected losses and gains in an equivalent manner. Research has called this into question. Kahneman and Tversky[5] find that people feel losses more than do gains; we are loss averse.

Customers often feel uncomfortable at higher levels of perceived risk and may try to reduce risk in a number of ways as indicated in the list below. When customers try to reduce perceived risk, they are, in effect, trying to reduce the denominator (sacrifices) of the value equation, thereby improving value. Suppliers can help customers reduce their levels of perceived risk in a number of ways. For example, performance risk is reduced by performance guarantees; financial risk is reduced by firm prices, money-back guarantees and interest-free payment plans.

Clearly there is more to the sacrifice component of the value equation than money alone. This explains why customers buy what appear to be sub-optimal solutions to their problems. Why would a customer buy a printer for $200 when an identically specified machine is available for $50? Perhaps the answer lies in transaction and psychic costs.

1   Delay purchase

2   Seek word-of-mouth from knowledgeable friends

3   Negotiate service contracts

4   Seek additional information from advertising copy

5   Buy established brands

6   Build a relationship with a supplier

7   Transact with reputable supplier

8   Seek performance guarantees

9   Buy with credit card that offers a guarantee.

There is a trend towards considering costs from the perspective of "total cost of ownership" or TCO. TCO looks not only at the costs of acquiring goods and services, but also the full costs of using, and servicing them throughout their life, and ultimately disposing of them. What is thought of as "consumption" can be broken down into a number of activities or stages, including search, purchase, ownership, use, consumption and disposal. TCO is an attempt to come up with meaningful estimates of lifetime costs across all these stages.

When customers take a TCO view of purchasing, suppliers can respond through a form of pricing called economic value to the customer (EVC). In a B2B context, EVC works by proving to customers that the value proposition being presented improves the profitability of the customer, by increasing sales, reducing costs or otherwise improving productivity. EVC computes for customers the value that the solution will deliver over the lifetime of ownership and use. Suppliers can apply EVC thinking to each stage of the "consumption" process described above. For example, a server supplier may agree to provide free service, and to collect and dispose of unwanted machines after four years. Customers performing these tasks themselves would incur tangible costs. This is therefore the value that these activities have for customers. EVC encourages suppliers to customize price for customers on the basis of their particular value requirements. In a B2B context, a distinction is sometimes made between economic value (satisfying economic needs at low transaction costs) and social value (satisfaction with the relationship with the supplier).[6]

WHEN DO CUSTOMERS EXPERIENCE VALUE?

Adam Smith, the eighteenth-century father of economics, wrote:

The word value, it is to be observed, has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called "value-in-use", the other, "value-in-exchange".[7]

Value-in-exchange

Value-in-exchange is the exchange of one form of value for another. In developed economies value-in-exchange takes the form of money being exchanged for a good or service at the point of sale. One form of value (the good or service) is exchanged for another (money). In less developed economies, barter is a common non-monetized form of value-in-exchange, goods or services being exchanged for other goods or services.

Value-in-exchange logic suggests that value is created by the firm, embedded in products, distributed to the market, and realized when those products are exchanged for money. From

this perspective, the roles of producers and consumers are distinct, and value is created about when production, marketing, distribution and selling processes are performed by the firm.

Value-in-use

Value-in-use holds that value is realized only when customers possess, use, consume or interact with the good or service .[8] Until consumers perform these actions, goods are simply inert bundles of attributes – they have no value whatsoever. This perspective on value suggests that value is "not what the producer puts in, but what benefits the customer gets out."[9] Firms can only create value propositions, whereas customers co-create value-in-use when they use or otherwise interact with the firm's offers. From this perspective, value-in-use is context-dependent.[10] According to one review of the customer-perceived value literature value is both personal and situational, and prone to change over time.[11] This is consistent with the position taken by adherents of service-dominant logic, which we introduced in Chapter 2. SDL claims that "Value is always uniquely and phenomenological determined by the beneficiary."[12]

Young consumers attending a birthday party hosted by a fast-food chain may experience considerable value-in-use but using the same service provider for a wedding celebration may yield considerably less value-in-use for the participants. A company might offer the most sophisticated production management technology, but its value-in-use is completely dependent upon their customers' reengineering their logistics processes and retraining their people so that they might benefit from the new technology.

Value-in-experience

Contextualized value-in-use is consistent with our view of CRM. However, we do not just claim that customers co-create value when they use products and services (or "dis-value" if their experience is unsatisfactory). We also suggest that customers can experience value as they interact with or are exposed to any marketing, sales or service output of the firm throughout the customer journey. Let's consider marketing outputs first. There is potential value in enjoying the humor in an ad or learning a serving suggestion from a food product's packaging, whether or not purchase takes place. Sales activities often create value-in-experience. In B2B contexts, the sales process is often accompanied, or preceded, by consultancy, which establishes how the firm's offer will impact the potential customer's business. In consumer marketing, a knowledgeable sales person will help you understand which offer is best suited for your needs, how to use products more effectively than you have before or educate you about new offers that will serve you well. Service activities can also enable a customer to experience value. When a customer calls to request service under warranty, a skilled customer service agent empowered by effective technology can both resolve the issue quickly and effectively and provide reassurance about the firm's responsiveness and reliability. Contact center staff with high emotional intelligence can add considerably to customer perceptions of value.

Managers who design and deliver customer experience throughout the customer journey need to be aware that the customer's interactions with the firm's products, services, people, processes, communications and other outputs, whether from marketing, sales or service departments, can have a significant effect of the customer's value-perceptions.

Value is not only experienced when customers use products and services. Consequently, we prefer the expression "value-in-experience" to "value-in-use."

MODELING CUSTOMER-PERCEIVED VALUE

The sole judge of whether value has been experienced is the customer. Researchers have been investigating value since the 1980s and have developed several typologies of customer-perceived value. Valarie Zeithaml's early work identified four different forms of customer-perceived value: value as low price; value as delivery of what the customer wants; value as the quality:price ratio; and value as the ratio of give:get, that is, what customer receives compared to the sacrifices the customer makes.[13]

More recently, researchers have come to appreciate customers don't just experience functional value from the products they buy; they also experience hedonic or affective value such as pleasure, fun, amusement, and entertainment. Functional value might take the form of price-savings, service excellence, time-savings and choice, and hedonic value takes the form of entertainment, escape and interaction.[14]

As researchers have developed a deeper understanding of customer-perceived value, a number of multi-dimensional models of have been published. Jag Sheth and colleagues have identified five types of value: functional, emotional, social, epistemic and conditional value.[15] Functional value is the utility associated with an offering's functional, utilitarian or physical performance. Emotional value is experienced when the offering arouses feelings or emotional states (also called hedonic value). Social value is associated with the offering's connectedness to one or more specific social groups. Epistemic value is the utility acquired from an offering's capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. The conditional value of an offering is experienced as the result of the specific contextual circumstances facing the consumer.

Morris Holbrook proposed a typology of consumer value with three dimensions First, value can be either extrinsic or intrinsic – the consumer perceives value in using or owning a product or service as a means to an end (extrinsic) or as an end in itself (intrinsic). Second, value can be either self-oriented or other-oriented – consumers perceive value for their own benefit or for the benefit of others. Third, value can be active or reactive – the consumer experiences value through direct use of an offering in contrast to apprehending, appreciating or otherwise responding to it. These three dimensions give rise to eight types of consumer-experienced value: efficiency, excellence, play, aesthetics, status, esteem, ethics and spirituality, as shown in Figure 6.1. Holbrook argues that all eight types of value tend to occur together to varying degrees in any given consumption experience.[16]

In a well-regulated, competitive economy, most companies compete by developing offers that consistently deliver better value than competitors. This means companies have to understand customers' requirements fully and create and deliver better solutions and experiences than competitors. In order to create better value for the customers, companies have to reinvent the numerator (benefits) and/or denominator (sacrifices) of the value equation. In a B2B context, customized solutions are often created in partnership with customers, on a customer-by-customer basis. In B2C contexts, solutions are more often segment or niche specific, and are supported by market intelligence. To win and keep customers, companies have to constantly seek to improve customer-experienced value. Given that this happens in

		Extrinsic	Intrinsic
Self-oriented	Active	Efficiency (output/input, convenience)	Play (fun)
	Reactive	Excellence (quality)	Aesthetics (beauty)
Other-oriented	Active	Status (success, impression management)	Ethics (virtue, justice, morality)
	Reactive	Esteem (reputation, materialism, possessions	Spirituality (faith, ecstasy, rapture, sacredness, magic)
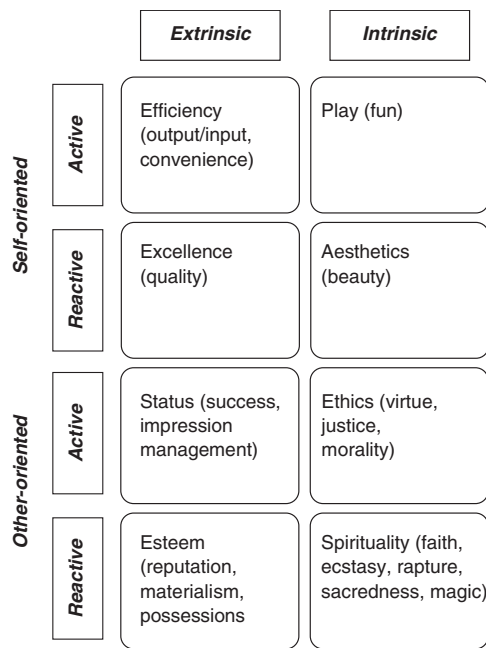
Figure 6.1 Holbrook's typology of consumer value

a competitive environment, it is necessary not only to keep up-to-date on customer requirements, but also to stay ahead of competitors' efforts to serve these customers.

Although this background provides a foundation for understanding customer-experienced or customer-perceived value, researchers now appreciate that it is necessary to conduct contextualized research to identify, conceptualize and operationalize the attributes or conditions that customers employ to decide whether value has been experienced or not. For example, Lapierre identified 13 drivers of customer-perceived value in the business-to-business IT supplies context, ten of which were on the benefit side of the value equation and three on the sacrifice side. The benefits clustered into three groups focused on product (alternative solutions, product quality, customization), service (responsiveness, flexibility, reliability, technical competence) and relationship (supplier's image, trust, supplier solidarity with customer). The sacrifice components were price, time/effort/energy, and conflict.[17] Another study, conducted in the retail banking sector, identified four drivers of customer-perceived value, three on the benefit side and one on the sacrifice side. The benefits clustered into three groups focused on bank reputation, service quality and convenience, whereas the sacrifices focused on service charges, fees, interest rates and associated transaction costs (transport, parking etc.).[18] We now explore some of the strategies and management decisions that influence whether customers will experience value or not.

SOURCES OF CUSTOMER VALUE

It is the job of professional marketers to construct the offers that enable customers to experience value – the so-called value proposition. We can define value proposition as follows:

A value proposition is the explicit or implicit promise made by a company to its customers that it will deliver a particular bundle of value-creating benefits.

Michael Treacey and Fred Wiersema have suggested that successful companies focus on excellence in one of three possible strategies for value creation: operational excellence, product leadership, or customer intimacy.[19]

Operational excellence

Operationally excellent firms do a limited number of things extremely efficiently. Typically, they are lean, focused and cost-aware businesses that are able to offer very low prices to customers. Companies renowned for this are Wal*Mart, Giordano, McDonald's, Aldi and Lidl. Unexpectedly, Toyota might also fit this strategy. If customers take a total cost of ownership view of price, then Toyota, with its reputation for reliability, durability and competitive service costs fits the operational excellence model well. Companies offering this value proposition tend to operate lean manufacturing and efficient supply chains, have close cooperation with suppliers, rigorous quality and cost controls, process measurement and improvement, and management of customer expectations. An alternative perspective on operational excellence is convenience (reflected in low transaction costs for the customer). Many online companies compete to offer products and service requiring minimal customer effort. Consider Amazon, for example, with its one-click buying option.

Product leadership

Companies that offer the product (also service) leadership value proposition aim to provide the best products, services or solutions to customers. Continuous innovation underpins this strategy. Companies renowned for this are Apple, BMW, 3M, Intel, GSK, LG and Singapore Airlines. Product leadership is associated with companies that have a culture that encourages innovation, a risk-oriented management style, and investment in research and development.

Customer intimacy

Companies that offer this value proposition are able to adapt their offers to meet the needs of individual customers. Customized solutions must be based on customer insight. Companies renowned for customized solutions include Saatchi & Saatchi, McKinsey, and the US department store Nordstrom. Customer intimacy is not the same as "good service": it is creating truly personalized solutions for individual customers.

CUSTOMIZATION

CRM aims to build profitable relationships with customers, at segment, cohort or individual level. As you can see from the three basic value propositions described above, one way of achieving this is to customize the value proposition. CRM generally aims to fit the offer, or some parts of it, to the requirements of the customer; it is not a one-size-fits-all approach, unless that is what customer wants!

Customization means that companies have to be aware of, and responsive to, customers' differing requirements, information that should be kept current in a customer database. Customization may have both cost and revenue implications. It may make strategic sense because it generates competitive advantage and is appealing to customers, but there may be worries about the costs of customization. Customization may mean the loss of economies of scale thus increasing unit costs. However, not all customization has significant cost implications. For example, customizing email and direct mail communications with customers can be very inexpensive.

More significant forms of customization – product customization, for example – can, on the other hand, be extremely expensive. Product customization may involve a supplier in sourcing new inputs and designing and manufacturing unique outputs, thereby taking on new responsibilities for customer outcomes and accepting new forms of risk. Salespeople interacting with customers may find it useful to have technology support, for example, a product configurator. Product configurators are integrated into leading CRM technology applications, for example Salesforce, but there are many stand-alone CPQ (Configure, Price, Quote) solutions too. Configurator technologies can be quite sophisticated. In their simplest form they contain a set of rules (if the customer chooses the 1.8 liter engine, only allow chassis type A). At the other end of the spectrum are constraint-based optimization technologies. The constraints are applied in a systematic way to ensure the final configuration is optimal, for example, in producing least cost products.

Customization has been the norm in B2B markets for many years. Suppliers routinely make adaptations to suit the needs of customers. It is also true that customers make adaptations to suit suppliers. These adaptations serve as investments that make the relationship harder to break. As shown in the list below, suppliers are sometimes able and willing to adapt, or customize, any parts of the offer.

1   **Product**

Solvay Interox, a chemicals company, customizes its hydrogen peroxide product for textile industry customers.

2   **Price**

Dell Computer offers lower prices to its larger relationship customers than its small office-home office (SOHO) customers.

3   **Promotion**

Ford customizes communications to its dealership network.

4   **Place**

Procter and Gamble delivers direct to store for its major retail customers but not smaller independents.

5   **Process**

Xerox customizes its service guarantee and recovery processes for individual customers.

6   **People**

Hewlett Packard creates dedicated virtual project groups for its IT project clients.

7   **Physical evidence**

Cosmos and other major tour operators customize point-of-sale material for major travel agency brands, by overprinting with travel agency details.

Mass customization

A distinction can be made between "craft customization" and "mass customization." Mass customization means that an organization is able to offer customized value propositions to individual customers on a massive scale. Craft customization also involves customized offers but not at mass-market levels.

Mass customization can be defined as follows:

> **Mass customization is the use of flexible processes and organizational structures to create varied and even individually tailored value propositions to order. In most cases, this is achieved with only a limited cost or lead-time penalty.**

Mass customization is not the same as offering customers more choice. Customers certainly want their needs to be met. They do not necessarily want choice. Giving customers choice has been the default strategy when companies have been unable to identify or meet customers' precise requirements. Choice means work for the customer in comparing offers. Work adds to the customer's transaction and psychic costs.

A number of different types of mass customization have been identified, as shown in Table 6.1.[20] A relatively minor form of mass customization involves match-to-order. This

Table 6.1 Different forms of mass customization

	Type of mass customization	How it works	Example
Minor	Match–to-order or locate-to-order	Selection of existing standard products or services to match customer requirements	Cars
	Bundle-to-order	Bundling of existing products and services to suit customer requirements	Conferences
	Assemble-to-order	Assembly of products or services from existing standardized components or processes	Insurance
	Make-to-order	Manufacture of customized products including components	Tailored suits
Major	Engineer-to-order	Customer co-designs products or services which are then made-to-order	Aircraft

simply involves finding a match from a range of standard products to a particular customer's requirements. At the other extreme is engineer-to-order. This involves the co-design, in a joint enterprise between customer and supplier, of a unique solution to that customer's problem.

Traditionally, B2C companies have either mass marketed standardized products or have developed product variants for particular niches. A growing number are now attempting to mass customize their offers. This is enabled by databases that store customer preferences, Internet-enabled interactivity that permits companies to learn about changing customer requirements through improved communication, modular product design, flexible manufacturing operations and supply chains, and mass customization technologies.

Mass customization is widespread in the service industries that serve end consumers. This is largely because the interaction between consumers and service producers during the service encounter lets customers influence both the service delivery process and the outcome.

Mass customization is becoming more common in manufacturing companies, too. Local manufacturing, more commonly known as additive or 3D printing, promises to dramatically change mass customization. In just a few years, this technology has evolved from experimental machines that were enormous and expensive, to compact, reliable machines that can fit on desktops at a cost within reach of most consumers. 3D printing works by converting three-dimensional digital designs into solid objects. A software program slices the design into digital cross-sections so that the printer builds objects layer by layer. 3D printing is widely used in the aircraft industry because it can design complex parts with less material and weight than traditional manufacturing.[21] Imagine, however, taking that forward for spare parts and a scenario where telemetry in flight identifies needed part replacements well before the plane lands at an airport with a service hanger. The parts are printed while the plane is flying and ready for installation upon landing. The reduction in time and inventory across the global supply chain is very appealing for the airlines. Similar scenarios are being worked through in railways, for example. 3D printing has considerable promise for customization in consumer markets too. Imagine sensors in your tennis shoe determining how you are wearing the shoe for your style of play and helping you co-create a shoe for your movement, weight and stresses that can be locally manufactured. The supply chain efficiencies are obvious as are the experiential and value-in-use dimensions of having customized sports shoes.

Key issues for CRM practitioners considering customization are these:

1   Do customers want customized products and services?

2   What degree of customization is desired?

3   Will customers pay a premium for customization?

4   How do we take advantage of the disruptive nature of local manufacturing?

Frank Piller and Melanie Müller have reviewed the research on these questions, giving particular attention to the shoe manufacturing industry.[22] They found that consumers generally are aware of and value the benefits of mass customization (for shoe customers, better fit is the single most important benefit, followed at some distance by style and

functionality), and the majority are willing to pay a premium – particularly women. Willingness to pay more varies across brands and customer segments. Adidas, for example, is able to command a 50% price premium for customized sports shoes. Customization, however, does not universally mean that customers pay more. Some customized products eliminate features that have no value for customers, resulting in lower costs passed on in reduced price.

Amazon.com has become the world's largest and most successful online retailer diversifying from books into other areas such as electronics and clothing. Much of Amazon's continued success has been related to its CRM strategy of retaining customers and growing share of wallet. Amazon utilizes analytic CRM to customize offerings to each customer. Based on information such as your previous purchases, products that you have recently

CASE ILLUSTRATION 6.1

NETFLIX'S RECOMMENDATION ENGINE[23]

More than 80% of the shows people watch on Netflix are discovered through the platform's recommendation system.

Netflix uses machine learning algorithms to help break viewers' preconceived notions and find shows that they might not have initially chosen. To do this, it looks at nuanced threads within the content, rather than relying on broad genres to help it predict what members will next stream.

Netflix has over 100 million members worldwide, and if multiple user profiles for each subscriber are counted, there are more than 250 million active profiles. Netflix knows what members watch, when and the order in which they watch. This information is combined with more data about the content of shows. This is gathered from dozens of in-house and freelance staff who watch every minute or every show on Netflix and tag it. The tags they use range massively from how cerebral the piece is, to whether it has an ensemble cast, is set in space, or stars a corrupt cop.

Netflix takes all of these tags and the user behavior data and then uses machine learning algorithms to explore this data and identify "taste communities," made up people who watch the same kind of things. Members can fit into multiple taste groups – of which there are several thousand – and it's these that affect the recommendations that pop up to the top of the onscreen interface, which genre rows are displayed, and how each row is ordered for each individual viewer. The tags that are used for the machine learning algorithms are the same across the globe. However, a smaller subset of tags are used in a more outward-facing way, feeding directly into the user interface and differing depending on country, language and cultural context. These have to be localized in ways that make sense, for example, the word "gritty" [as in, "gritty drama"] may not translate into Spanish or French.

To illustrate how all this data comes together to help viewers find new things to watch, Netflix looked at the patterns that led viewers towards the Marvel characters that make up *The Defenders*. While there were some obvious trends, such as series with strong female leads – like Orange is the New Black – steering characters towards Jessica Jones, there were also a few less obvious sources, like the smart humor of Master of None and the psychological thrill of Making a Murderer driving people towards the wise-ass private detective.

browsed, and the purchasing behaviors of other customers, Amazon's CRM software can predict a range of other products you are likely to be interested in. For example, a customer who purchases an Ernest Hemingway novel may receive a recommendation to purchase another novel by the author or a DVD documentary of Hemingway's life. Netflix, the online provider of streamed media including TV shows and film, also relies on a well-trained algorithm to make recommendations to subscribers (see case illustration 6.1).

VALUE THROUGH THE MARKETING MIX

As mentioned earlier in this chapter, it is the responsibility of marketers to develop value propositions. They use a toolkit known as the marketing mix to do this. The term "marketing mix" is really a metaphor to describe the process of combining together various components that enable value to be experienced by customers. Eugene McCarthy grouped these components into a classification known as the 4Ps – product, price, promotion and place.[24] This is widely applied by goods manufacturers.

Services marketing experts in both B2B and B2C contexts have found this 4P taxonomy inadequate because it fails to take account of the special attributes of services. Services, for the most part, are intangible (they can't be seen or touched), inseparable (produced at the same time and place they are consumed), heterogeneous (of variable quality) and perishable.

Service marketers' response to these special attributes has been to develop a new toolkit for creating value propositions. It contains another 3Ps, making 7Ps in total.[25] The additional 3Ps are people, physical evidence and process as shown in Figure 6.2. As we now explain, the 7Ps provide a useful framework for goods manufacturers too.

Over the next few paragraphs we'll look at how customer-perceived value can be enabled by astute management of the seven marketing mix variables.

Figure 6.2 The marketing mix

Value from products (and services)

Companies may make products, but customers do not buy products. Customers buy solutions to their problems. They buy benefits, or, better said, they buy the expectation of benefits. Nobody has ever bought a lawnmower because they want a lawnmower; people want attractive lawns. Products are means to ends. Products that offer better solutions than competitors enable customers to experience more value. A better solution is one in which the balance between benefits and sacrifices of the value equation is enhanced for the customer.

Marketers often distinguish between different levels of the product, sometimes known as a customer value hierarchy.[26] We can demonstrate these three levels by considering demand for MBA-level education. The *core* product is the basic benefit that customers buy. MBA students typically are buying one or more of three basic benefits: salary enhancement, career development or personal growth. Companies must be able to meet the customer's core benefit requirements in order to be considered a market participant or competitor. The second level is the *enabling* product. This consists of the physical goods and services that are necessary for the core benefit to be delivered. In the MBA case, this would comprise buildings, classroom fixtures, faculty and educational technology. Universities and colleges offering MBAs often try to distinguish themselves from competitors using dimensions of the enabling product, such as highly qualified faculty or modern campuses. A third level, the *augmented* product consists of those factors that in highly competitive markets refine and confirm the differentiation between competitors. In the MBA illustration this might be teaching method, for example, learning through real-life projects, or an extensive international exchange program, or a leafy out-of-town location.

Companies offering the same core benefit have to compete using the enablers and the augmentations. As renowned marketing guru Ted Levitt noted,

> Competition is not between what companies produce in their factories, but between what they add to their factory output in the form of packaging, services, advertising, customer advice, financing, delivery arrangements, warehousing, and other things that people value.[27]

Product-based value is experienced by customers when they benefit from product innovation, incremental benefits, product-service bundling, and branding. We explore these below.

Product/service innovation

Most "new" products are, in fact, modifications of existing offers, cost reductions or line extensions. Very few products are "new-to-the-world" or create new product categories. New products in all of these categories can improve customer value perceptions, but it is the dramatic ground-breaking inventions that create leaps in customer value. History is littered with them – Stephenson's locomotive, Edison's incandescent light bulb, Hargreaves's spinning jenny, Newcomen's steam engine, Robert Noyce's silicon microchip and Motorola's first mass-produced mobile phone. Friends Reunited, founded in 1999, pioneered social media. It was established to help old school friends to find each other online. Facebook may be remembered as the first major social media success story, but it was a me-too follower,

established in 2004. Facebook did not create the category. That honor goes to Friends Reunited.

Occasionally, old technologies provide a platform for value-delivering modern-day solutions. Trevor Bayliss invented the wind-up radio after seeing a program about the spread of AIDS in Africa. The program highlighted the difficulty that health professionals faced getting safe sex messages to rural and poor areas where there were no power sources for conventional radios. Large-scale manufacturing of the Freeplay® wind-up radio began in 1995. The product has created value for all concerned: the manufacturers, investors, resellers, employees, Bayliss, and of course, radio audiences.

Sometimes products are reinvented as services. Software as a Service (SaaS) replaces on-premise enterprise software with cloud-based access to computing. Michelin Tyres prices large commercial tires according to the kilometers travelled, and Rolls-Royce leases aircraft engines by charging for each kilometer in flight. The functionality of the product remains constant but the offer is radically different, being presented as a service.

Incremental benefits

Companies can generate customer-perceived value by claiming additional benefits for their offers. A lawnmower does not just cut grass beautifully but operates more quietly. A car comes with a seven-year unlimited mileage warranty. Hedonic value can be added to already satisfactory functional value. Apple has done this through the excellent design of its MacBook Pro computer, iPhone and iPad products.

Sometimes additional benefits are accompanied by repositioning the product in a different segment of the market. Originally positioned as a convenient supplier of low-cost staple foods such as burgers and fries, McDonald's sales began to falter in the 1990s and early 2000s as the brand fell out of step with changing consumer tastes, became implicated in the obesity epidemic and featured unhappily in the 2004 documentary *Super Size Me*. McDonald's responded by repositioning the brand so that it appealed to customers seeking a healthier option. Menu innovations including salads and fresh foods, and cleaner, modern, stylish restaurants helped support the repositioning. The brand continues to innovate in order to stay relevant to customers.

Low-involvement product categories have low personal significance or relevance to customers. Customers feel very little sense of engagement with any low-involvement brand and are therefore easily switched to competitors. Adding additional benefits helps brand owners to increase the level of customer involvement. There are two main approaches: product modification and product association. Product modification means changing the product in some way so that it ties in more closely to the customer's needs, values and interests. Detergent manufacturers, for example, have reformulated their brands so that they are more environmentally friendly. Product association means linking the brand to some issue or context that is of high importance to customers. For example, US retailer Home Depot, runs the "Honoring our Veterans" foundation. They state: "More than 34,500 homes and facilities transformed. More than $213 million given to veteran-related causes by the Home Depot Foundation since 2011. When it comes to supporting the brave men and women of our armed forces, we're all in."[28]

Product-service bundling

Product-service bundling is the practice of offering customers a package of goods and services at a single price. Tour operators routinely bundle several elements of a vacation together – flights, transfers, accommodation and meal plan, for example. For the customer, bundling can reduce money, transaction and psychic costs. For the company, there are economies in selling and marketing.

Adding or removing elements from the bundle can both increase customer-perceived value. Adding elements to the bundle increases the benefits side of the value equation. In a B2C context, for example, supermarket operators can offer a bagging service at checkout at no extra cost to the customer. If the people performing this task are diverted from other tasks, then there may be no additional costs for the operator. Removing elements from a bundle enables the company to establish a new price point, therefore adjusting the value equation for customers. In a B2B context, companies often ask for elements to be removed from a bundle in return for a lower price. For example, a training college with its own IT department may ask the supplier of its IT equipment for a lower price in return for not using the supplier's help desk and IT support facilities. If the price is reduced by $5000 and the saving to the supplier is $6000, then both parties win.

Branding

A brand can be defined as follows:

> **A brand is any name, design, style, words or symbols that distinguish a product from its competitors.**

Brands create value for customers in a number of ways, on both sides of the value equation. Brands reduce transaction costs by clearly identifying the product as different from others. Brands can also reduce psychic costs. Over time, customers assign meanings to brands. If you buy a Mercedes vehicle, it may be because you understand that the brand attributes are excellence in engineering, assured quality build, and high resale value. A customer who understands what the brand means experiences less risk than the customer who does not understand. Brand knowledge like this is acquired from experience, word-of-mouth, online brand communities or social media, or marketer-controlled communication. Brands also offer an implicit assurance of a particular customer experience. When you buy any of the products carrying the Virgin brand it may be because you believe that Virgin's brand values are service excellence, innovation and good value.

Value from service

A service is a performance or act performed for a customer. Service is an important part of many companies' value propositions. In most developed economies, about 70% of gross domestic product is created by service organizations. For these organizations, service is the core product. Some manufacturing firms have also come to recognize that service is their core product. An engineering company that designs and makes computer-controlled lathes knows that its customers are buying expectations that a particular service will be performed:

precise replication of an engineered object. For most manufacturers, service is an important part of the enabling and augmented product. For example, carpet manufacturers make floor coverings to clearly defined international standards. While there is some potential to compete through product innovation, many manufacturers believe the best way to compete is through offering better service to their distributors, and corporate and domestic customers. Typical services include stockholding, design, measurement, cutting to order, delivery and fitting.

Companies wishing to enhance customer-perceived value through service improvement need to understand that their efforts should be focused on the service elements that are important to customers and where current service performance is poor. If the customer's biggest problem is your failure to deliver on time, in-full and with no error, it makes little sense to invest in updating the livery of your vehicles and drivers.

In this section we look at a number of service-related methods for enhancing customer-perceived value – improving service quality, service guarantees, service level agreements, and service recovery programs.

Service quality

There are two major perspectives on service quality:

1   Quality is **conformance to specification**. This is consistent with Philip Crosby's view of quality.[29] Businesses adopting this approach specify what counts as quality and measure its performance to that standard. Conformance to specification might mean producing error-free invoices, delivering on time and in-full as promised to customers, or acknowledging a customer complaint within 24 hours.

2   Quality is **fitness for purpose**. Joseph M. Juran claimed that quality means meeting customer expectations. It is the customer, not the company, who decides whether quality is right.[30] If you are a farmer, a Land Rover is the right quality vehicle. If you are an executive limousine company, a Mercedes is the right quality vehicle. In the services sector, fitness for purpose might mean offering savings plans that help first-time home buyers get on the property ladder, recruiting customer contact staff who are highly empathic and responsive, or customizing service delivery for customers.

These perspectives on quality can happily co-exist. Specifications for service performance can be based on customer expectations. If customers determine the standards, there need be no conflict between these two approaches.

Service quality theories

Two service quality theories have dominated management practice as companies try to improve their service performance: the SERVQUAL model and the Nordic model.

The Nordic model, originated by Christian Grönroos and developed by others identifies 3 components of service quality: technical, functional and reputational (Table 6.2).[31]

Technical quality can be thought of as the "what" of service quality. Was the floor vacuumed thoroughly and surfaces dusted meticulously by the office-cleaning contractor? Did the specialist audit firm finish the stock-check within one day? Functional quality can be thought of as the "how" of service quality. Was the cleaner courteous? Was the stock-check

Table 6.2 Grönroos model of service quality[32]

Technical	The quality of the outcome of a service performance
Functional	The quality of the performance of a service
Reputational	The quality of the service organization's image

team responsive? Reputational quality is not only an outcome of technical and functional quality, in that reputation derives from performance, but it also produces a halo effect that can influence customer perceptions of quality, for better or worse. If I'm attending an opera at Teatro alla Scala (La Scala) in Milano then it must be good! If I'm receiving service from a state monopoly then it must be bad!

The significance of the Grönroos model is that it stresses the importance of understanding customer expectations of both the "what" and the "how," and of developing a service delivery system that performs well at meeting customers' technical and functional service quality expectations.

The SERVQUAL model, developed by A. 'Parsu' Parasuraman and colleagues in North America, identifies five core components of service quality: reliability, assurance, tangibles, empathy and responsiveness, defined as in Table 6.3.[33] You can remember them through the mnemonic RATER.

Table 6.3 SERVQUAL components[34]

Reliability	Ability to perform the promised service dependably and accurately
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence
Tangibles	Appearance of physical facilities, equipment, personnel and communication materials
Empathy	Provision of caring, individualized attention to customers
Responsiveness	Willingness to help customers and to provide prompt service

The SERVQUAL authors have also developed a measurement and management model to accompany the conceptual model. The measurement model uses a 44-item questionnaire to measure customers' expectations and perceptions of the RATER variables.[35] The relative importance of these variables is also measured. This enables users to compute the relative importance of any gaps between expectation and perceptions. Management can then focus on strategies and tactics to close the important gaps.

The management model, reproduced in Figure 6.3, identifies the reasons for any gaps between customer expectations and perceptions (gap 5). Gap 5 is the product of gaps 1, 2, 3 and 4. If these four gaps, all of which are located below the line that separates the customer from the company, are closed, gap 5 will close. The gaps are as follows:

1   Gap 1 is the gap between what the customer expects and what the company's management think customers expect.
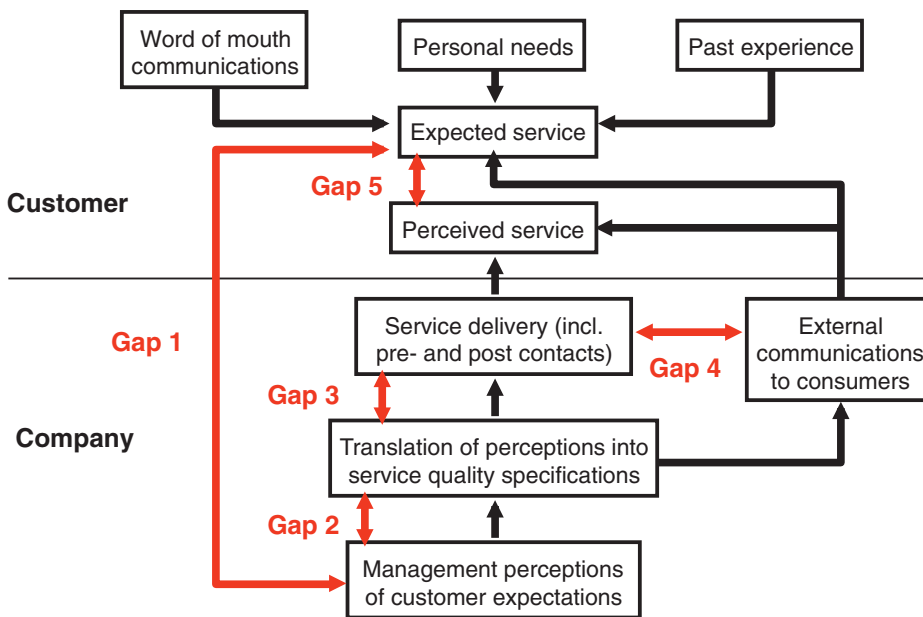
Figure 6.3 The SERVQUAL gaps model. Parasuraman, A., Zeithaml, V. and Berry, L.L. (1988). SERVQUAL: a multi-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64, 12–40.

2   Gap 2 occurs when management fails to design service quality specifications that meet customer expectations.

3   Gap 3 occurs when the company's service delivery systems – people, processes and technologies – fail to deliver to the specification.

4   Gap 4 occurs when the company's communications with customers promise a level of service performance that the service delivery system cannot deliver.

The importance of SERVQUAL is that it offers managers a systematic approach to measuring and managing service quality. It emphasizes the importance of understanding customer expectations, and of developing service quality standards and service delivery systems that meet customer expectations. Among the strategies and tactics that might be employed to close Gaps 1–4 are the following:

1   To close Gap 1 (between what customers expect and what managers think customers expect): conduct primary research into customers' service quality expectations; learn from front-line customer contact staff; flatten the hierarchical structure; include expectations data in customer records.

2   To close Gap 2 (between what managers think customers expect and service quality specifications): commit to the development of service standards wherever possible; assess the feasibility of meeting customer expectations; develop a standards documentation

process; automate processes where possible and desirable; outsource activities where you lack the competencies; develop service quality goals.

3   To close Gap 3 (between service quality specifications and actual service delivery): invest in people: recruitment, training and retention; invest in technology; redesign workflow; encourage self-managed teams; improve internal communication; write clear job specifications; reward service excellence.

4   To close Gap 4 (between actual service delivery and the promises communicated to customers): brief communications teams and advertising agency on customer service expectations; train employees not to over-promise; penalize employees who over-promise; encourage employees and agency staff to sample the service experience; excel at service recovery; encourage and manage customer complaints.

There is growing evidence that investment in service quality improvements pays off in enhanced customer satisfaction and customer retention, although like other investments, there does appear to be a point at which diminishing returns set in.[36]

The SERVQUAL model has been subject to much criticism[37] but it is still in widespread use in original and customized forms.[38] One criticism is that customers often do not have clearly formed expectations, and therefore that the expectations–disconfirmation approach is inappropriate. Some of these critics have developed an alternative, perceptions-only, model of service quality that they have dubbed SERVPERF.[39]

It is worth noting that some experts criticize service quality theory for its bias towards assessing single episodes or customer encounters. They suggest that customers assess the quality of their customer experiences over an extended time period, throughout the entire customer journey (before, during and after purchase), across multiple channels and form emotional responses as well as a cognitive appreciation of service delivery.[40] We will cover the concept of customer experience in depth in the next chapter.
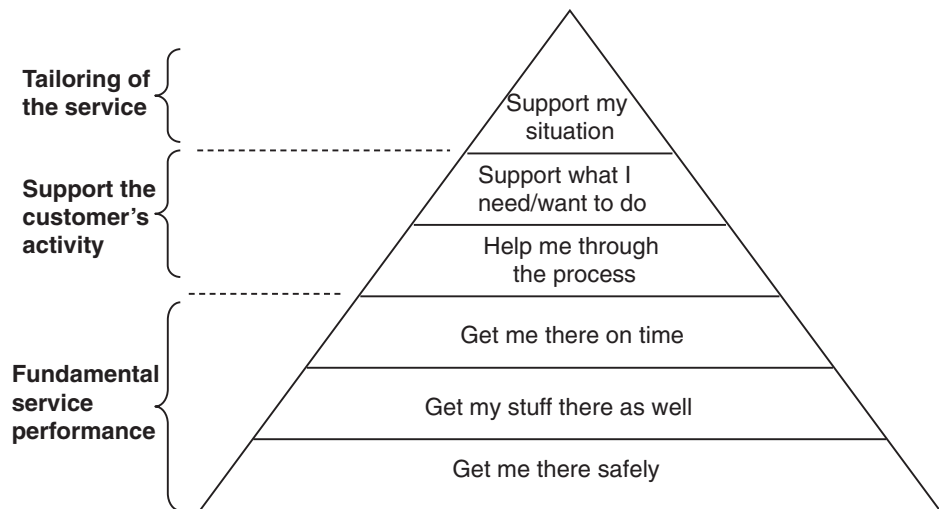
Figure 6.4 SAS airlines' understanding of customer expectations

Service guarantees

From the customer's perspective, guarantees of service performance on attributes that are important to customers can be an effective way to reduce perceived risk, and thereby increase customer-experienced value. Service guarantee can be defined as follows:

A service guarantee is an explicit promise to the customer that a prescribed level of service will be delivered.

Service guarantees can be either specific or general. Specific service guarantees apply to one or more parts of the customer experience. For example, Green Training, a US firm training contractors and tradespeople, promises that students will pass their certification examinations:

> Our students count on over a 90% first time pass rate for certification exams, but should you not pass for whatever reason, you have unlimited access to all of your online training course and supplementary materials with no additional charge for as long as you require it. You also get continued email and phone support access to our staff and instructors.
>
> (Green Training USA)[41]

General service guarantees apply to the entire customer experience. For example:

> Our products are guaranteed to give 100% satisfaction in every way. Return anything purchased from us at any time if it proves otherwise. We do not want you to have anything from L.L. Bean that is not completely satisfactory.
>
> (L. L. Bean)

Although these examples are of guarantees offered to external customers, they can also be designed for internal customers. For example, the housekeeping supplies department at Embassy Suites guarantees that its internal customer, the housekeeping department, will get supplies on the day requested. If not, the department pays $5 to the housekeeper.

Service guarantees can be customized for individual customers or segments. An IT service center guarantees a three-hour service to priority-one customers, and 48-hour service to all others. Should the company fail to honor these guarantees, it "fines" itself by issuing a credit note to the customers.

Service level agreements

Service level agreement (SLA) can be defined as follows:

> A service level agreement is a contractual commitment between a service provider and customer that specifies the mutual responsibilities of both parties with respect to the services that will be provided and the standards at which they will be performed.

CASE ILLUSTRATION 6.2

ADT MONEY-BACK SERVICE GUARANTEE

ADT Money-Back Service Guarantee

If within six months you are not satisfied,
ADT will give you a full refund of your installation price and any monitoring fees paid. See back for details.

Customer_____   Account #_____

Signature_____
Mike Snyder, President

ADT
Always There.

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SLAs can apply to both internal and external customer relationships. For example, it is not uncommon for utility companies to outsource their customer contact function to a contracted call center or contact center service provider. An external SLA is negotiated that carefully defines both parties' expectations of the services to be performed, the service processes to be followed, the service standards to be achieved and the price to be paid. The SLA may well form part of an enforceable legal contract. A number of metrics are used to measure performance of the supplier and compliance with SLA service standards. These may include:

- **Availability**. The percentage of time that the service is available over an agreed time period.

- **Usage**. The number of service users that can be served simultaneously.

- **Reliability**. The percentage of time that the service is withdrawn or fails in the time period.

- **Responsiveness.** The speed with which a demand for service is fulfilled. This can be measured using turn-around time or cycle-time.

- **User satisfaction.** This can be measured at the time the service is delivered or periodically throughout the agreed service period.

Many companies also have internal SLAs between service departments and their internal customers. An IT services department, for example, may establish a number of different SLAs with different customer groups. For example, it might undertake to process payroll for the human resource department, or to maintain and service desktop devices for a contact center. This is unlikely to be formalized in a contract.
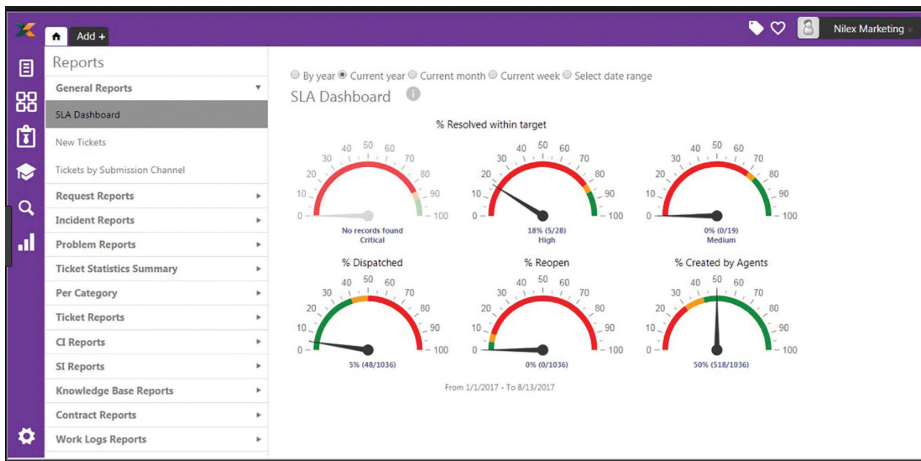
Figure 6.5 Service level agreement dashboard[42]

SLAs help customers experience added value by reducing uncertainty about the services that will be delivered, their standards and costs. A successful SLA clarifies the boundaries and relative roles of customer and supplier. Each knows the other's responsibility. Service automation technologies, discussed in Chapter 10, allow companies to manage service levels.

Service recovery programs

Service recovery can be defined as follows:

> **Service recovery includes all the actions taken by a company to resolve a service failure.**

Services fail for many different reasons.[43] Sometimes technical service quality fails; other times the failure is in functional service quality. Sometimes the fault lies with the company, sometimes with the customer and sometimes with a business partner. Typically, customers are not concerned with who is to blame; they just want the situation resolved.

Research shows that when companies resolve problems quickly and effectively there are positive consequences for customer satisfaction, customer retention and word-of-mouth.[44] It has even been found that customers who have been let down, then well recovered, are more satisfied than customers who have not been let down at all.[45] This can perhaps be explained in terms of the RATER dimensions of service quality. Getting the service right first time demonstrates reliability but recovering well after service failure shows empathy and responsiveness. Reliability can be programmed into a company's service production and delivery processes. Empathy and responsiveness demonstrate the human attributes of concern for

others and flexibility. Conversely, customers who have been let down once, only to experience unsatisfactory recovery, can turn into activists who look for opportunities to spread bad word-of-mouth.[46]

When customers experience service failure, they have the choice of doing nothing or voicing their displeasure. Customers who choose to voice can complain to the service provider, complain to friends and others in their personal network, or complain to a third party such a consumer affairs organization or industry ombudsman.

Equity theory suggests that customers who complain are seeking justice and fairness. Equity theory explains that customers evaluate the ratio between sacrifices they incur and the benefits they experience (as in the value equation) and compare their ratio to that of other customers. When customers pay the same price but experience an unsatisfactory level of service compared to other customers, they feel a sense of inequity or unfairness. By complaining, they hope for the company to restore such imbalance. In other words, they want justice.

Research suggests that there are different types of justice. The list below highlights the three forms of justice that complainants seek: distributive, procedural and interactional justice.[47] Distributive justice is achieved if the customer gets the *outcome* they want. Customers might be satisfied with an apology (i.e. psychological compensation), or a credit note against future purchases (i.e. monetary compensation). Alternatively, a customer may want the service to be re-performed. If distributive justice is concerned with *what* is received, procedural justice is concerned with the customers' evaluation of the *processes and systems* encountered during the service recovery process. Customers generally do not want to complete forms, provide difficult-to-find proofs of purchase, or write formal letters confirming their issue. These requirements do not suggest that a company is willing to resolve the problem quickly. Interactional justice is achieved if the customer judges that service recovery-related interactions with the provider's *people* are satisfactory. They want employees to be responsive and empathic.

Distributive justice

- What the firm offers by way of recovery, and whether this offsets the costs incurred by the customer from service failure.
- Distributive outcomes include compensation, re-performance, apologies.

Procedural justice

- The customer's perception of the process they went through to get satisfaction following service failure.
- Some service recovery processes deliver prompt recovery, others delayed; some require complaints to be justified and proofs provided.

Interactional justice

- The customer's perception of the performance of the people they encounter during the service recovery process.
- Customers generally expect the people they encounter to show empathy, politeness, courtesy, expertise and effort.

Value from processes

In the previous section we have described some business processes that help customers experience value from service, such as the service quality management process and the service recovery process. Elsewhere in the book we touch on additional processes that impact on customers: the order-to-cash cycle, the selling process, and the campaign management process, for example.

We define a business process as follows:

A business process is set of activities performed by people and/or technology in order to achieve a desired outcome.

Business processes are how companies get things done. Companies comprise very large processes. IBM, for example, identified 18 critical processes, Xerox 14 and Dow Chemical 9.[48] These big processes, in turn, are composed of smaller processes. For example, the manufacturing process takes a number of inputs – materials, technology, labor – and converts them into products. This big process is composed of several smaller processes such as machining, assembly and packing processes. Companies have thousands of processes. Processes are more than simply workflow; they are also resources that can be used to compete more effectively, to create more value for both customers and company.[49] Xerox's 14 key business processes appear in Figure 6.6. Many of these macro-processes have an impact upon customer experience or value perceptions, including the customer engagement, market management, product maintenance, and product design and engineering processes.

Process innovation can enhance customer-experienced value significantly. For example, First Direct started out as a telephone bank with no branch network, customer service being delivered from a number of call centers. First Direct now offers banking through other channels – online and app – and has developed relationships with non-bank service providers such as Apple Pay, Android Pay and Samsung Pay. The bank's customer satisfaction ratings have been consistently higher than competitors who have branch operations. Low-cost airline Easy Jet speeded up customer service by improving plane turnaround times from 50 minutes to 33, through improved teamwork.

1. Customer engagement	8 Supplier management
2. Inventory management and logistics	9. Information management
3. Product design and engineering	10. Business management
4. Product maintenance	11. Human resource management
5. Technology management	12. Leased and capital asset management
6. Production and operations management	13. Legal
7. Market management	14. Financial management

Figure 6.6 Xerox's 14 key business processes

CASE ILLUSTRATION 6.3

OPERATIONAL PROCESS INNOVATION AT WAL*MART[50]

Operational innovation has been central to some of the greatest success stories in recent business history, including Wal*Mart, Toyota, and Dell. Wal*Mart is now one of the largest organizations in the world, and one of the world's strongest brands. Between 1972 and 1992, Wal*Mart went from $44 million in sales to $44 billion, powering past Sears and Kmart with faster growth, higher profits, and lower prices. How did it score that hat-trick? Wal*Mart pioneered a great many innovations in how it purchased and distributed goods. One of the best known of these is cross-docking, in which goods trucked to a distribution center from suppliers are immediately transferred to trucks bound for stores – without ever being placed into storage. Cross-docking and companion innovations led to lower inventory levels and lower operating costs, which Wal*Mart passed on to customers in lower prices, which in turn reflected in the brand's customer satisfaction and customer retention performance. Although operational innovation wasn't the sole ingredient in Wal*Mart's success – its culture, strategy, human resource policies, and a host of other elements (including its commitment to the Operational Excellence value proposition we described earlier in this chapter) were also critical – it was the foundation on which the company was built.

In this section, we examine one additional process that impacts on the external customer's perception of value: the complaints management process.

The complaints management process

Customers are motivated to complain when they experience one of two conditions: their expectations are under-performed to a degree that falls outside their zone-of-tolerance; or they sense they have been treated unfairly. Equity theory, described above, explains the customer's response to being treated unfairly. Customers also have a zone-of-tolerance for product performance. The range of tolerable performance will depend upon the importance of the product and may vary by product attribute. Tolerances will be stricter for more important products and attributes. For example, for an online retailer, fast Internet access is business-critical, and there will be a minimum speed that can be tolerated by the business owner, that forms the lower boundary of the zone-of-tolerance. Performance below that speed is likely to provoke the owner into complaint. For unimportant products and attributes, customers tend to be less demanding. Where customer experience falls outside the zone-of-tolerance, there is cause for complaint.

No business likes receiving complaints, but they are unavoidable. Even the best companies sometimes fail customers and give cause for complaint. Therefore, it makes sense to implement a policy and process to receive, handle and resolve customer complaints. Customers who complain are giving the firm a chance to win them back and retain their future value. Not only that but complaints provide information that can help companies identify, and correct, root causes of problems. The presence of a documented complaints-handling process

has been shown to be strongly associated with excellent customer retention.[51] Worryingly, customers who don't complain may already have taken their business elsewhere.

A successful complaints-handling process enables companies to capture customer complaints before customers start spreading negative word-of-mouth or take their business elsewhere. Research suggests that negative word-of-mouth can be very influential on the behavior of others.[52] Up to two-thirds of customers who are dissatisfied do not complain to the firm responsible.[53] They may, however, complain to their social networks. Unhappy customers are likely to tell twice as many people about their experience than customers with a positive experience.[54]

Many customers who are unhappy don't complain. Why? There are a number of possible reasons:

- They feel the company doesn't care. Perhaps the company or the industry has a reputation for treating customers poorly.
- It takes too much time and effort.
- They fear retribution. Many people are reluctant to complain about the police, for example.
- They don't know how to complain.

Companies can address all of these issues by making their customers aware of their complaints policy and processes and making those processes simple and easy to engage. Some companies go so far as to reward complainants. Stew Leonard's, the Connecticut retailer, rewards in-store complainants with an ice cream.

Complaints enter companies at many different customer touch-points throughout the customer journey, even before a customer has been on-boarded, but more commonly after a disappointing customer experience with the product or service. A well-designed complaints-handling process will capture complaints from various touchpoints, then aggregate and analyze them to identify root causes. Ultimately this should enable the company to achieve a higher level of first-time reliability, reduce the amount of rework, and lift levels of customer satisfaction and retention. An international standard – ISO 10002 – has been released to help companies identify and implement best practices in complaints policy and process. Ideally, complaints should be resolved to the satisfaction of the complainant. Issue, case or incident management functionality available in CRM software can be used to support complaints-handling and resolution. In addition, there are several dedicated complaints-management software packages, such as Resolve and MasterControl. Complaints that remain unresolved can become serious disputes. An International Standard for Dispute Resolution, ISO 10003, gives guidance on how to manage and resolve disputes. Many industries, including financial services and telecommunications, operate Ombuds schemes to tackle complaints that remain unresolved after escalation through corporate complaints-handling processes.

The list below shows some ideas for improving complaints management processes.

1   Make the complaints-handling policy and processes visible and accessible to customers and employees.

2   Strive to resolve complaints at first point-of-contact.

3   Empower employees to resolve complaints.

4   Create clear guidelines for escalation of complaints to senior staff.

5   Design the complaints-handling policy and processes around ISO 10002.

6   Go mobile – use apps to capture complaints as they occur.

7   Go social – scan social media for complaints and resolve them quickly.

8   Enable web-based and telephone (free-phone) complaints capture.

9   Link complaints to customer satisfaction and retention goals.

10   Appoint a complaints management executive.

11   Teach customers how to complain; publish your process.

12   Reward customers who complain.

13   Ensure customers are satisfied with the resolution they are offered.

14   Collect complaints data; analyse and fix root causes.

15   Use technology to support complaints-handling and deliver useful management reports.

Value from people

Many companies claim that people are their key differentiators, and a major source of customer value. This is especially so in professional services such as counselling, consulting and coaching. The UK-based home improvement retailer B&Q has also added value to the shopping experience by recruiting former building tradesmen such as carpenters, electricians and plumbers to help customers diagnose their problems and choose the right products in-store.

One of the more important jobs in CRM is the customer contact role. The customer contact role is a boundary-spanning role. That is, the role occupant sits in the space between an organization and its external customers. They are paid by the company but work closely with customers. Boundary spanners have two fundamental and interdependent roles: information management and relationship management. Boundary spanners are responsible for collecting information about customers. What are the customer's requirements, expectations and preferences? What are the customer's future plans? Who is involved in the customer's buying decisions? The boundary spanner may have responsibility for maintaining the currency of the data on the customer record. This information enables the role occupant to perform the second role, managing the customer relationship. This might involve winning, growing and maintaining the customer's business, handling customer queries and complaints, representing the customer's interests to their employer, and ensuring the customer's satisfaction.

There is a trend towards key account management (KAM) that is driven by a number of trends: global customers, consolidated purchasing, vendor reduction programs and customers who want better service and closer relationships with their suppliers. The role of key account manager, national account manager or global account manager is extremely important. Occupants needs an advanced, and rare, skill set including selling skills, negotiating skills, communication skills, analytical skills, problem-solving skills, customer knowledge, market knowledge, competitor knowledge, customer orientation, as well as a detailed understanding of what their own company can deliver. We explore KAM in more detail in Chapter 13.

Value from physical evidence

Some companies enable customers to experience value by their management of physical evidence. This is especially important for service companies with intangible–dominant outputs. In the absence of physical evidence, customers may find is very hard to determine whether they are experiencing value or not. Physical evidence can be defined as follows:

Physical evidence consists of the tangible facilities, equipment and materials that companies use to communicate value to customers.

Physical evidence includes a company's premises, and their internal and external environments, print materials, websites, apps, corporate uniforms and vehicle livery.

Banks traditionally have occupied buildings with columns, portico, steps and large, heavy doors. This is designed to communicate conservative values, security and probity. McDonald's uses primary colors, bright lights and the ubiquitous golden arches in the form of the letter M. Hospitals convey impressions of hygiene and care through white uniforms, immaculately clean premises and well-maintained gardens. You only need to reflect on the traditional clothing, livery and appearance of funeral services to understand the significance of physical evidence.

Online, social and mobile presence also serves as a form of physical evidence. Remotely located customers and partners who don't receive visits from sales reps might only transact and communicate through a company's electronic channels that consequently become very influential in their perception of value.

In addition to company-owned online channels, customers may also interact through web portals that we define as follows:

A web portal is a website that serves as a gateway to a range of subject-related resources.

There are two types of portal: public and enterprise. A public portal is a website or service that gives users access to a broad range of resources and services, such as email, search engines, directories and online shopping malls. Search engines such as Google, Yahoo! and Baidu have transformed into public portals. Enterprise portals are organization-specific web-based gateways to enterprise applications, databases and systems. Enterprise portal users generally obtain access through a secure sign-on procedure and then have access to information relevant to their own role, for example as customer, or partner. Enterprise portals are sometimes specifically developed for CRM purposes. For example, a manufacturer may establish a portal so that business partners such as resellers, distributors and wholesalers can update their own details, access product information, spec sheets, price lists, relevant customer records, download collateral materials, manage cooperative advertising arrangements, place orders, track order progress, pay, submit a service request and so on.

Some public portals appeal to niche user groups. There are niche portals for special interest groups such as gardeners (www.garden.com), cricket fans (www.cricinfo.com) and investors (www.fool.com).

Public portals enable customer-experienced value by bringing together related content from different sources and providing convenient access for users. For example, the website www.ceoexpress.com (see Figure 6.7) is a portal that provides access to a comprehensive array of online public and private sector resources for company chief executives. Portals like these function in much the same way as a high-street retailer, in that they act as points of display and sale for many different products.

Value from customer communication

Companies are now able to enable customer-experienced value from communication practices that were impossible only ten years ago.

A significant change is that companies are now able to facilitate multilateral communication: company-to-customer, customer-to-company and even customer-to-customer. Traditionally, customer communication has been one way – from companies to customers. The conventional tools for company-to-customer communication are unilateral: advertising, sales promotion, publicity, public relations and personal selling. With the exception of selling these communication channels are non-interactive. Customer-company communication is enabled through social media, email, web-forms, chat, instant messaging, phone as well as old-fashioned correspondence. Companies can also facilitate customer-to customer (peer-to-peer) communication by web-logs (better known as blogs), chat rooms, newsgroups, online communities, and increasingly by using social media such as Facebook and Twitter. Collectively, these are known as customer-generated media (CGM). Southwest Airlines, for example, uses Facebook, Twitter and Instagram for multi-lateral communication to, from and between customers. Many universities, from the Agricultural University of Athens to the University of Zimbabwe have Facebook pages. Figure 6.8 shows Southwest Airlines' Instagram page.

Social media are becoming more important elements of the communications mix for many companies. They are used for marketing, advertising, selling and service purposes. Twitter is increasingly a platform for service improvement and recovery. Airlines have adopted Twitter to respond quickly, and sometimes in real time, to customer complaints. JetBlue, an American carrier, initially used Twitter to get a better understanding of customer experience of its service, then as an outbound communication channel and more recently as a vehicle for service improvement. Many variables outside the control of the carrier impact on customer experience: air traffic control delays, severe weather, problems with connecting flights, staff shortages, mechanical failure and so on. The airline needs to be able to resolve problems quickly in order to create a good customer experience. When the company sees a tweet from a disgruntled passenger, made in the moment the customer faces the problem, JetBlue can respond in real-time, perhaps thereby stopping the spread of the message into the Twittersphere. Ryanair is another carrier that has invited its customers to contact it through Twitter with ideas for improving customer service.[57]

When companies use social media for customer management purposes, they need to invest in people, processes and technology in order to respond to potentially thousands of messages in real-time.

Three processes are responsible for the enhanced power of communication to create value for customers: disintermediation, personalization and interactivity.

Figure 6.7 Information availability online at www.ceoexpress.com.[55]
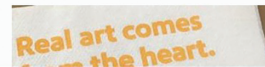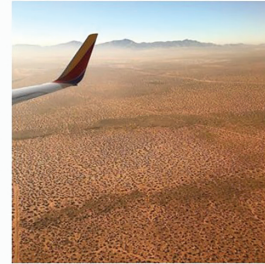
Figure 6.8 Southwest Airlines' Instagram page (Southwest Airlines)[56]

Disintermediation

Disintermediation refers to the removal of intermediaries such as broadcast and print media from the company's communication channels with customers. Today, technologies enable direct-to-customer (DTC) communication via email, direct mail, and SMS and MMS messaging to cell phones. Companies are now able to get their message direct to customers. Equally, customers can get their messages direct to companies, and to other customers in the ways described above.

Personalization

The combination of high quality customer-related data, CRM technologies and DTC channels enable companies to tailor offers and communications to individual customers. This is what Don Peppers and Martha Rogers have called one-to-one marketing.[58] Data on customers' buying history and propensities-to-buy can be used to develop offers that meet with a much higher response rate and conversion rate than conventional mailings. The content, timing and delivery channels for communications can be based on customer preferences.

CRM technologies allow customers to personalize web pages. For example, you can also create your own daily newspaper at www.ft.com based on your personal interests and preferences. This can then be used as your homepage.

CRM technologies used in call and contact centers allow for personalized interactions between customers and customer service agents. For example, scripts can be tailored to enable agents unfamiliar with a product or customer segment to perform competently in telephone interactions.

Interactivity

Interactive technologies have been around since the advent of the telephone. However, the Internet has revolutionized the scope for interactivity through technologies such as email, instant messaging and html, the computer language that allows us to navigate the web. Email enables customers and company to interact effectively, though not necessarily in real time. For example, customers can email for information that is unavailable on the Frequently Asked Questions (FAQ) pages of corporate websites. Email gives customers access to a specific named person or work group such as help@ or info@. Contact with a name gives customers the sense that there is an individual who is taking care of them. Instant messaging enables communications to take place in real-time, which is not always possible in email.

The Internet allows computer, tablet and smartphone users globally to communicate with each other. A company can upload a website or create a Facebook page anticipating huge reach. Websites come in a variety of forms. Some are simply electronic brochures. Others enable transactions to be made. Another group of sites are highly interactive. Some excellent websites offer an experience similar to human dialogue. Configuration engines allow the

CASE ILLUSTRATION 6.4

PERSONALIZED COMMUNICATIONS AT WESTPAC[59]

Westpac is one of the big four banks operating in Australia. The bank's "Know Me" program uses customer data to improve interactions on a one-to-one basis through the bank's online and offline customer touch points. Two Westpac customer data sources support "Know Me." First, the bank has experienced massive growth in data available about customers, including contributions to social media, online click stream information and customer notes. Second, the bank has massive data from customer interactions with online and mobile banking take-up, reaching 60 million online interactions with customers per month.

Westpac uses this information to provide a range of personalized communications to customers including reminders of when credit card payments are due, notifications around topping up superannuation funds before the end of financial year, offering travel insurance when someone is transacting overseas, and congratulating customers on paying off a home loan.

The data also supports the bank's "next best offer" program. This integrates all the data sources listed above to deliver real-time communication and offers that are based on what the customer wants to buy, rather than what the bank wants to sell. The bank calls this "service led communication." The next best offer program is run across the branch network branches, call centers, the online portal, social media and Westpac's online banking facilities. In the nine months since the program's launch, Westpac has chalked up 812,000 next best offer conversations with customers in branches, leading to 37% new product uptake. In the call center, 490,000 customers have been contacted achieving 60% new product uptake. Targeted online communications, which appeared in 80% of customer online banking profiles, also generated $7.8 million in incremental revenue. In total, next best offers delivered $22 million in annualized revenue, double the target set at the start of the program.

most appropriate products to be offered based on an analysis of the customer's specific needs, problem resolution logic allows customers to find the best solution to a problem, web chat windows allow inter-human dialogue, and chatbot technologies allow customer–robot interaction.

Value from channels

The traditional task of distribution is to provide time and place utilities to customers. This means getting products and services to customers when and where they want. Consumer goods companies have usually constructed channels using intermediaries such as wholesalers and retailers. B2B companies usually sell direct or employ industrial distributors. The location of service providers may be critical or irrelevant to the creation of value for customers. Customers want their grocery retailers to be conveniently located, but don't care where their Internet service provider is located.

An emerging task for intermediaries in the B2B environment is value augmentation. Channel partners in technology industries add services and complementary products that are not available from the core product manufacturer. The purchase of an Enterprise Resource Planning (ERP) system, for example, may require implementation services, technical services, business process reengineering, change management, customization of software and specialized hardware such as radio frequency (RF) handheld units in the warehouse. Channel partners not only distribute the ERP product, they also provide or coordinate others to provide these additional products and services.

Internet-enabled disintermediation has allowed companies to replace or supplement their traditional bricks-and-mortar channels. Many companies have elected to develop transactional websites so that they can sell direct. Others have developed brochure-ware sites that direct interested prospects to traditional channel members. One major benefit attached to this latter option is that it reduces the level of channel conflict that can be extremely high if an intermediary believes that a supplier is attempting to sell direct to the intermediaries' customers. Additional routes to market include:

- Social media platforms such as Facebook
- Search engines such as Google
- Public or enterprise portals such as www.eMall.sg
- Virtual resellers such as Amazon
- Auction sites such as eBay.

Customers may find that it is too costly and inefficient to deal with a large number of disintermediated suppliers. This has created opportunities for reintermediation. Reintermediation adds an electronic intermediary to the distribution channel. These intermediaries act as electronic store-fronts. Examples include:

www.comparethemarket.com for household insurance products

www.lastminute.com for holidays, flights, accommodation, car hire and gifts

www.laterooms.com for discounted hotel rooms

www.moneyworld.com for mortgages, credit cards, bank loans, investments, insurances and pensions

www.airbnb.com for accommodation in the sharing economy.

Until recently, businesses thought of the online world in terms of electronic routes-to-market, with participation being optional, depending on company strategy.[60] This has proven to be unrealistic. Every organization, of any size, needs an online presence in some form. Customers expect this.

CONCLUSION

This chapter has stressed the importance of customer-experienced value. One of the major issues for strategic CRM is to enable customers to experience value. Value can be thought of as the relationship between the benefits experienced from a product or service and the sacrifices made to enjoy those benefits. Value is therefore enhanced when sacrifices are reduced, or benefits increased. Three major types of sacrifice have been identified – money, transaction and psychic costs. Companies can offer improved value to customers by creating and delivering better solutions to customers' problems.

There are three explanations of when customers experience value. These are the value-in-exchange, value-in-use and value-in-experience explanations. Our position is that customers can experience value throughout the customer journey, not only from use of the product or service but also from any interactions with the marketing, selling and service outputs of the firm. A number of multi-dimensional models of customer-perceived value have been proposed, the dominant ones being developed by Jag Sheth et al., and Morris Holbrook. Advocates of value-in-use and value-in-experience believe that companies do not create value; they only create value propositions. The value is created by customers using the goods and services often in partnership with their suppliers. Researchers have identified three major types of value proposition: low price, product leadership and customer intimacy. Marketers are generally responsible for designing value propositions. Value propositions are constructed by mixing together a number of variables that will appeal to customers. These variables are known as the marketing mix. For goods manufacturers they comprise the 4Ps: product, price, promotion and place. For service industries, 7Ps have been identified; the 4Ps are supplemented by process, physical evidence and people. In the B2B environment, value propositions have long been customized. Customization is now emerging as a powerful force in the B2C environment too. Any of the 7Ps can be customized.

Management can create opportunities for customers to experience value by their management of the 7Ps. For example, product innovation, branding and product-service bundling are ways that enable customers to experience additional value. Similarly, service quality improvement programs, service guarantees, service level agreements and service recovery programs may be seen as value adding.

The Internet, customer-related databases and CRM technologies are allowing companies to tailor their customer communication strategies at segment, or, often, unique customer

level. Messages can be communicated directly to customers, side-stepping the media used for broadcast advertising. They can also be personalized not only in form of address but also in content and timing. Unlike traditional media, the newer channels, including the Internet, are interactive. Companies are increasingly using social media for customer management purposes.

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MANAGING CUSTOMER EXPERIENCE

CHAPTER OBJECTIVES

By the end of the chapter, you will understand:

1. The meaning of customer experience.
2. The emergence and importance of the experience economy.
3. The differences between goods, services and experiences.
4. Why companies are motivated to improve customer experience.
5. Three key concepts in customer experience management – touchpoint, moment of truth and engagement.
6. Two data sources used when mapping customer experience.
7. The similarities and differences between customer experience management and CRM.
8. How customer experience is changed by CRM technology.
9. Four features of CRM technologies that have an impact on customer experience.

INTRODUCTION

This is the final of three chapters on strategic CRM, which we define as the customer-centric business strategy that aims at winning, developing and keeping profitable customers. This chapter investigates customer experience. There is a growing recognition that customer experience throughout the customer journey – before, during and after purchase – must meet customer expectations. If customers' expectations are underperformed, they may defect to competitors who provide a better experience. Implementation of CRM strategies and technologies often have major consequences for customer experience. In this chapter you'll find out more about customer experience and how CRM can change it.

WHAT IS CUSTOMER EXPERIENCE?

In general terms, an experience is an intrapersonal (internal) response to, or interpretation of, an external stimulus. But, what about *customer* experience?

If you were to ask your customers, "What is it like doing business with us?" their answers would be descriptions of their customer experience (CX). More formally, customer experience can be defined as follows:

> **Customer experience is the cognitive and affective response to the customer's exposure to, or interaction with, a company's resources (people, processes, technologies, places), and outputs (products, services, communications etc.).**

When customers do business with a company, they not only buy and use products, but they also experience or interact with other types of company output, before, during and after purchase. Fred Lemke et al. share our perspective on CX, writing that CX is "the customer's subjective response to the holistic direct and indirect encounter with the firm, including but not necessarily limited to the communication encounter, the service encounter and the consumption encounter."[1]

Customers might see a company's TV commercials, talk to a customer service agent, purchase using a mobile app, or read product reviews on a corporate website. All these individual episodic customer experiences aggregate into total customer experience (TCE). Episodic experiences range from insignificant to critically important for customers. For example, if a product fails to deliver the promised performance, that may be terminal for the relationship between customer and company. If the customer has an unsatisfactory interaction with a chatbot, that may have no impact whatsoever on the customer's loyalty.

CX consists of both cognitive impressions (beliefs, thoughts) and affective impressions (emotions, attitudes) about a range of issues including value and quality. Marian Petre et al. conclude that "it is the 'total customer experience' (TCE) that influences customers' perceptions of value and service quality, and which consequently affects customer loyalty."[2] In addition to a loyalty effect, CX may also influence word-of-mouth behaviors. One study in the hospitality industry, for example, found that 75% of restaurant customers tell others about poor service experiences, but only 38% tell others about excellent experience. Improving customer experience may therefore produce two benefits for companies. It can impact on both customer retention/loyalty and customer-generated word-of-mouth.

THE EXPERIENCE ECONOMY

Joseph Pine and James Gilmore[3] suggested that economies shift through four stages of economic development: extraction of commodities, manufacture of goods, delivery of services and staging of experiences, as in Figure 7.1. Customers have always had experiences, but Pine and Gilmore recognized them as a new form of value-adding economic activity that had previously been hidden or embedded in the service economy, and they named this the experience

Stage of economic development	EXTRACT COMMODITIES →	MAKE GOODS →	DELIVER SERVICE →	STAGE EXPERIENCES
Degree of customization	lowest		→	highest
Interaction with customers	none		→	co-production
Price strategy	commodity pricing		→	unique price
Value added	none		→	massive
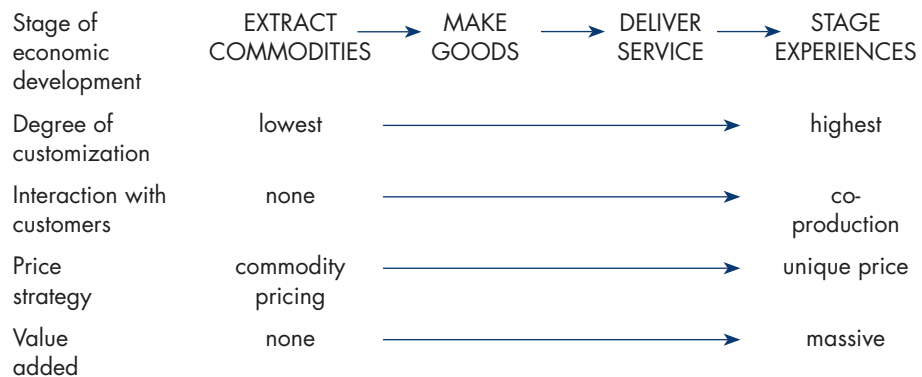
Figure 7.1 Evolution towards the experience economy

economy. Pine and Gilmore's work is important because they were the first to convey to a wide managerial audience the idea that experience has real value to customers. They suggested that differences between competitors' products and service performance evaporate quickly and that customers end up making choices based on the totality of their experiences of searching, acquiring and using an offering. In the terms that we are using in this book, customer experience occurs throughout the customer journey as customers interact with all of the resources and outputs of the firm.

Many CRM technology firms and consultancies now recognize that CX is significantly influenced by customer interactions with a company's people (e.g. sales reps), processes (e.g. issue resolution) and technologies (e.g. call center). These three components – people, process and technology – are the core elements of CRM strategy, as we have noted in previous chapters. Major IT vendors are now using the terminology of CX when promoting their CRM solutions. There is a considerable overlap between the two concepts, but businesses can implement a CX strategy without developing a CRM strategy and vice versa as we outline later in the chapter.

WHY THE CORPORATE INTEREST IN CX?

Companies' efforts to manage CX are motivated by a desire to retain customers, grow their value and promote advocacy; these same motivations drive investment in CRM. Although firms may believe better CX delivers these beneficial outcomes,[4] there is presently limited research evidence to support the assertion. Katherine Lemon and Peter Verhoef's review of the research has found support for conversion effects (i.e. making a one-off sale) as a result of good CX but they call for more research to establish whether there are indeed loyalty, repeat purchase and CLV effects in the longer term.[5] Early indications of such effects are promising. For example, it has been shown that customer experience during the automobile insurance claims process – including speed of settlement and availability of a replacement car – has a strong effect on the insured car owners' retention.[6] Another study in the context of medical

surgery shows that the patient's evaluation of total service experience is strongly predictive of word-of-mouth intentions.[7]

Forrester, the international technology advisory firm, has developed a methodology for measuring the quality of CX, and publishes annual benchmarks of CX quality within nations and industries. Forrester has identified three major contributors to CX quality, which it dubs the 3Es: Effectiveness, Ease, and Emotion.[8] Effectiveness is scored by measuring the value that customers experience; Ease is indicated by the degree of difficulty (effort) customers experience in gaining that value; Emotion is indicated by how good customers feel about their experience. According to Forrester, the 3Es determine the likelihood of retaining the customer's business, growing the customer's value through cross-sell and up-sell, and customer advocacy, as shown in Figure 7.2.

Forrester researchers have found that how an experience makes customers feel (emotion) has a bigger influence on customer outcomes than either effectiveness or ease

Figure 7.2: Forrester's CX Index[9]

in nearly every industry. Forrester have identified six positive and four negative emotions that drive CX. The positive emotions are appreciated, confident, delighted, happy, respected and valued; the negatives are angered, annoyed, disappointed and frustrated. According to the 2018 US Customer Experience Index, which surveys over 110,000 US adult customers, "the impact of these emotions is clear and strong."[10] In the digital retail industry, among customers who felt valued, "92% plan to stay with the brand, 88% plan to increase spending with the brand, and 91% will advocate for the brand." Forrester models the impact of customer experience on revenue, and, for example, estimates that a one-point improvement in its CX Index score "can lead to an incremental $244 million in revenue for a big-box retailer." Negative emotions, unsurprisingly, associate with declining revenues. An important caution is necessary about this Forrester research: it is a correlational study – it does not investigate, nor does it prove, cause-effect. Figure 7.3 presents the Forrester CX model.
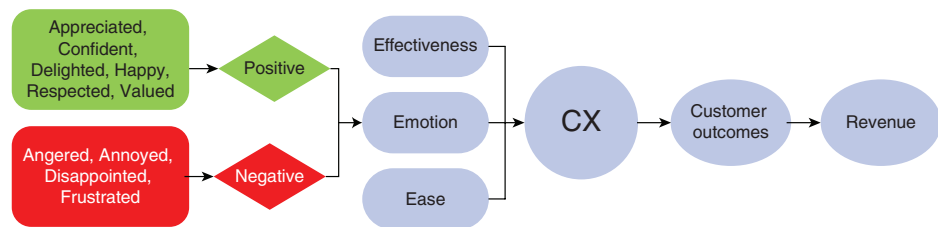
Figure 7.3 The authors' interpretation of the Forrester's customer experience model

Companies aspiring to improve CX can draw on two well-established management disciplines to guide their thinking: service marketing and total quality management (TQM).

SERVICE MARKETING

Services are performances or acts that customers experience. They are not products that are taken off a shelf and consumed at home. Indeed, in many contexts, for example dental care, customers have to be present as the service is produced and participate in the service encounter. A successful visit to a hair salon is only assured if the customer can explain clearly to the stylist what end result she is looking for. It is in the interaction of the customer and the stylist that the customer experience is co-created. Services management experts have identified a number of special attributes that characterize services. Services are performances or acts that are:

Intangible-dominant. Services cannot be seen, tasted, or sensed in other ways before consumption. A customer buying an office-cleaning service cannot see the service outcome before it has been performed. Services are high in experience and credence attributes but low on search attributes. Experience attributes are those attributes that can only be experienced by trying out an offer. Your last vacation was high in experience attributes. You weren't able to judge fully what it would be like before you took the trip. Services like health care, insurance and investment advice are high in credence attributes. Even when you have consumed these services you cannot be sure of the quality of the service delivered. Search attributes are attributes that can be checked out in advance of a purchase. Services are low in these because of their intangible-dominant character. Buyers therefore look for tangible clues to help them make sensible choices. Perhaps a buyer will look at the appearance of the equipment and personnel or browse a company website. Service marketers are encouraged to manage tangible evidence by "tangibilizing the intangible."

Heterogeneous. Unlike goods that can be robotically reproduced to exact specifications and tolerances, services cannot. This is particularly true of services produced by people, because people do not always behave as scripted or trained. A band can perform brilliantly one weekend but "die" the next. Additionally, if a service is co-created in real time by the customer and service provider, it is very hard to guarantee the content and quality of the experience. Many services, for example in the financial services sector, are becoming increasingly automated in order to reduce the unacceptable level of quality variance that is associated with human interaction. Many customer service centers now script their interactions with customers or use chatbots to eliminate unacceptable customer experience.

Inseparable. Unlike goods that can be manufactured at one time and location and consumed at a later time in another location, services are produced at the same time and place they are consumed. This means that service customers are involved in and sometimes co-create the customer experience. This co-creation means that quality is more difficult to control and service outcomes harder to guarantee. For example, a correct diagnosis by a doctor depends in large measure upon the ability of the patient to recognize and describe symptoms.

Perishable. Services, unlike goods, cannot be held in inventory for sale at a later time. A hotel room that is unoccupied on Monday night cannot be added to the inventory for Tuesday night. The opportunity to provide service and make a sale is gone forever. This presents marketers with the challenge of matching supply and demand.

You can remember these attributes using the mnemonic IHIP – Intangibility, Heterogeneity, Inseparability and Perishability.

Service marketers use the expressions "service encounter" and "service experience" to describe customer-provider interactions at the moment of service delivery. Customers have always had service experiences, in the sense that they co-create service encounters in interaction with service providers, but Pine and Gilmore suggest that the *planned* customer experience differs because management tries to engage the customer in a positive and memorable way.

The planned customer experience

As noted above, customers have always undergone an experience whenever service is performed, whether that is viewing a movie, going to a supermarket, or undergoing a government tax audit. They also experience goods as they are consumed or used – driving a car, wearing a suit, or operating a flight simulator.

Some customer experiences are commodity-like and purchased frequently; others are one-off or peak experiences never to be experienced again and highly memorable. One experience of travelling to work on the London Underground is much like another but co-piloting a jet fighter to celebrate an important birthday would be, for most of us, a unique experience.

Customer experience may be the core product that customers buy, or a differentiating value-add. Some companies are now in the business of staging and selling customer experiences as a core product.[11] You can buy experiences such as white-water rafting, swimming with dolphins, feeding elephants, paragliding, bungee jumping, driving a racing car, going on safari, or climbing Sydney Harbor Bridge. Customers buy the experience – the bundle of cognitive and affective impressions that the purchase delivers (see case illustration 7.1).

However, many marketers try to add value to, and differentiate, their service by enhancing customer experience. You can see this when the variety of experiences in a service category varies substantially. Your experience on a charter flight differs from your experience on a scheduled flight; your experience at the Hard Rock café differs from your experience at McCafé.

Sometimes, these differentiated experiences are so distinctive that they become the embodiment of the brand. Branded customer experiences such as the IKEA shopping experience (case illustration 7.2) are very different from competitors. When companies plan customer experience, they are attempting to influence the cognitive, affective, behavioral and social responses of customers, by carefully designing the elements that influence these responses.

CASE ILLUSTRATION 7.1

THE KIWI EXPERIENCE[12]

The Kiwi Experience is a company that takes customers, mostly backpackers, on bus tours around New Zealand. Unlike most bus tours, customers can join, leave and re-join the tour whenever they want. Kiwi Experience customers don't buy a ticket from A to B; they buy an entire experience that incorporates accommodation, travel, entry to attractions, the company of other travellers, and the leadership of the driver. Each customer's experience has the potential to be unique, even among those travelling on the same tour.

CASE ILLUSTRATION 7.2

THE IKEA SHOPPING EXPERIENCE

IKEA is a global home furnishings retailer with a distinctive blue and yellow livery. Most IKEA stores offer free parking. The in-store experience directs shoppers on a one-way route through room set-ups that allow IKEA merchandise to be displayed as if in use. On arrival at a store entrance, customers can pick up pencils, paper, tape measure, store layout guides, catalogs, shopping carts, shopping bags and baby strollers. Shoppers can try out merchandise without being bothered by IKEA sales people. Price tags contain details including item name, colors, materials and sizes. Shoppers note the items they want and either collect them from the Self-Serve area or have a staff member arrange for it to be available at the Furniture Pick-up point. Since most IKEA furniture is flat-packed, shoppers can take purchases home immediately, or IKEA will arrange home delivery. There are in-store restaurants. IKEA accepts cash, credit cards, debit cards and IKEA gift cards. IKEA offers a return and exchange solution to customers who are not fully satisfied. The entire in-store experience is very carefully planned, and periodically reviewed and improved.

TOTAL QUALITY MANAGEMENT

The second management discipline that is important for CX is total quality management (TQM). TQM is a structured approach to business management that aims to improve the quality of products and processes (and, by extension, customer experiences) by learning from the objective and systematic feedback of important stakeholders, including customers. TQM initially promoted the objective of zero defects in manufacturing, where it proved successful in reducing costs and improving quality. Management theorists then began to consider quality improvement in the service sector. Frederick Reichheld and W. Earl Sasser promoted the objective of zero defections, that is the loss of no customers to competitors because of poor quality service experiences.[13] A number of service quality theories, including the Nordic and the SERVQUAL models we wrote about in the previous chapter, were introduced to help businesses understand and manage service quality. The most widely deployed of these has been SERVQUAL[14] Research has established a clear link between service quality perceptions, customer retention and business performance.[15]

Service quality is important for our understanding of CX because customers experience quality, or the lack of it, in their interactions with service providers. Consider, for example, an encounter with a technician from an IT help desk. The technician turns up late, has not been properly briefed about the issue, does not have the experience or access to a knowledge base to help him resolve the issue, and even if he did, does not carry the necessary parts to finish the job right first time. Poor service quality pervades the entire experience.
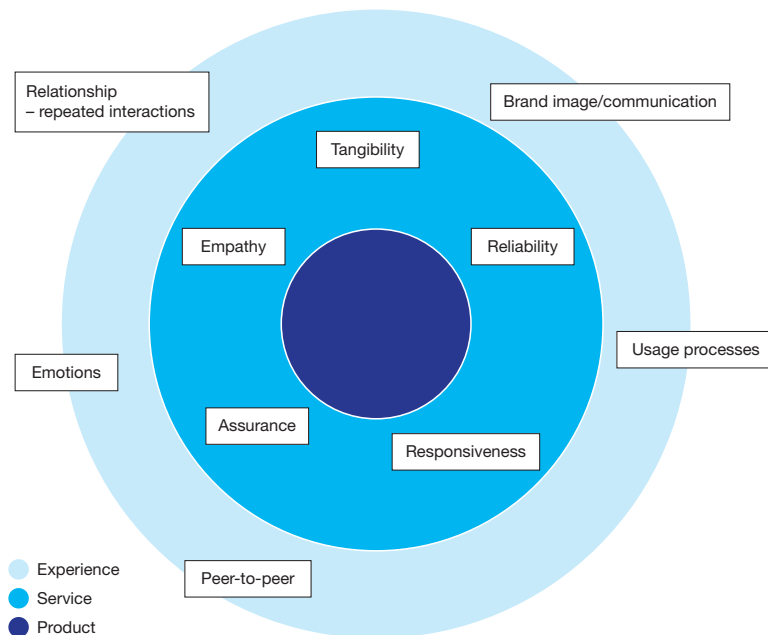
Figure 7.4 Layered model of customer experience[17]

Recently, CX has been conceptualized as "SERVQUAL *plus.*"[16] In addition to the SERVQUAL dimensions of reliability, assurances, tangibles, empathy and responsiveness "SERVQUAL *plus*" adds in emotions, peer-to-peer interactions, the way the customer uses the product, the relationship between supplier and buyer, and brand communication and image, to create a fuller layered depiction of CX, as shown in Figure 7.4.

From one investigation of the UK property finance market, Klaus and Maklan created a multi-dimensional scale for measuring the quality of customer experience (dubbed EXQ).[18] They identify CX as a comprehensive concept that includes search, purchase, consumption and use phases of the customer journey and as a composite outcome of some elements within management's control (the marketing mix, service quality) and some outside management control (customers' objectives, the social context).[19]

CUSTOMER EXPERIENCE CONCEPTS

There are a number of core concepts that are associated with customer experience management. These include touchpoints, moments of truth and customer engagement.

Touchpoints are found wherever your customer comes into virtual or physical contact with your company's products, services, communications, places, people, processes or technologies. The variety and number of customer touchpoints varies across industry and between companies, but with the widespread adoption of social media, they are increasing. Banks, for example, have many touchpoints: branch, email, website, social media, app, chat, ATM, financial planner, telephone banking, Internet banking, personal banker,

mobile mortgage specialist and customer contact center. If you were undergoing hospital treatment, your "customer" experience would be made up of experiences at a number of touchpoints: during admission, in the ward, in the theatre, after surgery, during discharge and follow-up.

Table 7.1 lists some touchpoints by phase of the customer journey.

The first step towards designing a customer journey that meets customer expectations is to identify the customer touchpoints, and conduct research into what customers expect to experience at those touchpoints.

Moment of truth. The expression moment of truth (MOT) was first introduced by Richard Normann, and popularized by Jan Carlzon, former president of the airline SAS.[20] Carlzon described a MOT as follows: Last year, each of our 10 million customers came in contact with approximately five SAS employees, and this contact lasted an average of 15 seconds each time. Thus, SAS is created 50 million times year, 15 seconds at a time. These 50 million "moments of truth" are the moments that ultimately determine whether SAS will succeed or fail as a business.

Extending the metaphor beyond the importance of people, Carlzon's original focus, we can define a MOT as:

> **any occasion the customer interacts with, or is exposed to, any organizational output that leads to the formation of a cognitive or emotional impression of the organization.**

Moments of truth occur during customer interactions at touchpoints. These are the moments when customers acquire knowledge and form evaluative judgements, positive or negative, about their experience. For example, when a customer calls a contact center and interacts with an IVR (interactive voice response) robot, receives a visit from an account executive, or enters a branch office, these are moments of truth. Some moments of truth are more important than others in the customer's overall assessment of their experience. If a service technician turns up late for an appointment, this negative moment of truth might taint

Table 7.1 Touchpoints along the customer journey

Before purchase	During purchase	After purchase
Website	Retail store	Service center
Advertising	Website	Web-form
Social media	App	Satisfaction survey
Email	Salesperson	Billing
Exhibition	Contact center	Field service technician
Event	Warehouse	Installer
Trade show	Catalog	Help desk
Seminar	Point-of-sale display	Product recall
Webinar	Loyalty scheme	Online knowledge base

the entire experience, even though the service job was well performed. Customers generally have expectations of what should happen during moments of truth, and if those expectations are underperformed, the customer may feel angered, annoyed, disappointed or frustrated.

Customer engagement describes the multi-faceted relationship between a customer and brand. Customers choose their level of engagement, but companies can facilitate high levels of engagement. Engaged customers have a higher intensity of participation in and connection to a brand or organization.[21] Customer engagement is multi-dimensional. Customers may exhibit cognitive engagement, affective engagement, behavioral engagement, and social engagement. The cognitive and affective elements of engagement reflect the beliefs and feelings of customers, and the behavioral and social elements capture brand participation by consumers, beyond merely buying the firm's offerings. Engaged customers may sign up for newsletters, share their product experiences online, take part in company research, or act as unpaid advocates through word-of-mouth. Engaged customers are therefore likely to have many more touchpoints connecting them to the brand.

Traditional measures of satisfaction do not perform well as measures of engagement, so managers need to develop new metrics.[22] A comprehensive set of measures would provide insights into all four dimensions of customer engagement: cognitive, emotional, behavioral and social. Examples of measures include the following:

- **Cognitive**: does the customer know our brand values? Does the customer know about our sustainability awards? Does the customer know the name of our local sales rep?

- **Emotional**: does the customer like the experience offered by our firm? Does the customer prefer our offerings to our major competitors? Is the customer excited about our new product launch? Customers who are engaged might express a sense of confidence, integrity, pride, delight or passion in the brand.[23]

- **Behavioral**: how often does the customer visit our website? How long does the customer dwell on the website? Does the customer click through to our newsletter?

- **Social:** has the customer used our Recommend-a-Friend program? Does the customer "like" our Facebook page? Does the customer join our Twitter conversation?

Forrester Inc., the technology and market research organization, defines customer engagement as "the level of involvement, interaction, intimacy, and influence that an individual has with a brand over time."[24] These have become known as the 4 "I"s. Involvement is indicated when a customer presents at a touchpoint. Interaction focuses on what the customer does at the touchpoint. Intimacy is the emotional sentiment of the customer towards touchpoint experiences. Influence focuses on the advocacy behaviors of the customer. Forrester recommends that management develop a set of relevant indicators for the 4 "I"s, a number of which appear in Table 7.2.

Companies that consciously design customer experience want to evoke strong, positive engagement. They do this by carefully designing what happens during moments of truth at customer touchpoints and providing both functional and emotional clues with which the customer can engage.[25] One of the challenges to delivery of consistent customer experience is variance between channels. What the customer experiences from interaction with people, process and technology at a retail point-of-sale may differ significantly from the experience at the same company's website. Companies generally try to configure all the company channels, for example stores, social

Table 7.2 The 4 "I"s of customer engagement

Metric category	Examples of measures
Involvement	Unique site visitors, advertising impressions, website page views, time spent per session, time spent per page, in-store visits, newsletter subscriptions
Interaction	First-time purchases, videos played, community contributions, warranty registrations, loyalty card registrations, requests for free samples, comments in social media, click-throughs on banner ads
Intimacy	Satisfaction scores, sentiment in blog and social media posts, call center feedback, focus group contributions.
Influence	Content forwarded, friends invited to join online communities, word-of-mouth, creation of user-generated content, invitations to join member-get-member program, content embedded in blogs

media and catalogues, to deliver a consistent customer experience. Often this is the objective of a strategic CRM project. Customer experience can become stale over time, and stale experiences are not engaging. Repeat business from customers at Planet Hollywood and Rainforest café is poor for this reason. It is therefore necessary to constantly refresh the customer experience.

DATA SOURCES FOR CX RESEARCH

Companies aiming to improve customer experience need to understand the customer's current experience before they redesign what happens at touchpoints.

Companies can use a number of data sources to improve their insight into customer experience, including mystery shopping and customer ethnography involving participant and/or non-participant observation.

Mystery shopping involves the recruitment of paid shoppers to report on their customer experience. Usually, they report on their experiences of the company sponsoring the research, but they might also compare the sponsor's performance with competitors. A number of market research companies offer mystery shopping services. Mystery shopping is widely used in B2C environments such as retailing, banks, service stations, bars, restaurants and hotels. It is sometimes used in B2B environments. For example, an insurance company might use mystery shopping to assess the performance of its broker network.

Customer ethnography can be used to gain a better understanding of the socio-cultural context of customer experience. Martyn Hammersley characterizes ethnography as participation, either overt or covert, in people's daily lives over a prolonged period of time, watching what happens, listening to what is said and asking questions.[26] Consumers may be able to conduct their own ethnographies without the intervention of a researcher, using apps that allow them to record their activities using the video, audio, photo, text and barcode-reading functionality of their mobile phones. Ethnography is a naturalistic form of investigation that reveals customer experience as it occurs in everyday life.

Ethnographies may involve either participant or non-participant observation by the firm or its research agencies. For example, some companies require their senior management to

CASE ILLUSTRATION 7.3

OBSERVATIONAL RESEARCH HELPS IMPROVE 3 MOBILE'S CUSTOMER EXPERIENCE[27]

3 Mobile is a leading provider of mobile broadband in the UK. Setting up mobile broadband requires customers to insert a SIM into a "dongle" and then install software on their PC. 3 Mobile knew from calls to their customer service center that some customers had difficulty setting up the service. They decided they needed to better understand customer experience so that the firm could offer improved support and reduce the costs of handling customer queries. The firm recruited research company New Experience who observed eight prospective customers setting up mobile broadband for the first time. They were given a dongle pack, a SIM pack and a PC, and asked to set it up. Members of 3 Mobile's user experience team also watched what happened. It became apparent that potential customers had a limited understanding of how the service worked. All but two were surprised to find a SIM card and didn't understand what it was for. Also, the design of the dongle made it hard for people to see how to insert the SIM, and the user guide indicated that all users needed to do was simply "plug and play." These findings helped 3 Mobile improve its customer experience.

learn about customer experience by providing front-line customer service; this is participant observation. This ensures that executives who may be several hierarchical levels removed from customers understand what it is like to be a customer. For example, McDonald's periodically requires its senior managers to work as crew-members in restaurants. Other companies may require their senior managers to observe customer interactions at customer touchpoints; this is non-participant observation. This is particularly suitable when the primary customer touchpoint is a call center or contact center. Managers can listen to customer calls to obtain a better understanding of customer experience, but not actually make or receive calls.[28]

The purpose of this CX research is to understand, model and improve customer experience, particularly at those touchpoints that are important to customers. The research may enable the firm to produce a journey map that illustrates customer experience. Journey maps are highly varied and may include some or all of the following information:

- **Stage:** Which stage of the customer journey is being modeled? (e.g. on-boarding, in-store purchase)

- **Touchpoints:** Where is the customer touching the firm's resources or outputs? (e.g. website, email)

- **Goals:** What is the customer trying to achieve at the touchpoint?

- **Actions:** What is the customer doing at the touchpoint?

- **Effort:** How much effort does the customer put into achieving the goal? Time? Knowledge? Skill? Information?

- **Emotions:** What is the customer feeling?

- **Front-office:** What people, processes and technologies is the customer interacting with?
- **Back-office:** What people, processes and technologies support the front office?
- **Metrics:** What measures are being used to evaluate customer experience?

WHAT DISTINGUISHES CUSTOMER EXPERIENCE MANAGEMENT FROM CUSTOMER RELATIONSHIP MANAGEMENT?

CXM, or customer experience management, is the practice of designing, implementing and improving customer experiences throughout the customer journey. Although CRM and CXM generally go hand-in-hand, and aim to achieve the same goals, it is possible to conceive of one without the other. They are similar in the following respects:

- CRM and CXM strategies may pursue the same objectives, including customer retention, customer engagement and CLV. Increasingly, both CXM and CRM projects measure customer effort or "pain" as customers interact with business processes and systems.
- Both stress the integration of customer touchpoints, channels and communication to provide coherence and identity. For large-scale organizations this often requires major investment in IT infrastructure and business processes able to track individual customers as they make their journey from prospect, to customer, through sales and service, into repeat purchase and advocate status.
- Both CRM and CXM require customer-focused behaviors of customer-facing employees at all touchpoints. CXM and CRM projects both consider how to motivate employees to provide better customer experience, which in turn drives business performance.[29]
- Segmentation, targeting and creating segment-specific offers (experiences) is evident in both strategic CRM and CXM programs. Not all customers want the same package of benefits or experiences, not all customers buy and use goods and services identically, and not all customers are equally adept at extracting value from their purchases.

To some extent, a turf-war is fought over language and concepts, but at their core, most CRM strategies focus on providing enhanced CX and most CXM strategies are implemented using CRM tools and technologies. A note of caution, when concepts address similar managerial goals, proponents of each may argue that theirs subsumes the other, that is, represents the "bigger" more comprehensive, idea. This can lead to confusion.[30]

CRM'S INFLUENCE ON CX

The implementation of a CRM strategy, and the deployment of CRM technologies, can have a significant impact on customer experience.

Strategic CRM's goal of winning and keeping profitable customers through a customer-centric organizational culture implies that there will be a dedicated focus on meeting the requirements of targeted customer groups. Customer experience should therefore satisfy the

expectations of these particular customers, while other potential customers or market segments may not be served. The principles of customer portfolio management discussed in Chapter 5 suggest that companies offer differentiated value propositions to different clusters of customers. There will therefore be differentiated customer experiences across the portfolio.

However, not every company that has a well-executed CX strategy uses the CRM toolkit we describe in this book. The technology and lifestyle brand, Apple, has a highly developed CX strategy, carefully managing customer experience at every touchpoint with a keen focus on customers' value-in-use, that is, the ability to use Apple devices to their full extent, easily. However, Apple, to the best of our knowledge, does not have a highly developed CRM program. They do not differentiate their product offer or experience for different customers based on customer preferences or CLV. The Apple experience does not change over time, as customers become loyal advocates. Apple does not mine its customer database to make targeted and specific offers. Everyone is treated the same in store or on the phone. Its customer management is undifferentiated, albeit at a very high quality, and there are no tiered loyalty and management structures.

Operational CRM involves the application of technology in the customer-facing functions of sales, marketing and service. Operational CRM can influence customer experience in a number of positive ways: customers will be recognized, their needs better understood, order fulfilment and billing will be more accurate, communications will be more relevant and timely, and service will be more responsive and reliable. However, CRM technology implementations are often motivated by efficiency motives, rather than a drive to improve CX. For example, the implementation of interactive voice response (IVR) technologies in call centers has allowed routine customer interactions to be automated, reducing transaction costs by up to 60%, and service agent numbers to be downsized to those required for more complex calls. Customer response to IVR implementations is not always positive, particularly in more conservative segments of the customer base. That said, customers may not even be aware of several improvements that IVR can bring to customer experience – more accurate information (less human error), 24–7 access to information, enhanced data security and privacy. The same sort of criticisms are leveled at chatbots.

Analytical CRM is the process through which organizations transform customer-related data into actionable insight for either strategic or tactical purposes. When analytical CRM works well, customers receive timely, relevant communications and offers. CRM practitioners are able to predict propensities to buy and detect opportune times to make offers, therefore ensuring that customers are not burdened with irrelevant communications. Analytical CRM can also be used to help customers in unexpected ways – bank customers can be alerted when approaching a credit limit thereby avoiding unwelcome fees, or telecommunications customers can be migrated to a more suitable contract thereby reducing their operating costs. The CEO of CRM technology vendor RightNow Technologies uses a mining metaphor to describe how analytical CRM has been deployed historically.[31] He suggests that sales-focused CRM implementations have conventionally been used to strip-mine customers, rather than understand and meet their needs better. Strip-mining has compromised many efforts to deliver excellent customer experience. Rather than strip-mining, he suggests that it makes better sense to nurture customers as if they were renewable resources.

HOW CRM SOFTWARE APPLICATIONS INFLUENCE CUSTOMER EXPERIENCE

There is growing research evidence about how CRM technologies influence customer experience.[32] As businesses place CRM functionality on the Internet, customers get the opportunity to self-serve whenever is convenient, buying online or resolving issues using a chatbot. Analytics enable companies to communicate effectively and appropriately with customers. With Next Best Action functionality, companies avoid making unwanted offers, though when this is appropriate a customized offer can be made at the right time in the right channel. Multichannel communication options enable customers to communicate with their suppliers with ease and at minimal or zero cost. When contacting customer service, customers can rest assured that the first contact will have access to their full customer record and be aware of the history of any issue. Proactive messaging keeps customers informed about product upgrades and scheduled service appointments. In brief, CRM technologies allow businesses to capture, record, analyze and distribute customer-related data so as to deliver better customer experiences across sales, marketing and service functions.

The Meta Group reports:

> business customers want to be identified for their appropriate requirements (e.g., resupply of goods and services that they already purchase), so that they can save time. Many consumers fall into a similar camp. But in exchange for being identified (e.g., providing information about themselves, or having it collected), customers/consumers expect to be treated as "special." This means free products, better service, useful information, and so on. They also do not want to be bothered by endless phone calls or e-mails to sell them more "stuff."[33]

As customers surrender data about themselves, they expect that information to be used wisely to communicate relevant and timely offers.

These comments imply that CX, following a CRM technology implementation, is not necessarily positive. The avoidance of negative CX from ineptly implemented CRM is an important reason for ensuring the voice-of-the-customer is heard during CRM project planning and implementation. It also signals the importance of monitoring customer response after a CRM implementation.

Despite these cautions, CRM technology can fundamentally change CX for the better because it reinvents what happens at customer touchpoints.

Features of CRM applications that improve customer experience

CRM software applications that are difficult to navigate or configure, or that are slow to respond, leave the customer painfully aware of the limitations of a company's customer management expertise. Furthermore, once a CRM application is published on the web for customers and channel partners to use, performance and usability issues are experienced first-hand. Usability, performance, flexibility and scalability are key features of CRM solutions that deliver a favorable customer experience.[34]

Usability

Usability refers to the ease with which a CRM application can be navigated or used. High usability applications are intuitive, and require very little effort to perform the required task, whether that is updating customer contact details, making an offer, or resolving a complaint. High usability applications require minimal user training prior to, or at deployment, and are experienced as highly responsive by the customer. A highly responsive application is a necessary ingredient in delivering a highly responsive experience for the customer.

Older-style CRM applications traditionally used menu systems and function keys for navigation. Function keys can be very fast to use once the user has learned the keystrokes. However, they can only take the user through a flow that was originally conceived during system design. These approaches can be cumbersome in the front office and take time to arrive at the customer's desired outcome. Web technologies, on the other hand, incorporate hyperlinks and drill-downs that support an intuitive, "go where the customer wants" approach. If you want more information on something, you can click on the link. For this reason, a web-style interface has become the norm for CRM applications. The only caveat to this is in the call center, where high volumes of calls take place in a largely predictable manner. In these situations, basic web-style technologies are not adequate, and must be augmented by scripting or applets in order to deliver the required level of interactivity and performance.

Flexibility

Responsiveness can be "hard wired" by pre-empting all of the processes that a customer may require and implementing these in the application in advance. The difficulty with this approach is that customers don't always follow the systems engineer's, or work flow designer's, script. An application's flexibility determines how many alternatives are available to the user at any given time; these alternatives are often implemented through hyperlinks, buttons, or screen tabs. A highly flexible application will have many such links and will not require specific processes to be followed. The customer does not want to be told "I'm sorry, but I can't do B until I've done A."

High performance

The performance of a CRM system is often determined by its weakest link. All technologies must be in alignment in order to create a high-performance system. A CRM application running on an extremely fast network will still be slow if the database is overloaded. Even the best software application will be unresponsive if network performance, database performance or server performance are substandard. Most CRM applications separate the application server from the database server in order to improve performance.

Performance is also determined by integration and synchronization technologies. A CRM application will appear slow if the user has to wait for an automatic email to be created and sent via the email interface. Remote users such as field service engineers will perceive the system as slow if they have to wait more than a few minutes for their daily synchronization to their device. The speed of these processes can have a dramatic effect on system acceptance and uptake.

An important characteristic of a high-performing CRM system architecture is not only this ability to separate high load areas such as the database and application servers, but also
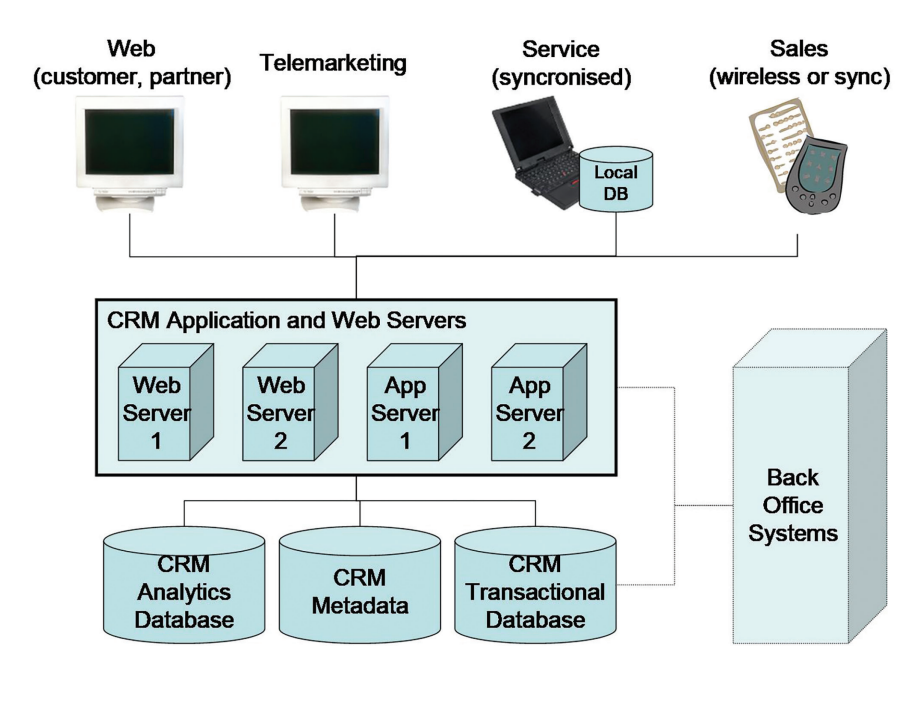
Figure 7.5 Typical CRM architecture, showing web, back-office integration and mobile. Note the database tier (bottom), the application server tier (middle), and the user interface tier (top).

the ability to expand the application and web server tier by adding more servers as required. This is shown in Figure 7.5.

Scalability

As the CRM system grows, and is used by more internal and external people, the scalability of the system becomes important. Acceptable performance with 100 call-center users may become inadequate once the customers are online and hitting the web-site, or field sales reps start synchronizing across all territories at the same time. CRM applications should be evaluated based on proven numbers of users, and types of users (concurrent on the web, synchronization, full load call center, etc.) in order to assess their ability to scale. A system that is unable to scale will deliver inadequate CX as user numbers grow.

Finally, it should be recognized that high performance CRM systems require investment to keep up with changing customer expectations. It is most important that the CRM application be constantly monitored against predefined performance targets to ensure performance remains acceptable. This is particularly the case in high turnaround areas where the customer is involved, such as the call-center and website, and where high loads take place at the same time, such as the afternoon synchronization run, or back office integration run.

CONCLUSION

In this chapter you've read about the links between CRM and customer experience. We defined customer experience as the customer's cognitive and affective response to exposure to, or interaction with, a company's resources (people, processes, technologies, places), and outputs (products, services, communications, etc.). Customer experience is important because it influences future buying behavior and word-of-mouth. Although customers have always had experiences in the purchase and consumption of goods and services, we have also seen the emergence of the experience economy, in which companies have invented and marketed experiences such as open-garden weekends, team-building exercises, and white-water rafting.

Three key concepts capture the essence of customer experience management – touchpoint, moment of truth and engagement. Customers are exposed to or interact with companies' people, processes and technologies at touchpoints such as call centers, websites, shop fronts or automated kiosks. Some of these exposures or interactions are more significant than others and become moments of truth that are important in the building of customer experience. Managers are keen to promote engagement with the company, brand or offer by delivering experiences that meet or exceed customer expectations.

In order to improve customer experience, it is important to understand current customer experience. Two data sources are particularly useful: mystery shopping and customer ethnographies that may involve participant and non-participant observation. The quality of customer experience can be measured using the 3Es: effectiveness, ease and emotion. Measures of customer experience, including involvement, interaction, intimacy and influence (the 4 "I"s), help companies determine whether customer experience objectives are being achieved. CRM practitioners want technology implementations to influence customer experience in a number of positive ways such as more relevant and timely communications, and more responsive and reliable service, but customers do not always respond positively to change. Features of CRM solutions that influence customer experience include usability, flexibility, high performance and scalability.

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Section C

OPERATIONAL CRM

Section C of the book explores operational CRM. Operational CRM focuses on the automation and integration of customer-facing processes across the marketing, selling and customer service functions of a business. Technology is widely deployed in operational CRM, and customers touch these technologies in many ways, for example when they receive an emailed offer, buy online or ask a chatbot for information. Section C consists of three chapters, one for each group of customer-facing processes. Chapter 8 explores marketing automation, Chapter 9 looks at sales force automation and Chapter 10 surveys service automation.

However, before we begin our discussion of the technologies that are used for marketing, sales and service purposes it is important to understand how CRM practitioners access these technologies. CRM tools are deployed in three ways: on-premise CRM, cloud CRM and hybrid CRM. Thirty years ago, when CRM was just beginning to play a role in business operations, early adopters would typically buy a license to install CRM software applications on their own servers; the software would be integrated with existing IT infrastructure and customer data would be retained behind secure firewalls by the business. This is known as *on-premise* CRM. However, in recent years, CRM tools have become available in "the cloud" as a service. The cloud can be thought of as a network of servers and services that is accessed through the Internet. Cloud CRM adopters do not buy a license and own the software, but instead pay a monthly subscription for each employee that uses the software, which remains the property of the developer. The subscription includes all CRM upgrades and service updates. Customer data is uploaded to and stored in the cloud. This is *cloud* or software-as-a-service (SaaS) CRM. The third option is *hybrid* CRM deployment. This combines elements of on-premise and cloud CRM. For example, a company with sales reps in the field will want them to have access to customer records at anytime, anywhere. Cloud CRM makes this possible. The same company may regard some types of data as so sensitive that they don't want that information in the cloud, or they may wish to perform analytics on data-marts stored behind company firewalls. Hybrid CRM is appealing to companies that have concerns about data access and security.

Companies that opt for cloud CRM need to be assured that their customer data is secure, and cloud service providers therefore take appropriate steps to ensure this. For example, users of Microsoft's Dynamics 365 range of CRM services know that their customer data is stored in multiple regional data centers. Therefore, if there is a problem at one data center, there won't be any downtime or lost data. All data centers have robust disaster protection, fire suppression, access controls and redundant (multiple) power supplies. The data centers, and the policies governing them, are certified for conformance with the international standard for

Information Security Management Systems (ISO 27001).[1] An Information Security Management System is a framework of policies and procedures that includes all legal, physical and technical controls involved in an organization's information risk management processes. In addition, Dynamics 365 is certified against the Cloud Security Alliance's Cloud Computing Matrix (CSA CCM). The Cloud Computing Matrix provides organizations with the needed structure, detail and clarity relating to information security in cloud computing.[2]

WHAT IS A MARKETING CLOUD?

The software that spawned the CRM revolution was focused on particular applications such as lead management and campaign management, but these now largely have subsumed within more comprehensive solutions. These new solutions integrate the traditional functionality of CRM applications and in so doing aim to make each more effective. These solutions' performance is greatly enhanced by access not only to internal corporate data, but also to external big data. Additionally, these integrated packages are largely in the cloud, inspired by the general movement to SaaS, exemplified in particular by the success of the CRM software giant Salesforce.com. These integrated packages are widely, though not exclusively, referred to as "marketing clouds". Some software companies prefer to use the terms "customer cloud", "customer experience cloud" or in the case of Salesforce.com "CRM cloud". These different terms essentially describe the same thing – integrated packages of software solutions that help companies manage the customer journey using marketing, sales and service applications. To add further complexity, some cloud services reserve the term "CRM cloud" for functionality focused largely on campaign management. However, we believe this is a very narrow view of CRM. Returning to our classification of the three forms of CRM – strategic, operational and analytical – for us the modern marketing cloud is the realization of that vision, because comprehensive integrated marketing clouds support all three forms of CRM. We therefore use the term **marketing cloud** to describe these fully integrated solutions.

THE CORE STRUCTURE OF A MARKETING CLOUD

Marketing clouds are best understood by working back from how the customer experiences the complete journey of interacting with the organization and then describing the core elements that enable the business to manage this experience:

1   **Horizontal integration.** The customer should have a coherent experience across all touchpoints regardless of device or channel; the so-called multichannel or omni-channel experience. This is a significant challenge for businesses as many of these channels (e.g. social media) are not directly controlled by the organization.

2   **Vertical integration.** The customer experience must be coherent across the sequence of processes and activities that make up the customer journey. Typically, companies define this as a Marketing-Sales-Service flow which describes how a firm makes its offer known, encourages purchase, negotiates purchase, ensures successful use of the offer and deals with all enquiries and problems.

3 **Data integration** (data management platform – DMP). CRM systems were built to deliver the promise of horizontal and vertical integration through the synthesis of disparate corporate legacy systems. This promised to crush old systems into a fully coherent customer database available to all customer facing business units throughout the customer journey. This challenge has been massively expanded in the digital age. Internal data integration remains problematic for most organizations, but often the really valuable data is "out there" with Google, Facebook, Spotify, Amazon et al. The modern DMP must assemble and continually update data from both internal systems and external, largely web-based, third parties and somehow create identifiable targets for individualized treatments in real time. This is truly a big data challenge creating datasets that are incredibly large, continually changing and comprising incommensurate formats (e.g. video, chat, text, relational databases).

4 **Intelligence integration.** Driving the solution, generating the value both for customers and companies, is the intelligent application of the data vertically and horizontally. Early CRM systems were rules based; that is, the company would determine a few "if-then" scenarios, code it into the CRM application and run the solution across the customer base. For example, an insight that high use of international calling increased the risk of defection might inspire a mobile phone service provider to write an algorithm to identify customers who call internationally more than average and activate a retention promotion. This would normally be a discrete activity perhaps run annually. Modern customer analytics available in cloud solutions look at behavior more comprehensively to identify high propensity churners and in real time intervene with customized offers. The effectiveness of alternative offers is continually assessed, and the system learns which work best against which customer segments to optimize offers continuously in real time. This is only achievable with modern advances in data science, particularly related to the deployment of AI (Artificial Intelligence). Competition between marketing cloud services is now significantly based on having a better data science capability.

The essence of the new cloud-based solutions remains the integrated Marketing-Sales-Service experience delivered both at scale and at an individualized level. However, the context has changed, and the new cloud marketing and experience solutions transcend traditional CRM solutions through the integration of internal systems with the external digital "infosphere," the extent of data management and the deployment of AI. The business need to which it responds remains cost-effective customer management at scale that optimizes some measure(s) of outcome including Net Promoter Score (NPS), customer satisfaction, customer retention, customer lifetime value (CLV), customer effort score, (re)purchase or customer engagement. We will show how these principles are implemented in practice by introducing the cloud offerings of just one of the world's largest marketing cloud vendors, Oracle.com. This is not to ignore other large, well-developed platforms offered by firms such as Salesforce .com, Adobe and SAP, but we focus on Oracle for illustrative purposes.

ORACLE'S CUSTOMER EXPERIENCE (CX) CLOUD

Oracle uses the term "customer experience (CX) cloud" instead of marketing cloud to describe its integrated Marketing-Sales-Service offer.

Over a period of approximately six years Oracle bought and integrated a suite of primarily cloud-based marketing, sales and service solutions to create its CX cloud. Key acquisitions have included:

- Siebel Systems – pioneers of Sales Force Automation and on-premise CRM
- Eloqua – marketing automation/campaign management
- BlueKai – an online data management platform that allows personalization of customer treatment
- AddThis – analytics
- BigMachines – configure, price and quote solution
- Collective Intellect – social media analysis and response
- Compendium – content management across channels
- Cross wise – cross device machine learning
- Datalogix – cross channel marketing
- Involver – social markup language for building social media content
- LiveLOOK – online customer service
- Maxymiser – optimizing web and mobile customer experience
- Moat – analytics
- Responsys – consumer marketing application
- Vitrue – social media marketing.

Oracle's CX cloud represents an impressive program of integration of complementary technologies into one cloud that supports a wide range of relationship management strategies across marketing, sales and service.

Oracle's CX cloud has similarities to major competitors such as Salesforce.com and Adobe, although each starts from a different strength. Oracle has a traditional strength in data management, which we now explore.

Data integration – intelligence integration

A well-designed cloud is underpinned by its data management platform (DMP). The DMP integrates enterprise data with third party data to feed the applications that intelligently target and manage individual customer experiences and journeys. The DMP integrates data from internal systems (e.g. customer records, service records, warranty history and marketing campaigns) and third parties (e.g. social media, business partners and marketing technology (martec) applications). Sophisticated DMPs incorporate analytic capabilities, and this combination of an integrated cloud and predictive analytics powers the automation of marketing, sales and service activities such as campaign management, loyalty programs, advertising and social media messaging.
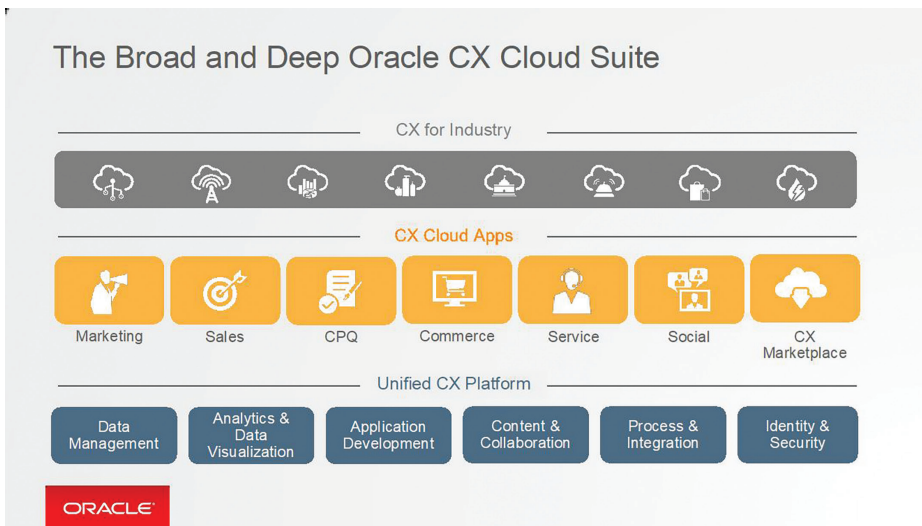
Figure C.1 Oracle's CX Cloud, 2018

Figure C.1 illustrates the breadth of the capabilities of a well-developed DMP, from data management, through its analysis and visualization, support for new applications, content management, integration with core business processes and security. The single view of the customer (SVOC), and the dissemination of customer-level data throughout the organization, has always been the start of any major CRM implementation. Today's technology is getting ever closer to delivering that ideal state.

Horizontal and vertical integration

The DMP supports a full range of applications to personalize all communications and services throughout the customer journey across all touchpoints. While this was achieved somewhat with the early CRM platforms of the late 1990s and 2000s, today's integrated cloud solutions draw on a much wider range of personalized data and Artificial Intelligence to determine which action or offer to make at any time to any customer at any stage of the journey, with the aim of maximizing the likelihood of purchase at the lowest cost and generating loyal customer advocates.

The applications embedded in Oracle's CX cloud also cluster into "mini clouds"; these comprise a subset of applications that lend themselves to deployment within the Marketing-Sales-Service stages of the customer journey, as shown in Table C.1. Oracle also clusters applications into other clouds to appeal to other potential clients who want something different from, or adjunct to, routine Marketing-Sales-Service applications.

Table C.1 Components of Oracle's CX cloud

Journey stage	Application name	Functionality
Marketing	Marketing cloud	Marketing personalizes customer experience: • Segments and targets customers based on individual profiles • Automated campaign management that generates customized messages dynamically as the customer moves through their journey • Lead management that scores all leads and manages a sales funnel • Marketing measurement that provides data and its visualization It operates: • Across all channels including social media • Dynamically manages content for each journey and offers tools for publishing, managing content and measuring customer engagement • Integrates the sales and marketing functions of the firm • Integrates fully with the DMP, hence all the other applications in the cloud and leverages AI and predictive analytics to support marketing automation
Sales	Sales cloud	Improves sales management processes: • Performance management at all levels of the sales force • Incentives and compensation • Allows visible metrics for territories and quotas • Measures sales peoples' productivity • Account management • Deal or bid management It operates: • Analytics at the level of customer, rep, sales team, territory, etc. • Provides full account history • Forecasting and pipeline analysis using analytics and data visualization • Environmental scanning for deals
	Commerce cloud	Provides e-commerce capability permitting firms to establish online commerce while integrating the online sales channel with its overall customer management.
	CPQ cloud	Intelligently assists and automates much of the bid management process – CPQ – Configure, Price, Quote. Allows rapid configuration of customer solutions and their pricing to improve sales force effectiveness and efficiency

Journey stage	Application name	Functionality
	Sales performance management cloud	Focuses upon sales teams' productivity: • Territory management • Quota management • Incentive compensation • Sales crediting • Objectives management • Oracle social network – in-company social network
	Engagement cloud	Enhanced sales cloud capabilities for particularly high value accounts.
Service	Service cloud	Improves customer experience of service by integrating customer management across all channels for each customer cost effectively. It operates: • Cross channel • Automatically – web service, virtual assistance, proactive chat, guided interactions and screen share • Knowledge management to improve agent effectiveness • Policy automation • Machine learning to improve • Case management

Industry-specific solutions

There is wide variation between the structures, marketing/sales/service practices and regulatory environments of different industries, and this has motivated cloud solutions providers to develop industry-specific data models and applications. For example, banks are highly regulated, are subject to Ombudsman overview and sell direct-to-customer; consumer goods manufacturers are typically less regulated, not subject to Ombudsman overview and sell through channel intermediaries. Banks "own" the end customer relationship but good manufacturers cede the consumer relationship to the retailer. Solutions developers such as Oracle and Salesforce.com have therefore created integrated solutions that map to the requirements of different industries.

Open architecture

One of the challenges of integrated marketing clouds is the sheer number of applications and innovation in marketing technology (martec). Scott Brinker has identified over 4,500 martec applications.[3] Only some of these are integrated into cloud solutions offered by leading developers. Many are stand-alone or "point" solutions.

Brinker's view is that businesses will want the flexibility to use specialized applications to implement tactical campaigns and perform other marketing, sales and service activities quickly at low cost. The major cloud solutions brands are developing their equivalents of the Apple and Android app stores. Oracle and Salesforce.com are both pursuing this strategy with the Oracle Market Place and Salesforce AppExchange, respectively. Their publication of

application program interfaces (API) enables third parties to develop specialized applications that integrate with and enhance the cloud solution's capabilities. Making marketing clouds open platforms in this way potentially creates an environment where there will be a limited number of backbone integrated marketing clouds that are continually augmented with third party applications. Throughout the following three chapters we illustrate some of this software's functionality with screenshots from cloud applications.

NOTES AND REFERENCES

1   For more information refer to www.iso.org/isoiec-27001-information-security.html. Accessed April 23, 2018.

2   For more information refer to https://cloudsecurityalliance.org/star/#_overview. Accessed April 23, 2018.

3   Brinker, S. (2015). Marketing technology landscape supergraphic (2015). http://chiefmartec.com/2015/01/marketing-technology-landscape-supergraphic-2015/. Accessed June 18, 2017.

MARKETING AUTOMATION

INTRODUCTION

This is the first of the three chapters in Section C that survey operational CRM. This chapter is about technologies used by marketers. The next chapter reviews sales force automation and the third chapter in this section examines service automation. The chapter starts with a definition of marketing automation (MA) and then describes some of the functionality that is available in MA software whether integrated into marketing clouds or as point solutions.

WHAT IS MARKETING AUTOMATION?

Marketing practices have historically been very *ad hoc*. Some of the largest companies, particularly high media spending, fast-moving consumer goods companies (e.g. Unilever, Diageo, Procter and Gamble), have well-developed marketing processes that brand managers, segment managers, market managers and marketing managers follow. However, mostly we find that marketing practices vary enormously within firms across divisions and certainly between companies. Some of this is natural due to the desire of each company to respond to its unique circumstances with a differentiated marketing approach. That said, we do not believe it is controversial to suggest that marketers should be more structured in the way that they plan, implement, evaluate and control marketing strategies and tactics. Gone are the days when an organization might run a handful of campaigns every year. The modern, information-enabled marketer can run thousands of highly targeted, unique,

real-time campaigns based on complex data mining and predictive analytics. CRM technologies enable marketing campaigns to be created for individual customers. Marketing automation is now necessary to scale marketing activities and bring more rigor, repeatability and transparency to marketing processes. MA has reached such a level of sophistication that the whole process of marketing from customer selection to offer presentation can be directed by analytics supported by Artificial Intelligence. According to a report from the Economist Intelligence Unit, contemporary marketers need to combine operational and data skills with a grasp of the big picture.[1] Technology investments illustrate both the dominance and fragmentation of digital channels in contemporary marketing. Three of the four most widely reported investments aim to reach customers through different channels: via social networks, on mobile devices and on the old standby of email. The fourth, analytics, is needed to knit together data from multiple channels and other sources into a coherent and actionable portrait of the consumer. Contemporary marketing managers clearly need the ability to adapt and scale their data capabilities and operational processes to handle the increased complexity facing them.

The term, marketing automation (MA), can be defined as follows:

Marketing automation is the software-based application of processes, rules and algorithms that execute marketing activities with little or no human intervention.

At its most advanced, MA is associated with the use of large, constantly-updating customer data and predictive modeling that, in real-time, determines the next best action to take for individual customers at each stage of their customer journey. Marketing automation, as currently implemented, is clearly in the domain of big data, machine learning and even deep learning. It typically requires sophisticated software and large amounts of data. Machine learning uses algorithms – a set of rules or steps – so that computers improve their ability to solve specific problems through a process of trial and error (feedback loops) over time. Deep learning is a form of machine learning enhanced with far greater processing power and more sophisticated algorithms. It works more like a human brain with the ability to identify patterns within apparently disorderly data. For example, deep learning has enabled computers to learn how to play complex games such as chess or Go without human training, even beating human experts.[2]

MA is an important component of integrated cloud and on-premise CRM applications but there are also many vendors that offer "point" solutions providing a limited range of functionality, for example lead management, which was the first form of software-supported marketing automation to be developed.

Contemporary mobile marketing applications are critical in reaching prospects and customers when they use devices such as smartphones and tablets. People not only use these portable and lightweight devices when away from home or commuting, but also when at work or home. Content delivered by MA applications needs to be optimized for viewing and response on these small devices. Such is the penetration of mobile devices that many MA developers are adopting a mobile-first strategy. In other words, applications are developed specifically to function well on small screens with responsive templates for email, landing

pages and web forms. Creating an engaging experience for mobile targets has become a must-have capability for many brand marketers, and MA applications must therefore support this goal.

A very wide range of marketing, and some sales, positions make use of MA including marketing manager, campaign manager, sales manager, account manager, market analyst, market manager, promotions manager, database marketer and direct marketing manager. MA enables these users to automate tasks and processes such as marketing campaigns across multiple or all channels, and lead scoring and allocation.

CASE ILLUSTRATION 8.1

MARKETING AUTOMATION AT STAPLES[3]

Staples is a US-based multinational retailer of office supplies. It is a world-wide category leader that innovated the "big box" retailing format. As a "category killer" it services customers both online and in-store. It implemented SAS marketing automation and analytics to manage 1500 separate campaigns across 25 million customer records. The improved number and targeting of the campaigns is reported to have generated a 137% return on investment. In addition, the CRM systems monitor the behavior of regular customers and can intervene with bespoke offers when their spending drops. The tools permit different ways of monitoring customer retention and identify those most at risk of defection through models of customers' purchasing behavior.

BENEFITS OF MARKETING AUTOMATION

Marketing automation can deliver several benefits to both firms and customers. These include the following:

- **More effective marketing.** MA allows for far greater granularity in campaign management than has previously been possible. This maximizes revenue while minimizing cost.

- **A learning system.** MA allows marketers to employ what is known as closed-loop marketing (CLM). CLM is based on a Plan-Do-Measure-Learn cycle, as illustrated in Figure 8.1. Marketers plan a campaign or event, implement the plan, measure the outcomes, learn from the outcomes and subsequently modify the next campaign or event. CLM ensures that companies learn continuously from their marketing activities, achieving higher levels of marketing effectiveness over time. Companies can also identify and abandon failing marketing initiatives before they drain financial resources. CLM is even
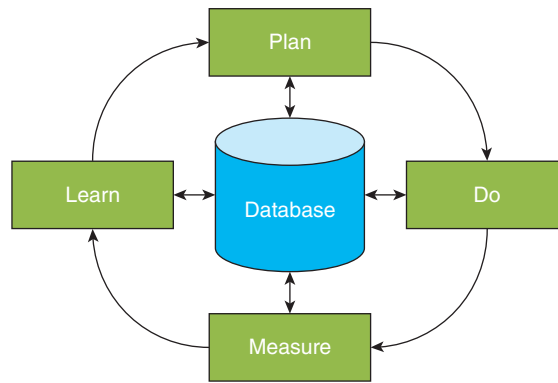
Figure 8.1 Closed-loop marketing

performed without human involvement, as computers self-learn over time through feedback loops.

- **Enhanced marketing efficiency**. The replication of marketing processes delivers greater control over costs. When marketers use manual systems and *ad hoc* processes, there can be considerable inefficiencies. MA enables companies to develop more streamlined, cost-efficient workflow, that can be operated by any marketing incumbent, whether experienced or new-to-role.

- **Greater marketing productivity**. In the days before MA, marketers might be expected to run a modest number of advertising campaigns and sales promotions in a single year. MA enables companies to run dozens, even thousands, of campaigns and events through single, multiple or all channels simultaneously without a commensurate increase in the cost and complexity of running the business. Campaigns support prospecting, customer acquisition, cross-sell, up-sell, customer retention and informational goals.

- **Improved accountability for marketing expenditure**. MA provides better data and analysis on which to judge the commercial return from marketing activities, improved transparency and faster (almost real-time) information for management.

- **Enhanced responsiveness.** Marketers have traditionally created and implemented annual marketing plans with campaigns and promotions planned and scheduled many months ahead. MA allows marketers to respond instantly to opportunities, even if not part of a plan. MA functionality enables companies to engage in real-time marketing, responding immediately to an identified opportunity. For example, when a female customer buys baby clothes from a catalogue for the first time, marketers can send an automated offer inviting the customer to join a mother-and-baby club that offers additional customer benefits to new mothers.

- **Better alignment of customer-facing silos**. Many marketers, particularly in business-to-business organizations, are responsible for generating high-quality leads for salespeople. The sales department is essentially the marketing department's internal

customer. Lead management applications are a form of MA. These applications can deliver a better service to sales, presenting them with qualified, nurtured prospects. Advanced MA applications use predictive analytics to score leads. Marketing can work on building relationships with early stage leads, leaving sales to focus their efforts on the most qualified prospects. Better qualified leads have a greater potential of conversion into customers. Research supports the idea that an integrated marketing and sales funnel increases transparency between marketing and sales departments and fosters closer cooperation.[4]

- **Improved marketing intelligence**. MA's embedded reporting and analytics functionality provides valuable management insights into markets, customers, campaigns, events and so on, leading to both enhanced efficiency and effectiveness.

- **Improved customer experience**. Customers receive personalized, relevant communications and offers at appropriate times and consistently across channels/devices. MA should mean less spam. However, some marketers still use technology merely for blanket emailing to increase short-term revenue regardless of the negative impact on customer experience.

- **Improved customer engagement**. Marketers use MA to build multi-layered, stronger, relationships with customers. Not only can customers develop a stronger sense of emotional and behavioral identification with the brand when they experience personalized offers and communications, but marketers can stimulate non-purchasing forms of engagement such as participation in customer surveys or liking the brand's Facebook page.

Research by Aberdeen Group suggests that "best-in-class" marketers are significantly more likely to adopt MA than are other marketers. "Best-in-class" is defined as the top 20% of firms as indicated by an index of marketers' performance against three criteria: marketing campaign productivity, year-on-year fall in customer acquisition cost, and year-on-year lift in customer retention rate.[5]

SOFTWARE APPLICATIONS FOR MARKETING

There is some debate about the scope of marketing automation and it is sometimes confused with marketing technology or martec. Scott Brinker's review of marketing technology, introduced earlier in the introduction to Section C of this book cites 43 different forms or categories of marketing technology, only two of which - campaign management and lead management - he identifies as MA. He also names over 1,800 brands offering over 4,500 martec products and services.[6] The technology landscape changes so quickly that these numbers are certain to be different at the time you read this, with new entrants, mergers and acquisitions being commonplace.[7]

We discuss a number of MA applications that cluster broadly into three categories: those that support marketing campaigns, those that support online and digital marketing, and those that support strategic and broader marketing management matters, as listed in Table 8.1.

Table 8.1 Functionality offered by MA software

Marketing campaigns	Online – digital marketing	Strategic and other marketing
Campaign management	Social media marketing	Integrated marketing management
Direct mail campaign management	Programmatic advertising	Marketing performance management
Email campaign management	Content management	Loyalty management
Event-based marketing (also called event marketing and trigger marketing)	Keyword marketing	Partner marketing
Marketing optimization	Search engine optimization	Product life-cycle management
Tele-marketing	Web analytics	Asset management
		Document management
		Marketing analytics
		Workflow development

The table lists both macro-MA solutions that offer a wide range of functionality, and micro-MA solutions that offer a narrower range of functionality. The macro solutions, such as Integrated Marketing Management, deliver much of the functionality present in the micro solutions. Some of these applications are used more widely for customer acquisition (e.g. tele-marketing and search engine optimization), others for customer retention (e.g. loyalty management) and others for customer development (e.g. event-based marketing and campaign management).

In the following pages, we'll describe this functionality in more detail. First, we'll review the functionality supporting marketing campaigns; second, we'll report on functionality for online and digital marketing; then we'll turn to functionality for strategic and other marketing issues.

Marketing campaigns

Campaign management can be defined as follows:

> **Campaign management is the technology-enabled application of data-driven strategies to select customers or prospects for customized communications and offers normally in real-time.**

Campaign management automates the processes involved in planning, implementing, measuring and learning from communication programs targeted at prospects or customers. Campaigns are used for a variety of customer learning, feeling and behavioral objectives, as outlined here:

- **Learning**. Advise customers of the launch of a product upgrade; alert customers to a payment-due date; raise brand awareness

- **Feeling**. Thank customers for becoming customers; tell case histories of successful product applications so customers feel good about their purchase

- **Behavioral**. Promote brand engagement; cross-sell; up-sell.

The key elements of campaign management software are workflow, segmentation and targeting, personalization, execution, measurement, modeling and reporting.

- **Workflow**. Before any campaign is run, the overall campaign development and implementation process has to be designed. Workflow establishes the order in which tasks have to be performed. The tasks may include setting measurable objectives, setting a budget, getting approvals, creating a database of contacts, selecting contacts, creating a core message, testing the core message, customizing the message for individual recipients, selecting communication channels, executing the campaign, measuring response, reporting outcomes, and reviewing and learning from the campaign. Workflow functionality allows managers to plan, design, manage and monitor and report specific marketing campaigns, which are often complex.

- **Segmentation and targeting**. The customer base or source list can be divided into subsets so that one or more subsets can be treated to a customized campaign. Segmentation is the process of identifying subsets, and targeting is the selection of the subset(s) that will receive the content. A well-established approach to segmentation is to partition customers based on recency of purchase, frequency of purchase and monetary value, targeting different offers at different subsets. A more advanced approach uses MA to assess the probability of purchase dynamically and target in real-time. As customer insight increases, companies target individual customers with uniquely structured messages and offers based on learning from wider data sets inclusive of operational systems, channels and social media.

- **Personalization**. Messaging and offers are tailored for individual recipients at each stage of the customer journey. MA, when supported by customer insight, means that customers are known as individuals rather than demographic stereotypes. Personalization can happen in real-time depending upon the individual's revealed preferences or behaviors.

- **Execution**. Campaign execution happens when the message is delivered through the selected communication channels. Campaigns can be run in one, many or all channels, independently, consecutively or simultaneously: direct mail, email, social media, website, outbound or inbound telephone, programmatic advertising, chatbot, text message or multimedia message. Campaign management solutions can be integrated with sales and distribution for the fulfilment of orders.

- **Measurement**. The results from the campaign are assessed at segment and individual recipient level. Measures focus on the objectives originally set.

- **Modeling.** Modeling is the process of interpreting campaign results statistically, so that future campaigns can be based on statistical insight into what works and what doesn't, as described in the closed-loop marketing cycle (Figure 8.1).
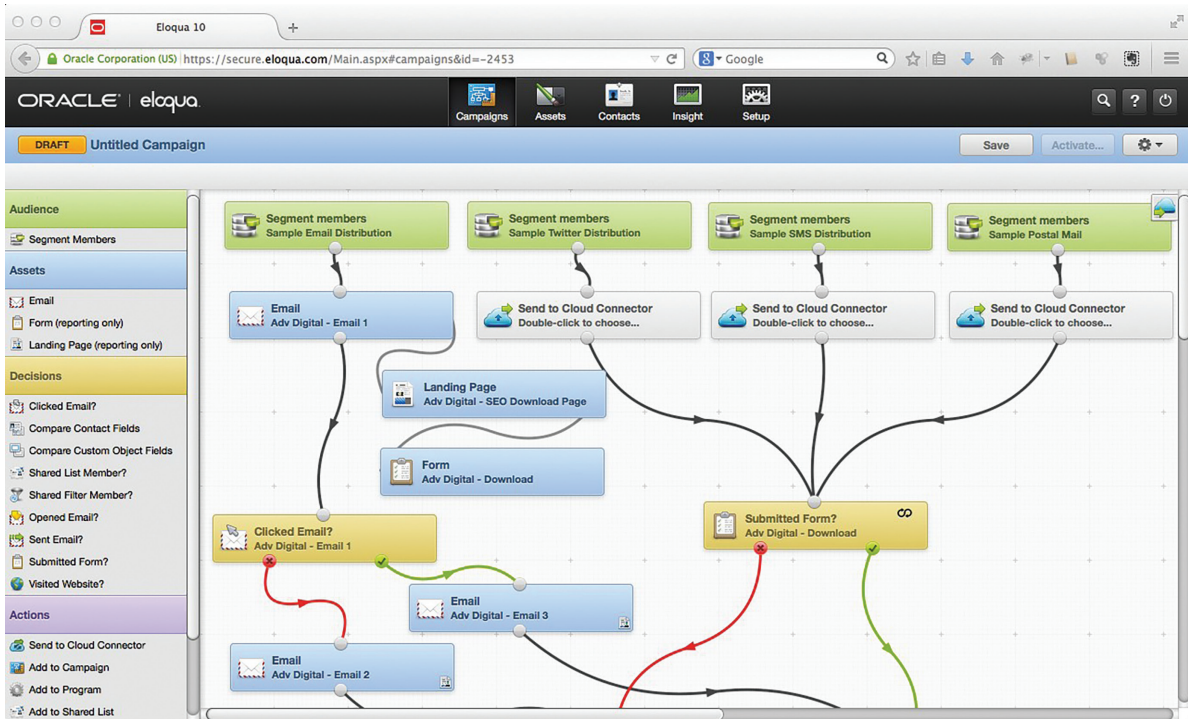
Figure 8.2 Oracle (Eloqua) multichannel campaign management application[9]

- **Reporting**. Campaign results are computed and delivered in standard or customized management reports to relevant parties. Reports enable companies to enjoy the benefits of closed–loop marketing, through cycles of learning and improvement.

A distinction is sometimes made between multichannel and omni-channel campaigns. The prefix "multi-" means many, whereas "omni-" means all. Omni-channel campaigns essentially communicate the same message in all channels. One review suggests that brand identity and brand recognition benefits are the most significant outcome of successfully executed omni-channel strategies.[8] For example, omni-channel might be suitable when striving to raise the profile of a firm as an innovator. Multichannel campaigns tend to be more nuanced in recognition of each channel's particular role in the customer journey. For example, customers who are online researching their options might not appreciate receiving an emailed or SMS offer.

The ability to run integrated marketing campaigns over multiple channels, optimize campaigns, and integrate with sales and service applications are important considerations for large-enterprise users of campaign management.

According to technology analysts, Gartner, Inc., leading solutions for multi-channel campaign management include SAS, Adobe, IBM, SAP, Salesforce and Oracle.[10] There are many other challenger and niche campaign management software offerings. Multichannel campaign management (MCCM) processes enable companies to construct and deliver offers and other content to individual customers or customer segments across multichannel environments. Gartner, Inc. identifies the following as core MCCM capabilities:

- Basic campaign management, including functions for segmentation, campaign creation, campaign workflow and campaign execution

- Advanced analytics functions, including campaign optimization and predictive analytics (ability to predict churn, next-most-likely purchase and propensity to buy)

- Integration with loyalty management, content management, event triggering and real-time offer management in both inbound and outbound environments

- Integration across silos for execution, including fulfilment of offers by dispatch and delivery of leads to sales.

CASE ILLUSTRATION 8.2

DIAL ECO-SMART MULTICHANNEL MARKETING[11]

Dial Eco-Smart aims to replace the typical hotel amenity bottles with tamper proof, refillable dispensers. While this new program guarantees the hotel a minimum of 50% savings, it is a radical departure from the established industry norm of the iconic little shampoo bottles. Eco-Smart's year one launch used traditional push marketing targeting mid-level hotels. The campaign cost $90,000 and used advertisements placed in hospitality trade magazines. The ads gave contact information and a call to action that invited people to email for more information. The results from the entire first year were just five total requests for further information.

Given this failed year one campaign, Dial implemented a multichannel campaign management strategy in year two. This consisted of a direct mail campaign linked to a PURL (personalized landing page) that communicated with a call center and a sales team. This campaign was targeted at the same audience as the previous year. This multichannel campaign took two months to build including design, gathering data and doing some on-site photography of Eco-Smart products. The initial direct mail portion of the marketing campaign went to 940 prospects and invited each of them to visit a personalized landing page with more information on the product. From the PURL, the prospects could request samples to pilot test at their hotel.

When a specific PURL was visited by a prospect, the call center was notified and the prospect received an outbound call from an agent in as little as five minutes. This multichannel marketing campaign cost just over $6000. One month after the multichannel marketing campaign rolled out, Dial had received 53 responses asking for a sales representative to call them. This compares well to the five they received the previous year.

Direct mail campaign management is a specific form of campaign management in which the communication medium is direct mail. About 75% of direct mail targets consumer audiences, the balance being sent to business audiences. Direct mail is typically aimed at either prospects or current customers, and therefore serves many different purposes including lead generation, lead nurturing, building awareness, sales, customer service, customer retention, database building or reputation enhancement. Important contributors to direct mail success are list quality, the creative execution, the offer and the timing. Making the right offer to the right person at the right time in a creatively compelling way will produce greater success. Automated processes can help deliver all these outcomes. A high-quality list that is clean and contemporary, a

creative execution that catches the eye and promotes action, an offer that is determined by the list member's propensity-to-buy and that is personalized will achieve greater success than the conventional mass mail-outs that have been marketing's tradition. In most developed markets, direct mail volumes have been stabilizing or declining as marketers opt for digital media. According to the DMA (Data and Marketing Association), although volumes are falling, response rates (defined as doing what the mailer wants the recipient to do, whether that is register for an event, redeem a coupon or call a toll-free number) are rising because direct mail is increasingly being guided by digital intelligence such as online browsing behavior and predictive analytics.[12] Consumer preferences also figure in the decision to use direct mail. Consumers typically prefer to receive offers from local stores and suppliers by direct mail but prefer email for competitions. The old cry that "it's a numbers game" has been replaced by a clear focus on customized, personalized offers. Response rates range from well below 1% for poorly constructed direct mail campaigns, to over 30% (for government mailings). Many companies elect to outsource direct mail campaigns to third party service providers who are themselves big users of marketing automation.

Email campaign management is a specific form of campaign management in which the communication medium is email. Email is cheap, easy to use and ubiquitous. There are over 4 billion email users worldwide,[13] and over 90% of Internet users have one or more email addresses.[14] Email marketing is a massive industry. In the US alone, Forrester Research expected spending on email marketing to exceed $3 billion in 2019.[15] Marketers use email for a number of reasons: most individuals have at least one email account, notifications alert users that email has arrived prompting them to visit their email inbox, email is easily customizable, it is not much more expensive to send ten thousand emails than a single email, email is potentially viral when it uses embedded social sharing buttons, and its performance is measurable using open and click-through rates. According to MailChimp, open rates vary from 15% to 28% across different industries, with click-through rates varying between 1.25% and 4.7%.[16] Open and click-through rates, the most commonly used email marketing metrics, provide marketers with some insight into how an email message has performed. These metrics can be combined into a click-to-open rate (CTOR) that measures click-through rates as a percentage of messages opened, instead of messages delivered. One survey of US marketers suggests that median ROI from email marketing is 122%.[17] Legitimate email marketing is tainted by the widespread use of email spam, that is, unsolicited bulk email. Up to 50% of email messages are spam. The typical legitimate opt-in (or permission-based) email marketing message contains text and a link through to a website. Because a large proportion of emails is read on mobile devices, email content needs to be rendered appropriately. As with all customer communications, it is very important to specify clear objectives. If the objective is to sell 100 products, reporting success in terms of CTOR makes little sense.

There are over 250 email campaign management software packages, either stand-alone, or integrated into more comprehensive campaign management or MA offerings. Basic functionality available in these packages includes campaign workflow, implementation, tracking and reporting, and a user interface suitable for marketers. Advanced functionality includes predictive analytics and event triggering. Email campaigns can also be trained to respond to a significant event in the customer relationship. See event-based marketing and trigger marketing below for more information. Figure 8.3 is an example of email campaign management workflow in LISTSERV Maestro. Many email marketing software suppliers offer customizable workflow for widely experienced customer events. For example, MailChimp has developed email messaging workflow for corporate response to abandoned online shopping carts.
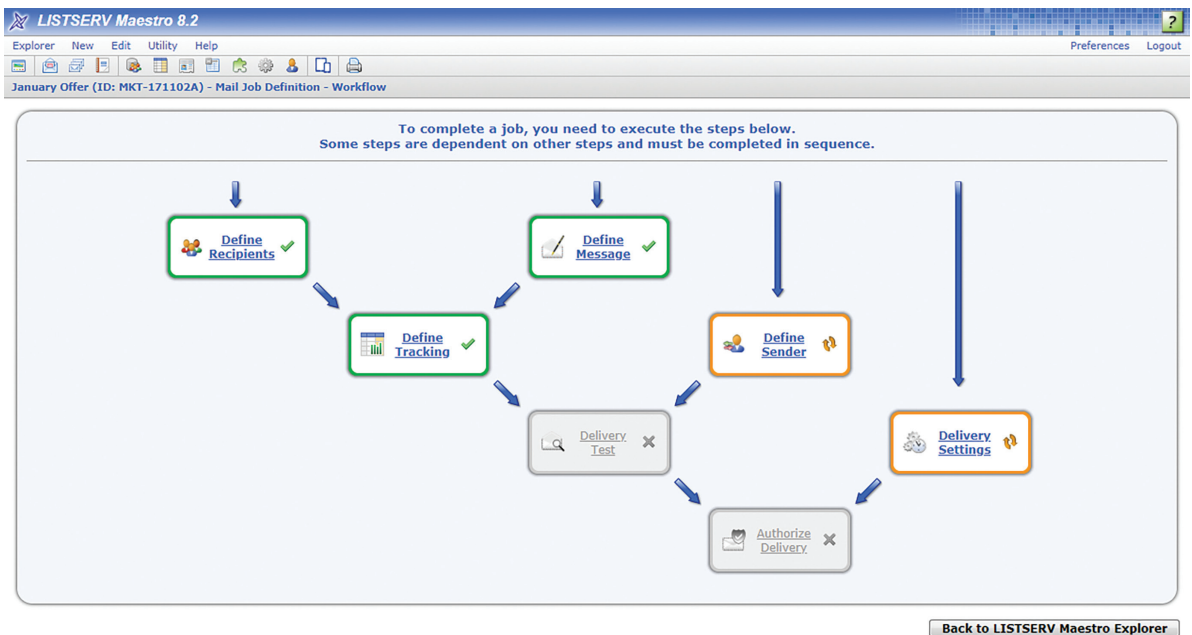
Figure 8.3 Email campaign management workflow[18]

Event-based marketing (also called event marketing, and trigger marketing) occurs when an event triggers a communication or offer. It is the practice of responding to an event in a way that is designed to achieve some marketing goal such as make a sale, identify a cross-sell opportunity, prevent negative word-of-mouth, or promote positive word-of-mouth. Event-based campaigns are usually initiated by customer behaviors or contextual conditions. Here are some examples of customer behaviors (events) that trigger marketing responses:

- A customer who uses a credit card fewer than six times in a three-month period receives an invitation to participate in a frequency reward program designed to encourage repeated use.
- A bank customer who deposits $50,000 or more into a savings account receives an offer of investment advice from a licensed financial planner.
- A customer buys gardening gloves online. This triggers an automated email confirming purchase, providing tracking information and offering a related product purchase – gardening tools.
- An online shopper abandons a shopping cart before payment. This triggers a follow-up reminder email aimed at converting the lapsed browser into a purchaser.

Here are some examples of contextual conditions that trigger a marketing response:

- A customer's birthday triggers a congratulatory message containing a customized offer
- A change of address triggers an approach to update other contact details
- Religious festivals such as Eid, Christmas and Hanukkah trigger marketing campaigns.

Event-based marketing software can be trained to identify events either to send an automated response such as an email, digitally-personalized direct mail piece, or text message, or to feed the information through to a sales person or customer service agent for follow-up. Event-based marketing ensures that the communication is relevant to the recipient because it is a contextualized response to the customer event.

Campaign management solutions are very popular, but most cannot handle a complex environment in which a fixed number of campaign dollars have to be distributed over many offers in many channels to many customer segments with a view to achieving some overarching commercial goal such maximum sales or contribution to profit. Marketing optimization provides a mathematics-based solution to this problem. Users of marketing optimization software do not need to write the complex optimization algorithm that underpins this application, but they should understand it sufficiently to be able to assess the assumptions in the algorithms they use.

Marketing optimization software allows users to select an overall objective, such as sales revenues, profit maximization or ROI, and specify all of the constraints of their marketing campaign strategy, such as budget, customer contact policy (e.g. no more than three offers per customer per year), channels available (e.g. direct mail, email, branch, mobile, contact center), minimal cell size per offer (e.g. at least 250 customers), product-specific volume requirements (e.g. must sell 10,000 Gizmos this quarter), customer segments' propensities-to-buy different products, customer credit rating, and channel constraints (e.g. contact center can only make 200 outbound calls per week), to name but a few. The software then uses mathematical optimization processes to determine which customers should get which offer through which channel to ensure the objective is met.

The software also lets users explore any number of "what-if" scenarios, changing objectives and constraints, and compare the results, before committing any marketing resources. SAS clients use a browser-based interface to guide them through all optimization processes including scenarios, constraints, reports and analyses, and wizards assist them with more complex tasks.

Tele-marketing can be defined as follows:

Tele-marketing is the use of the telephone to identify and qualify prospects, and to sell and service the needs of customers.

Tele-marketing takes two forms: inbound and outbound. Some call centers perform a blended function with agents both making and receiving calls. Tele-marketing is widely employed in both B2C and B2B environments but can be subject to legislative and regulatory control due to its intrusive nature. For example, both the US and Australia operate a Do Not Call register on which telephone account holders can list their numbers. With a few exceptions – charities, political organizations, research firms – marketers are not allowed to call listed numbers. Penalties apply.

Tele-marketing software applications offer a wide-range of functionality over landlines, mobile networks and VoIP (Voice over Internet Protocol):

Auto-dialers queue a list of calls and automatically dial the next number either when the current call is finished, or the agent presses a hot key. Predictive dialers predict when an agent is about to conclude a call, and auto-dials the next number in anticipation. Automated
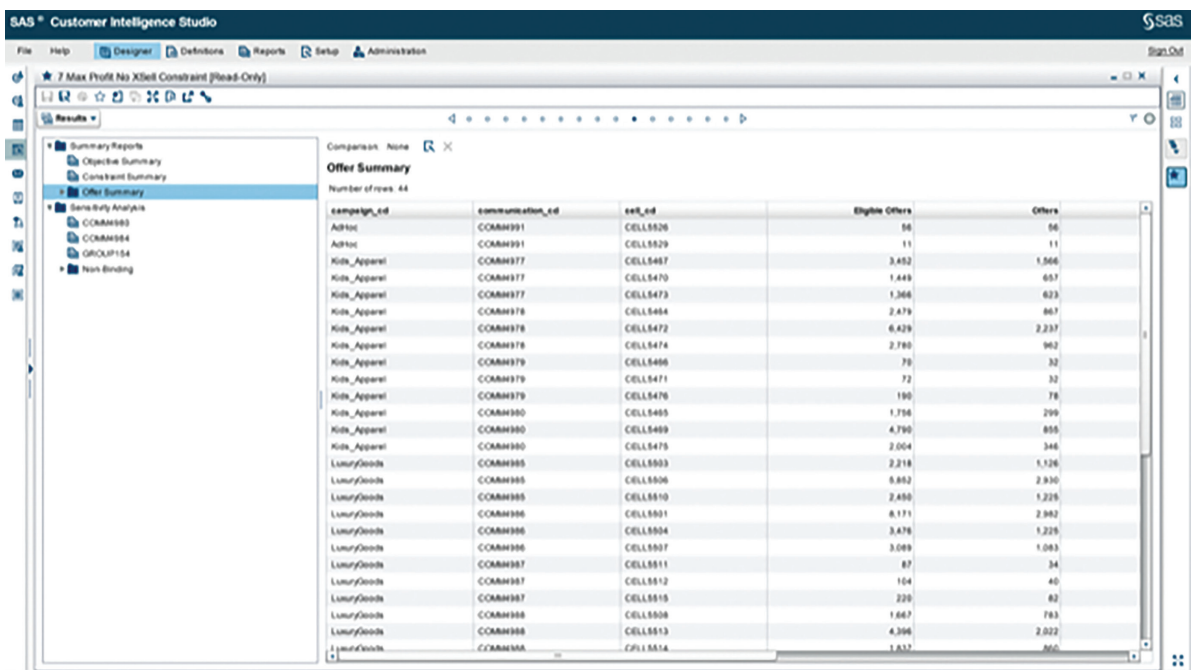
Figure 8.4 Marketing optimization; offer summary
(copyright SAS, 2018. Used with permission)[19]

Table 8.2 Technology support for tele-marketing

Agent management	Contact list management
Auto-dialing	Do Not Call compliance
Automated call distributor (ACD)	Interactive Voice Response (IVR)
Automated voice-messaging	Predictive dialing
Call recording	Screen pop with caller ID
Call monitoring	Scripting, including objection response
Computer Aided Telephone Interviewing (CATI)	Skills-based routing

voice-messagers, also known as robo-callers, will make telephone calls automatically to a contact list and convey a message to them. This is used for lead generation, debt collection, political canvassing and reminding customers about appointments. Tele-marketing software that integrates with campaign management and event-based marketing applications enables agents to make real-time offers to customers. In-call online access to a searchable knowledge base enables agents to resolve issues and enquiries quickly. IVR systems allow customers to interact with a company's host system by voice or telephone keypad, giving them the opportunity to service their own inquiry by following the IVR menu. IVR technology is useful if an interaction can be broken down into a series of simple questions and answers. We discuss some of these technologies further in the Chapter 10.

Tele-marketing focuses mainly on outbound calls. However, there is also considerable interest in improving customer experience when making in-bound calls. Leading firms are trying to enhance CX by using inbound marketing automation tools to help customers extract more value from the call. Enhanced experience is linked to customer loyalty and hence improved CLV. Chatbots, or fully automated response tools are increasingly used at the front end of in-bound experiences and are able to quickly and cheaply deal with routine matters while routing complex matters or opportunities to the right person. We discuss chatbots more fully in Chapter 10.

Online – digital marketing

Online marketing can be defined as follows:

> **Online marketing is the process of creating value by building and maintaining online customer relationships.**

Online marketing is also known as Internet or digital marketing. There are many digital marketing practices that grow in number year-on-year. Software enables users to perform a wide range of online activities designed to generate and monetize website and mobile traffic. Users can do the following: develop and manage online content, create a social media presence on platforms like Facebook, Instagram and YouTube, establish a blog, develop and promote mobile apps, obtain search engine listings, perform search engine optimization, implement keyword marketing, generate customer reviews, obtain and verify customer information, customize web pages (known as dynamic web pages) and site visitor communications, run online advertising campaigns using the likes of Google AdWords, manage pay-per-click programs, operate or join affiliate marketing programs and perform web analytics. We explore some of these options below.

Social media marketing can be defined as follows:

> **Social media marketing is the practice of using social media for customer management purposes.**

Social media are "a group of Internet-based applications that allow the creation and exchange of user-generated content."[20] Social media include collaborative communities (e.g. Wikipedia), blogs and micro-blogs (e.g. Twitter), content-sharing communities (e.g. YouTube), and social networking communities (e.g. Facebook). Social media users create share, discuss, and modify user-generated content using web-based and mobile technologies. Major social media platforms include Facebook, YouTube, Instagram, Tumblr, Twitter, Pinterest, Wikipedia and LinkedIn. The social media landscape changes at a remarkable pace. A few years ago, Myspace was a major social media platform. Now, Myspace has about 50 million users per month, whereas Facebook has over 2 billion users per month. Social media are disruptive technologies that are responsible for significant and pervasive changes to communication between organizations, communities, and individuals. Marketers no longer control brand-related communication. Communication is now multi-lateral, not unilateral.

Consumers use social media to communicate with each other and organizations, and organizations in turn are using social media to help them initiate, nurture, maintain and monetize relationships with customers.

Use of social media is certainly more advanced in B2C than B2B environments. However, some B2B organizations are adept at social media marketing. For example, Twitter, LinkedIn and YouTube are all used extensively and integrated into IBM's demand generation activities.[21] A number of reasons appear to account for B2B's lower level of participation in social media:[22]

- Decision-making by customers is typically multi-person, meaning that B2B marketers need to construct different messages in different channels for different members of the decision-making unit
- Decision-making by customers is slower and requires multiple customized touches over time
- Relationships with customers tend to be more direct and interactive
- B2B purchases are usually higher value than B2C with associated higher levels of risk
- Decision-making by customers tends to use rational, functional and utilitarian criteria
- Products are more complex.

Gartner, Inc. has developed a multi-stage model that captures the anticipation, disillusionment and achieved reality of new technologies. It calls this the Technology Hype Cycle, a phenomenon it observes in all technology innovations (see Figure 8.5). The cycle begins with a technological innovation; business leaders and commentators become very excited about the innovation, inflating expectations about what it will deliver; early adopters then find that the technology delivers less than they had anticipated, expectations deflate, and disillusionment sets in; reality eventually arrives as adopters learn the limitations of the technology, and it becomes a routine part of corporate life. Tech firms are investing heavily in developing tools for companies to manage customer relationships though social media, and expectations are rising rapidly. These tools include gamification, crowdsourcing and social media analytics.

The results of social media marketing efforts can be measured in two ways, using either marketing or platform metrics. Marketing results reflect the commercial objectives. For example, if your social media strategy is designed to generate 100 new prospects for sales follow-up, then you'd want to measure success against that desired outcome. Platform results are available in the built-in analytics provided by platforms such as Twitter and Facebook. These analytics provide many different insights into your content's performance. Figure 8.6 is an illustrative Twitter report.

Social media analytics are also embedded in the CRM applications of major brands like SAS, Adobe, Oracle and IBM as well as scores of smaller players specializing in social analytics. One of the major roles of social media analytics is to capture and interpret user-generated social media content and feed that analysis to brand owners for action. Technology can be used to capture and analyze social network posts, blogs, micro-blogs, chat room and discussion board content so that marketers can develop appropriate responses including
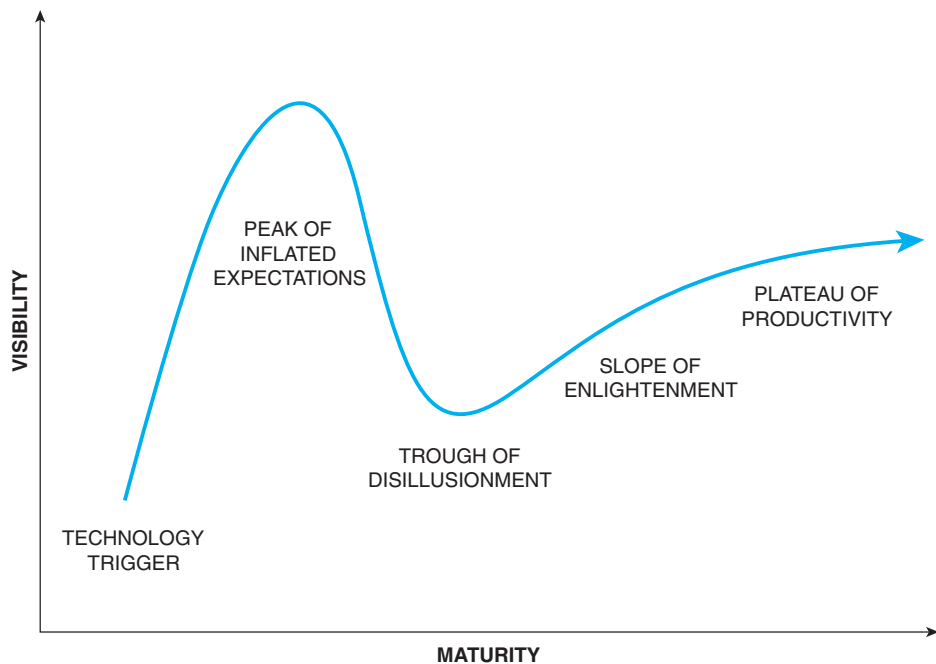
Figure 8.5 Gartner, Inc.'s Technology Hype Cycle

media advertising, social media campaigns, event-based marketing actions, public relations interventions and contact center support. Content and messaging can be adapted accordingly. Another form of social media analytics seeks to identify which social media channels and campaigns have been successful in driving traffic to other customer touchpoints such as stores and corporate websites for fulfilment. Routine digital analytics such as page views, CTOR and conversion rates are useful here. Social media analytics can be integrated with predictive analytics. For example, if historical data shows that customers who complain on Twitter have a 60% probability of switching suppliers, marketers can initiate automated event-based next best offers (NBO) whenever that type of sentiment is posted. NBO refers to the process whereby a customer event prompts the marketing automation solution to generate an offer with the highest probability of interesting the customer in real-time. Equally, when sentiment is positive marketers can develop strategies and campaigns that build the brand's reputation and promote advocacy.

Programmatic advertising (also called programmatic media buying, and AdTech) involves the use of artificial intelligence (AI) to buy advertising space in digital media. When someone visits a website, the owner of that site sends a request to an advertising exchange that commences an auction to deliver a message (impression) to that visitor in real-time. The data contained in that request might identify what the visitor has previously clicked on, what they buy, where they are and more. The more data about the individual, the more valuable the
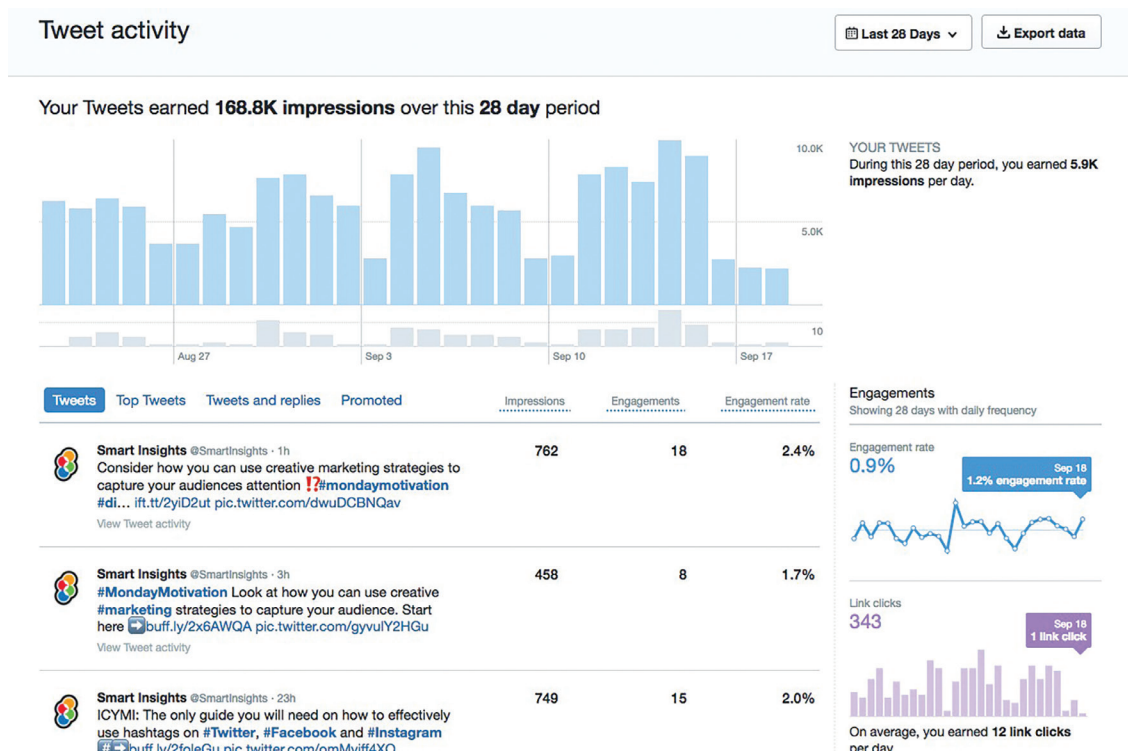
Figure 8.6 Sample Twitter report[23]

impression because potential auction bidders can make more intelligent decisions about how much to bid. The exchange auctions that impression to potential bidders. The bidders leverage the data they have about this unique impression to determine the value of the impression. The bidder for whom the impression is most valuable will most often bid the highest and therefore win that auction.[24] The bidder typically has signed up with a demand side platform (DSP) that manages the bidding process on its behalf. The media property owner typically signs up to a media supply platform. All this happens in nano-seconds so that the site visitor is hardly aware. Thus, the stock of advertising available is cleared algorithmically to optimize the revenue for media property owners as well as maximize the marginal value of each dollar spent among the advertisers.

Programmatic buying is necessary in the modern environment where marketers are faced with a huge number of media choices for getting their messages in front of chosen audiences, across online and mobile publications and platforms of many different kinds. Before programmatic advertising, advertisers would compare audience profiles and advertising costs across a range of digital media and make their selection based on the apparent cost-effectiveness of each channel at delivering a desired number of impressions. The advertiser would then issue an order to run a campaign that specified the websites or networks to carry

CASE ILLUSTRATION 8.3

JUST EAT'S BLENDED SOCIAL MEDIA CAMPAIGN[25]

JUST EAT is the world's leading online takeaway ordering service, operating in 13 countries. They are pioneers in their sector, establishing an online marketplace for ordering takeaway food online connecting over 74,000 local independent restaurants with more than 19 million consumers. Following the launch of their "Don't Cook, JUST EAT" challenger brand repositioning the company introduced audiences to a band of rebel takeaway chefs, led by the impressively mustachioed Mr. Mozzarella (AKA, The Mozz).

Positioning themselves as the "anti-cooking rebels," JUST EAT seeks to change the way people look at takeaway, helping hard-working consumers reject the convention of having to whip up cordon bleu meals at home (thanks to nagging TV chefs). This anti-cooking marketing approach gave JUST EAT lots of opportunity to create fun, engaging social media content to amplify their "Don't Cook" message and to reflect their cheeky, irreverent and rebellious tone of voice.

JUST EAT launched a multi-channel campaign to reinforce their maverick brand. First, Mozz and associates kidnapped TV chef Antony Worrall Thompson in a 90-second one-off ad spot, which aired during a high rating Saturday night TV show. To further engage audiences, JUST EAT used social media to advance the storyline – encouraging fans to follow Worrall Thompson's plight while in captivity via Facebook, Twitter and the campaign's dedicated microsite.

The celebrity chef was comically punished for trying to make people cook cordon bleu meals at home throughout the week-long campaign. Fans were encouraged to teach Worrall Thompson a lesson by slapping him cross the face with a catch-of-the-day fish in an online game that was sharable on Facebook and Twitter.

The online community responded well to the kidnap campaign and, in turn, JUST EAT experienced high levels of brand engagement. By challenging people to beat their previous fish slap high score and fostering friendly competition, JUST EAT was able to strengthen their new brand positioning and increase awareness of their service. Entertaining, sharable content was key to JUST EAT's social success, and paid promotion of content via sponsored stories helped JUST EAT get their message in front of an even larger audience. Analytics showed the #JUSTEAT kidnap hashtag was used 1379 times over the week-long campaign. Furthermore, Worrall Thompson was slapped 850,000 times, suggesting that JUST EAT had created content that resonated with their fans and followers.

the ad, the ad content, ad sizes or lengths, when the ads would appear and the duration of the campaign. All this was typically done manually well in advance of the ad's appearance in media. This is still the practice in many parts of the world, but programmatic media buying is disrupting these established practices. Programmatic advertising has become possible – perhaps even necessary – because of the availability of massive amount of customer-related data. Data quantities are simply too great for the human brain to process quickly. Brand owners have their own customer data – previous purchases, R-F-M data, and segmentation profiles,

for example. Media have customer-related data such as cookies, user login IDs, page visits, search terms and onsite behaviors. Third parties such as Experian and Acxiom have a rich variety of additional market, competitor and customer data. AI is able to analyze this data and serve ads to a target, in real-time.

Programmatic advertising can deliver a number of benefits to brand owners:

- **Precise targeting**. AI is able to deliver the exact audience (even individuals) that the advertiser wants to reach. Moreover, the most sophisticated tools will optimize a media budget against those potential customers most likely to convert to purchase.

- **Timeliness**. Ads can be served at the most appropriate time, and in real-time.

- **Efficiency**. Using a DSP linked to many ad exchanges gives the advertiser the best chance of buying ad space for the best price from the widest selection of inventory.

- **Message personalization**. Messaging can be personalized based on customer insights delivered by AI.

- **Learning**. AI enables advertisers to learn about what works best and improve ROI over time.

- **Agility**. Ad spend can be directed wherever and whenever there is an opportunity, rather than according to some predetermined plan.

Content management applications such as WordPress, Drupal, Joomla, Sitecore and Contentful allow marketers to manage digital content throughout its lifecycle, including creation, editing, approval, storage, publishing, versioning (updating) and deletion. Marketers deploy content in many different environments, including media advertising, corporate website, blogs, marketing campaigns, social media, user manuals, training documentation and print materials, for example. Content management systems, of which there are hundreds, offer marketers a number of benefits: conformance of content with brand values, consistency of appearance and messaging across all customer touchpoints, asset security (see asset management below), reduced duplication of effort in content creation, streamlined production and approval processes offering better cost control, better control of versioning and updates thereby ensuring not only that content is always current but there is a historical record, and creation of content in appropriate formats, for example html for web applications. Consumers rely increasingly on digital content to inform their buying decision, and it is therefore critical that marketers maintain the quality and relevance of that content. Research suggests that content must meet targeted audiences' needs, rather than simply trying to sell products, and that content is best generated in collaboration between marketers and subject specialists.[26]

MA vendors have expanded their content management capabilities, including incorporating responsive design to provide tablet and smartphone users with a better screen experience, and offering dynamic content generation so that web pages are customized for visitors based on their browsing history and behaviors.[27]

Keyword marketing is the practice of generating website traffic from Internet users who have entered keywords (search terms) into search engines such as Google and Baidu. A company that is interested in improving its complaint management processes might use

the keywords "complaint-handling" and "ISO10002" to search the web for useful information. The keywords will lead to millions of listings. Marketers generally want their content links to appear on the first or second page of search engine listings. Keyword marketing software applications enable companies to feature early in these listings, by paying for advertising space, typically banners and text links, on the search results page. The other major way of featuring early in listings is by using search engine optimization (SEO). Google pages feature both. Ads that have been bought appear at the top or bottom of Google pages. Successful keyword marketing starts by understanding the terms that prospective customers use to search for potential suppliers. These terms can then be embedded in the text of a company's website, and on the site's page titles, URLs and metadata.

Search engine optimization can be defined as follows:

> **Search engine optimization (SEO) is the practice of improving the quantity and quality of website traffic generated by search engines.**

Whereas companies can pay for their web page to appear on the first page of a listing generated by a browser's keyword search, SEO aims to get high organic (unpaid or free) visibility. Higher ranking results that appear earlier in the listings are more visible and therefore generate more click-through visitors. SEO aims to get web pages listed on the first or second pages. The major search engines use web crawlers, also known as web spiders, web robots or bots, to browse the world wide web methodically. Crawlers such as Googlebot and Baidu Spider visit websites, read the site's sitemap, text, images and meta tags, and visit linked sites, reading content there too. They also check for page speed and mobile-friendliness. The crawler dumps all the data into a central depository, where it is indexed. The crawler returns to the sites to check for any changed content or dead links at periods that are determined by the search engine's management. Unlike visible content, meta tags provide information about who created the page, the freshness of its content, what the page is about and the keywords that describe the page's content. A website's position on a results page is determined by that search engine's ranking algorithm. Algorithms are formulae composed of a set of weighted criteria – Google's algorithm considers over 200 variables. These criteria are periodically reviewed. Each search engine has its own algorithm that is a trade secret.

SEO software can help users tailor their website so that it meets the criteria that the search engine algorithms employ, therefore giving the site a high ranking. Successful websites employ methods such as the following: responsive website design that renders well on all devices, strategic keywords that are well matched to the content of the site, strategic meta tags, website structure (each page having its own keyword/s), continually refreshed content, removal of dead links, search engine placement and link relevance. Web masters need to understand the site's marketing goals, the products that are being sold on site, the geographies being served, and the keywords employed by users of search engines. They can then ensure that the right keywords and meta tags are used, the right links are embedded in the site, and that the site is submitted to search engines that do not use web crawlers.

Web analytics provide insight into the behavior of website visitors. Web analytics report audience size, where the visitors come from (referrals) and what they do on the

CASE ILLUSTRATION 8.4

FILTREX IMPLEMENTS SEARCH ENGINE OPTIMIZATION[28]

Filtrex (name disguised) is a commercial reseller of industrial air filters that had invested in e-commerce to generate incremental sales of their products. Sales were poor and there was little return on the initial investment. The reseller hired an SEO consulting firm to develop the online sales channel. The goals were to increase order volume and change the product mix to increase sales of higher margin items. The online air filter market is very competitive, and Filtrex's major competitors were already using a combination of search engine optimization (SEO) and pay-per-click (PPC) marketing to generate traffic and sales. The consultant researched, developed and implemented a plan to increase Filtrex's sales using a combination of creative website design and the application of advanced SEO techniques. Within three months the results were as follows: order numbers increased by 525%; average dollar order size increased by over 50%; number of unique visitors to the website increased by over 100%; the conversion rate from website visitor to customer increased from 1.3% to over 10%.

website. Routine reports generally detail web traffic data but may also include performance data from campaigns and events that involve the website, for example the number of click-throughs from a web link inserted in a campaign email. Two main technologies collect website data: logfile analysis and page-tagging. Web servers record all website activity in a logfile, which can be read by web log analysis software. Logfile analysis can deliver inaccurate readings of human website visitors because of caching and visits by search engine web crawlers. This prompted the introduction of page-tagging as an alternative form of generating website data. Page-tagging requires webmasters to insert some extra JavaScript or html code onto webpages, so that analytics software can identify how many visitors originate from search engines, the search terms used and whether they arrived from paid-for or free listings.

Three different types of statistics provide insight into a website's performance: frequency counts (e.g. the number of visitors), ratios (e.g. page views per visit) and KPIs (key performance indicators, which can either be a frequency count or ratio). There are a number of important terms that are used by web analytics vendors. These include:

- **Building block terms**. Page, page view, visit/session, unique visitor, new visitor, repeat visitor, return visitor

- **Visit characterization terms**. Entry page, landing page, exit page, visit duration, referrer, internal referrer, external referrer, search referrer, visit referrer, original referrer, click-through, click-through rate/ratio, page views per visit

- **Content characterization terms**. Page exit ratio, single-page visit, single page view visits (bounces), bounce rate

- **Conversion metrics**. terms. Event, conversion.

Vendors of web analytics services and software make widespread use of the following measures.

- **Hit.** A request for a file from the web server. This information is only available in log analysis. You should be aware that the number of hits is a misleading measure of a site's popularity, because most web pages are made up of many files, each of which is counted as a hit as the page is downloaded. Most web analytics tools allow users to specify the file types that count as a page (known as analyst-definable content), and to request reports accordingly.

- **Page view.** The number of times a page (as defined by the analyst) is viewed.

- **Visit or session.** An interaction by an individual with a website, consisting of one or more requests for analyst-definable content. A visit usually contains multiple hits (in log analysis) and page views.

- **Visit duration.** The amount of time a visitor spends on a site.

- **Engagement time.** The amount of time a visitor is interacting with the site, for example by moving the cursor, clicking, hovering and scrolling.

- **Event.** The number of times a discrete action occurs on a website. Events include clicks, page views, video plays, downloads and other user actions.

- **First visit or first session.** A visit from a user who has not made any previous visits.

- *Unique visitor*. The number of individuals who make one or more visits to a site within a defined reporting period (e.g. day or month), making requests on the web server (log analysis) or viewing pages (page tagging). Because most sites do not require log-in, cookies are generally used instead. A cookie is a small file of information (normally less than 1k) that a website places on a visitor's device so that it can recognize the visitor on subsequent visits. There are two kinds of cookies: session cookies and persistent cookies. Session cookies are erased when the user goes offline. Web analysis, however, relies on persistent cookies that are stored on the visitor's device until they expire (persistent cookies have expiry dates) or until the user deletes the cookie.

- **Repeat visitor.** A visitor who has made at least two visits to the website in a reporting period.

- **New visitor.** A visitor who has not made any previous visits to the website.

- **Impression.** When a page loads onto a visitor's screen. Advertisers measure the reach of their online ads by tracking ad impressions, or the number of times their ads are loaded onto a visitor's screen.

- **Singleton.** A visit when only a single page is viewed.

- **Bounce rate.** The percentage of visits that enter and exit on the same page, without browsing other pages.

- **Exit rate.** The percentage of visits that end on a particular page.
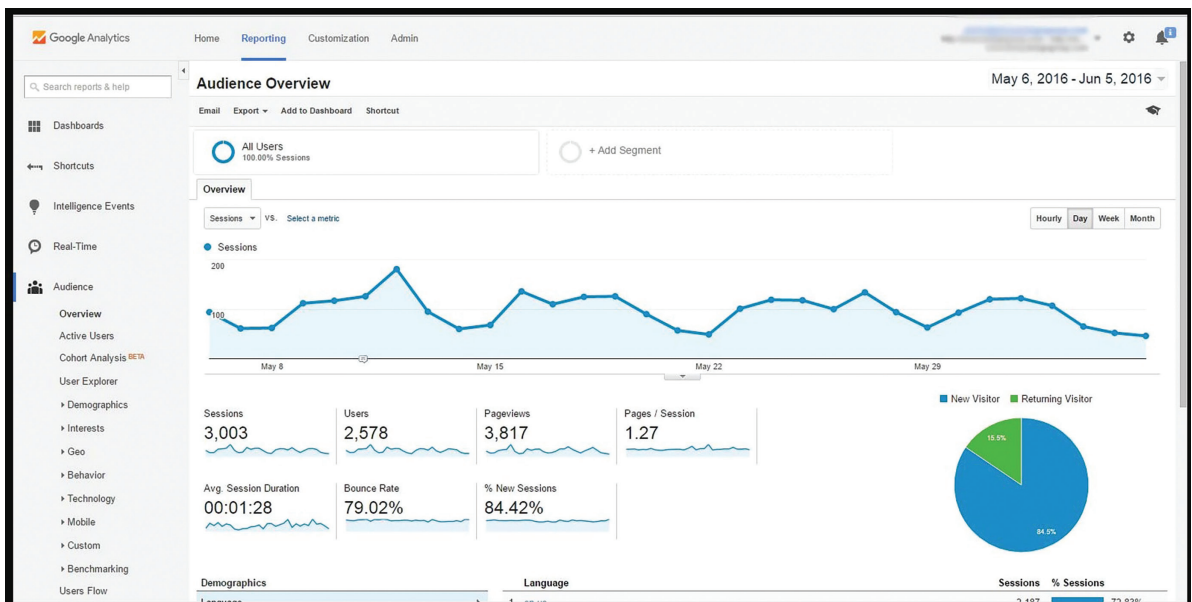
Figure 8.7 Google Analytics audience report[30]

Google Analytics is the best-known service provider in this market, providing a wide range of analytics on audience characteristics and behavior on corporate websites, audience use of mobile devices and tablets, mobile apps and website performance. The Digital Analytics Association is the peak organization for digital analytics. The DAA aims to advance best practice in the use of digital analytics.[29]

Strategic and other marketing management

Integrated marketing management (IMM) applications offer wide-ranging functionality to support large organizations with 50 or more marketing practitioners. The main role of IMM solutions is to help marketers align their analysis, planning, implementation and control activities so that they can become more effective, efficient and accountable. According to Gartner, Inc., IMM includes "the marketing strategy, process automation and technologies required to integrate people, processes, campaigns, channels, resources and technologies across the marketing ecosystem. IMM supports closed-loop marketing by integrating operational, executional and analytical marketing processes."[31] IMM functionality includes campaign management, lead management, marketing resource management, analytics and much more. However, vendors of these comprehensive IMM applications, such as IBM, SAS, SAP and Teradata, not only deliver marketing functionality, but also offer the architectures and platforms necessary for the role-based distribution of information, content and functionality. IMM provides an integrated set of marketing functionality that supports CRM objectives.

Marketing performance management (MPM) software enables companies to measure their marketing performance though analysis and reports and improve outcomes over time through closed-loop marketing.

Gartner, Inc. describes MPM as encompassing the technologies and services that support marketing's ability to gain access to insights, analyze data, make predictions, and optimize marketing programs, campaigns and resources. At the foundational level, MPM includes a data repository, business intelligence tools and analytical workbenches. At the strategic level, MPM provides role-based access to information and KPIs through dashboards, visualization, point-and-click analysis, modelling, simulation and optimization.[32]

Essentially, MPM helps management assess the effectiveness and the efficiency of marketing strategies and tactics. Senior management is progressively demanding that marketers be accountable for their expenditure, and MPM helps marketers meet that expectation. MPM is routinely built into most MA applications. It enables marketers to:

- Assess the effectiveness of marketing campaigns and events, by measuring expenditure and response rates; reporting variance between planned and achieved campaign/event responses and expenditure; tracking cost per lead, cost per sale and revenue per lead

- Evaluate the effectiveness of different offers, channels and creative executions, thereby enabling marketers to identify the most successful strategies and continually fine-tune their programs

- Forecast ROI from current and future campaigns/events based on the performance of past campaigns/events.

Some of the more advanced MPM applications focus on more strategic aspects of marketing performance measurement. For example, SAS's MPM product is able to deliver a range of reports against a number of KPI's, including:

- Marketing program metrics that report on the efficiency and effectiveness of marketing tactics

- Customer metrics including customer satisfaction, Net Promoter scores, value, churn, migration, etc.

- Business/financial metrics (sales, profitability, cost, etc.) that give senior managers a better insight into marketing's financial impact

- Marketing process metrics that focus on process efficiency to identify best practices and areas for improvement.

The core components of MPM software are analytics (discussed above) and a reporting process. Reports are typically delivered online in charts, tables, dashboard and text.

Customer loyalty is a goal of many CRM programs. The availability of **loyalty management** applications is a direct response to this need. Loyalty, or frequency, programs are important to several constituencies – the business that operates the program, the member who collects and redeems credits, and the channel partner who transacts with the member.

Many loyalty programs are very simple, particularly when the brand owner has a single retail site, hands a rewards card to the customer and stamps the card when a purchase is
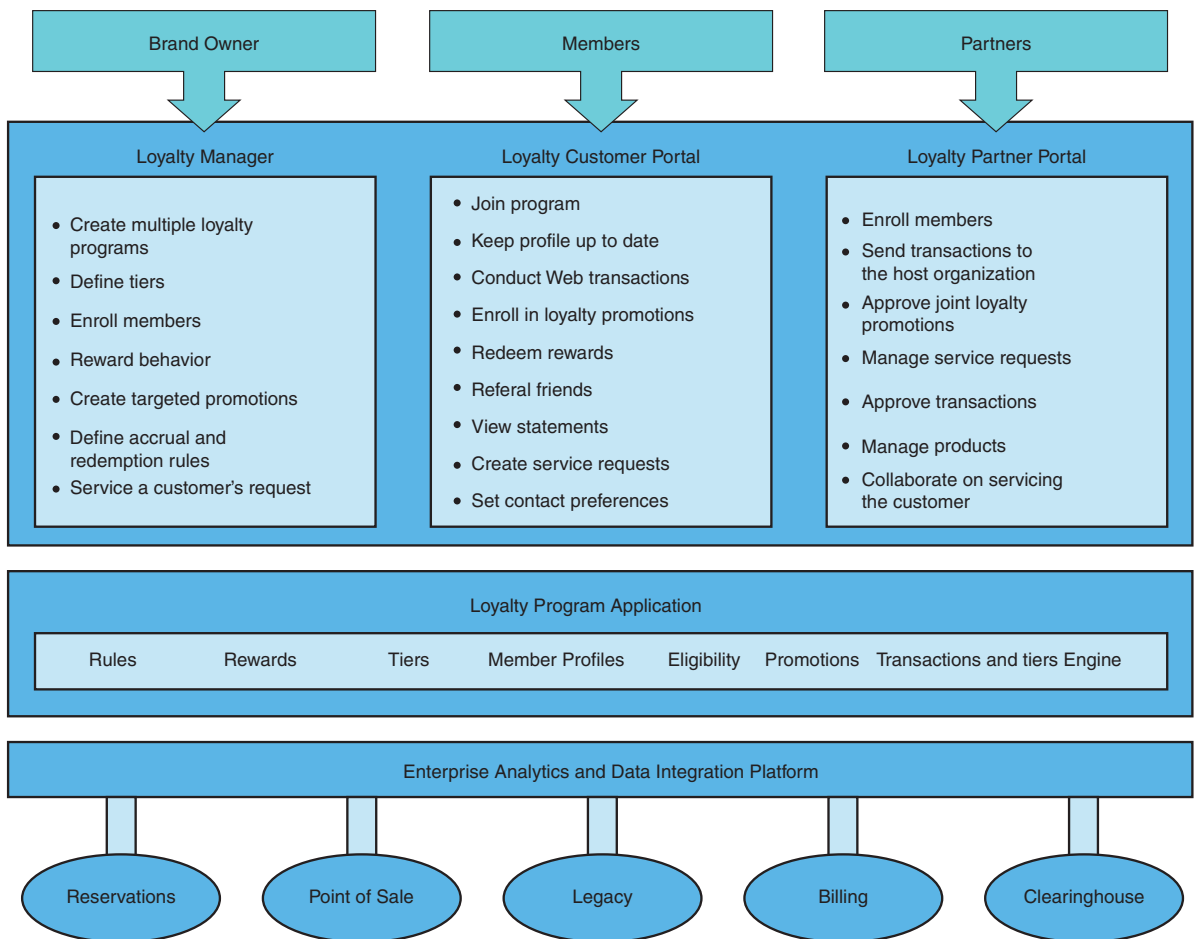
Figure 8.8 Oracle (Siebel)'s loyalty management software application

made – "Buy nine cups of coffee, get the next one free." However, there are other programs that are operationally and technologically complex. Consider the Nectar loyalty program. Nectar is the UK's largest coalition loyalty program with half of all UK households owning a Nectar card. Dozens of Nectar cards are swiped every second of the day. The technology challenge is massive, and ranges across partner web application, member web application, contact center, loyalty program administration, transaction processing, data warehousing, campaign management, account management, rewards administration, member analytics, partner analytics, reporting engine and multiple interfaces to different partner systems.

Leading loyalty management applications from the likes of Oracle (Siebel), Comarch, SAP and Tibco enable business users to create, operate and evaluate loyalty and membership schemes, and perform the following tasks:

- Set up one or more loyalty programs

- Manage multiple targeted membership schemes

- Manage multiple tier models and classes and control all the aspects of tier management from the number of tiers and tier rewards to point expiration rules

- Manage multiple currencies or points schemes

- Setup partners, products and services offered for accrual and redemptions including product catalogs

- Create and deploy targeted loyalty promotions

- Set up and manage simple to complex accrual rules and promotions

- Define and manage redemption models using multiple payment modes and currencies

- Perform membership and partner administration tasks

- Run statements and manage member communications across multiple channels

- Integrate to partner portals, contact center and issue management

- Operate with cards, virtual cards or no cards.

Partner marketing solutions enable companies to coordinate and work collaboratively with channel partners and others. Many companies market and sell to and through channel members such as travel agents or value-added resellers, or service end-users through specialist partners such as third-party contact centers. Partner marketing solutions allow companies to synchronize the planning and execution of local, regional or global marketing activities by providing partners with controlled access to brand and marketing resources through a portal.

Partner marketing solutions are used to manage processes such as partner qualification, recruitment, on-boarding, development of joint business plans and objectives, cooperative advertising and promotions, lead management, co-branding of collateral and point-of-sale materials, measuring partner performance, partner training and support, administration of marketing funds and specialist partner incentive schemes. Microsoft Canada, for example, describes the value of partnering with this message to its partners: "Your goals: Increase profitability. Decrease business costs. Our goal: To provide the resources to reach yours."

The product lifecycle traces the phases of a product's life from initial development and market introduction to withdrawal. **Product lifecycle management** (PLM) applications help marketers manage lifecycle stages effectively and profitably. PLM applications aim to accelerate time-to-market, ensure that development and engineering processes are optimal, and lift the probability of the product being successful. PLM software solutions facilitate collaborative intra- and extra-enterprise engineering, product development, and improved management of projects, product portfolios, documents and quality. PLM applications can provide a single source of all product-related information to use in the innovation, design, engineering, feasibility, launch, market development and market withdrawal processes. PLM applications offer a wide range of functionality, as indicated in Table 8.3.

Management of the product lifecycle is aided by PLM analytics. For example, analytics help managers identify bottlenecks in the product approval process that slow down
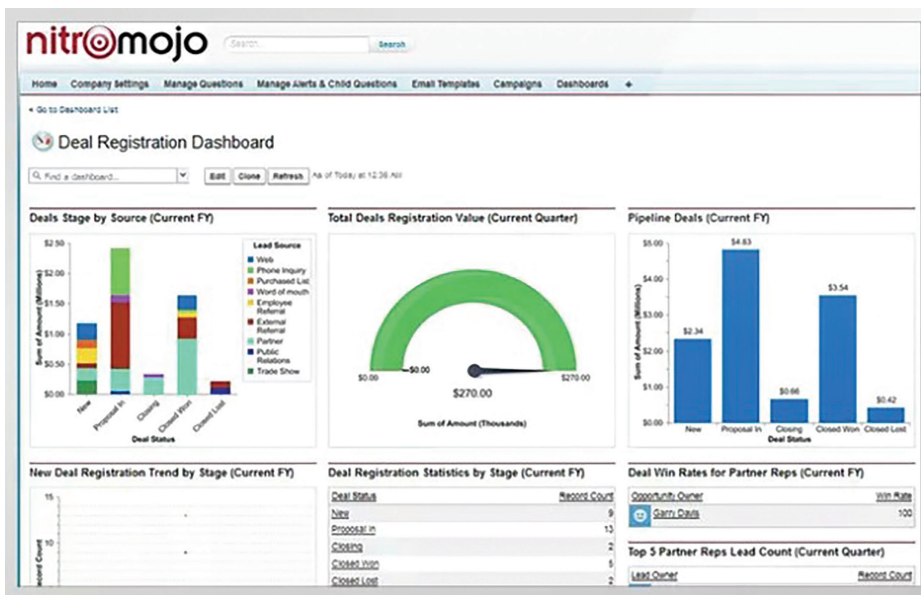
Figure 8.9 NitroMojo partner management screenshot[33]

Table 8.3 Product lifecycle management software functionality

Action item management	Project management and scheduling
Channel member qualification and recruitment process	Product compliance process (compliance with legal, regulatory and voluntary standards)
Collaborative extra-enterprise product development and engineering processes	Product costing process
Computer aided design (CAD)	Product portfolio management
Computer aided engineering (CAE)	Product record
Computer aided manufacturing (CAM)	Product sourcing process
Concept evaluation process	Product withdrawal process
Document management	Quality assurance process
Engineering data management	Quality function deployment (QFD) process
Environmental impact management	Workflow management
New product launch process	

time-to-market, or detect components or sub-assemblies with high cost, quality or compliance risks that adversely impact new product success.

With the right PLM solution in place, a company is in the best position to create and manage product design ideas, oversee the production pipeline, maximize collaboration

efforts across the physical and global borders of the enterprise, and significantly reduce the cost associated with regulatory compliance.[34]

Companies such as SAP, Siemens, Infor, Oracle (Agile), and Dassault operate in this field.

Asset management enables companies to identify, manage, track and control the assets that customers purchase, license, use, install or download. Assets can be tangible, intangible or blended, as shown in the following examples. The pallet hire company CHEP uses asset management to track where its tangible assets – pallets – are in its network, whether at customer sites, depots or in transit, and to ensure that customers are only billed for the periods when the pallets are in use by that customer. Beam Inc. uses asset management to track the use of its intangible asset – the Jim Beam brand – by other manufacturers. Dolby Laboratories uses asset management to track the licensed use of its blended tangible and intangible assets – manufacturing processes and technologies – by other companies that want to exploit Dolby's audio, image and voice capabilities.

Asset management functionality is also used to manage digital assets used by a company's own employees or partners such as advertising agencies, PR firms, web designers and content producers. These assets include product images, logos, marketing collateral, presentations and video clips. Digital assets are commercially valuable and form the basis of brand strategy. Creating and maintaining a secure library of these assets is essential. Collaborative tools allow virtual teams to work on content, create new versions and maintain asset currency.

Companies generate and use many documents in their marketing activities. These include brochures, product specifications, price lists, and competitive comparisons. **Document management** software allows companies to manage these documents, keep them current and ensure that they are available to marketing people when needed. Typically, these documents are held in a central repository and made available to users in their browsers. Document management software applications generally deliver similar functionality to asset management applications (see above). However, document management systems focus on text documents rather than digital content such as images and movie files, and stress versioning, storage, search and retrieval rather than publishing to the web.

Marketing analytics is the application of mathematical and statistical processes to marketing problems. Marketing analytics can be used to describe, explore and explain. A *descriptive* application of marketing analytics would involve the depiction of some marketing phenomenon such as a customer group, sales territory, market segment, campaign or product category. Descriptive applications focus on who, what, where and when. Some descriptive analyses are cross-sectional and others longitudinal. A cross-sectional analysis involves description at a single point in time. Longitudinal analysis involves repeated data collection about the same variables over time, so that you can get a better sense of change. *Exploratory* applications of marketing analytics provide insights into and understanding about issues and problems. For example, you might want to explore the issue of customer defection rates – do some sales territories, customer groups or products experience higher levels than normal? You would want to dig around in customer-related data to get a better understanding of the issue. This might lead you towards defining a problem more precisely, identifying alternative courses of action, developing hypotheses to test, or identifying key variables or relationships to explore further. An *explanatory* application of marketing analytics explains variance in outcomes. Explanatory analytics are used to explain why something has happened or to predict what will happen. Predictive analytics assigns probabilities

to some future event happening, for example, that a customer will make a particular purchase or defect to a competitor.

There are three types of analytics: standard reports, online analytical processing (OLAP) and data mining. The standardized reports integrated into most MA packages are grounded on relatively simple analytics. Typically, these reports provide basic descriptive data such as aggregates, averages, proportions and other simple univariate or bivariate statistics.
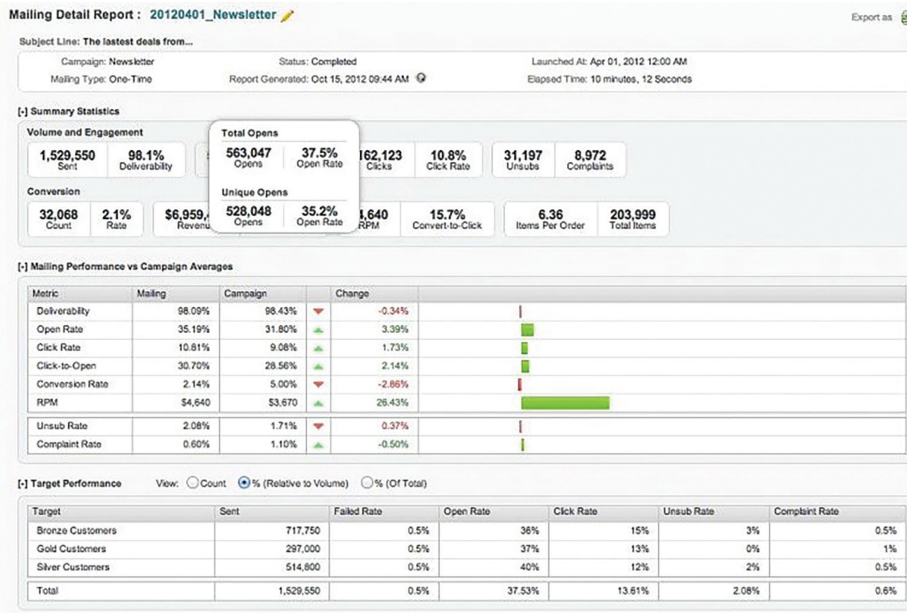
Figure 8.10 Email campaign report

Figure 8.10 is a standardized report for an email campaign. It reports deliverability, open rate, click-through rate, conversion rate, and sales revenues generated.

Standardized reports may meet some managerial needs, but exploratory or explanatory questions usually require greater analytical power. Two other forms of marketing analytics are OLAP and data mining. OLAP transforms customer-related data into strategic information. An OLAP solution extracts and displays customer data from any angle. For example, an OLAP user can see how many customers purchased lathes in London during October and compare that with the numbers bought in New York in the same month. OLAP organizes data in a series of hierarchies or dimensions such as products, channels, territories, customer segments and time periods. OLAP software locates the intersection of dimensions and displays the results. Users can choose different display format including pie chart, bar graph, or worksheet. At its simplest, OLAP allows users to "slice and dice" data; more complex applications include time series modeling. OLAP thus allows data to be viewed from different perspectives and manipulated and analyzed in real-time to provide insights not available in packaged reports. Relatively few CRM vendors offer OLAP capability. IBM, Cognos, Microsoft and Oracle are important OLAP vendors. We discuss OLAP in more detail in Chapters 11 and 12.

Data mining offers the most powerful statistical routines including descriptive statistics (frequency, mean, median, mode, variance, standard deviation), data reduction, bivariate statistical analysis (cross tabulation, correlation), multivariate statistical analysis (multiple regression, factor analysis, discriminant analysis, cluster analysis, multi-dimensional scaling, conjoint analysis), decision trees, artificial neural networks and data visualization.

Data mining is used to produce:

- **Scores.** The likelihood a customer will purchase a product; which customer to target for a particular offer.

- **Predictions.** How much a customer will spend in the coming year; the probability of a customer defecting.

- **Descriptions.** The characteristics of profitable customers; the multi-dimensional profile of a customer segment.

- **Profiles.** The common characteristics of each customer segment; the lifetime value of a customer.[35]

Data-mining functionality is integrated into comprehensive CRM and MA suites from vendors like SAP and Oracle. Specialist organizations like SAS and Teradata also operate in this segment.

Workflow development software is useful for designing marketing-related processes, such as the campaigning process, event-based marketing process, or the marketing planning process.

CONCLUSION

Marketing automation is the software-based application of processes, rules and algorithms that execute marketing activities with little or no human intervention. At its most advanced, it is associated with the use of large, constantly updating customer data and predictive modeling that, in real-time, determines the next best action to take for individual customers at every stage of their customer journey.

Many marketing positions can make use of MA including marketing manager, campaign manager, market analyst, market manager, promotions manager, database marketer and direct marketing manager. Hardware and software are the key technological elements of MA. Hardware includes desktop, laptop, tablets and smartphones. Software, whether installed on the user's servers or accessed in the cloud, comprises both "point" solutions that are designed to assist in a single area of marketing or marketing management, and integrated solutions that offer a range of functionality.

Marketing automation can deliver several benefits, including more effective marketing, the development of a learning system, enhanced marketing efficiency, greater marketing productivity, enhanced responsiveness, better alignment between customer-facing silos, improved marketing intelligence, a better customer experience and higher levels of customer engagement.

MA software applications can be classified into three main groups: applications that support marketing campaigns, applications used in online or digital marketing, and applications that support marketing management more broadly. Software applications are available to support asset management, campaign management, content management, direct mail campaign management, document management, email campaign management, event-based marketing, integrated marketing management, keyword marketing, loyalty management, marketing analytics, marketing optimization, marketing performance management, marketing resource management, online marketing, partner marketing, product lifecycle management, programmatic advertising, search engine optimization, social media marketing, tele-marketing, web analytics and workflow development.

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SALES FORCE AUTOMATION

INTRODUCTION

Operational benefits are normally the first returns from IT-enabled CRM programs.[1] Customer-facing processes in marketing, selling and customer service areas become more efficient because they are formalized and standardized, generating operational cost savings.

It is important to realize that an organization's CRM strategy options are limited by its operational capabilities.[2] Typically, a firm moving towards a customer-centric strategy invests first in building a single view of the customer (SVOC). The SVOC integrates data from all operational units that touch customers, including sales, marketing, customer service and accounts to create a coherent picture of the customer's interactions with the business. Once the SVOC is created, CRM users can interact with customers on a one-to-one basis, in full knowledge of their history with the business, thereby enhancing customer experience throughout the customer journey.

Only when the customer-related data is of the right variety and quality are firms in a position to mine the data in order to generate actionable insights, such as "next best offer." We cover this in the next section of the book, on analytical CRM.

Without well designed and applied operational processes, there is little possibility of managing the customer journey profitably. This outcome almost always requires IT

investment in the following solutions: sales force automation, marketing automation and service automation. Many firms stop their CRM drive once technology-supported operational capability is in place, such as call center operations and online self-service. Hence, CRM is often misconstrued in organizations as a technology solution rather than a strategic initiative.

This is the second of three chapters on operational CRM. This chapter is about technologies used by salespeople and their managers. The previous chapter reviews marketing automation and the following chapter examines service automation.

Sales force automation (SFA) has offered technological support to sales people and managers since the beginning of the 1990s. SFA is now so widely adopted in B2B environments that it is seen as a "competitive imperative"[3] that offers "competitive parity."[4] In other words, SFA is just a routine feature of the selling landscape. Indeed, it is difficult to imagine a contemporary sales rep working without technology support, whether selling to regular or key accounts.

Salespeople are found in a wide variety of contexts – in the field calling on business and institutional customers, in offices, contact centers and call centers receiving incoming orders and making outbound sales calls, in retail business-to-customer settings, in the street selling door-to-door, and even in the home where party planners sell a variety of merchandise ranging from adult sex aids to cleaning products. All these sales contexts deploy SFA in some form or other.

We start by defining sales force automation and identifying members of the SFA eco-system.

WHAT IS SFA?

Sales force automation (SFA) can be defined as follows:

> **Sales force automation is the application of software and web-based services to automate and support selling and sales management tasks and workflows.**

Hardware and software are the key technological elements of SFA. Hardware includes desktop and portable devices such as laptops, tablets and smartphones, and contact/call center technology. Software comprises both "point" solutions that are designed to assist in a single area of selling or sales management, and more inclusive integrated solutions that offer a range of sales-related functionalities. These integrated solutions are available both in cloud and on-premise forms. They include SFA-only packages and more comprehensive CRM bundles that operate over the three front office areas of marketing, service and sales as described at the beginning of section C of this book.

All SFA software is designed so that companies can collect, store, analyze, distribute and use customer-related data for sales purposes. Customer-related data is key to customer orientation[5] and the development of long-term mutually beneficial relationships with customers[6] because the data allows companies to organize the business around, and meet, the expressed requirements of identified customers. SFA software enables reps and their managers to manage sales pipelines, track contacts and configure products, among many other things. Most solutions offer a suite of applications or tools for sales management such as pipeline

management, territory allocation and performance reporting specific to defined sales force roles. SFA software also provides standardized reports and analytics for sales reps and their managers. In short, SFA enables sales people and sales managers become more effective or efficient in the pursuit of their objectives.
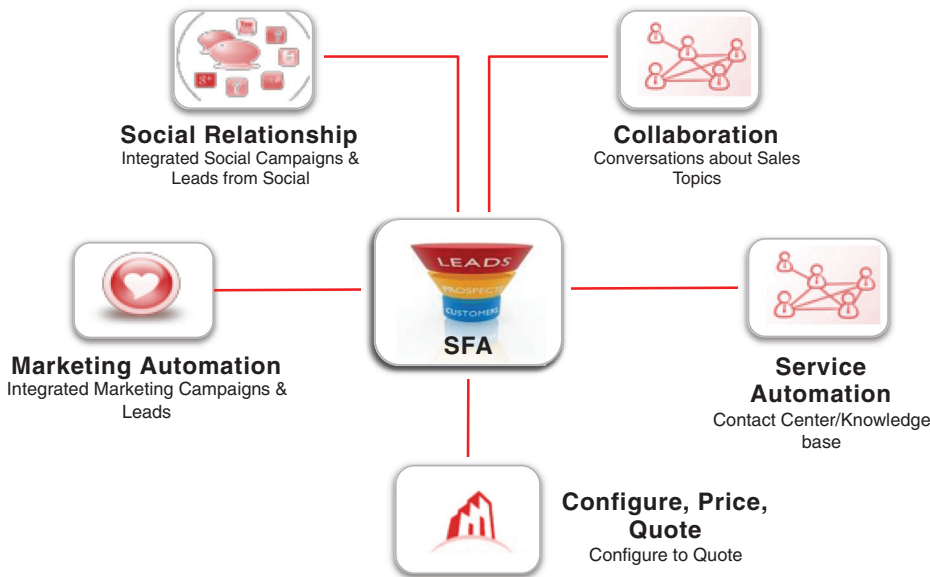
Figure 9.1 Components of Oracle's SFA solution[7]

THE SFA ECO-SYSTEM

The SFA eco-system is made up of three components – SFA solutions providers, hardware and infrastructure vendors, and associated service providers.

SFA solutions providers

SFA solutions providers can be classified in a number of ways. Some are SFA specialists. They compete against bundled CRM solutions that include SFA modules, and enterprise suite vendors that offer a full range of IT solutions to support business, including supply chain management (SCM), enterprise resource planning (ERP) and customer relationship management (CRM). A number of illustrative examples are shown in Table 9.1.

Table 9.1 Classification of SFA vendors (sample only)

SFA specialists	SFA as part of CRM solution	SFA as part of enterprise suite
Pipedrive	Microsoft Dynamics	IBM
Vertafore	Salesforce.com	Oracle
ContactWise	Sage CRM	SAP

There are hundreds of SFA software solutions. Often, software is customized for the needs of users in particular sales contexts, for example firms that sell through channel partners, small and medium-sized businesses, or particular industries such as pharmaceutical firms. SFA solutions, like other CRM technologies, are accessed in one of two ways. The solution can either be installed on the user company's own servers (on-premise SFA) or it can be accessed on another party's servers via the Internet (cloud SFA). Salesforce.com was the early leader in offering SFA as a cloud service, and now all the major vendors are pursuing a strategy of cloud-first or even cloud-only. We explore the issues around how organizations choose between these two modes of delivery in Chapter 14.

Some SFA specialists focus on particular areas of functionality within SFA. MyCustomizer, for example, offers product configurator solutions. A configurator is a rule-based or optimization engine that allows companies to configure complex products and services for clients. Sometimes, customers interact directly with configurators rather than collaborating with a sales rep who has access to the technology.

Figure 9.2 Customer overview configured for iPad[8]

Hardware and infrastructure

The performance requirements of SFA applications can create significant challenges for both hardware and technology infrastructure. Whereas office-bound sales people and sales managers might be happy to use desktops or laptops, field sales staff mostly prefer mobile data devices: tablets or smartphones. Where companies have geographically dispersed external sales people, SFA systems have to operate 24/7 in real-time allowing organizations to manage opportunities as quickly as possible. SFA applications often need to integrate with back office

systems so that field sales have visibility into, for example, outstanding service issues or order progress in advance of a client meeting.

Services

The services component of the SFA ecosystem is very diverse. When an SFA project is undertaken, service costs may add significantly to overall project expenditure. In addition to paying for software and hardware, SFA project leaders might buy services from providers that re-engineer selling processes, manage projects, train salespeople, consult on sales force organizational structure, or conduct customer portfolio analysis. Service providers can contribute significantly both to SFA project costs and the probability of success.

The hardware and software for an SFA project may account for between 10% and 50% of overall costs. The balance is made up of service costs. Although some software vendor case studies claim that payback is achievable within days, many projects take between 12 months and 24 months to implement, let alone yield a return. It has been suggested that the average implementation period is 21 months[9] and that users need over 100 hours' experience with new technologies before they can claim to have mastered it.[10] During the implementation period, the SFA system will need to be populated with data from operational databases, and sales people will have to learn how to analyze and use the data. This can take much longer than the purely technical implementation of a software system. Cloud-based solutions are usually faster to implement because there is no need to integrate existing corporate infrastructure with the SFA solution. Indeed, if a client accepts a standard configuration, technically they go live upon signing the contract. However, technology alone cannot generate the benefits. Rather, it requires the development of complementary resources (e.g. high-quality data from operational systems) and capabilities such as process re-engineering, sales force adoption and training.[11] These requirements for SFA success remain constant whether technology is in the cloud or on the premises.

SFA SOFTWARE FUNCTIONALITY

SFA applications offer a range of functionality, as listed in Table 9.2. Some of the SFA tools are used principally by salespeople, others by sales managers. Table 9.2 lists tools that apply over all stages of the sales cycle, from lead generation and scoring, through opportunity identification to proposal generation and order management. Not all SFA solutions provide the full complement of sales-related functionality.

In the next few pages, we describe this functionality in more detail. First, we cover the tools principally used by salespeople, in alphabetical order.

Account management offers sales reps and managers a complete view of the customer relationship including contacts, contact history, completed transactions, current orders, shipments, enquiries, service history, opportunities and quotations. This allows sales reps and account managers to keep track of all their obligations in respect of every account for which they are responsible, whether this is an opportunity to be closed, an order or a service enquiry. Figure 9.3 is an account management screenshot from Salesforce.com. You will see that it shows account details, contacts, opportunities, activities and service cases that are unresolved.

Table 9.2 Functionality offered by SFA software

Tools for salespeople	Tools for sales managers
Account management	Document management
Activity management	Incentive management
Collaboration	Product encyclopedia
Contact management	Sales analytics
Contract management	Sales forecasting
CPQ or Configure-Price-Quote	Territory management
Event management	Workflow development
Lead management	
Opportunity management	
Order management	
Pipeline management	
Product configuration	
Product visualization	
Proposal generation	
Quotation management	

Figure 9.3 Account management screenshot[12]

Activity management keeps sales reps and managers aware of all activities, whether complete or pending, related to an account, contact, or opportunity, by establishing to-do lists, setting priorities, monitoring progress and programming alerts. Activities include preparation of quotations, scheduling of sales calls and following up enquiries, for example.

Collaboration between salespeople can be a major contributor to selling success – sharing leads, customer communications, opportunities, sales tips, customer data and cooperating on other sales-related tasks. Collaboration tools allow reps to chat to each other, video-conference, share or build files and cooperate on projects, and managers to engage in multi-lateral communication with their sales teams.

Contact management functionality includes tools for building, sharing and updating contact lists, making appointments, time setting, and task, event and contact tracking. Contact list data includes names, phone numbers, addresses, images, preference data, and email addresses for people and companies, as well as a history of in-bound and out-bound communications. Contact management apps allow users to communicate with customers over multiple channels including voice, email, social media and text. Contact management functionality is a cornerstone of most SFA applications. When contact management functionality supports the goal of having a single view of the customer, customer-facing staff in all parts of the business –sales, marketing, service, customer accounts – can see the history of communications with the customer. It means that a late-paying customer can be speaking to an accounts receivable team member who will know that the customer is in negotiations with a sales team member for a large contract. Rather than demanding payment, the clerk may take a more judicious approach that does not put the opportunity at risk. Figure 9.4 is a contact summary screenshot from Oracle.
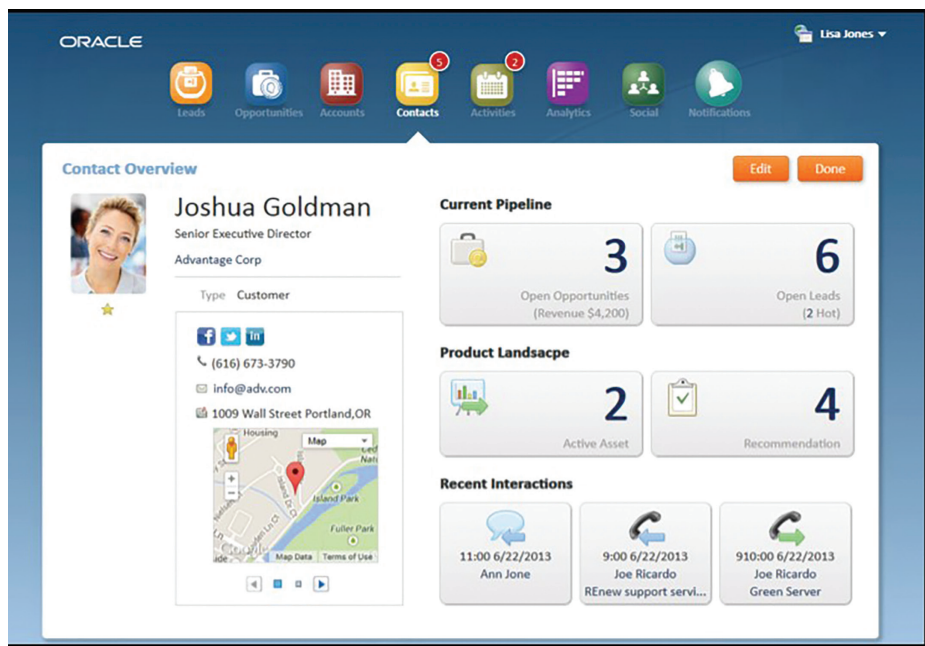
Figure 9.4 Contact summary screenshot[13]

Contract management functionality enables reps and managers to create, track, progress, accelerate, monitor and control contracts with customers. Contract management applications manage a contract's lifespan by shortening approval cycles for contracts, renewing contracts sooner, and reducing administrative costs. The software may use security controls to ensure only approved people have access to contracts.

CPQ – Configure-Price-Quote – functionality integrates three tasks that salespeople often have to perform when generating a proposal for a client. Configuration functionality enables sales reps and clients, either alone or in collaboration, to select and combine product and service attributes that meet specific client requirements. Pricing is then customized on the basis of the components in the product-service bundle, and other conditions such as the status of the customer, assembly or manufacturing costs and competitor's offerings. This information is then embedded in a customized quotation and submitted to the client for approval. We have more to say about configuration engines and quotation management later in this chapter.

Event management functionality enables sales reps, managers and others to plan, implement, control and evaluate events such as conferences, seminars, workshops, trade shows, exhibitions and webinars, whether run solo or jointly with customers or other partners. Some events, such as conferences, can be very complex and involve many stakeholders such as sponsors, exhibitors, security partners, police, accommodation partners, travel partners, catering partners, lighting and sound contractors, guest speakers, invitees and the general public. Indeed, some major events are planned many years in advance – you only need to consider the Olympics or FIFA World Cup to appreciate the grand scale of some major events. Sales-related events don't reach a comparable level of complexity, but events to which customers and key partners are invited must run smoothly, or the company risks being regarded as unprofessional.

Event management software offers a range of functionality that can be used by event organizers across the event cycle, from initial event development and marketing to attendee registration and event operations, evaluation and reporting. The tools include event calendaring, event website design, event marketing, integration with social media, online registration, contact management, online payment and refund, partner management tools, event reports and analytics, attendee communications and management tools, badge and event documentation creation and venue management tools.

Lead management allows companies to capture, score, assign, nurture and track sales leads. Effective lead management processes are important because a significant proportion of leads, estimated at between 40% and 80%, are lost before the sales cycle is completed.[15] Leads can be captured from various touchpoints – web form or registration page on a company website, or a Facebook page, for example – and automatically fed into the lead management system. Some SFA systems are integrated with external databases that can be searched for relevant leads. Lead management software enables leads to be scored against a set of criteria established by sales management, so that the company can focus its limited sales resources where they are likely to generate most return. Scoring criteria might include consideration of bad data in the database record (e.g. a digit appears in the "name" field), source of contact (referrals might be preferred to leads generated by cold calling) and whether a personal or a corporate email is recorded in the email address field. Case illustration 9.2 tells how a peer-to-peer lender used data analysis to identify safe borrowers for their lenders.

CASE ILLUSTRATION 9.1

EVENT MANAGEMENT AT KELLER AND HECKMAN[14]

Keller and Heckman is a US-based legal firm. Seminars are a key component of Keller and Heckman's brand development, lead generation and client retention strategies. The seminar team, consisting of two full-time and one part-time employees, conducts approximately ten events each year for a total of 350 attendees drawn from both existing and potential clients.

The seminar team was tasked with growing seminar attendance, but was using manual systems for event planning, marketing, registration and payment. Forty percent of event coordinator time was spent registering attendees for events alone and, given the team's inability to process credit card payments, they decided to invest in technology to support the event calendar.

Having chosen an event management solution, Keller and Heckman first redesigned its event websites. Each event website and registration page is now paired with a custom event header, complete with the firm's logo. The seminar team began to promote early bird and last chance specials with customized emails, encourage attendees to share events with their contacts, and send automated invitation reminders. Event-specific websites provide details such as event fees and discounts, the agenda, and hotel/room block information. The event management application enables the team to take credit card payments and make automated refunds if necessary. This has improved the registrant and attendee experience and freed the events team from fielding repetitive questions and manual fee processing, so they can focus on other key event deliverables and business development.

The software application has halved the time it takes to manage registrations, and the application's budget module makes the costing process easier. The event management functionality has resulted in significant lifts in attendance due to the team's ability to reach more people and the easy registration process.

User-defined rules in lead management apps allow leads to be allocated or routed to reps and account managers on the basis of role, territory, product expertise or other variables. Lead nurturing is the practice of maintaining a healthy bi-lateral relationship with the lead until ready to buy. This can be achieved by delivering relevant, useful and personalized content through the channels preferred by the lead. This may mean email, but there may also be a role for events and pre-sales consulting. Essentially, lead nurturing is a demonstration of the seller's commitment to the lead. Interactivity between lead and supplier is an indicator that the lead is being successfully nurtured. Lead management software allows for more equitable workload distribution across a sales team and implements security controls to ensure that reps can only access their own leads.

Opportunity management applications enables reps and managers to monitor progress of an opportunity against a predefined selling methodology, ensuring that opportunities are advanced towards closure. An opportunity is a record of a potential sale or any other type of revenue generation. There are a number of selling methodologies such as the following:

CASE ILLUSTRATION 9.2

HARMONEY USES VISUAL ANALYTICS TO IDENTIFY BEST PROSPECTS[16]

Harmoney is a peer-to-peer (P2P) lending platform that connects lenders with creditworthy borrowers seeking a personal loan. It launched in New Zealand in 2013 as the country's first service of this type and has since matched borrowers and lenders with loans worth more than $NZ750 million.

Harmoney is a financial marketplace, not a bank or a finance company. It simply provides the platform and facilitates the lending and collecting process, administering customer accounts. It is a branchless operation, available online 24/7, cloud-based and automated.

Harmoney needed to find a way to identify creditworthy applicants on-the-fly. They used the Visual Analytics tool from SAS as their solution. Potential borrowers go through a comprehensive online process to create an account before applying for a loan. Visual Analytics scours the application data including the applicant's age, gender, location and media source and identifies those most likely to be approved for loans. Only 25–30% of people who apply are allowed into the marketplace, thereby protecting the interests of the lenders.

Analysis extends to creative decisions. For example, analysis identifies which keyword terms from AdWords are driving unsuccessful applications. Harmoney management can then instruct their ad agency to stop using those terms. Equally, Harmoney can identify which terms are driving approvals so they can bid higher for these and attract more people to the website who will be approved.
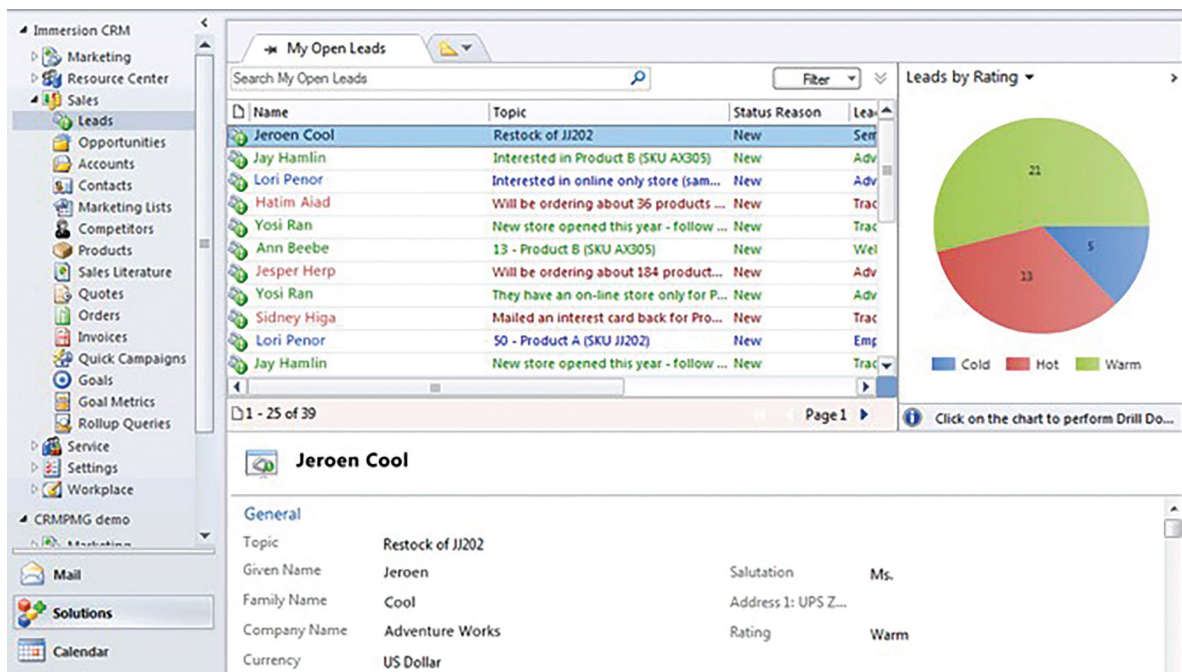
Figure 9.5 Lead management screenshot[17]

- SPIN (Situation, Problem, Implications, Needs pay-off)

- NEAT (core Needs, Economic impact, Authority to act, Timeline)

- SNAP (keep it Simple, be iNvaluable, always Align, raise Priorities)

- Miller Heiman Strategic Selling.

Selling methodologies typically involve a number of stages such as lead qualification, initial approach, understanding the customer's requirements, developing a solution, crafting a proposal and closing the sale. Some SFA tools come pre-configured against a number of selling methodologies from which the user can then choose. For example, Microsoft Dynamics 365 CRM has a module for Solution Selling* and Oracle CRM for Target Account Selling*. It's not unusual for SFA modules to be customized to meet the selling methodology of a particular industry, or company. Salespeople follow the steps of the methodology as if following a checklist, ensuring that all opportunities are handled consistently. Sales reps can associate their own opportunities with additional information such as contacts, activities, pricing rules, products, proposals, projects, presentations, quotations, competitors, estimated revenue, cost-of-sales, probability of closure, sales stage and so on. Managers can receive reports on the progress of opportunities as they move towards closure, broken down by salesperson, territory, type, date or other criteria. Figure 9.6 shows an opportunity management report. Note the selling model in the window on the left at the bottom of the screen, the sales funnel that
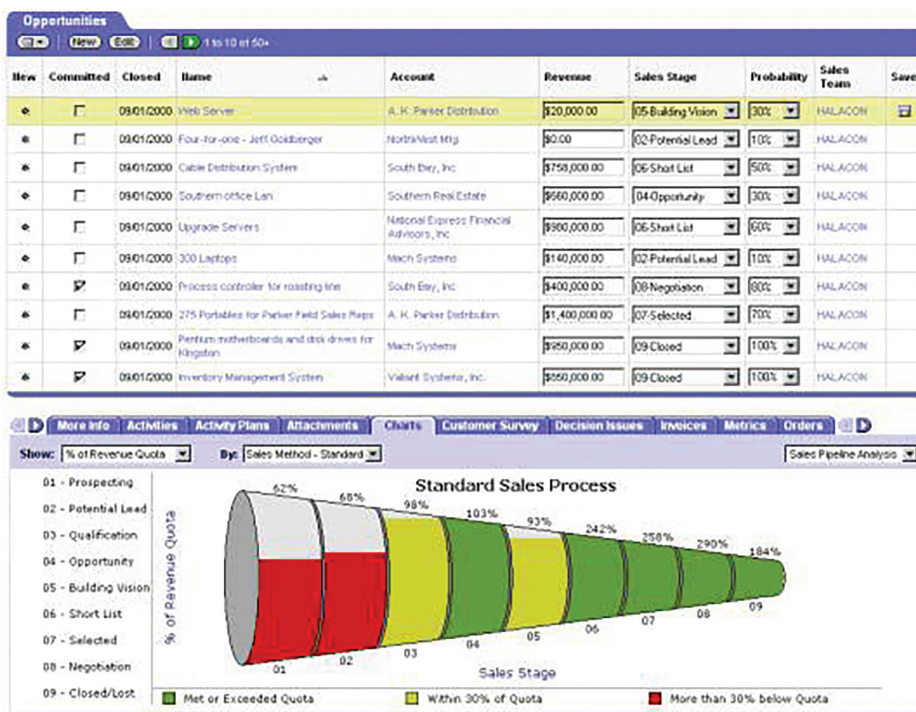
Figure 9.6 Opportunity management report[18]

tracks the number of leads that become opportunities and deals won, and the probability of closing the opportunity at the top of the screen.

Order management functionality allows reps to convert quotations and estimates into orders once a customer has made the decision to buy. Order management software may include a quotation engine, a pricing module and a product configurator. Order management functionality accelerates the order-to-cash cycle by eliminating manual processing and errors and by quickly advancing the status of a sales quotation to approved order. The order management process can be integrated with back-office fulfilment, invoicing and payment processes, thereby accelerating cash flow for the seller. If order management functionality is used in front of a customer, the order can be approved, and loaded into production or picked from a warehouse more quickly. With visibility through a portal, the customer, rep and manager have access to the same, up-to-date order information. Some order management systems allow customers to manage their bills and other information online, thereby reducing account management costs for the seller.

Pipeline management is the process of managing the entire sales cycle from identifying prospects, estimating sales potential, managing leads, forecasting sales, initiating and maintaining customer relationships, right through to closure. A well-defined sales pipeline helps minimize lost opportunities and breakdowns in the sales process. Sales pipelines typically have between five and seven defined stages such as lead generation, lead qualification, initial meeting, submit quotation, sales presentation, and closure. As opportunities move through the pipeline the probability of making the sale increases. For example, a sales rep might assign a 5% probability
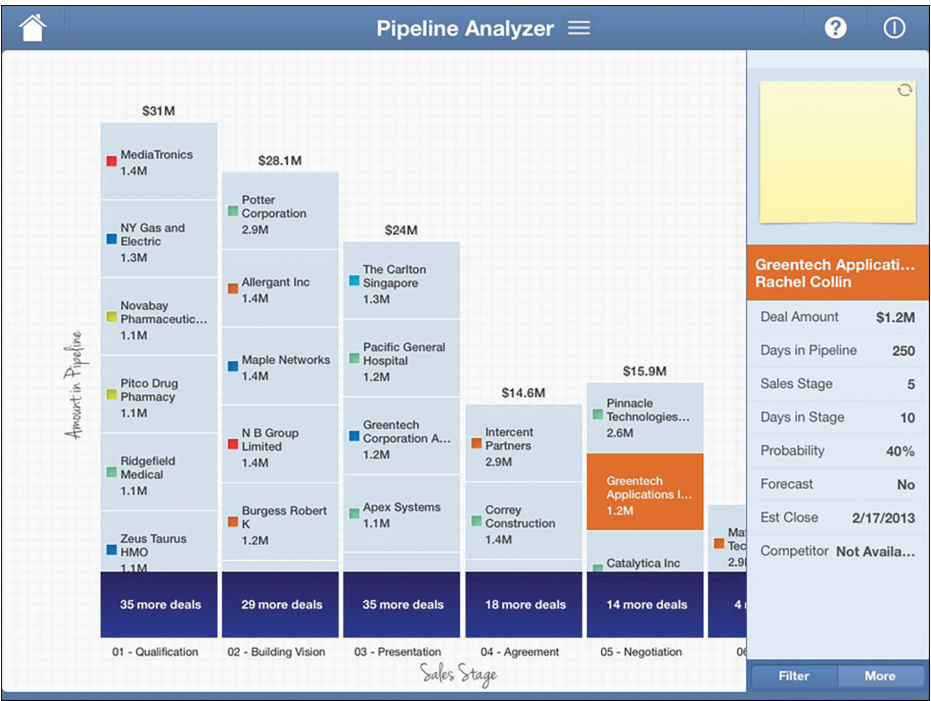
Figure 9.7 Oracle pipeline overview screenshot[19]

of closing the sale to an opportunity that reaches "initial meeting" stage, but a 60% probability to an opportunity at the "sales presentation" stage. Because these probabilities indicate that not all opportunities will progress down the pipeline, sales reps know that they have to have a multiple of the value of their target or quota - perhaps three to four times - in the sales pipeline.

Product configuration applications enable salespeople or customers themselves, automatically to design and price customized products, services or solutions. Configurators are useful when the product is particularly complex or when customization is an important part of the value proposition. Configurators guide users through the buying and specification process, offering only valid options and features at each step. This can deliver benefits to customers, sales people and management. Customers can define and build their preferred customized solutions, reducing cost and meeting their own particular needs. Sales people no longer need master comprehensive product or service technical data because these are built into the engine. Training costs for sales people are therefore reduced. The potential for incorrectly specifying a solution for a customer is decreased, meaning less need for after-sales problem resolution service. Configurators enable mass customization. Case illustration 9.3 shows how customers can build and price their own Jeep on line. Customers select a model and a color. Next, they browse and select interior, exterior and powertrain options. A customized price is computed, and payment options offered. The customer is immediately presented with a list of nearby dealers carrying inventory that matches the specification, and the customer can then jump on the dealer's website and place the order. More advanced configurators enable customers to approach configuration from any starting point and in any sequence. For example, a buyer might make engine capacity the entry point, not the model.

CASE ILLUSTRATION 9.3

PRODUCT CONFIGURATOR; BUILD AND PRICE YOUR OWN JEEP ONLINE

Product visualization solutions enable sales reps and customers to produce realistic computer-generated images or animations of products before they are manufactured. This is a useful application when linked to a product configurator. Static images can take the form of a simulated photograph, 3-D model or technical drawing. Some applications allow these images to be drag-and-dropped into different settings or contexts. Animated visualizations can be rendered in different ways to show how products are built, installed or used. Visualization software often allows users to change certain parameters, for example models, colors, fabrics, and sizes, as in the Jeep example. Visualizations can be augmented by other information such as specifications or prices.

Proposal generation solutions allow users to create customized branded proposals for customers. Users draw on information held in one or more databases to create proposals that, typically, are composed of several parts, some of which are personalized such as cover page, covering letter and introduction. Others are customized: objectives, products, product features, services, benefits, prices, specifications, pictures, drawings, embedded video, people, experience, résumés, references, approach, schedule, organization, scope of work, and appendices. Proposal templates can speed up the creation of proposals that can then be delivered to customers while they are in buying mode. They also ensure consistent branding across all customers. Templates exist for different types of proposals such as statements of work, grant applications and service level agreements. Some can even be co-created on the fly in real-time as customer and sales person collaborate to identify what is required. One survey suggests that proposals produced with software have a much higher win rate (46%) than proposals produced manually (26%).[20]

Now we'll review the SFA tools principally used by sales managers, again in alphabetical order.

Document management software allows management to control sales-related documents, keep them current and ensure that they are always available to reps, managers and partners when needed. Companies generate and use many documents to support the sales process – brochures, product specifications, installation instructions, user manuals, case studies, white papers, price lists, warranties, competitive comparisons, spreadsheets, email templates and templates for preparing quotations, for example. External agencies, including government departments, may require companies to maintain records of compliance with standards or regulations relevant to the products and services they sell. These documents can be stored securely online, versioned to ensure they remain traceable and current, and downloaded on-demand. Metadata, that is data about data, can be applied to documents so that the correct materials can be found quickly.

Incentive management is an issue for sales managers who use commissions and other incentives to lift and direct sale reps' efforts, and to reward performance. In many companies, commissions are calculated using stand-alone spreadsheets. When part of an SFA solution, incentive management apps eliminate the need to re-enter or transfer data from spreadsheets, leading to better visibility, accuracy and higher efficiency. Incentive management models that consider quotas, sales volumes, customer profitability, customer satisfaction, customer retention, customer engagement, Net Promoter scores and other performance criteria can be created. Sales team members can be given complete visibility into the sources and components of their commission. Incentive management applications can be integrated with back office payroll applications that automate payment.

A product encyclopedia is a searchable electronic product catalogue that generally contains product names, stock numbers, images, specifications and applications. These can be stored in the cloud or on reps' computers, smart phones and tablets.

Sales analytics generate reports for management as they strive to influence sales person performance. Reporting functionality is integrated into all SFA systems. This enables managers to view a number of pre-defined standardized reports that deliver insight on the effectiveness and efficiency of their sales team. In addition, managers can create *ad hoc* reports on any variable or mix of variables maintained in the sales database – this can include reports on all the issues we are discussing here: contacts, contracts, orders, opportunities, proposals, sales pipeline and so on. See Table 9.3 for a selection of reports that sales managers can request.

Table 9.3 Examples of reports available from SFA software

closed opportunities	sales cycles
customer profitability	sales by close date
lead conversion by source	sales person productivity
pipeline progress	unresolved cases

Salesforce.com, for example, offers over 50 standard reports, and enables users to construct their own customized reports using wizards. These deliver simple charts, dials, histograms, funnels, leader boards, pie charts, tables, other graphics and text to receivers' devices. Dashboards deliver real-time sales data to executives that can be refreshed at a single click. Customized dashboards ensure that people receive reports matched to their roles and responsibilities. Drill-down and roll-up capabilities mean that users can thoroughly investigate the reasons behind results in dashboard reports. Furthermore, dashboards can be integrated with third-party analytics to deliver deeper analysis of sales performance and problems. Figure 9.8 is a sample sales manager's dashboard.

Sales forecasting applications offer managers and sales reps a number of qualitative and quantitative processes to help forecast sales revenues and close rates. Among the qualitative methods are sales team estimates that can be created collaboratively, and among the quantitative methods are time-series analysis, and regression models. Some sales forecasting methods project historical sales into the future. Other methods draw on and interpret the sales opportunity and pipeline data maintained in SFA systems. Another method is to import data from external sources and apply quantitative methods to forecast sales. Accurate sales forecasts help resource allocation throughout the business. We discuss sales forecasting methods in more detail in Chapter 5.

Territory management applications allow sales managers to create, adjust and balance sales territories, so that sales reps have equivalent workloads and/or opportunities. Territory management applications usually come with a territory management methodology that users can follow when establishing sales territories.[21] Some applications integrate geographic mapping or geo-demographic data into the application. Applications generally enable companies to match sales coverage to market opportunity, create sales territory hierarchies (cities, states, regions) and reduce the cost of selling by reducing travel time. Call cycle scheduling, calendaring and lead management is often enabled by the software. Eligibility and exception rules can be established in and monitored by the software. A sales rep might be eligible to sell some products but not others, to service all customers in her territory with the exception of certain named accounts, or to sell into certain accounts in another territory because she has a well-established customer relationship.

Workflow development software is used to design sales-related processes including, for example, the lead management and event management processes. Workflow applications
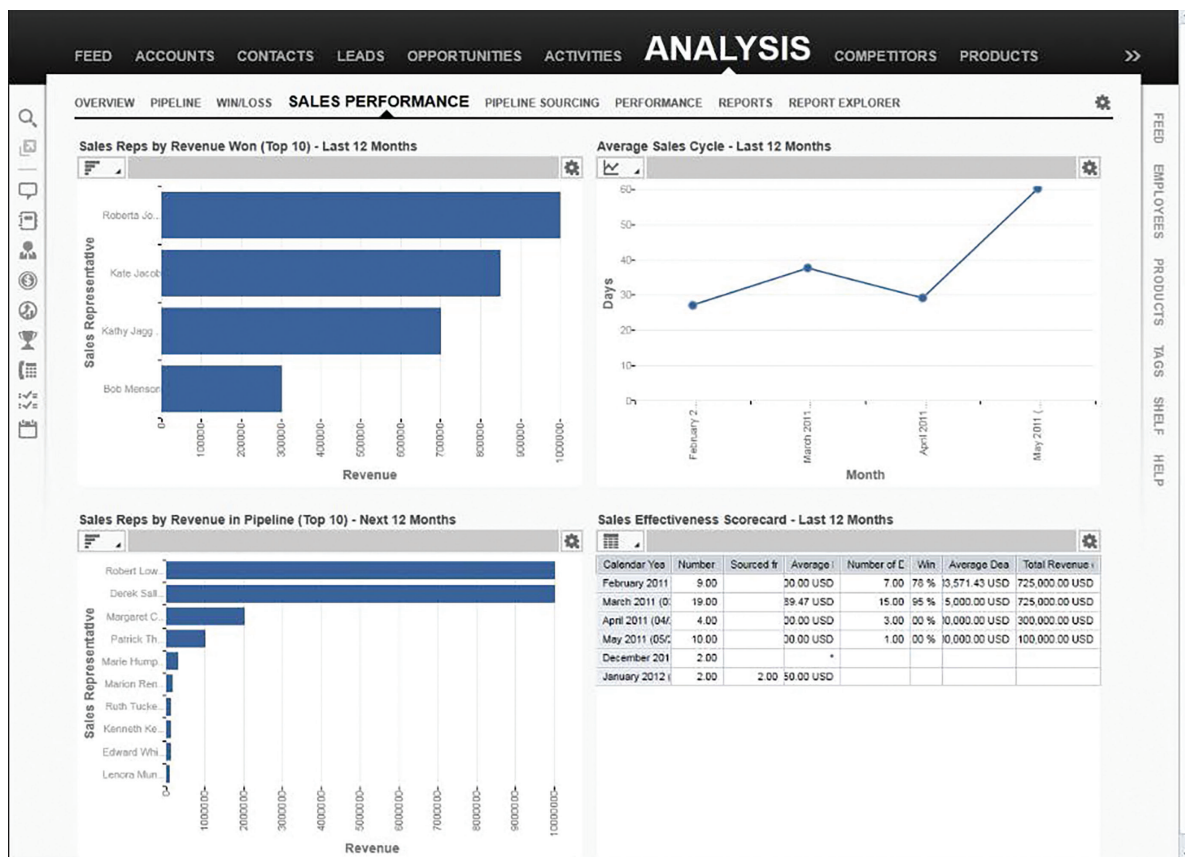
Figure 9.8 Sales management report[22]

automate business processes, so that process owners know what to do, the order in which actions should be performed, and who is responsible for each action. A simple automated workflow spells out the actions that are taken when a web-form inquiry is received by the business. A more complex workflow project is to automate the stages of the selling process itself – the series of steps that a sales rep must follow in shifting a prospect from initial awareness to the close. Automated processes are much easier to monitor for process failure. When a process fails often this can be an indication that the process needs to be simplified, user training needs to be refreshed, or technological support for the process needs to be upgraded.

Although we have thus far discussed a generic set of sales-related functionality, SFA software is also designed for context-specific applications. For example, sales reps selling liquor to a retail store might employ software that recommends planograms, optimizes the allocation of retail display space, audits inventory levels, recommends prices and controls cooperative promotional support. In some contexts, graphics, video and sound support are important. Leading SFA vendors offer functionality designed for sales people in particular industries. SAP CRM and Oracle CRM, for example, both offer customized SFA solutions for over 20 different industries ranging from aerospace and defense to wholesaling. These solutions come with industry-specific database models.

SFA ADOPTION

Generally, a company's decision to adopt SFA follows a two-step process. First, senior management decides to invest in SFA, and second, sales reps and their managers decide to use SFA. Both groups – senior management and users – will anticipate benefits from SFA, and unless those benefits are delivered SFA may be abandoned.[23]

Benefits from SFA

SFA vendors and consultants identify a number of benefits from SFA implementation, which appeal to different stakeholders:

- **Salespeople**. Higher quality leads, shorter sales cycles, more closing opportunities, higher win rates
- **Sales managers**. Improved salesperson productivity, improved customer relationships, more accurate reporting, fewer lost opportunities, reduced cost-of-sales
- **Senior management**. Improved visibility into the sales pipeline, reduced risk of unexpected variations from sales forecasts, accelerated cash flow, faster inventory turnover, increased sales revenue, market share growth, improved profitability

CASE ILLUSTRATION 9.4

FREIGHT TRADERS ENJOYS BENEFITS FROM SFA[24]

Freight Traders, a subsidiary of global food manufacturer Mars Inc., is a web-based logistics consultancy that connects shippers to carriers. The company facilitates the transit of cargo between the two parties. Customers include Kellogg's, Lever Fabergé and Sainsbury's Supermarket Group. Garry Mansell is managing director.

"We had the system up and running in three days," says Mansell. "Within eight days the whole company was using it across multiple countries. Ease of use and speed of implementation were everything I expected of a web-based solution." Major benefits include far greater customer, lead and prospect visibility. "We operate dispersed account teams and they now have a single view of customers and prospects." Another major benefit is accessibility. "Regardless of where I am in the world, I only have to log on to see how our business is doing," says Mansell.

"The reporting tools are really useful to our business," continues Mansell. "We don't need to waste time chasing sales teams for reports. Once we put in the information, reports are automated and can be tailored to our requirements." Mansell finds these reports a valuable tool for running the business. It helps the company focus on maximizing resources, by identifying where and when the best sales opportunities arise and responding to them.

Freight Traders uses Salesforce.com to communicate best practices across the organization. "Because the system is so transparent we can show clearly what works best with a particular company, country or industry and share that vital intelligence across the organization. All the information is contained in our Salesforce.com account."

In addition to these hard outcomes, there may be additional softer benefits such as less rework, more accurate information, and more timely management reports. Software vendor case histories of SFA implementations offer evidence of SFA's impacts. See Case illustration 9.4: Freight Traders.

Independent research, summarized in Table 9.4, suggests that the primary motivation for senior management's decision to invest in SFA solutions is improved efficiency, although it is also true that not every SFA implementation has specified formal goals.[25]

Table 9.4 Motivations for implementing SFA[26]

Motivation	% of sample reporting
Improve efficiencies	72
Improve customer contact	44
Increase sales	33
Reduce costs	26
Improve accuracy	21

HOW SFA CHANGES SALES PERFORMANCE

There have been a number of independent assessments of the effects of SFA on sales performance.[27] One empirical investigation of a pharmaceutical company's operations in three countries finds a clear relationship between SFA adoption and salesperson performance. The researchers conclude that 16.4% of the variance in sales is explained by the use of the SFA solution.[28] Another investigation finds that use of SFA is associated with improvements in sales reps' targeting and selling skills, market and technical knowledge, call productivity and sales performance.[29] However, not all research indicates positive outcomes from the implementation of SFA.[30]

Why users adopt technology has been a topic for sustained research since Fred Davis first advanced his Technology Acceptance Model (TAM) in the late 1980s.[31] The model, as originally formulated, suggests that people consider two main factors as they decide whether or not to use new technology:

1 **Perceived usefulness**: the degree to which the person believes that using a particular technology would enhance his or her job performance.
2 **Perceived ease-of-use**: the degree to which the person believes that using a particular system would be free from effort.

Essentially, the more useful the technology people think the technology is, and the easier to use, the stronger their intention to use the technology.

The TAM has been widely tested and has met with substantial confirmation in a number of contexts. Venkatesh and Davis proposed an extension of the TAM – TAM2 – by exploring several determinants of perceived usefulness, including: subjective norm (from the Theory of Reasoned Action), image, job relevance, output quality, result demonstrability, as well as perceived ease of use.[32] Table 9.5 provides definitions of these determinants of perceived usefulness.

Table 9.5 Determinants of perceived usefulness in the Technology Acceptance Model[33]

Determinants	Definitions
Perceived ease of use	The degree to which a person believes that using a technology will be free of effort.
Subjective norm	The degree to which an individual perceives that most people who are important to them think they should or should not use the system
Image	The degree to which an individual perceives that use of an innovation will enhance their status in their social system
Job relevance	The degree to which an individual believes that the technology is applicable to their job
Output quality	The degree to which an individual believes that the technology performs their job tasks well
Result Demonstrability	The degree to which an individual believes that the results of using the technology are tangible, observable, and communicable

They found that social influence processes (subjective norm and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use) all significantly influence user acceptance. Researchers are continuing to work on technology acceptance.[34]

Several studies have been done on SFA acceptance specifically, from which the following conclusions may be drawn. It seems likely that SFA will be adopted when a number of conditions are met.[35] These include:

1. Sales people find that the SFA application is easy to use.

2. Sales people find the technology useful because it fits their roles well.

3. Availability of appropriate-to-role SFA training.

4. Users have accurate expectations about what SFA will deliver.

5. Users have a positive attitude towards innovation.

6. Users have a positive attitude towards technology.

7. Availability of user support after roll-out, for example, a help desk.

8. Involvement of user groups including sales reps and managers during SFA project planning and technology selection.

9. Deployment of a multi-disciplinary team in the SFA project planning phases.

10. Senior management support for SFA.

Some ease-of-use considerations include screen design, the use of a graphical user interface, system navigation, online help, user documentation, data synchronization and system

support. Screen layouts that are clean and bright appear uncluttered and are easier to read. System navigation is good if users can move from field to field, tab to tab, screen to screen, module to module and function to function with no difficulty. The basic components of a device's graphical user interface (GUI, pronounced goo-ee) are a pointing device and graphical icons. The pointing device can be a mouse or, on touch-sensitive screens, a finger. Online help means users can resolve questions quickly. User documentation that includes screenshots, text or instructional video clips is appreciated, as is simple, fast, data synchronization and general system support through training and a help desk.

SUMMARY

Sales force automation is a competitive necessity which involves the application of software and web-based services to support sales people and their managers. Broadly, SFA enables members of sales teams to become more efficient and effective in their job roles. The SFA ecosystem includes a wide range of software, hardware, infrastructure and service organizations. SFA software offers an enormous range of functionality including account management, activity management, collaboration, Configure-Price-Quote (CPQ), contact management, contract management, document management, event management, incentive management, lead management, opportunity management, order management, pipeline management, product configuration, product encyclopedias, product visualization, proposal generation, quotation management, sales forecasting, sales management reporting, territory management and work-flow development.

Three stakeholder groups – salespeople, sales managers and senior management – have a particular interest in generating benefits from SFA adoption, and each may have a different perspective on what counts as success. For a salesperson, success might mean increased commission or more time released from administrative tasks for selling. For a sales manager, success might be better management of underperforming reps. For senior management, success might be improved market share and reduced cost-to-serve.

None of these benefits are likely to be delivered if sales people fail to adopt the technology. Adoption is more likely if salespeople find the technology is useful, easy to use, and they receive training.

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SERVICE AUTOMATION

CHAPTER OBJECTIVES

By the end of this chapter you will understand:

1. What is meant by customer service?
2. What is meant by service automation (SA)?
3. The benefits that SA can deliver to organizations.
4. The functionality available within SA software.

INTRODUCTION

This is the last of three chapters that look at operational CRM technologies. This chapter is about the technologies used in customer service departments or by service staff. The preceding two chapters reviewed marketing automation and sales force automation, respectively. This chapter starts by defining customer service and service automation (SA), before describing some of the functionality that is available in SA software.

WHAT IS CUSTOMER SERVICE?

As customers, we all understand and appreciate when we have experienced excellent customer service. The people who serve us are friendly, responsive, empathic, and they do the right things well, whether that is answering a question, offering advice or accepting the return of faulty merchandise. If we rely on self-service technology, excellent service is experienced when the technology works as expected – for example, the bank's automatic tellers are operational and the website provides all necessary help and information in a couple of clicks. Equally, we can all recognize poor customer service, delivered by surly, unapproachable, peremptory, inflexible staff working with poor information and hampered by outdated technology.

Customer service has always been a necessary preoccupation of service-producing organizations because they have understood that customers are responsive to the quality of the service they experience. However, the quality of customer service is just as important for agriculturalists, miners, and goods manufacturers. This is particularly so when there is product parity, and customers are unable to discern meaningful differences between alternative suppliers, products or brands. For most customers, one brand of carpet is much like another. Carpet manufacturers and retailers find it hard to differentiate in terms of meaningful product-related variables; they therefore use service-related variables such as pre-purchase advice, measurement, delivery, removal of old floor coverings and fitting of new carpet, to win business from customers.

Customer service can be experienced at any stage of the customer journey: before, during or after purchase. For example, in a B2B context, a company purchasing new manufacturing equipment might need pre-purchase engineering advice, assistance during purchase to draw up precise specifications for the equipment, and post-purchase assistance with operator training. Customers can evaluate service standards both during service delivery and afterwards. The service experience as perceived from the dentist's chair during service delivery might be very different from the assessment a few days later!

MODELING SERVICE QUALITY

Academics and practitioners have attempted to unpack what is meant by "service quality." Two academic models are particularly influential. The Nordic model, originated by Christian Grönroos, and developed by others, identifies three components of service quality: technical, functional and reputational.[1] Technical quality can be thought of as the "what" of service quality. Did the technician fix the water leak from the dishwasher? Functional quality can be thought of as the "how" of service quality. Did the technician turn up on time and act courteously? Reputational quality is a product of technical and functional quality, in that reputation derives from service performance. However, reputation can also predispose customers towards forming particular perceptions of quality, for better or worse. High quality service is experienced when all three forms are excellent. The second service quality model, SERVQUAL, was developed by A. "Parsu" Parasuraman and colleagues in North America and claims there are five core components of service quality: reliability, assurance, tangibles, empathy and responsiveness.[2] These vary in importance across contexts. In banking, reliability – the delivery of the promised service dependably and accurately – is important, whereas responsiveness becomes very important if you have to call out a technician to fix a water or gas leak.

Customers who receive service from companies that have successfully implemented CRM technologies experience a further form of quality – integrative quality. High integrative quality means that a business's processes, people and technology complement each other, working efficiently and effectively to deliver excellent customer service. When customers make a purchase in response to a marketing campaign, they expect the order to be fulfilled rapidly. This requires the company to integrate its marketing automation to back office

payment and fulfilment processes. When these work in harmony, the customer experiences high integrative quality. Good people, either working with ill-defined processes or unhelpful technologies, find it very difficult to deliver excellent customer service. Customer service is a key component of customer experience. Customers rarely report excellent experience if customer service encounters fail to meet their expectations.

Fred Wiersema, a noted practitioner authority on customer service, has researched the attributes that companies renowned for excellent customer service have in common. He identifies six common attributes.[3]

1   Customer service is pervasive. It is everyone's responsibility; it is neither delegated nor relegated to a single department or function.

2   Company operations run smoothly with minimal product and service defect rates, allowing them to focus on pleasing customers.

3   They are always looking for ways to improve.

4   Customer service lies at the heart of the value proposition. Customer service is the main selling point.

5   They build personal relationships with customers.

6   They employ the latest technologies that allow their customers to interact with them more conveniently, help them develop a profound understanding of what customers need and want, and enable them to track activities and processes that influence customer experience.

From a CRM perspective, these are all important, but particularly the last three. Customer service is the key element of these renowned companies' value propositions – an important component of strategic CRM. They understand that customers are responsive to excellent customer service, whatever the basic product or service they offer. They also build personal relationships with customers. They understand the needs and requirements of customers at an individual level, and they recognize and respond to events in the customer's life – delivered by analytical CRM. Finally, they employ the latest technologies that allow customers to interact with them whenever they want through multiple channels – an important component of operational CRM. IT also enables them to learn about and respond to customer requirements, and to track interactions and processes that connect them to their customers.

CUSTOMER SERVICE STANDARDS

There are a number of customer service standards worldwide, and we draw your attention to two in particular. The Customer Service Excellence* (CSE) standard has been developed by the UK government with a view to providing guidance to public and private sector organizations that want to make a significant difference to the quality of their customer service.

The CSE standard is designed to enable three outcomes for adopters. First, it aims to promote continuous improvement by enabling organizations to identify opportunities for improvement, through a process of self-assessment against the standard. Second, it aims to promote skills development by allowing individuals and teams to learn new skills in the area of customer focus and customer engagement, thus building their capacity for delivering improved services. Third, it aims to be an independent validation of achievement by allowing organizations to seek formal accreditation to the CSE standard.

The CSE standard identifies five key criteria for assessment, each composed of a number of elements, as shown in Table 10.1.

Table 10.1 Customer Service Excellence standard criteria and elements[4]

Key assessment criteria	Elements
Customer insight	Customer identification; customer engagement and consultation; customer satisfaction
Culture of the organization	Leadership, policy and culture; staff professionalism and attitude
Information and access	Range of information; quality of information; access; co-operative working with other providers, partners and communities
Delivery	Delivery standards, achieved delivery and outcomes; deal effectively with problems
Timeliness and quality of service	Standards for timeliness and quality; timely outcomes; achieved timely delivery

Much of the language in this standard is compatible with CRM principles – using customer insight to improve customer experience, and applying that insight to build a customer focused organization, putting the customer first (as in strategic CRM), learning from customer feedback (as in closed-loop marketing) and focusing on customer satisfaction.

In addition to this government-sponsored model, the International Customer Service Institute has also developed its own customer service standard, dubbed The International Standard for Service Excellence (TISSE). This aims to become a global standard for customer service practitioners.

The model, shown in Figure 10.1, distinguishes five main components of customer service excellence. Known as the 5Ps, they influence customer acquisition, retention and experience. The 5Ps are policies, premises, products, processes and people. A company's policies about the allocation of resources to customer service act as an enabler of the other 4Ps. The other Ps are split into two groups – products/services and premises that help attract customers, and processes and people that support customer retention. The model has a close fit with our perspective on CRM, with its identification of a customer journey (attraction, retention), and its recognition that customer experience is influenced by a range of variables both directly (premises, products, processes, people) and indirectly (policies).
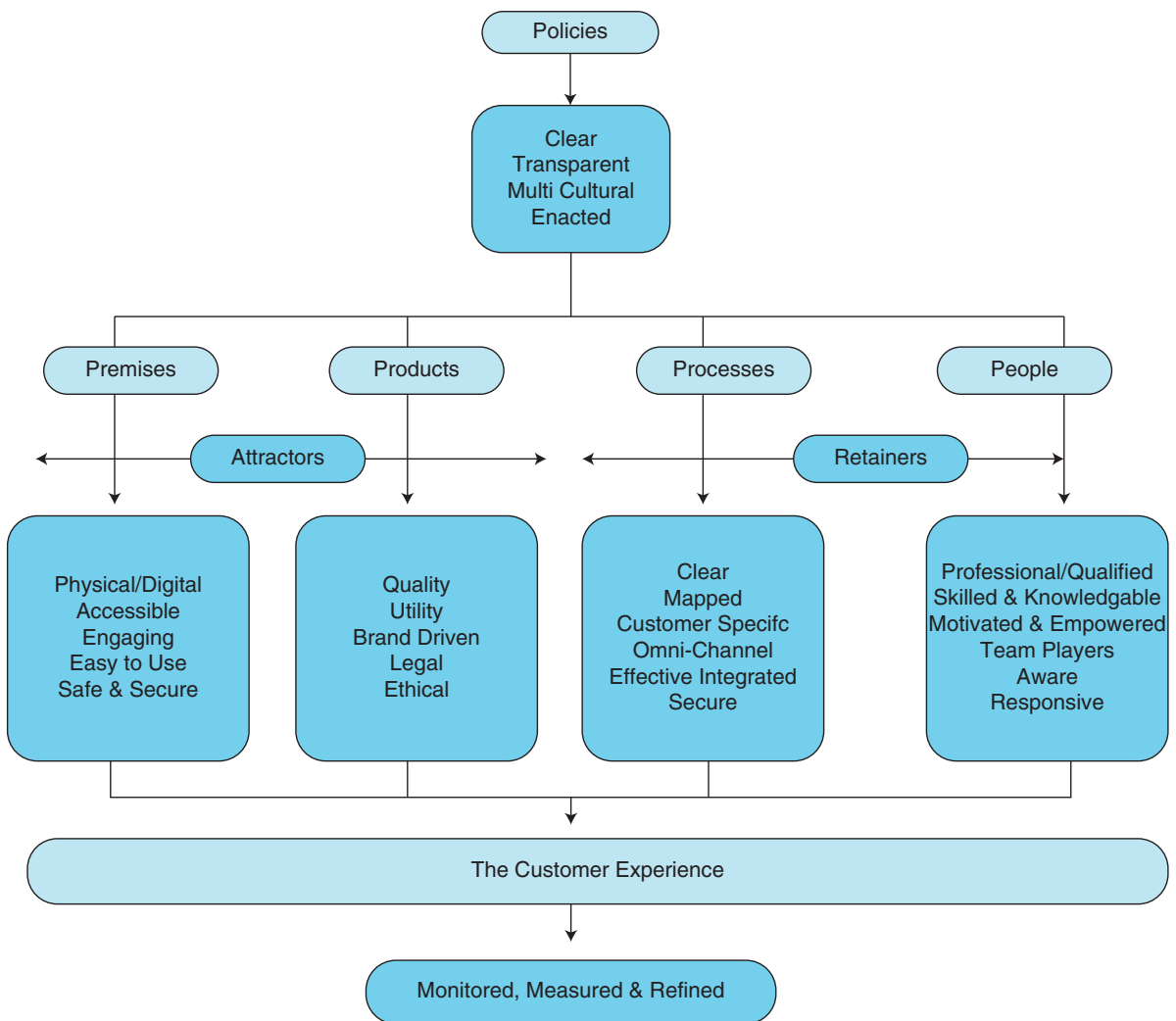
Figure 10.1 The International Standard for Customer Service[5]

WHAT IS SERVICE AUTOMATION?

The term service automation (SA) can be defined as follows:

> **Service automation is the application of computerized technologies to support service staff and management in the achievement of their work-related objectives.**

Companies deliver customer service across multiple channels – face-to-face, telephone, email, mail, SMS, multimedia messaging (MMS), social media, web chat, through the corporate website and automated self-service channels including chatbots. In a connected world, however, it is not only companies that deliver customer service; other customers who report their

product experiences in social media (blogs or product review sites, for example) and on company websites are also providing service to potential or current customers. Some companies are trying to harness this type of customer-to-customer, or peer-to-peer, customer service for corporate ends.

Technology is becoming more deeply embedded in customer service operations. It is now possible for service interventions to be initiated even before the customer makes any request for support. According to IBM,

> Systems with AI [Artificial Intelligence] embedded can monitor a nearly infinite amount of website and in-app activity for distress indicators, identifying customers experiencing issues and what those issues are. The system can respond in real-time offering support through FAQs or virtual service agents across platforms and devices. The ability to resolve customer service issues before they arise has huge potential. It could significantly lower customer abandonment rates in the purchasing cycle, while simultaneously reducing customer complaints and improving consumer satisfaction.[6]

Service automation is mainly used in four major contexts: customer engagement centers, call centers, at the help desk and in-field service.

Customer engagement centers (CEC) are configured to communicate with customers across multiple channels including voice telephony, video telephony, web, mail, email, SMS, multimedia messaging, instant messaging, web chat, chatbot and social media at all stages of the customer journey. Some organizations use the terms "customer contact center" or "customer interaction center" instead of customer engagement center, but the latter term stresses the emerging role of multi-channel contact centers in building customer engagement. In addition to people-assisted interactions, CECs may also deliver simple automated self-service, using interactive voice response (IVR), for example, or more advanced technologies including speech recognition and chatbots which are enabled by artificial intelligence. The core purpose of most CECs is solving customer problems to the satisfaction of the customer. Note that different SA vendors use the terms issue, case, incident, trouble-ticket and service request synonymously to describe the customer problems that CECs are called on to fix. Service agents need to be able to access and update an entire communication history regardless of channel when communicating with customers about service issues. Channel integration is therefore an important feature of CEC technologies. CEC staff may be called on to handle inbound service-related calls, participate in outbound marketing campaigns and respond to service enquiries in multiple channels.

Call centers are generally dedicated to voice telephony communications, whether through a public switched telephone network, cell phone network, or VoIP. Agents operating in call centers require a different skill set from those operating in multi-channel contact centers. There is a less compelling need for excellent literacy skills such as reading and writing; they do, however, need excellent listening and responding skills. Access to a searchable knowledge base helps agents deliver excellent service.

Help desks are usually associated with IT environments where assistance is offered to IT users. SA applications such as case management, job management and service level management are used in this setting. Help-desk solutions often comply with, and support,

third-party standards such as ITIL (Information Technology Infrastructure Library)[7] and the ITSM (Information Technology Service Management)[8] reference model.

Field service is widespread in both B2C and B2B environments. Service engineers for white goods such as dishwashers and washing machines, or brown goods such as televisions and hi-fi, visit consumers' homes to install, maintain or repair products. In the B2B context, technicians and engineers visit factories, depots, warehouses, workshops, offices and other workplaces before, during and after purchase to help customers specify, select, procure, install, service and decommission a wide range of machines and systems, ranging from machine tools to fork-lifts and IT infrastructure. Field service applications allow users to achieve a number of objectives:

- Receive requests for a field service technician through multiple communication channels, including remote monitoring

- Assign a service technician – with long-term, medium-term, weekly and intraday optimization of work orders, factoring in constraints (for example, travel time, assets, skills and so on) and service-level-agreement compliance

- Equip the technician with all information required to complete service tasks, including, if necessary, the ability to look up inventory status in real time or cached on a wireless device

- Integrate with GPS and geographic information system (GIS) capabilities

- Provide field service functionality that supports a continuum of field service models, from reactive to preventive service.[9]

Unlike their office-bound colleagues, field service staff must have access to SA applications and data on their tablets and smartphones. Technology solutions such as mHelpDesk, Housecall Pro and AgileField offer support to field service agents.

Infrastructure, data, devices and software are the key technological elements of service automation. Infrastructure plays an important role in enabling service to be delivered through a call center or customer engagement center. In a multi-channel environment there needs to be tight integration between various communication systems, including telephony, email, chat, text, social media and web. A customer may browse the web to find out how to obtain service, before communicating the service request by voice telephony into a call center. However, the customer may expect to receive the initial notification of service appointment time by email, and any change to that time by text message. Call centers need integration between the software on the customer service agent's desktop, and the automated call distributor (ACD) or switch hardware, so that calls are prioritized and routed appropriately.

Access to the right customer-related data enables service agents to handle issues professionally. Customer-related data includes both structured data such as contact history, account balances and agreed service levels, and unstructured data such as emails and agent notes about telephone conversations. Being able to draw on a searchable database of service issues and fixes allows the agent to resolve problems quickly and completely.

Where service is delivered by a distributed workforce, smaller, lighter, devices such as tablets and smartphones tend to be used. These are typically not found in call and engagement

centers. Synchronization is also an issue for a distributed service team. Synchronization with the central CRM database enables service engineers and others to ensure that they are fully apprised of their daily scheduled appointments, and the associated contact and issue history.

BENEFITS FROM SERVICE AUTOMATION

Service automation has an important role to play in allowing companies to deliver excellent customer service. SA can deliver several benefits, including the following:

- **Enhanced service effectiveness**. Service requests can be completed more quickly to the customer's satisfaction by being resolved at the first point of contact, or, if not, routed to the right service engineer/agent. Technologies such as chatbots (bots), which are "always on" deliver service at any time of any day. Bots that are integrated to an up-to-date knowledge base may be able to resolve the issue.

- **Enhanced service efficiency**. Costs are taken out of service delivery when customers use self-service instead of interacting with an agent. Customer service agents can be expensive assets to recruit and train, and these costs are repeated every time an agent leaves and has to be replaced. High levels of first contact resolution mean that companies only deal once with a customer issue. "Right first time" means reduced levels of rework. Chatbots are extremely efficient, being able to handle hundreds or even thousands of enquiries in parallel.

- **Greater service agent productivity**. Call and engagement center management systems ensure that the optimal number of agents is scheduled and that their time is used productively. Skills-based routing ensures that service inquiries are routed to the most appropriate available agent. Field service applications ensure that workload is equitably and optimally distributed. Bots and other self-service technologies can be used to resolve routine enquiries allowing agents to handle higher value issues.

- **Better agent work experience**. Agents have the right tools to do their jobs well, leading to more enjoyable work experience.

- **Improved customer experience**. Agents have full visibility into the customer history and service requests and can therefore ensure that service delivery is appropriate to customer status or agreed service levels, and satisfies the customer. Customers experience more consistent service as business rules are followed and service standards are implemented. Customers who prefer to self-serve online can do so. Integration to knowledge databases ensures that a high proportion of issues are resolved at first contact.

- **Improved customer engagement**. Rather than sending or receiving one-way communications, customer contact centers are now repositioning themselves as customer engagement centers, particularly if they participate in a lot of interactive communications with customers in social media. Customer service events before, during or after (or even without) purchase provide opportunities for customer interaction, thereby building engagement.

- **Improved customer retention**. Higher quality service and better customer experience means that customers are less likely to churn to alternative suppliers. Service quality drives customer retention.
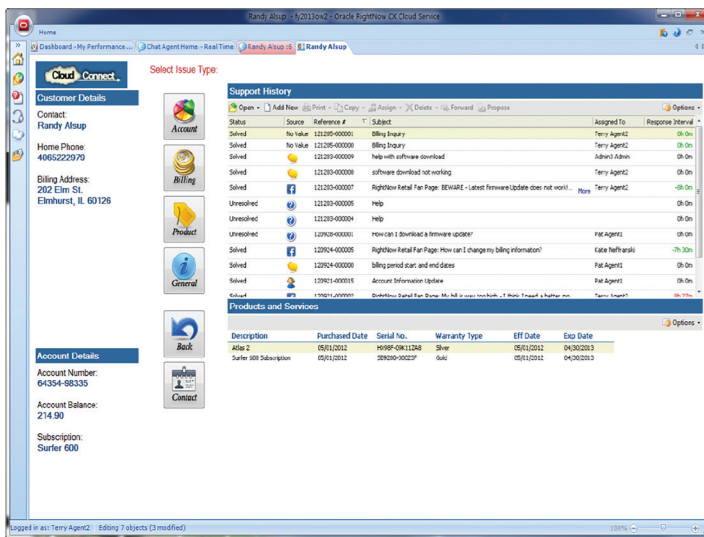
Figure 10.2 Full visibility into customer service history (Oracle RightNow screenshot)[10]

CASE ILLUSTRATION 10.1

SERVICE AUTOMATION AT ICEE[11]

The Icee Company is a division of J&J Snack Foods and is located in Ontario, California. Its flagship product is the Icee, a flavored frozen ice beverage that is carbonated and comes in various flavors. Icee also produces other slushies, beverages and ice pops under both the Icee and Slush Puppie brands. The company serves over 300 million Icees per year.

Icee employs 800 people with 400 field technicians who service 30,000 Icee machines across the US. Icee began to scrutinize the inefficiencies they found in the Icee machine repair process. The company's existing process was very inefficient and error-prone. The challenges were to transform the inefficient paper-based machine repair processes, shorten billing cycles, capture accurate inventory and customer data electronically and transmit in real-time, respond to customer requests more quickly, eliminate an ineffective paper-based parts inventory system and re-allocate dispatchers' time.

After researching several alternatives, Icee concluded that a real-time wireless data solution would provide them with many more benefits than a batch system, which would require that technicians connect to a landline and synchronize data at the beginning and end of each day. The final solution comprised a wireless handheld device from Symbol Technologies, coupled with Countermind's Mobile Intelligence Field Service Automation Solution, which was tailored to reflect Icee's business process. This application runs on AT&T's GSM/GPRS network.

Now, all repair data is captured electronically on handheld devices. Billing cycles are reduced because manual data entry is eliminated. Complete job information is available to field technicians in real-time. Field technicians can complete more work orders in a day, improving productivity and customer satisfaction. Parts inventory is managed more effectively and accurately.

SOFTWARE APPLICATIONS FOR SERVICE

Service automation applications offer a range of functionality, many of which are listed in Table 10.2. The table clusters these functionalities according to where they are principally used: in the engagement or call center, by field technicians, by service managers, and by customers themselves.

Table 10.2 Functionality offered by service automation software

Engagement/ call center	Field technicians	Service managers	Customers
Customer communications management	Job management	Agent management	Interactive voice response (IVR)
Inbound communications management	Activity management	Contract management	Kiosk
Voice biometrics	Scheduling	Service level management	Self-checkout
Predictive dialing	Mapping and driving directions	Service analytics	Web self-service
Queuing and routing	Spare parts management	Workflow development	Portal
Email response management	Invoicing		Chatbot
Case management			Virtual Assistant
Case assignment			Virtual reality
Escalation			Apps
Scripting			Web collaboration

In the next few paragraphs, we'll describe this functionality in more detail. First, we turn to functionality available in applications principally used in customer engagement and call centers.

Engagement and call center

Customer communications management (CCM) software "enables the creation, delivery, storage and retrieval, and analysis of outbound and interactive communications. These applications focus on composing, personalizing, formatting and distributing communications between an enterprise and its customers, prospective customers and business partners. CCM software enables output in a wide range of digital and analog media, including mobile devices, email, SMS, web pages and print."[12]

CCM tools are evolving from supporting static, printed output and one-way communications sent to segmented audiences to dynamic, personalized, on-demand communications via multiple channels, often based on the recipient's preferences rather than the sender's. CCM solutions have four core elements: a design tool, a composition engine, a workflow/rule engine and multichannel output management. New functionality has been introduced that complements these elements, especially for digital communications:

- Social and mobility features that engage customers

- Contextualization capabilities to personalize communication for specific customers

- Analytics and search capabilities to better understand customer behavior and improve the customer experience

- Dynamic composition based on historical and real-time, contextual data

- Integration with adjacent technologies such as web content management, campaign management and other CRM tools.[13]

As companies interact more frequently with customers in social media, they have begun to appreciate the importance of customer engagement. CCM applications that offer social media functionality enable companies to build improved levels of customer engagement. Hence, some multi-channel customer communication applications are now repositioning as Customer Engagement applications. According to Gartner, Inc. "At their most basic level, these applications handle a wide range of tasks, including engaging customers and prospects across multiple channels, and handling trouble ticketing, order management, case management, advisory services, problem diagnostics and resolution, account management, and returns management."[14]

Figure 10.3 is an example of a trouble ticket raised following a Twitter post.

Inbound communications (or call) management (ICM) applications are widely deployed in customer engagement and call center contexts. The technology allows companies to receive, acknowledge, route, queue and distribute incoming communications from any channel – voice telephony, email, chat, fax, instant message, SMS, fax, social media, web form – to agents in any location including engagement or call center, in the field or at home. A unified queue, issue/content recognition, intelligent routing and knowledge-base integration allow agents to deliver a consistent customer experience and to respond effectively to service requests whatever the communication channel. Additional technologies that support service delivery in this multi-channel environment include CTI (computer telephony integration), ACD (automated call distribution), IVR (interactive voice response), chatbots, scripting, call recording, problem diagnostics and service analytics. As with other CRM applications, ICM is available on demand (hosted) or on premise (installed on the user's hardware). We have more to say about IVR, chatbots and scripting later in this chapter.

Automatic (or automated) call distribution (ACD) is a technology that recognizes, answers and distributes incoming calls. When the ACD system receives an incoming call it follows instructions as to how the call is to be handled. It can route the call to an agent, place it on hold, or route it to an IVR message. ACD allows calls to be automatically routed to the most appropriate agent based upon criteria such as the number from which the call was
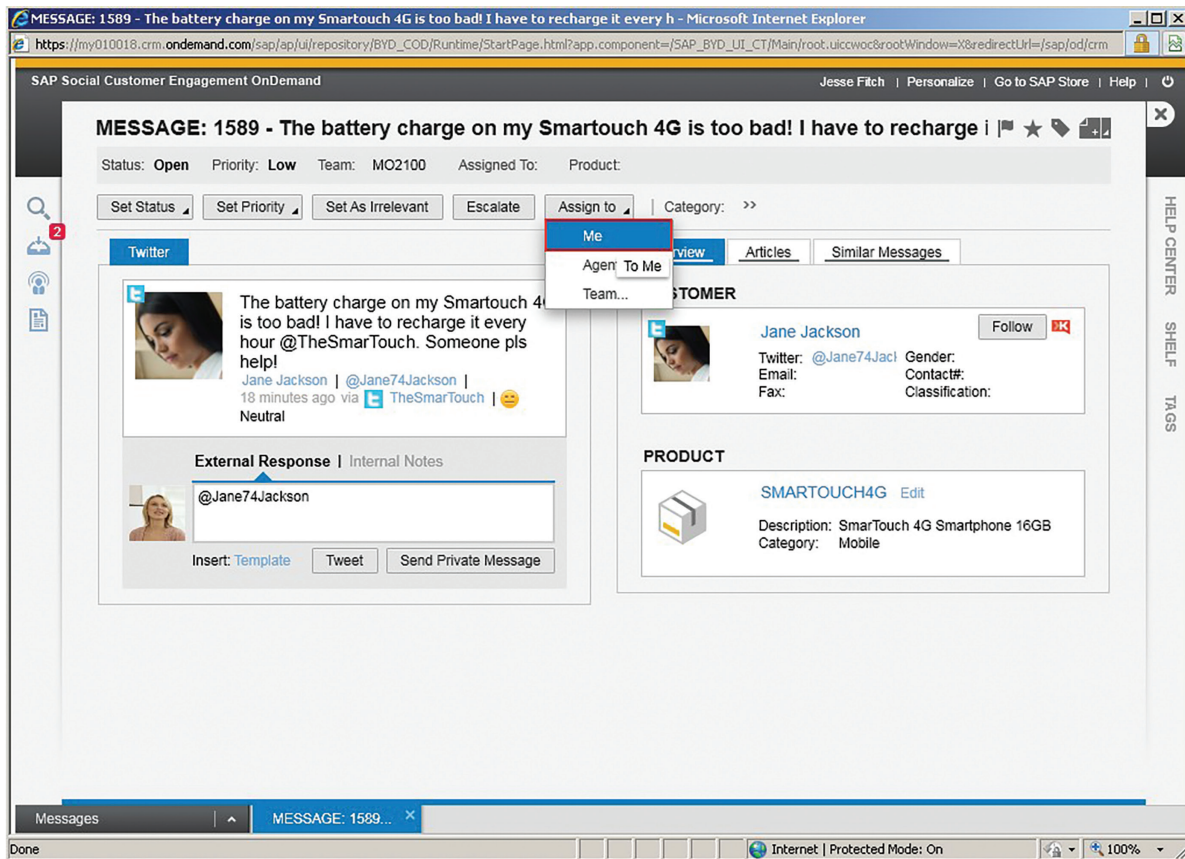
Figure 10.3 Agent response to Twitter feed[15]

made, customer identification number, language spoken by caller, agent expertise, product category, loyalty scheme membership tier and so on.

When engagement and call centers use a distributed workforce, some agents may be working from home and others from a company site. Cloud-based ICM applications allow users to browse to the application's functionality from wherever they are located.

Voice biometrics or voice recognition has become a reliable technology for authenticating a person's identity. Voice biometrics uses artificial intelligence to verify identity by comparing a person's voice with their voiceprint, a previously recorded representation of their voice. Voice recognition presents a bigger technological challenge than fingerprint or iris recognition, because voice characteristics can change, for example if the speaker has had a tooth removed or is suffering a cold or flu. Voice recognition can be used as a standalone authentication protocol but is more commonly deployed as an additional security layer, especially for organizations targeted by fraudsters – banks, insurance companies and healthcare providers. It provides stronger authentication than a knowledge-based approach by verifying people for who they are, as opposed to what they know, such as a PIN or mother's maiden name. Recent advances in voice biometrics are able to recognize the emotional state of the caller, for example if they are stressed, and route the call appropriately. Voice biometrics means customers do

CASE ILLUSTRATION 10.2

SERVICE CENTER AUTOMATION AT COCA-COLA[16]

Coca-Cola Bottling Unit (CCBU), a soft drinks manufacturer and distributor, is based in Lambeg, Northern Ireland. The company employs over 400 people and has 14,000 customers. The service support team deals with a range of incoming calls that include complaints, orders, enquiries, delivery and pricing.

The decision to install a single customer service touchpoint dates back to 1996 when a customer satisfaction survey indicated that although customers generally felt they were receiving good service, they wanted a single contact point for customer service.

CCBU's lack of a single contact point meant that inbound calls were not logged in a uniform way. This, in turn, hindered analysis of call content and frequency, and led to variance in the quality and consistency of responses to service queries. In addition, the company had no way of tracking if the advice given resolved the problem.

The company resolved these problems by introducing a single touchpoint for all service issues, and implementing the service automation product, HEAT. The support centre is split between customer services and customer complaints. HEAT is used to monitor product codes found on packaging and products, and when the support team finds three or more complaints that refer to any of these items then an alert message is sent direct to the incident team who then investigate.

CCBU installed service level agreements (SLA), scripted responses and screen customization, to ensure high levels of customer service. CCBU's implementation of SLAs means that if a call has not been resolved within a specified period of time it is automatically escalated. The system ensures all calls are logged and are therefore measurable. The customer service team underwent intensive training. Every new employee is trained in first-level response across the board, which enables everyone within the company to close standard queries and improve the service customers receive.

not need to answer a set of personal security questions at the start of contact with a call or customer engagement center. From management's perspective, if voice recognition saves an average of 20 seconds of the agent's time per call there is the prospect of a significant lift in agent productivity, and an improvement in customer experience.

Predictive dialing is a telephony technology widely used in engagement and call centers. It automatically dials groups of telephone numbers, and then passes calls to available agents once the call is connected. The technology quickly terminates calls that are met with no-answers, busy signals, answering machines or disconnected numbers while predicting when an agent will be available to take the next call. Predictive dialers measure the number of available agents, available lines, average handling time and other factors to adjust outbound calls accordingly.

Predictive dialers are commonly used for telemarketing, market research surveys, appointment confirmation, payment collection and service follow-ups. Vendors of this technology claim that predictive dialing raises agent productivity. Only calls that are answered by a live person are put through to an agent. Productivity is increased because agents do not make unsuccessful calls; that is left to the technology.

Queuing and routing applications allow issues to be routed to agents with particular expertise and positioned in that agent's queue according to some rule. Universal queuing

aggregates all inbound contacts into a single queue regardless of reception channel – voice, email, chat and social media – and applies a common routing rule. This delivers a fairer and more consistent customer experience. Without universal queuing, service performance is likely to vary between channels. Routing is usually determined by case assignment rules and position in the queue is determined by customer value or some other metric. The objective of queuing and routing is to ensure that every service issue is presented to the most appropriate agent for handling and resolution.

Email response management systems (ERMS) are software applications or services that manage large volumes of email messages. ERMS are available as standalone solutions, but the functionality offered by ERMS is also embedded in leading customer communications management (CCM) solutions as described above. ERMS functionality includes queuing, routing, acknowledgement, intelligent auto-responders, personalization, knowledge-base integration, productivity tools such as templates and multi-language grammar and spell checkers, archiving and email analytics. Email is an increasingly important part of the service automation landscape. Email is widely used for both inter-personal and inter-company communications. According to the Radicati Group, there were over 3.7 billion email accounts in 2017 with the number expected to rise to over 4 billion by 2021. Email remains the most common communication channel used by businesses. The total worldwide email traffic, including both business and consumer emails is expected to grow to about 320 billion emails per day by the end of 2021. Consumer email traffic is still growing due to many new households coming online, especially in less developed countries, although some consumers are opting for other forms of communication such as social networking sites, instant messaging and text messaging.[17] Low-cost or free VoIP calls may further inhibit consumer use of email.[18]

Customers increasingly expect companies to offer an email communication channel, not just for general communications but also for service-related issues. Company collateral, packaging and websites often list email addresses for individuals and departments. Up to 90% of company websites provide email contacts for customer service.[19] In addition, many companies have generic email addresses such as info@, sales@ and support@. Where companies choose to receive customer emails into generic email boxes, there needs to be a manual or automated system for reading and responding to them and routing them to responsible individuals where necessary. First-generation automated readers typically were trained to recognize keywords and respond accordingly. Second-generation readers recognize patterns across the entire email text rather than simply recognizing keywords. Pattern recognition has the added advantage of being able to detect the emotional tone of an email, so that a particularly angry customer might be identified and receive an immediate response. ERMS also have specialized spam recognition and filtering features, and anti-virus tools. According to Kaspersky Lab, the email and Internet security firm, about 68% of all email is spam.[20]

Routing rules in ERMS allow incoming emails to be routed into queues for particular agents or departments. Most ERMS allow clients to configure routing rules using an administrative interface that can only be accessed by authorized administrators. Routing rules can push emails to particular queues based on agent workload, agent language skills, agent product knowledge, subject matter expertise, customer value or some other variable. Routing speeds up resolution times and helps meet service levels. Routing also allows more important service requests, perhaps from more valued customers, to be escalated for resolution by higher authorities.

Effective deployment of an ERMS is often accompanied by the publication of service levels. Published service levels such as "We respond to all emails within eight hours" help to manage customers' service expectations and motivate employees to act accordingly. Service levels can vary between customer segments and product categories. For example, service issues raised by more valued customers, or related to newly launched products, might receive faster response.

Response time and response content are two important issues that customers consider in assessing service quality. ERMS can be set up to issue an immediate, personalized, acknowledgment and case (tracking) number on receipt of a service-related email. These auto-responses can also be used to set out the service promise, for example, that the issue will be resolved within seven days. Many ERMSs also contain response libraries for engagement center staff to browse if standard automated responses are inadequate. Other functionality in ERMSs include source filtering (only accepting emails from recognized sources), multiple email format compatibility (text only or html), ability to send and receive attachments, content filtering (filters out spam, duplicates and other nuisance emails), source blocking, auto-forwarding, auto-translation, BCC and management reporting. ERMSs can also be configured to keep the customer informed of progress in the resolution of the service request and in marketing campaigns to deliver outbound emails and SMS messages.

From the company's point of view, a number of service metrics shed light on the effectiveness of their email management processes: numbers of emails in queues, average response time, service level compliance, and agent productivity. From a service delivery perspective, the most important measure is customer satisfaction with response time and content.

Case management covers the full cycle of activities involved from receiving initial notification of a matter of concern to a customer to its final resolution and the case file being closed. Case management is also known as incident management and issue management. Case management applications enable case handlers to manage simple incidents, customer complaints and more complex cases and investigations. Case management processes are typically designed using workflow applications within SA software. Workflow depicts the activities that must be performed, the sequence in which they occur, and sometimes includes the standards to which the activities must comply. Workflow ensures that business rules are followed by case handlers. Cases, incidents or issues are initiated by the creation of a trouble ticket. Customers may be able to do this in multiple channels, including web-form, email, telephone, social media post and retail point-of-sale. The ticket is assigned to a service agent or engineer. The software automatically communicates with the customer at different trigger events such as scheduling of appointments, or follow-up after the case is closed. Case management software is often integrated with a service knowledge base that enables technicians to diagnose and fix problems quickly, document management, billing systems and a reporting engine.

Case assignment applications ensure that each enquiry or issue gets routed to the right agent or technician for resolution. Customer service agents might, for example, be organized according to language skills. When an email enquiry is received in Urdu it is assigned to the agent competent in that language. Field technicians might be organized according to product category. When a service request is received to fix a printer, it is assigned to a technician who is knowledgeable about that product class, not to a more expensive expert in photocopiers. Assignment rules may consider a wide range of other criteria including customer value, sales territory, issue complexity, and technician availability.
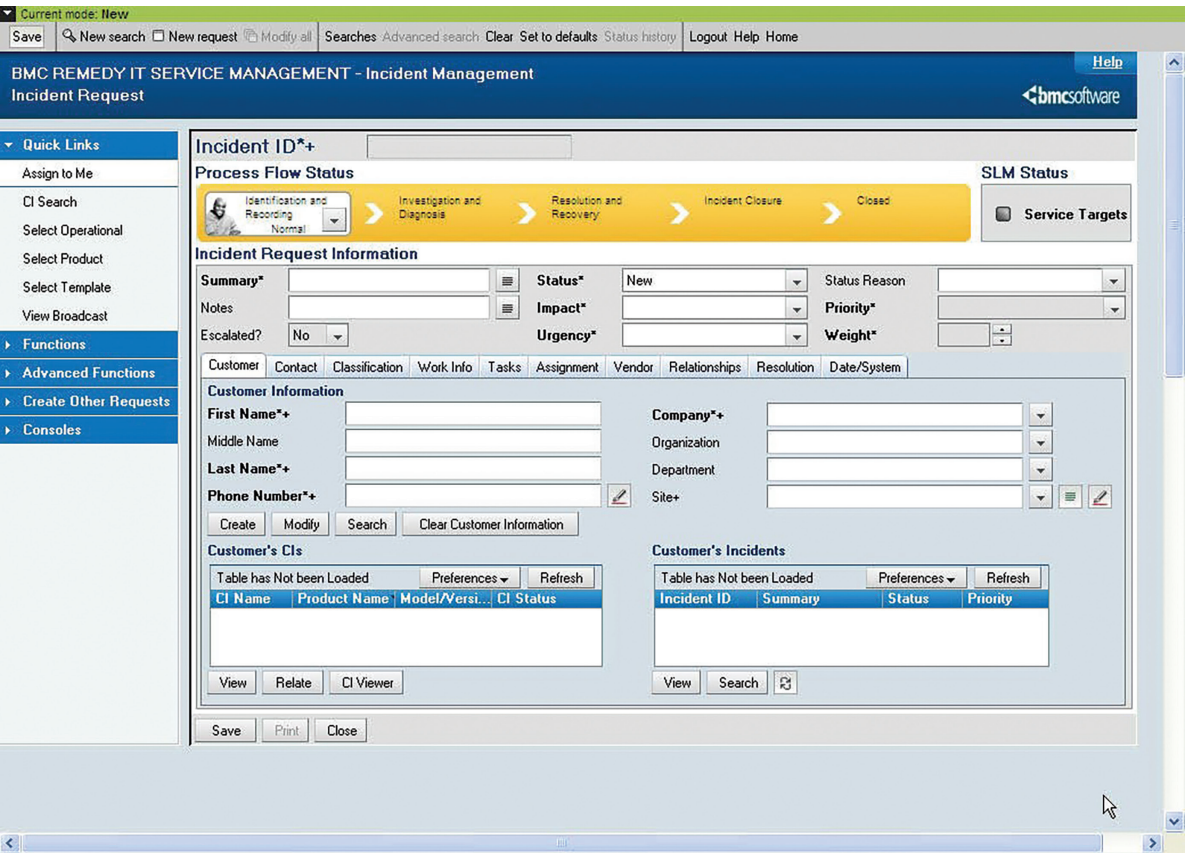
Figure 10.4 Trouble-ticket screenshot[21]

Escalation ensures that issues get escalated according to internally determined rules. Higher levels of authority typically have greater discretion to resolve issues. For example, a front-line customer service agent might be required to escalate to higher levels of management issues that have a potentially high cost or reputational consequence. A health insurance specialist escalates issues based on their cost implications as follows:

Level	Limit
Customer service agent	<$50
Team leader	<$100
Business unit manager	<$500
Executive manager	>$2000

Agents in the front line are trained to recognize issues that fall outside of the normal rules for health insurance provision and to escalate those issues accordingly. Escalation rules are typically built into case management applications.

Scripting enables customer service agents to converse intelligently with customers to diagnose and resolve problems, co-creating good customer experience and complying with

regulatory requirements, even though they may be untrained as product experts. Scripts are essentially linked screens that the agent talks through with the customer. The "right script" depends on the purpose of the call. When a customer calls to report a service problem it is critical that the script identifies the caller, clarifies the issue, assesses the significance of the issue (e.g. an electrical appliance malfunction might have life-threatening consequences), and establishes what the customer wants to achieve. In a service encounter, it may be inappropriate to include screens of script that have a selling objective. However, if the service issue is resolved at first contact, up-sell or cross-sell is likely to be more acceptable and productive. Scripts should be designed so that they flex dynamically according to customer response. Inflexible scripts generally deliver poor customer experience. Well-designed scripts deliver customer satisfaction, ensure compliance with any regulatory environment and enhance agent productivity. Scripts reduce agent training costs and time. Scripts are also used in outbound call center contexts.
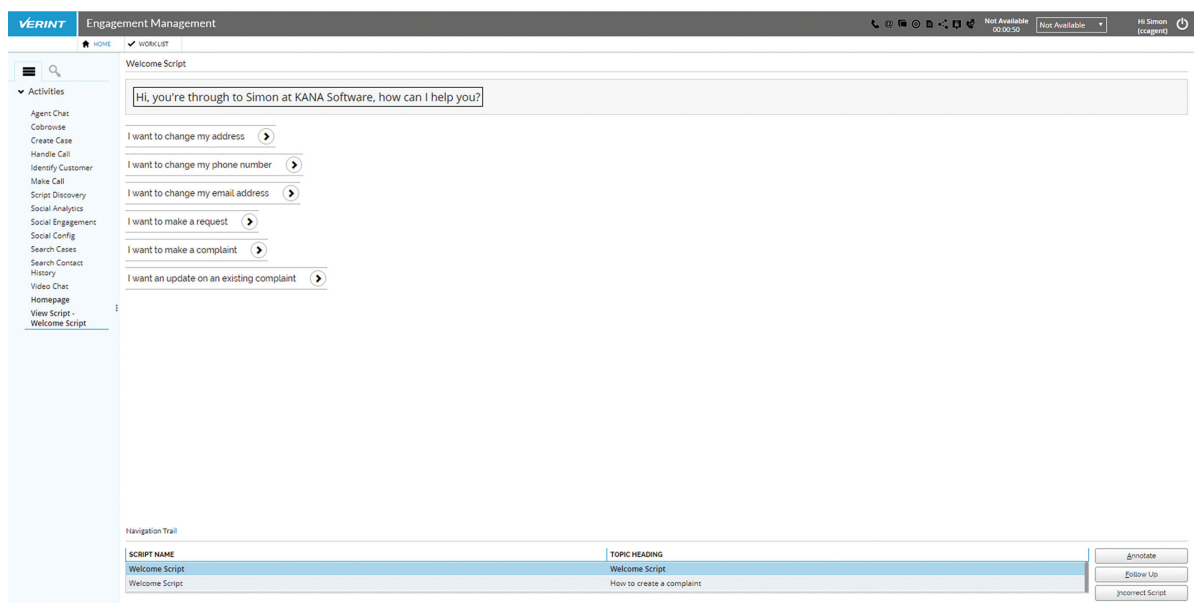
Figure 10.5 Customer service scripting screenshot[22]

Now, we examine functionality embedded in applications that principally support field service technicians.

Field service

Job management applications offer a range of functionality that is useful to service technicians and managers when planning and performing field service repairs, preventive maintenance, meter readings, inspections, installations, upgrades and other service tasks. Functionality ranges over cost estimation, quotation generation, creation of trouble tickets, job planning, project management, travel time and distance calculation, GPS mapping,

job clustering (to reduce travel time), calendaring, scheduling, spare parts management, job progress tracking, invoicing, service level management, technician dispatch, time management and product configuration. Jobs are associated with accounts, contacts, contracts or opportunities so that technicians can have access to all relevant customer information on site. Job management applications provide technicians with the tools to deliver efficient and effective service to customers, thereby enhancing service experience. Management reports generated by these applications enable managers to keep control over costs and optimize technician numbers and workload.
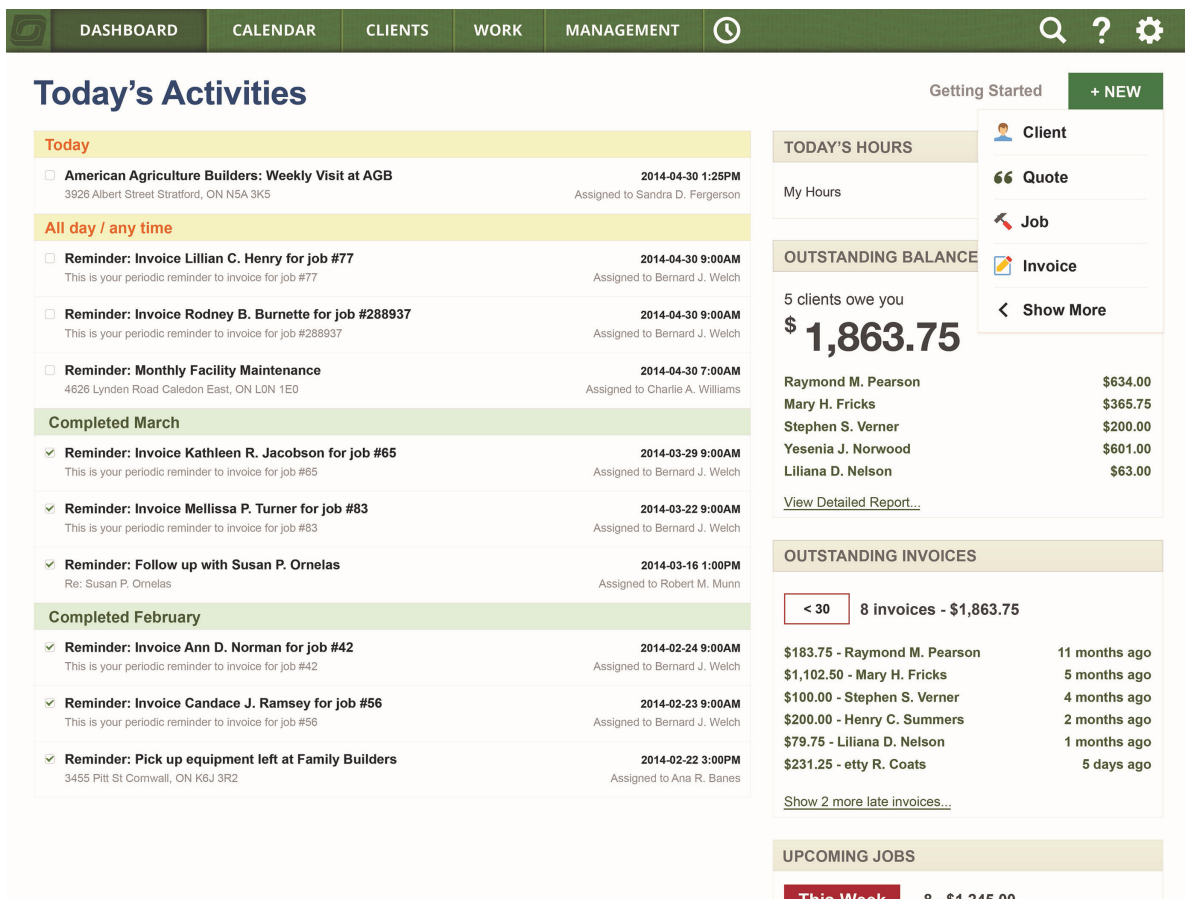
Figure 10.6 Job management application[23]

Activity management functionality enables service staff to review their workload, to-do list and priorities as directed by their manager or scheduler, to coordinate activities with other service staff, and to report back on progress, results and issue resolution. Some applications allow activities to be updated in real time by dispatchers and routed to the technician, so that work can be reprioritized. Alerts can be set so that appointments are not missed, to notify agents and their managers that issues are not resolved or service levels are about to be, or have been, violated. Activity management applications usually integrate with Outlook and

other calendaring and communications applications. Data in activity management apps need to be synchronized with the CRM database either in real-time or periodically, and attached to an account, contact or opportunity so that other customer contact staff have a complete view of customer interactions, and billable hours are recorded.

Scheduling involves planning and organizing a service technician's activity plan for a day, week or other period. A technician's schedule contains details on the customer, location, time, product and issue. Some scheduling applications take into account a range of considerations to ensure that the right technician is sent to service the customer. These include travel time and distance, technician availability, technician skills, customer access hours, service level agreement, availability of spare parts, and the technician's hourly rates of pay. Optimization engines allow schedules to be changed as new service tickets are created, priorities change, and technicians or parts become (un)available. Optimization reduces service costs while maintaining service performance levels. Scheduled tasks can be released in batches for days or weeks or drip-fed to technicians for the coming few hours.

Solutions that provide **mapping and driving** directions are very useful for service engineers who need to visit customers' homes or business premises. Taking into account the engineer's point-of-origin, service locations, job priorities, service level agreements and other variables, mapping solutions can minimize travel times and distances to ensure that service tasks are performed optimally.

Spare parts management is an important application for field technicians. They can see what parts they have with them on the road, check the inventory levels held by other technicians and at regional and central warehouses, order new parts, transfer parts from colleagues, manage excess and defective parts, and check on the progress of orders thereby ensuring that when they turn up at a job, they are properly equipped. Managers can also use this application to ensure that appropriate levels of parts inventory are maintained, and customers are billed correctly. Too few parts and jobs cannot be completed; too many and inventory costs are unnecessarily high.

Invoicing is a useful application for service technicians who are called to site to provide out-of-warranty service. Having completed the job to the customer's satisfaction, and captured the customer's signature electronically, the invoice can be raised on the spot and payment made immediately, thereby accelerating cash flow. Billing functionality is often integrated into other service automation applications such as case management and job management.

We now review some applications that support customer service management.

Customer service managers

Agent management is a high priority for call and engagement center managers. Managers want to employ the lowest headcount compatible with the desired level of customer service. Too few agents and customers will be dissatisfied with wait-times; too many agents and payroll costs will be unnecessarily high. Customers and managers both want issues to be resolved quickly by agents. Technologies that contribute to this outcome include queuing, scripting, and knowledge management, which are discussed in more detail elsewhere. Agent managers may be faced with the challenge of managing globally dispersed service agents, employed both in-house and out-sourced, operating in different times zones, languages and currencies.

Dashboards provide managers with visibility into the performance of both centers and individual agents. A large number of key performance indicators are used in call and engagement center environments. These vary between inbound and outbound contexts. Among the inbound metrics are the following:

- **Volumes received**. The total number of inbound contacts across all channels.

- **Average queuing time** is the average amount of time a customer is held in a queue awaiting agent response.

- **Average handle time (AHT)** is the average amount of time it takes to complete a call or other customer interaction, measured from the customer's initiation of the contact/call, including hold time, talk time and related record keeping tasks that follow the transaction. AHT is the major consideration when deciding agent numbers.

- **Abandon rate** is the percentage of calls in which the caller hangs up before agent response.

- **Service level** is measured as the percentage of calls answered with a given number of seconds or rings after reception into a call center. For example, 80% of calls answered in 20 seconds.

- **Response time** is the amount of agent time that is consumed in responding to 100% of inbound contacts. This metric is often specific to each channel and associated with a given objective, for example, "all customer email inquiries will be handled within eight hours."

- **First call (or contact) resolution (FCR)**. Customers want to have their question answered or issue resolved at their first contact with the service provider. They do not want to have to call back. SQM Group's research indicates that on average only 68% of first-time calls result in the issue being resolved to the satisfaction of the customer. According to the SQM Group "FCR is the highest correlated metric to customer satisfaction of all the call center metrics. Absence of FCR is the biggest driver of customer dissatisfaction."[24] FCR also leads to a better work experience for agents. Unsurprisingly, agent efforts to cross-sell during calls that do not achieve FCR are largely unsuccessful.

- **Self-service issue resolution**. Many call center managers want to deflect as many calls as possible from the agent queue to self-service systems – mainly IVR, chatbot and interactive web applications. This not only cuts costs, but also frees up agents to handle more complex issues. However, there may be a cost to the business in terms of reduced customer satisfaction and subsequent churn.

Outbound call centres may use a different set of indicators to evaluate agent effectiveness and efficiency. Assuming that the purpose of the outbound call is to make a sale, these may include:

- **First call close (FCC)** is the number of sales made on first call

- **Conversion rate** is the percentage of calls resulting in a desirable outcome including a sale or an agreed date/time for call-back

- **Call quality** can be assessed either by customer or supervisor
- **Calls per agent**. The number of calls completed by an agent in a specific time period
- **Average hold time** is the length of time a customer waits on hold to speak to an agent. Predictive dialers may place contacts on hold until an agent becomes free
- **Abandon rate** is the percentage of hang-ups from customers on hold
- **Average Call-Handling Time** (**AHT**) is the length of time an agent takes to conclude an interaction and may include both Talk Time and Wrap-up Time (involves updating the customer record and other administrative duties at the conclusion of a call).

Contract management functionality enables service engineers and managers to create, track, progress, accelerate, monitor and control service contracts with customers. Many companies now sell extended service contracts to customers when warranty periods have expired. Contract management software offers a range of functionalities: document management, contract authoring, workflow, email or SMS alerts (about contract expiry, for example), contract approval processes, contract security, collaborative contract development, licensing, electronic signatures, calendaring and to-do lists, for example.

Service level management (SLM) applications allow managers to establish, monitor and control the level of service that is offered to customers, and technicians to deliver the level of service agreed. As introduced in Chapter 6, a service level agreement is a contractual commitment between a service provider and customer that specifies the mutual responsibilities of both parties with respect to the services that will be provided and the standards at which they will be performed. Service levels can be agreed for a number of variables including availability (the percentage of time that the service is available over an agreed time period), usage (the number of service users that can be served simultaneously) and responsiveness (the speed with which a demand for service is fulfilled). SLM applications enable both parties to identify when potential problems such as service degradation occur and to respond quickly. Service levels are usually, but not always, subject to negotiation with customers. Many companies simply offer tiered levels of service to customers based on some metric of their own choice, typically customer value as measured by customer profitability or sales.

Technicians who understand the entitlements of customers can service requests to the specified limit, and even up-sell them to a higher level of service.

Service analytics provide managers with information on how effectively and efficiently customer service generally, and individual agents or technicians specifically, are operating, and how satisfied customers are with the service they receive. Important metrics for managers of field service operations, for example, include technician utilization, parts inventory, travel time, first time fix rate (FTFR), mean time to resolve (MTTR), and job backlog. FTFR tells managers how many cases were resolved at the technician's first call. MTTR measures the time elapsed between notification of the service request to the company and its final resolution. With this information, managers can obtain new resources, reassign staff, offer training, or recalibrate key performance indicators to enhance service delivery. Service analytics provide insight into the cost-to-serve a customer, and therefore help calculate customer profitability. Many SA applications incorporate embedded analytics that produce standard reports and enable OLAP to be performed. Oracle's Service Analytics product, for example, includes prebuilt data models with more than 300 metrics.
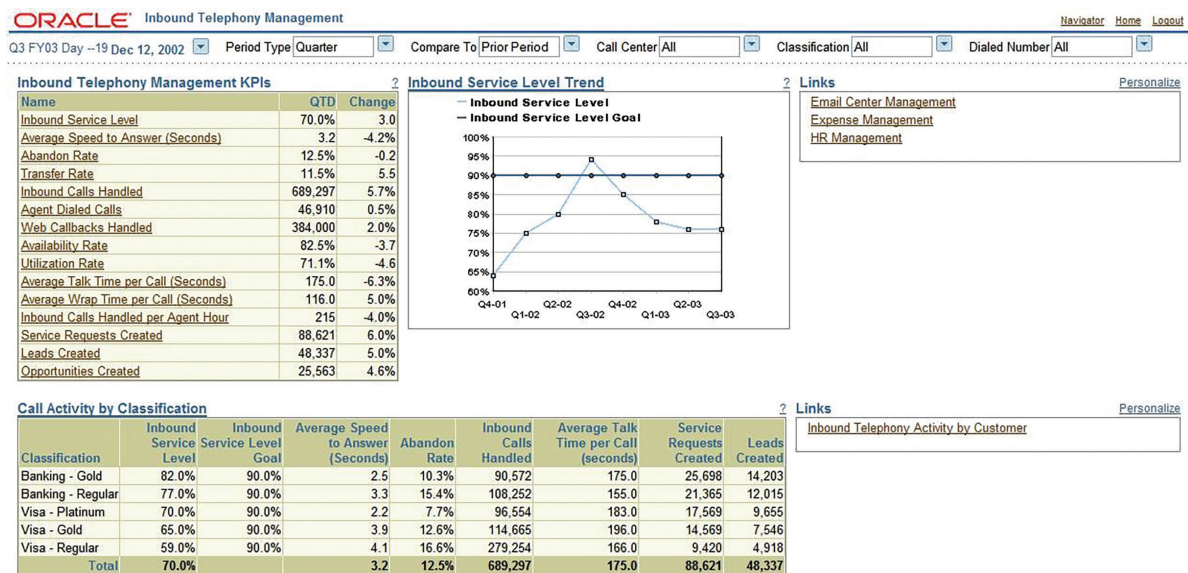
Figure 10.7 Oracle inbound telephony dashboard[25]

Workflow development software is useful for designing service-related processes, such as problem diagnosis and issue escalation. Workflow for field service operations will define how service requests are validated, how service tickets are issued, how tickets are allocated, how problems will be diagnosed, how parts will be ordered, how problems will be fixed, how customers will be invoiced, and so on.

Customers

Customer self-service (CSS) is an attractive option for companies because it transfers the responsibility and cost for service to the customer. For simple customer transactions such as notifying changes to contact details, companies that offer self-service deflect a significant number of inbound calls. More broadly, by improving systems and online content, companies can reduce call volumes by 20% or more, which results in substantial savings. Average call center costs are $5.50 per call, whereas the average cost per web self-service transaction is $0.10. Even in small call centers annual self-service savings quickly reach the six-figure mark and many enterprises can realize cost reductions in the multi-millions.[26] Customers are typically more competent at self-serving when transactions are involved (e.g. online banking or music downloads); however, they are less competent when problem-resolution is concerned. Research suggests that Millennials are more comfortable using self-service options.[27] Forrester Inc. reports that 72% of customers attempt to self-resolve their service query online initially instead of making contact with a human service agent.[28] Companies that introduce self-service technologies

need to understand that this fundamentally alters customer experience and may have consequences for customer satisfaction and retention. Some customers love self-service because they are in control, can get the service they need at any time and there is no agent attempting to sell them something. Other customers prefer human interaction. CSS technologies have been around for a long time – automated teller machines (ATMs) were introduced in 1967! Today CSS technologies include:

Interactive voice response (IVR). IVR uses voice or touch tone key pad input from callers to guide them through a tiered menu structure to the information they require as quickly as possible.

Kiosks enable customers to perform specific tasks such as checking in at an airport.

Self-checkout is available in supermarkets and hotels. In the supermarket customers can scan, bag, and pay for purchases at checkout. Theft of goods at self-service is an issue for supermarket operators. They need to assess whether the costs of customer theft are greater than the cost savings from self-service.

Web self-service. Customers can perform routine transactions online, and access information by searching a knowledge base or reviewing a FAQ page. Customer service agents may also be heavy users of a knowledge base as they try to resolve issues.

Portals are widely used to enable customers to self-serve. Customers use portals to place orders, pay and check order and shipment progress, any day, any time. Searchable online knowledge bases also facilitate problem resolution by customers. Customers can browse for answers to their queries or solutions to their problems. In the event that this is unsuccessful, companies can allow customers to use an online web form to create a case or an issue for the company to follow up and resolve or offer web collaboration (see below). Many companies have policies about what sorts of portal-based customer self-service are allowed. For example, cable network customers can upgrade their package through a portal but have to call an agent to downgrade or cancel their package. These calls are directed to a "saves" team who try to persuade the customer not to reduce their expenditure. Some companies support peer-to-peer self-service (P2PSS). P2PSS is evident when customers report their experiences, issues and solutions in chat rooms, forums and social media, and offer assistance to each other. Companies can support this effort with content from their knowledge base.

Chatbots are becoming more widely adopted in customer service settings. A chatbot (or bot) is an interactive software-based service that emulates human conversation in either a speech or chat interface. At its simplest, a bot follows programmed rules and is unable to engage in free-flowing interaction. More complex chatbots, however, are powered by artificial intelligence and can answer complex customer queries or conduct transactions. Bots can be located within any chat- or speech-enabled technologies including website, mobile app, social media, messaging services and interactive voice response (IVR). Some bot interactions are initiated by the customer, some by the bot. For example, if you were spending a few seconds on a web page, a proactive bot window might pop up asking if you need any help. Bots are becoming more sophisticated. Early

bots were able to understand natural language and respond to queries by drawing on data in content or knowledge databases. The next generation of bots integrated with CRM databases to provide personalized customer-specific interaction. The latest generation of bots is a closer approximation of real-time human-to-human interaction that is aware of history and context, handles complexities and executes actions. The distinction between chatbots and Virtual Assistants (see below) blurs at this level of sophistication. Bot interactions are retained in a database that can be explored for insight, improving the content or knowledge that the bots use. Research suggests that chatbots have some way to go before they rival human-to-human interaction. One survey of 3000 consumers following bot interactions revealed that over half the sample found that bots were either "not effective" or only "somewhat effective." Consumers complained that bots aren't intelligent enough and get stuck not knowing what to do next. Worse, when transferred to a live agent, callers had to repeat all the same information just delivered to the bot.[29]

Virtual assistants are not the same as chatbots. A virtual assistant (VA), according to Gartner, Inc. is "a conversational, computer-generated character that simulates a conversation to deliver voice- or text-based information to a user via a Web, kiosk or mobile interface. A virtual assistant incorporates natural-language processing, dialogue control, domain knowledge and a visual appearance (such as photos or animation) that changes according to the content and context of the dialogue. The primary interaction methods are text-to-text, text-to-speech, speech-to-text and speech-to-speech."[30]

Technological VA's are modeled on human VA's, but they are digital. VA's typically differ from chatbots in their complexity. Chatbots are normally deployed for a very limited range of functions including customer support or automated purchasing, but VA's have a much broader range of applications. VA's use artificial intelligence algorithms and machine learning in such a way that they can respond intelligently to just about any request and improve their performance over time. Well-known standalone VA brands include Google Home and Amazon Echo, whereas Apple's Siri, Microsoft's Cortana and Google's Assistant are built into mobile devices.

Virtual reality (VR) is a computer-generated simulation of a 3D image or environment that people can interact with, normally by use of a head-mounted display or gloves fitted with electronic sensors. VR is a highly immersive experience for users. VR is just beginning to find its place in customer service automation. VR presents customers with the ability to "test drive" any product before making a purchase decision. Travel agents, for example, use VR to immerse customers in a number of alternative destinations. Unlike most of the content of this chapter, which is about service after purchase, this application of VR enhances service before purchase. VR can also be used in customer service training, to expose the trainee to a variety of service contexts requiring different types of response. Field-service agents can use VR to troubleshoot a problem on the customer's premises.

Apps. Many companies have developed apps that are loaded onto smartphones, tablets or other devices, allowing customers to perform tasks like checking an account balance, checking weekly specials at local stores, or finding out the time of the next bus.

CASE ILLUSTRATION 10.3

T-MOBILE AUSTRIA'S CHATBOT

T-Mobile Austria has launched a smart customer service chatbot with a conversational interface. Her name is Tinka and she was launched to the public with an extensive PR-campaign, unprecedented for the launch of a self-service solution.

Before she was transformed into the conversational chatbot, Tinka was already an intelligent assistant or virtual agent. She used natural language processing to provide answers to T-Mobile Austria customers online. But it wasn't conversational, it was simple Q&A. After her transformation to a conversational bot she has a lot more to offer. Some of the key features are:

- The conversational interface
- Embedded rich media like videos, pictures, etc.
- Seamless transfer to live agent support, embedded in the interface
- Flexible understanding via spell checking (algorithm based)
- Memory: remembers chat history, across multiple sessions
- Integration of multiple knowledge sources (knowledge base, community platform).

T-Mobile Austria measured Tinka's impact using Net Promoter Score (NPS). In six months following launch NPS for Tinka rose from –36 to +16. NPS has now stabilized at around 0, suggesting that Tinka is now viewed as a routine part of T-Mobile Austria's customer service landscape. An increasing number of T-Mobile Austria's customers are using Tinka as a digital self-service assistant.
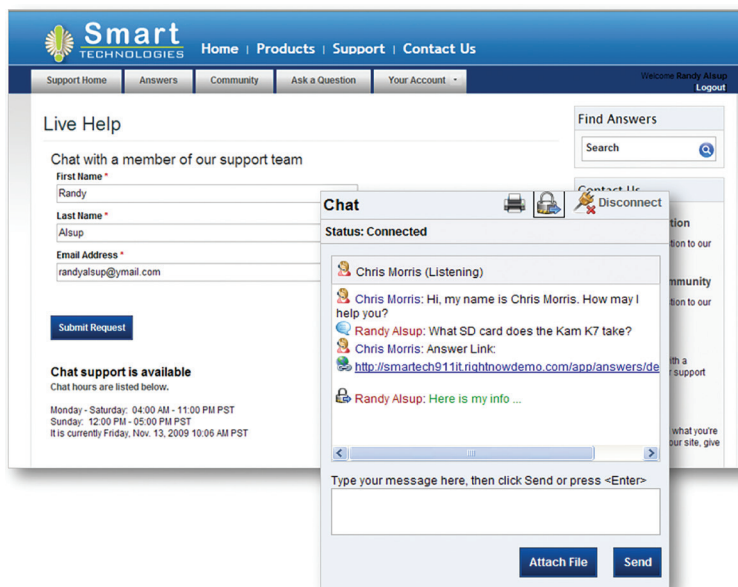
Figure 10.8 Chat window (Oracle Smart technologies) screenshot [31]

Web collaboration is a collective term for the online, social and software tools that enable customers and customer service agents to interact in real-time to solve customer problems. These technologies include instant messaging (web chat), web-conferencing, co-browsing of web pages, and file-sharing (calendars, to-do lists, videos, documents, presentations and other files). Customer service agents can collaborate with a number of customers simultaneously or can prioritize based on customer value or some other metric. Transcripts of the chat can be retained and attached to the customer file. Web collaboration is often used as an escalation option for customers who cannot find a solution to their issue through a self-service portal. Web collaboration may reduce online abandonment rates, increase problem resolution and customer satisfaction, and provide up-sell and cross-sell opportunities.

CONCLUSION

Service automation is the application of computerized technologies to support service managers, and customer service agents in customer engagement- and call-centers, help-desk staff and mobile service staff operating in the field, in the achievement of their work-related objectives. Academics, practitioners and government agencies have attempted to understand and characterize customer service and service quality. Companies and their customers can experience many benefits from service automation: enhanced service effectiveness and efficiency, greater service productivity, better agent work experience, and improved customer experience, engagement and retention. Service automation applications offer a wide variety of functionality used in different contexts. Customer engagement and call center operations benefit from applications that support customer communications management, inbound and out-bound communications management, email response management, case management, case assignment and escalation. Voice biometrics, predictive dialing, queuing and routing, and scripting support customer service agents in call centers. Field technicians benefit from applications that support from job management, activity management, mapping and driving, spare parts management and invoicing. Service managers enjoy technological support for agent management, contract and service level management, service analysis and development of workflow. A number of customer self-service technologies ranging from the well-established (interactive voice response, portals, kiosks and self-checkout) to the more innovative (bots, virtual assistants, apps and virtual reality) also find a place in the service automation landscape.

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ANALYTICAL CRM

Section D is about analytical CRM, sometimes known as analytic CRM. Analytical CRM is the process through which organizations transform customer-related data into actionable insight for either strategic or tactical purposes. Those strategic purposes might include finding out which customers have the highest lifetime value, so that the business can ringfence them, or segmenting the customer base so that different value propositions can be created for the identified segments. Tactical uses of analytical CRM might include identifying which customers are at risk of churning so the business can create an offer that encourages them to remain customers, or identifying the next best offer that will cross-sell a customer, and therefore grow customer value.

Analytical CRM relies on customer-related data. Section D therefore consists of two chapters. Chapter 11 is about customer-related data and database creation, and Chapter 12 is about making use of the data.

DEVELOPING AND MANAGING CUSTOMER-RELATED DATABASES

<div style="border">

CHAPTER OBJECTIVES

By the end of the chapter you will understand:

1. The central role of customer-related data in the achievement of CRM outcomes.

2. The importance of data quality to CRM performance.

3. The issues that need to be considered in developing a customer-related database.

4. How data integration contributes to CRM performance.

5. The purposes of a data warehouse and data mart.

6. The uses of knowledge management systems in CRM.

</div>

INTRODUCTION

Customer-related data are essential for the execution of CRM strategy. Proficiency at acquiring, enhancing, storing, analyzing, distributing and using customer-related data is critical to CRM performance. Strategic CRM, which focuses on winning and keeping profitable customers, relies on customer-related data to identify which customers to target, win and keep, and which to allow to churn. Operational CRM, which focuses on the automation of marketing, selling and customer service processes, needs customer-related data to be able to run successful marketing campaigns, track sales opportunities and deliver excellent service.

We use the expression "customer-**related** data" instead of "customer data" deliberately. The data that are employed for CRM purposes are not only **about** customers (i.e. "customer databases"), but also **for** customers.

Data that are **for** customers include data about products and solutions to service issues. These data are typically stored in searchable knowledge bases and made available to customers themselves as well as a company's own CRM users and business partners though portals and in other ways. Commercially sensitive or confidential information is usually password protected.

Data **about** customers are not only available in corporate databases maintained in functional areas such as marketing, sales, service, logistics and accounts, but are also available from third parties such a market research firms and credit scoring agencies, and increasingly in social media such as Facebook, Twitter and YouTube.

Our use of the expression "customer-related" covers data that are both about and for customers.

CORPORATE CUSTOMER-RELATED DATA

Companies typically do not have just one customer database. Instead, they have a number of customer-related databases. These databases capture customer-related data from a number of different functional perspectives – marketing, sales, service, logistics and accounts – each of which serves different operational purposes. These databases typically record quite different customer-related data – campaigns, opportunities, enquiries, deliveries and billing, respectively.

Customer-related data might be independently maintained by managers running operations in channels such as company-owned retail stores, third-party retail outlets and online. Similarly, different product managers might maintain their own customer-related data. Customer-related data can have a current, past or future perspective, focusing, for example, upon the current sales pipeline, historic sales, or potential opportunities. Customer-related data might be about individual customers, customer cohorts, customer segments, market segments or entire markets. They might also contain product information, competitor information, regulatory data or anything else pertinent to the development and maintenance of customer relationships.

STRUCTURED AND UNSTRUCTURED DATA

Most of the data maintained in corporate databases are structured. Data stored in a fixed and named field in a record or file are called structured data. Structure is provided by a pre-defined data model that specifies the data to be stored in each field, how that data should be recorded (alphanumeric codes or literal text, usually) and how the fields are related to each other. Commercial CRM applications usually come with pre-defined data models. The types of data that are relevant to a banking industry CRM application are quite different from a life sciences CRM application, and the data models are therefore quite different. CRM users within particular industries often customize pre-defined models to make them fit better with their own particular business and customer context.

Structured customer-related data are stored in three different types of database.

1   Hierarchical.

2   Network.

3   Relational.

Hierarchical and network databases were the most common form between the 1960s and 1980s. The hierarchical database is the oldest form and not well suited to most CRM applications. You can imagine the hierarchical model as an organization chart or family tree,

in which a child can have only one parent, but a parent can have many children. The only way to get access to the lower levels is to start at the top and work downwards. When data are stored in hierarchical format, you may end up working through several layers of higher-level data before getting to the data you need. Product databases are generally hierarchical. A major product category will be subdivided repeatedly until all forms of the product have their own record.

To extend the family tree metaphor, the network database allows children to have one parent, more than one parent or no parent. Before the network database had the chance to become popular, the relational database superseded it, eventually becoming an ANSI standard in 1971.[1]

Relational databases are now the standard architecture for CRM applications that use structured data. Relational databases store data in two-dimensional tables comprising rows and columns, like a spreadsheet. Relational databases have one or more fields that provide a unique form of identification for each record. This is called the primary key. For sales databases, each customer is generally assigned a unique number, which appears in the first column, there being a unique number on each row. Companies that have other databases for marketing, service, inventory, payments and so on, use the customer's unique identifying number to connect the data held in the various databases.

Relational databases share a common structure of files, records and fields (also called tables, rows and columns). Files (tables) hold information on a single topic such as customers, products, transactions or service requests. Each file (table) contains a number of records (rows). Each record (row) contains a number of elements of data. These elements are arranged in common set of fields (columns) across the table.

Structured data are widely found in corporate databases maintained in sales, marketing, service, logistics and accounts departments. Third party data sources such as market research firms and credit scoring agencies also provide structured data.

Unstructured data, by comparison, are data that do not fit a predefined data model. Unstructured data take the form of textual or non-textual files. Textual corporate unstructured data includes emails, PowerPoint presentations, Word documents, SMS imessages, PDFs, spreadsheets and agent notes on a customer's service history. Non-textual data includes recorded telephone calls and other MP3 files, images in JPEG and other formats, video in Flash and other formats, and multi-media messages. The massive increase in unstructured corporate data not only creates storage costs, but also presents challenges to privacy and confidentiality. Imagine the consequences of internal emails about product specifications and costs finding their way into competitors' hands.

In addition, there has been a huge lift in the amount of unstructured data produced by users of social media and elsewhere. This data includes metering data, climate data, mobile phone GPS signals and stock ticker data. The momentum in the growth of unstructured data is expected to accelerate into the future. This type of data has become known as big data. Big data presents an opportunity for businesses only if the data can be interpreted and acted upon. We first introduced you to Gartner's Hype Cycle in Chapter 9. The Hype Cycle is a visualization of the excitement, disillusionment and achieved reality of new technologies. Gartner's Hype Cycle for big data suggests that many applications of big data are years from being useful, let alone mature. However, some big data technologies useful to CRM practitioners – voice recognition, predictive analytics, social media monitoring and text analytics, for example – are with us today.[2]

DEVELOPING A CUSTOMER-RELATED DATABASE

While unstructured data present some serious challenges and opportunities for CRM practitioners, the "bread-and-butter" in CRM is still the relational database. We therefore explore in more detail how to develop and manage structured customer-related databases. There are six major steps, as shown in Figure 11.1.

Define the database functions

The first step is to answer the question "why do we need customer-related data?" This question means that the business has to revisit to the CRM vision, strategy, goals, objectives and business case, to identify what is expected from CRM. We discuss these issues in more detail in Chapters 13 and 14. However, in general, CRM practitioners use customer-related data for all three forms of CRM – strategic, operational and analytical.

Strategic CRM uses customer-related data to identify which customers to target for acquisition, retention and development, and generate insight for the appropriate value propositions and experiences to offer them. Operational CRM uses customer-related data in the everyday selling, marketing and customer service operations of the business. For example:

- A telecommunications company's customer service representative (CSR) needs to access a customer record and check the customer's status so she can prioritize the company's response to a service request.
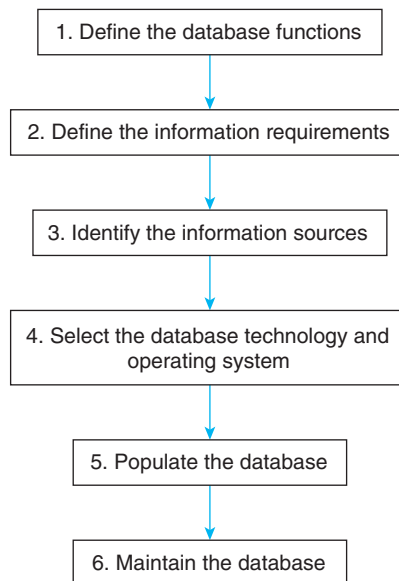
Figure 11.1 Steps in creating a relational database[3]

- A hotel receptionist needs access to a guest's history so that she can reserve the preferred type of room – smoking or non-smoking, standard or deluxe.

- A sales person needs to identify the status of an opportunity and decide on what actions to take before calling on a customer.

Analytical CRM uses customer-related data to support the marketing, sales and service decisions that aim to enhance the value created for and from customers. For example:

- A telecommunications company's marketers might want to target a retention offer to customers who are signaling an intention to switch to a different supplier.

- A hotel company's sales team might want to promote a weekend break to customers who have indicated high levels of satisfaction in previous customer surveys.

- A website uses customer-related data to present the next best offer dynamically to customers as they navigate through the site.

Customer-related data are typically organized into two subsets, reflecting these operational and analytical purposes. Operational data reside in an OLTP (online transaction processing) database, and analytical data reside in an OLAP (online analytical processing) database. The information in the OLAP database is normally a summarized extract of the OLTP database, enough to perform the analytical tasks. OLTP data need to be very accurate and up-to-date. When a customer calls a contact center to enquire about an invoice, it is no use the agent telling the customer what the average invoice is for a customer in her postcode. The customer wants personal, accurate and contemporary information. OLAP databases, on the other hand, can usually perform well with less current data.

Define the information requirements

The people best placed to answer the question "what information is needed?" are those who interact with, or communicate with, customers for sales, marketing and service purposes, and those who have to make strategic CRM decisions.

A direct marketer planning an email campaign might want to know open and click-through rates, and click-to-open (CTOR) rates from previous campaigns, broken down by target audience, offer and execution. She would also want to know email addresses, email preferences (html or plain text), and preferred salutation (First name? Mr? Ms?). Operational and analytical needs like these help define the required contents of customer-related databases.

Senior managers reviewing a company's strategic CRM decisions will require a completely different set of information. They may want to know the following. How is the market segmented? Who are our current customers? What do they buy? Who else do they buy from? What is our share of wallet? What are our customers' requirements, expectations and preferences across all components of the value proposition, including product, service, channel, and communication?

As noted earlier, packaged CRM applications do much of the database design work for users. The availability of industry-specific CRM applications, with their corresponding industry-specific data models, allows for a much closer fit with a company's data needs. Where

there is a good fit out-of-the-box, the database design process for both operational and analytical CRM uses becomes one of implementing exceptions that have been overlooked by the generic industry model.

Customer information fields

CRM software is usually modularized. For example, a sales force automation (SFA) application will contain comprehensive information about contacts, opportunities, cases, activities and other issues that are important for the sales rep to work effectively and efficiently on her accounts. See, for example, the screenshot from SugarCRM in Figure 11.2, which has modules for accounts, opportunities, quotations, campaigns, knowledge base and cases, among others. Similarly, the email marketing application in Figure 11.3 has modules for contacts, email campaigns, resources, surveys and social, among others. Each of these modules is associated with a number of predefined fields of data. For example, the contacts module will have fields for contact name, email address, salutation, preferred email format (html or plain text) and status (whether active or not).

Identify the information sources

Information for customer-related databases can be sourced internally or externally. Internal data are the foundation of most CRM programs, though the amount of information available about customers depends upon the degree of customer contact that the company has. Some companies sell through partners, agents and distributors and may have little knowledge about the demand chain beyond their immediate contact.
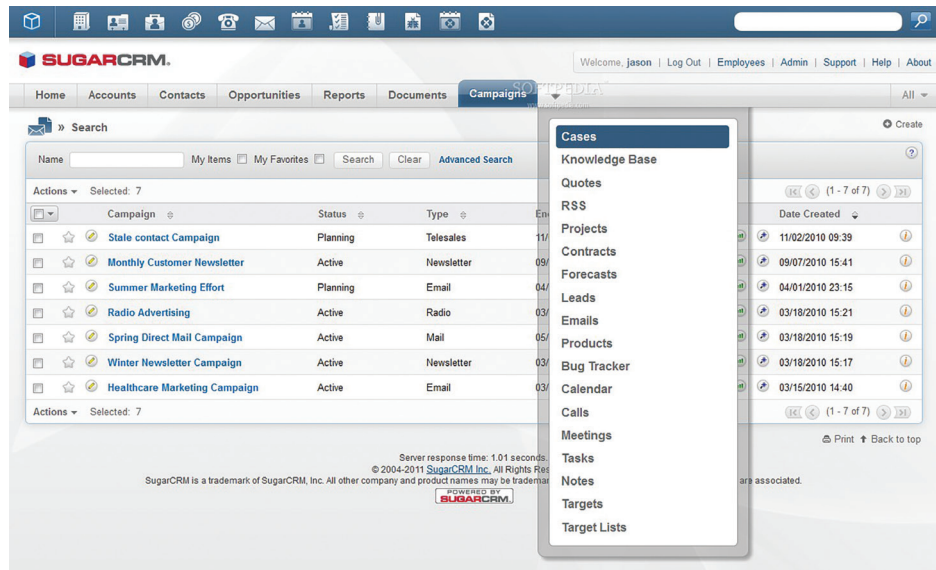
Figure 11.2 SugarCRM screenshot[4]

Figure 11.3 Email marketing application[5]

Internal data are found in various functional areas. Marketing might have data on market size, market segmentation, customer profiles, customer acquisition channels, marketing campaigns, product registrations and requests for product information. Sales might have records on customer purchasing history including recency, frequency and monetary value, buyers' names and contact details, account number, SIC code, important buying criteria, terms of trade such as discounts and payment period, potential customers (prospects), responses to proposals, competitor products and pricing, and customer requirements and preferences. Customer service might have records of customers' service histories, service requirements, customer satisfaction levels, customer complaints, resolved and unresolved issues, customer issues raised in social media, enquiries, and loyalty program membership and status. Finance may have data on credit ratings, accounts receivable and payment histories, and finally, the web master may have click-stream data.

Customer-related data maintained by the functional areas might not be easily captured and migrated to databases used for CRM purposes. Sales reps, for example, might keep customer records in hard copy, spreadsheets or Microsoft Access databases. Marketers might have customer-related data in management reports created in Word. Very often, CRM project leaders find that there is a massive amount of duplication of data. For example, sales, marketing and service records may all have customer email addresses. It is not unusual for the email specifics to be different. Many CRM projects therefore incorporate a data quality phase in which these idiosyncratic records are identified, obtained and qualified. The most accurate and relevant information is then imported into the CRM database.

Enhancing internal data

If internal data are insufficient for CRM purposes, external data can be imported to enhance the customer record. External data can be imported from a number of sources including market research companies and corporate database companies such as Nielsen and Experian.

External data can be classified into three groups: compiled list data, census data and modeled data.[6]

Compiled list data are individual level data assembled by list bureaux or list vendors. They build their lists from a variety of personal, household and business sources. They might use local or council tax records, questionnaire response data, warranty card registrations or businesses' published annual reports. If you were a retailer considering diversifying from leisurewear into dancewear and had little relevant customer data of your own, you might be interested in buying or renting a compiled list from an external source. The list could be compiled from a variety of sources, such as:

- Memberships of dance schools
- Student enrolments on dance courses at school and college
- Recent purchasers of dance equipment
- Lifestyle questionnaire respondents who cite dance as an interest
- Subscribers to dance magazines
- Purchasers of tickets for dance and musical theatre.

Census data are obtained from government census records. In different parts of the world, different information is available. Some censuses are unreliable; other governments deny third parties, such as companies, access to data for non-governmental use.

In the US, where the census is conducted every ten years, you cannot obtain census data at the household level, but you can at a more aggregated geo-demographic level, such as zip code, block group and census tract. Census tracts are subdivisions of counties. Block groups are subdivisions of census tracts, the boundaries of which are generally streets. Census data available at geo-demographic level include:

- Median income
- Average household size
- Average home value
- Average monthly mortgage
- Percentage ethnic breakdown
- Marital status
- Percentage college educated.

Individual-level data are better predictors of behavior than aggregated geo-demographic data. However, in the absence of individual-level data, census data may be the only option for enhancing internal data. For example, a car reseller could use census data about median income and average household size to predict who might be prospects for a campaign.

Modeled data are generated by third parties from data that they assemble from a variety of sources. You buy processed, rather than raw data from these sources. Often, they have performed clustering routines on the data. For example, Claritas has a customer classification scheme called PRIZM that helps marketers segment customers and prospects so they can be reached with tailored messages and offers. PRIZM combines demographic, consumer behavior, and geographic data to allocate every US household to one of 66 demographically and behaviorally distinct types, or segments.

CASE ILLUSTRATION 11.1

PRIZM MARKET SEGMENTATION (US EXAMPLE)[7]

YOUNG DIGERATI (PRIZM Segment 4) are the nation's tech savvy singles and couples living in fashionable neighbourhoods on the urban fringe. Affluent, highly educated and ethnically diverse, they live in areas typically filled with trendy apartments and condos, fitness clubs, clothing boutiques, casual restaurants and all types of bars – from juice to coffee to microbrew.

KIDS & CUL-DE-SACS (PRIZM Segment 18) are upscale, suburban, married couples with children. Kids & Cul-de-Sacs are a lifestyle group of large families in recently built subdivisions. With a high rate of Hispanic and Asian-Americans, this segment is a refuge for college-educated, white-collar professionals with administrative jobs and upper-middle-class incomes.

HEARTLANDERS (PRIZM Segment 43) consists of older couples with working-class jobs living in sturdy, unpretentious homes. In these communities of small families and empty-nest couples, they pursue a rustic lifestyle where hunting, fishing, camping and boating remain prime leisure activities.

Some CRM applications come pre-integrated to external data sources. For example, Salesforce.com users can import data from Dun & Bradstreet's corporate information database. Outside of these linkages, if you want to use external data to enhance your internal data, you'll most likely have to send a copy of the data that you want to enhance to the external data source. The source will match its files to yours using an algorithm that recognizes equivalence between the files (often using names and addresses). The source then attaches the relevant data to your files and returns them to you.

Secondary and primary data

Customer-related data are either secondary or primary. Secondary data have already been collected, perhaps for a purpose that is very different from your CRM requirement. Primary data are collected for the first time, either for CRM or other purposes.

Primary data collection through traditional means, such as surveys, can be very expensive. Companies have therefore had to find relatively low cost ways to generate primary customer data for CRM applications. Among the data-building schemes that have been used are the following:

- **Competition entries**. Customers are invited to enter competitions of skill, or lotteries. They surrender personal data on the entry forms.

- **Subscriptions**. Customers are invited to subscribe to a newsletter or magazine, again surrendering personal data.

- **Registrations**. Customers are invited to register their purchase, at which time they also provide additional data such as name, address and contact details.

- **Loyalty programs**. Many companies run loyalty programs. These enable companies to link purchasing behavior to individual customers and segments. When joining a program, customers complete application forms, providing the company with personal, demographic and even lifestyle data.

Select the database technology and operating system

The database technology and operating system decisions are usually subsumed into the selection of CRM application software. CRM application vendors usually support a specified list of database technologies, for example, Oracle, MySQL, DB2 or SQL Server. It is possible to buy an entire integrated platform, consisting of hardware, operating system (OS), database technology and CRM applications. Leading operating systems include UNIX and Microsoft. A UNIX-based technology package might incorporate a number of hardware/OS/database options such as Hewlett Packard hardware, Digital UNIX operating system, and Oracle database. An IBM-based technology package might employ AS/400 hardware, OS/400 operating system and DB2/400 database. CRM project managers and CRM users rarely have to consider database technology and OS issues because modern CRM applications are either bought packaged with database technology and operating system, or support a number of specified database and OS technologies.

If a company were to decide to build its own CRM application it would have to select an operating system (Linux, Unix, Microsoft, Mac, for example) and a database backend (e.g. SQL Server, MySQL and DB2).

The choice of hardware platform is influenced by several conditions:

- **The size of the databases**. Even standard desktop PCs are capable of storing significant amounts of customer-related data, and CRM applications.

- **Existing technology**. Most companies will already have technology that lends itself to database applications.

- **The number and location of users**. Many CRM applications are quite simple, but in an increasingly global market place the hardware may need very careful specification and periodic review. For example, hardware might need to enable a geographically dispersed, multi-lingual user group to access real-time data for operational CRM purposes, 24/7.

Populate the database

Having decided what information is needed and the database and hardware requirements, the next task is to obtain the data and enter it onto the database. CRM applications need data

that are appropriately accurate. We use the term "appropriately" because the level of accuracy depends upon the functions of the database. As noted earlier, operational CRM applications generally need more accurate and contemporary data than analytical applications. Be aware, though, that the datasets used for analytical purposes are often extracted from operational databases, and therefore high quality data are often available for analysis.

You may have experienced the results of poor quality data personally. Perhaps you have received a mailed invitation to become a donor to a charity to which you already donate. This could have happened when a prospecting list that has been bought by the charity was not checked against current donor lists. Perhaps you have been addressed as Mrs. although you prefer Ms. This is caused because the company has either not obtained or not acted upon your communication preferences.

Most new CRM projects have a data quality project early on. Operational CRM systems that import poor quality data from sales reps hand-written call reports or field service engineers' weekly activity reports are likely not to create good customer experience in the short term. However, data quality can be built over time by checking with every customer contact that the data on the system is correct.

The main steps in ensuring that the database is populated with appropriately accurate data are as follows

1   Verify the data.

2   Validate the data.

3   De-duplicate the data.

4   Merge and purge data from two or more sources.

Verification. The task of verification is to ensure that the data have been entered exactly as found in the original source. This can be a very labor-intensive process since it generally involves keying the data in twice with the computer programmed to flag mismatches. An alternative is to check visually that the data entered matches the data at the primary source.

Validation means that you check the accuracy of the data that are entered. There are a number of common inaccuracies, many associated with name and address fields: misspelt names, incorrect titles and inappropriate salutations. A number of processes can help validate data:

- **Range validation.** Does an entry lie outside the possible range for a field?
- **Missing values.** You can have the computer check for values that are missing in any column.
- **Check against external sources.** You could check postcodes against an authoritative external listing from the mail authorities.

De-duplication is also known as de-duping. Customers become aware that their details appear more than once on a database when they receive identical communications from a company. This might occur when external data are not cross-checked against internal data,

when two or more internal lists are used for the mailing or when customers have more than one address on a database. There may be sound cost reasons for this – de-duplication does cost money – but from the customer's perspective it can look wasteful and unprofessional, and it delivers poor customer experience. De-duplication software is available to help in the process.

The de-duplication process needs to be alert to the possibility of two types of error:

1 **Removing a record that should be retained.** For example, if a property is divided into unnumbered apartments, and you have transactions with more than one resident, then it would be a mistake to assume duplication has occurred and to delete records. Similarly, you may have more than one customer in a household, bearing the same family name or initials, and in this case it would also be wrong to remove one record.

2 **Retaining a record that should be removed**. For example, you may have separate records for a single customer under different titles such as Mr. and Dr.

Merge and purge, also known as merge-purge, is a process that is performed when two or more databases are merged. This might be necessary when an external database is merged
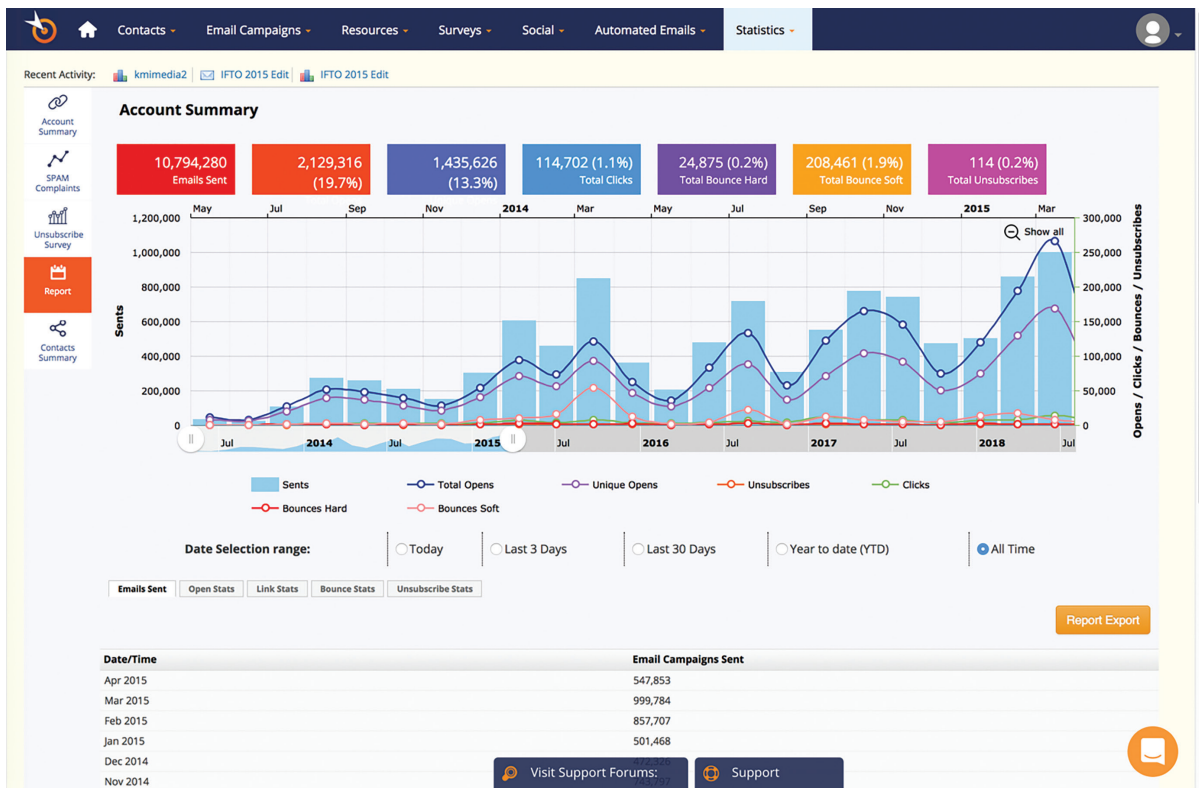
Figure 11.4 Output from merge-purge operation[8]

to an internal database, when two internal databases are merged (e.g. marketing and customer service databases), or when two external lists are bought and merged for a particular purpose such as a campaign. There can be significant costs savings for marketing campaigns when duplications are purged from the combined lists.

Maintain the database

Customer-related databases need to be updated to keep them useful. Consider these statistics:

- One in five managing directors change jobs in any year
- 8% of businesses relocate in any year
- In the UK, 5% of postcodes change in an average year
- In Western economies about 1.2% of the population dies each year
- In the US, over 40 million people change addresses each year.

As a result, it does not take long for databases to degrade. Companies can maintain data integrity in a number of ways.

- Ensure that data from all new transactions, campaigns and communications is inserted into the database immediately. Companies may need to develop rules and assign responsibilities to ensure this happens.
- Regularly de-duplicate databases.
- Audit a subset of the files every year. Measure the amount of degradation. Identify the source of degradation: is it a particular data source or field?
- Purge customers who have been inactive for a certain period of time. For frequently bought products, the dormant time period might be six months or less. For products with a longer repeat purchase cycle, the period will be longer. It is not always clear what a suitable dormancy period is. Some credit card users, for example, may have different cards in different currencies. Inactivity for a year only indicates that the owner has not travelled to a country in the previous year. The owner may make several trips the coming year.
- Drip-feed the database. Every time there is a customer contact there is an opportunity to add new or verify existing data.
- Get customers to update their own records. Customers can be given access to some parts of their record, and be allowed to edit the data. When Amazon customers buy online, they need to confirm or update payment and delivery details.
- Remove customers' records on request.
- Insert decoy records. If the database is managed by an external agency, you might want to check the effectiveness of the agency's performance by inserting a few dummy records into the database. If the agency fails to spot the dummies, you may have a problem with their service standards.

Users with administrative rights can update records. Database updating and maintenance is also enabled by database query language. Common languages are SQL (Structured Query Language) and QBE (Query By Example). Database maintenance actions available in SQL include UPDATE, INSERT and DELETE commands. INSERT, for example, adds a new record to the database.

Desirable data attributes: STARTS

Maintaining customer-related databases means that CRM users will be more likely to have their need for accurate and relevant data met. Accuracy and relevance are two of six desirable data attributes that have been identified – data should be shareable, transportable, accurate, relevant, timely and secure.[9] You can remember these desirable data attributes through the mnemonic STARTS.

Data need to be **shareable** because several users may require access to the same data at the same time. For example, profile information about customers who have bought annual travel insurance might need to be made available to customer service agents in several geographic locations simultaneously as they deal with customer enquiries in response to an advertising campaign.

Data need to be **transportable** from storage location to user. Data need to be made available wherever users require. The user might be a hot-desking customer service representative, a delivery driver en route to a pick-up, an independent mortgage consultant or a salesperson in front of a prospect. Today's international corporations with globally distributed customers, product portfolios across several categories, and multiple routes to market face particularly challenging data transportation problems. Electronic customer databases are, of course, essential for today's businesses, together with enabling technologies such as data synchronization, wireless communications and web browsers to make the data fully transportable.

Data **accuracy** is a troublesome issue. In an ideal world it would be wonderful to have 100% accurate data. But, data accuracy carries a high level of cost. Data are captured, entered, integrated and analyzed at various moments in time and locations. Any or all of these processes may be the source of inaccuracy. Keystroke mistakes can cause errors at the point of data entry. Inappropriate analytical processes can lead to ill-founded conclusions. In CRM, data inaccuracy can lead to undue waste in marketing campaigns, inappropriate prospecting by salespeople, and a generally suboptimal customer experience. It also erodes trust in the CRM system, thus reducing usage. This leads to further degradation of data quality. Newsagent and book retailer WH Smith attributes the high response rates of CRM-enabled direct marketing to the accuracy of its database. For example, an offer of celebrity chef Delia Smith's book *How to Cook* achieved an 8% response rate after the successful implementation of a data quality project, which was a significant improvement upon WH Smith's historic norms.

Relevant data are pertinent for a given purpose. To check a customer's credit worthiness, you need their transaction and payment histories, and their current employment and income status. To flag customers who are hot prospects for a cross-sell campaign, you need their propensity-to-buy scores.

Timely data are data that are available when needed. Data that become available only after a decision is made are unhelpful. Equally, decision-makers do not want to be burdened

with data before the need is felt. Bank tellers need to have propensity-to-buy information available to them at the time a customer is being served, not before or after.

Data **security** is a hugely important issue for most companies. Data, particularly data about customers, are a major resource and a source of competitive advantage. Data provide the foundation for delivery of better solutions to customers, and better customer experience. Companies do need to protect their data against loss, sabotage and theft. Many companies regularly back up their data. Security is enhanced through physical and electronic barriers such as firewalls. Managing data security in a partner environment is particularly challenging, as it is essential that competing partners do not see each other's sales lead and opportunity information, despite being signed into the same CRM system through the same portal. We discuss data security further in the introduction to Section C of the book.

DATA INTEGRATION

As noted earlier, in most companies there are several customer-related databases, maintained by different functions or channels. Companies often face the challenge of integrating data from several sources into a coherent single view of the customer. Sometimes, this becomes a significant challenge in a CRM project, and a necessary hurdle to cross before implementing operational CRM applications in marketing, sales or service environments. Data integration requires the customer's identity to be traceable in all interactions with the firm, and that any anomalies between the records in various databases are identified and resolved. The major CRM vendors offer solutions to this problem. SAP, for example, offers master data management as part of its business integration platform. This enables companies to capture and consolidate data from different sources into a centralized database.

For companies with older mainframe (legacy) systems, another solution to the problem of database integration is to adopt newer systems with a centralized database that can accept real-time inputs from a number of channels.[10] However, legacy systems are typically batch-processing systems. In other words, they do not accept real-time data. Many technology firms have developed software and systems to allow companies to integrate databases held on different legacy systems. Sometimes, middleware has to be written to integrate data from diverse sources. Middleware is a class of software that connects different parts of a system that would not otherwise be able to communicate with each other. Middleware can be thought of as a kind of "glue" that holds a network together.

Unless data are integrated, companies cannot create the single view of the customer (SVOC) that provides CRM users with visibility into a customer's history of interactions with the business whether through marketing, sales or service, and across all channels (see Figure 11.5). Failure to integrate data may lead to costly operational inefficiencies, duplication of work, poor customer experience and damaged customer relationships. Customers might experience the effects of poor integration when they have bought an item online only to be later offered the same item through a different channel of the same company.

Customer data integration relies on standardization of data across databases. An indicator of the magnitude of the problem is that when Dun & Bradstreet was integrating data from several sources to create a marketing database, it found 113 different entries for the company AT&T alone. These included ATT, A.T.T., AT and T, and so on.
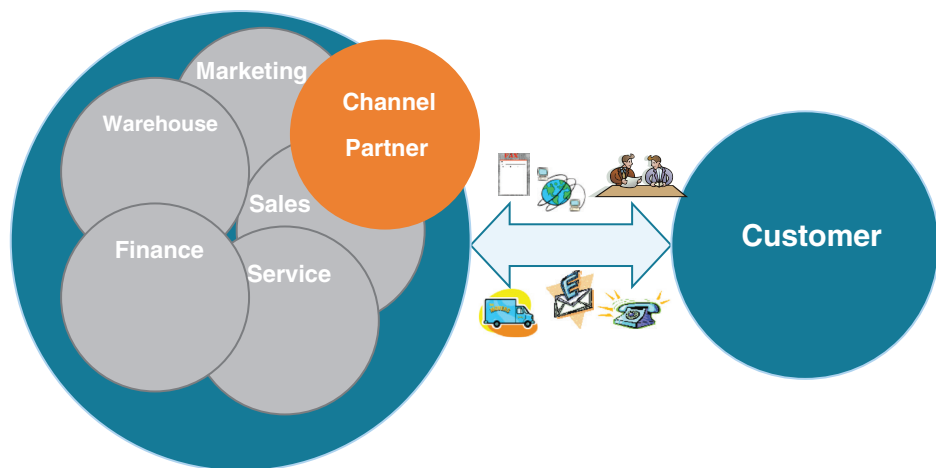
Figure 11.5 Single view of the customer

CASE ILLUSTRATION 11.2

DATA INTEGRATION AT THE AMERICAN HEART ASSOCIATION

The American Heart Association (AHA) is a not-for-profit US health organization dedicated to reducing disability and death from heart attack, stroke and related cardiovascular disorders.

One of the AHA's major goals has been improving its relationships with stakeholders, including many thousands of volunteers conducting unpaid work for the organization, donors, businesses and the media. However, a challenge facing the AHA in achieving this goal was integrating the organization's data, which previously comprised over 150 separate databases, often geographically isolated and specific to certain departments within the organization, which provided a limited view of customers profiles and history of activities.

AHA chose to implement a CRM software system across the organization to integrate all existing databases. Since implementation, the AHA has found that its staff are far more productive, it is able to respond to customers more quickly and provide more personalized service. Donations from customers have increased by over 20%, using the integrated system to contact potential donors, compared to previous efforts.

DATA WAREHOUSING

As companies have grown larger they have become separated both geographically and culturally from the markets and customers they serve. Disney, an American corporation, has

operations in Europe, Asia-Pacific and Latin America as well as in the US. Benetton, the Italy-based fashion brand, has operations across five continents. In retailing alone it operates about 5000 stores and concessions. Companies like these generate a huge volume of data that needs to be converted into information that can be used for strategic and operational purposes.

The data warehouse is a solution to that problem. Data warehouses are repositories of large amounts of operational, historical and other customer-related data. Data volume can exceed terabyte levels, i.e. 2^{40} bytes of data. Indeed, as we write, the world's largest data warehouse contains over 12.1 petabytes (21,100 terabytes) of raw data.[11] Data warehouses are repositories for data imported from other databases, and typically feature an analytical front-end that enables analysts to deploy a range of statistical processes to make sense out of the data. Retailers, home shopping companies and banks have been enthusiastic adopters of data warehouses.

Watson describes a data warehouse as follows:[12]

- **Subject-oriented**. The warehouse organizes data around the essential subjects of the business – customers and products, for example – rather than around applications such as inventory management or order processing.

- **Integrated**. It is consistent in the way that data from several sources is extracted and transformed. For example, coding conventions are standardized: M = male, F = female.

- **Time-variant**. Data are organized by various time-periods, (e.g. months).

- **Non-volatile**. The warehouse's database is not updated in real time. There is periodic bulk uploading of transactional and other data. This makes the data less subject to momentary change.

There are a number of steps and processes in building a data warehouse. First, you must identify where the relevant data are currently stored. This can be a challenge. When the Commonwealth Bank of Australia opted to implement CRM in its retail banking business, it found that relevant customer data were resident on over 80 separate systems. Second, data must be extracted from those systems. It is probable that when these systems were developed they were not expected to align with other systems.

The data then need to be transformed into a standardized and clean format. Data in different systems may have been stored in different forms, as Figure 11.6 indicates. Also, the cleanliness of data from different parts of the business may vary. The culture in sales may be very driven by quarterly performance targets, and getting sales reps to maintain their customer files might not be straightforward. Much of their information may be in their heads. On the other hand, direct marketers may be very dedicated to keeping their data in good shape.

After transformation, the data then need to be uploaded into the warehouse. Archival data that have little relevance to today's operations may be set aside, or only uploaded if there is sufficient space. Recent operational and transactional data from the various functions, channels and touchpoints will most probably be prioritized for uploading.

Refreshing the data in the warehouse is important. This may be done on a daily or weekly basis depending upon the speed of change in the business and its environment.

- Data standardisation
  - Personal data: m/f, M/F, male/female
  - Units of measurement: metric/imperial
  - Field names: sales value, Sale$, $val
  - Dates: mm/dd/yy, dd/mm/yyyy, yyyy-mm-dd
- Data cleaning
  - De-duplication
  - Updating and purging
  - Misuse of data entry fields e.g. use phone field to record email address

Figure 11.6 Data transformation

Some large data warehousing projects have taken years to implement and yielded few measurable benefits,[13] and according to Sen and co-authors, 50% of data warehousing projects fail to meet their delivery targets.[14]

CASE ILLUSTRATION 11.3

DATA WAREHOUSING FOR CRM PURPOSES[15]

U.S. Xpress Enterprises is a leading American trucking company with US$1.6 billion in annual revenue. Having grown through acquisition, the company relied on multiple IT systems and lacked visibility into its nationwide operation and affiliate companies. The company lacked control over costs and operations, as many diverse systems and processes were used throughout the business. To solve this, the company built a data warehouse and implemented Microsoft Dynamics CRM to provide the information and process structures for consistent company-wide operations such as strategic planning, bidding, sales, and marketing. The data warehouse has delivered a single view of the customer (by integrating data held in the acquired companies' systems), enabled the company to streamline preparation for sales calls, and recover as much as $350,000 a year in lost-opportunity costs. The company has realized improved sales productivity and improved its closure rates on new business.

DATA MARTS

A data mart is a scaled down version, or subset, of the data warehouse, customized for use in a particular business function or department. Marketing and sales may have their own data marts enabling them to conduct separate analyses and make strategic and tactical decisions. Data mart projects are less complex projects – costs are lower because the volume of data

stored is reduced, the number of users is capped and the business focus is more precise. Technology requirements are less demanding.

KNOWLEDGE MANAGEMENT

An important contributor to effective CRM is storing and leveraging customer-related knowledge.

We define knowledge management (KM) from a CRM perspective as follows:

Knowledge management is the practice of gathering, organizing, storing, interpreting, distributing and judiciously applying knowledge to fulfil the customer management goals and objectives of the organization.

When deployed for CRM purposes, most KM systems are IT-based. They feature databases, networks (intranet or extranet) and tools. Databases contain the customer-related information. Intranets allow employees to have access to that knowledge. Extranets give external users such as customers and partners access to that knowledge. The tools can include search engines, collaborative platforms (for user input), and content management tools. KM systems aim to give customers, employees and other approved users, timely access to the organization's knowledge.

The achievement of CRM goals and objectives, about which we have more to say in Chapters 13 and 14, relies in part on how well customer-related knowledge is deployed at customer touchpoints. Those touchpoints include websites, shopfronts, social media, contact centers, sales reps and field service technicians. Customers visit these touchpoints in search of information. For example, customers who have problems assembling a piece of self-assembly furniture may visit a company website looking for instructions. If they can't find what they want, they may call a customer service agent. Both the customer and the agent will be searching a knowledge management system for solutions to the problem. A business partner who is considering buying merchandise from a supplier for the first-time may visit the supplier's portal to learn useful information about the item's relative advantages over competitors, price, availability and after-sales support.

Earlier in this chapter, you read about six attributes of good quality data, captured in the mnemonic STARTS: shareable, transportable, accessible, relevant, timely and secure. Knowledge available at the touch-points needs to satisfy those 6 same criteria.

Knowledge needs to be shareable if several users require access to the same data at the same time, as might happen in the case of product specification data. Knowledge also needs to be transportable from storage location to user. Data need to be made available wherever and whenever users require – on the website and on a service engineer's laptop. Knowledge also needs to be appropriately accurate. Price lists and transaction histories need to be absolutely up-to-date, whereas it might be acceptable for market-related data such as industry sales forecasts to be 12 months out-of-date. Relevant information needs to be available at the touch points. Sales reps do not want to wade through masses of irrelevant information before they find what they need. Timely knowledge is available when needed. Knowledge that is important for competitive advantage needs to be secure.

CONCLUSION

This chapter has introduced you to the data foundations of analytical CRM. Analytical CRM is the process through which organizations transform customer-related data into actionable insight for either strategic or tactical purposes. Customer-related data include both data about customers and data for customers. Customer-related data are available in both structured and unstructured forms within and outside organizations. Structured data are typically available in relational databases maintained by operational units including marketing, sales, customer service, logistics and accounts. Companies can use external data sources to enhance their internally available customer-related data. Types of externally available data include compiled list data, census data and modeled data. In recent years there has been a massive increase in the amount of customer-related data – often unstructured – available in social media and other big data sources. We describe a six-step process for developing a customer-related database: define the database functions, define the information requirements, identify the information sources, select the database technology and operating system, populate the database, and maintain the database. Problems at each stage are identified, and solutions proposed. We explain how CRM practitioners attempt to enhance the quality of data by acquiring customer- related data from competition entries, subscriptions, registrations and loyalty programs. The main processes in ensuring that databases are populated with appropriately accurate data are data verification, data validation, de-duplication and merge-purge. Desirable data attributes include data being shareable, transportable, accurate, relevant, timely and secure. We close with a review of the importance to CRM of data warehouses, data marts and knowledge management.

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USING CUSTOMER-RELATED DATA

INTRODUCTION

This is the second of two chapters on analytical CRM, sometimes also known as analytic CRM. Analytical CRM is the process through which organizations transform customer-related data

into actionable insight for either strategic or tactical purposes. The processes that make up analytical CRM include data acquisition (often through operational CRM), data enhancement, data preparation, data analysis and data delivery. With artificial intelligence (AI) and marketing automation, the line between analysis and action is blurring and, increasingly, analytical CRM is algorithmically driven such that the whole process of data gathering–analysis–action occurs in real time without manual intervention. Data scientists write the algorithms that drive the whole process.

CRM analytics has grown in importance over the past 20 years. Organizations have realized that merely streamlining customer-facing operations in marketing, sales and service is not enough. Analytics can provide a deeper insight into the customer, enabling organizations to improve key CRM outcomes such as the creation of customer value, improved customer satisfaction and engagement, reduced propensity to churn and lower cost-to-serve. Moreover, we have recently witnessed an unprecedented explosion of customer-generated data that promises more profound insight and ability to predict behaviors. Customers generate data through online search, purchase, location (mobile phones, smart devices) and activity on social media. Businesses have never before been in this position of having such a comprehensive picture of prospects and customers. In B2B, smart devices, blockchain and logistics systems allow companies a more comprehensive picture of their customers' processes and value that they extract when they use products and services. Fortunately, technology is now able to keep up with the explosion of data and businesses can better harness all that data and increasingly analyze it with tools that more and more managers understand.

Analysis of customer-related data supports both strategic and operational CRM. Strategic CRM focuses on the development of a customer-centric business dedicated to winning and keeping (potentially) profitable customers by cost effectively creating and delivering value better than competitors. Analysis of customer-related data can help answer crucial strategic CRM questions such as: which customers should we serve? What is our share of customer spending on our category? What do our customers think and feel about their experience of doing business with us? What parts of our value proposition are superior or inferior to competitors? Who are our major competitors and what are their strengths and weaknesses? How do our customers use our offerings and how can we help them extract more value?

Analysis of customer-related data can help answer crucial operational CRM questions such as: which channels should we use to communicate with our customers? What offers should we make, and when should we make them? How does our sales performance differ across territories and product ranges, and how can we fix any problems? How well do we manage our opportunity pipeline? How satisfied are customers with the service we provide and what can be done to improve it?

Most CRM software applications generally allow users to produce simple descriptive reports, but for deeper insights other forms of analysis are often needed. Figure 12.1 shows how this is usually structured. Data from various sources including the CRM system, the enterprise resource planning (ERP) system and elsewhere are deposited into a data warehouse. An analytics software package is added to the configuration so that users, whether in marketing, sales, service or management, can interrogate and make sense out of the warehoused data. Insights are delivered to these users through their devices in the form of reports, which can be standardized or *ad hoc*, OLAP (online analytical processing) outputs or data mining reports. We have more to say about each of these forms of output later in the chapter.
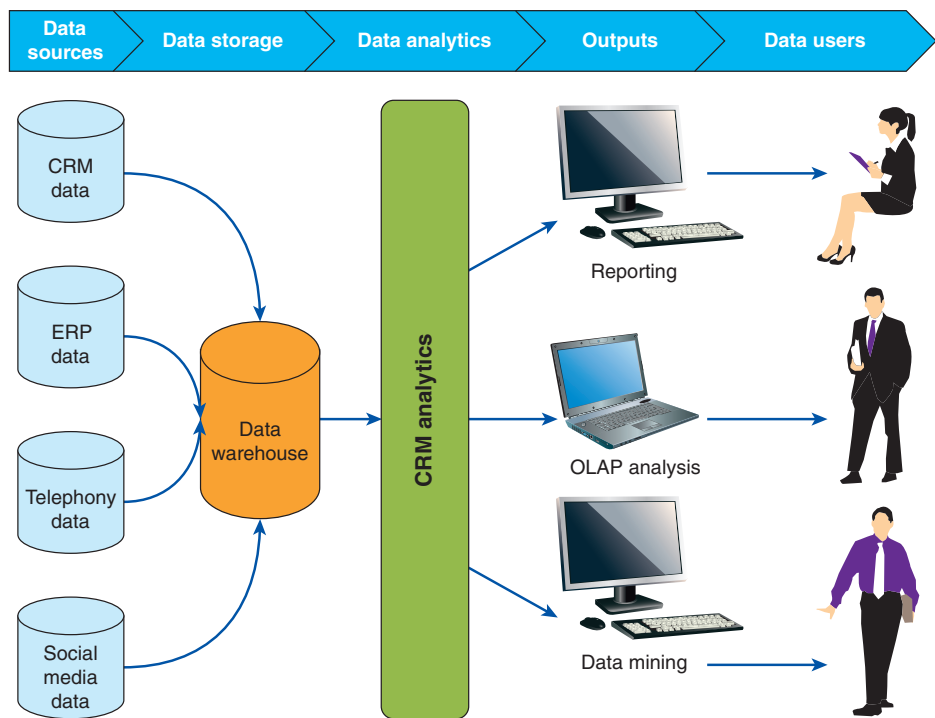
Figure 12.1 Basic data configuration for CRM analytics

ANALYTICS FOR CRM STRATEGY AND TACTICS

Time frame is the key differentiator between strategy and tactics. The word "strategy" is derived from the Greek *stratēgia* (generalship) and has come to mean a plan of action to achieve a long-term goal. Tactics are the particular maneuvers that are carried out to achieve the goal. CRM programs typically pursue one or more of three broad strategic goals: building revenues, reducing costs or enhancing customer loyalty/satisfaction/engagement.

For example, a company using CRM to build revenues would develop and execute cross-sell and up-sell marketing campaigns aimed at current customers, build strong bonds to ring-fence relationships with the most valued customers, generate more sales leads, acquire more new customers, and close more opportunities. The tactics for building loyalty/satisfaction/engagement or cutting costs might be quite different, as illustrated in Table 12.1.

The types of analysis that are needed for each of these strategic and tactical uses of CRM would also be different. We'll illustrate this with one example. Imagine a marketer charged with growing revenues from current customers by running cross-sell campaigns. If this process wasn't already fully automated, she'd want to conduct analysis and obtain reports about a number of important issues before deciding on the communication medium, offer and

Table 12.1 CRM strategic goals (italic) and related tactics (not italic)

Build revenues	Reduce costs	Enhance loyalty/satisfaction
Cross-sell campaigns	Automate selling processes	Enhance complaints resolution
Up-sell campaigns	Service customers online	Improve customer service
Protect valued relationships	Improve customer self-service	Improve fulfilment process
Generate sales leads	Sack unprofitable customers	Improve online experience
Acquire new customers	Improve sales rep productivity	Improve value proposition
Close more opportunities	Improve data quality	Introduce customer satisfaction measures

timing. If considering using either direct mail or email as the communication medium (channel) she'd want answers to questions like these:

- How many of our customer records contain a current, accurate postal address and email address?
- What is the preferred communication medium of customers for reception of marketing offers?
- What is the relative effectiveness of each channel at generating incremental sales historically?
- What are the fixed and variable costs of campaign execution in each channel?

To decide "what should we offer?" the marketer would want answers to questions like these:

- What types of offer have been successful in the past?
- What forms of campaign execution have been successful in the past?
- Should we launch a "next best offer" campaign customized for each customer?
- What are organizational constraints around the offer, for example, availability of stock, customer contact policy (e.g. no more than one campaign per month per customer) and incremental sales required?

The answers to these questions will draw on different forms of customer-related data and involve different types of analysis. For example, it is a relatively simple matter to create a report on the numbers of customers having data in the "email address" and "home address" fields of their record. A review of bounce-backs and open-rates for the listed emails would give a good insight into whether they are currently active or not, as would an appraisal of undelivered mail. However, the question of whether to create "next best offers" for each customer would involve an assessment of the modeling competences of the business and the availability of appropriate historical data to build, test and apply predictive models at the level of the unique customer.

ANALYTICS THROUGHOUT THE CUSTOMER JOURNEY

We have presented the customer journey as an evolution through three phases: customer acquisition, customer retention and customer development. The types of analysis that support a company's customer acquisition, retention and development strategies will be quite different. Customer acquisition strategies need to identify potential new customers and qualify them. The qualification process normally involves scoring, which is an output of data analysis. Higher scores are better prospects. Lead scoring might take account of a wide range of market, organizational, personal, relational and behavioral attributes, as indicated in Table 12.2. Although leads can be scored manually, most lead management applications automate the scoring process, allowing sales managers to create score reports and ensure sales reps are following up the best leads.

Table 12.2 Sample criteria used in prospect scoring

Market	Organizational	Personal	Relational	Behavioral
Market size	Revenues	Seniority	Ex-customer	Website visitor?
Market growth	Profits	Decision role	Lost opportunity	Registrations?
Market segmentation	Spending on category	Budget owner	Lead source – website or ad	Contracted to current supplier?
New entrants	Certifications	Influence	Referral?	Video viewed?
Number of competitors	Social network participation	Years of experience	New to database?	Research participant?

The customer retention stage of the lifecycle demands analysis to answer a different set of questions, such as: which customers have highest future potential lifetime value? How can we cluster customers so as to develop appropriate customer management strategies (see Chapter 5 for a discussion of the seven core customer management strategies)? Which customers are candidates for termination? What is the cost-to-serve for each customer? What is the cost-benefit of our customer loyalty program?

CRM analytics can contribute significantly to these questions, providing, of course, the right data are available for analysis. One of the main strategies for driving up profitability is to retain those customers who have the greatest future lifetime value. We previously defined customer lifetime value (CLV) as the present-day value of all net margins earned from a relationship with a customer, customer segment or cohort. The data challenges in computing CLV can be great, as described in Chapter 2. Companies need to know the probability that a customer will buy in the future, the gross margins earned on those sales and the cost-to-serve the customer. Cost-to-serve is subtracted from gross margin to compute net margin, which is discounted to produce present value.

Let's consider just one of the analytic tasks involved in computing CLV: forecasting future sales. Depending on the business context and data availability, analysts could use a number of data sources and analytical procedures: analysis of **qualitative** data such as sales team estimates, **quantitative** analysis of customer "intention-to-buy" surveys, **time-series**

analysis of historical sales data using moving average, exponential smoothing and time-series decomposition methods, **causal** analyses based on leading indicators, regression or predictive analytics (e.g. machine learning and neural networks).

Customer development is the third stage of the customer journey. The goal of customer development is to increase the value to the business of retained customers, by cross selling and upselling, or adjusting service levels to improve customer profitability. In the business-to-business context, account managers have the responsibility for identifying opportunities and advancing them towards closure according to pre-defined business processes with the support of CRM tools. Senior managers will usually determine what service levels to provide a customer. Many CRM strategies introduce tiered levels of service for customers, with more personalized and frequent service, and better terms being offered to higher value customers. In the business-to-consumer environment, where datasets are larger, CRM analytics must answer questions such as these: what offer should we next make to the customer? What events can we identify to trigger communication with the customer?

The use of next best action (NBA) is increasingly common in the B2C context. NBA merges customer insight (predictive analytics particularly) and context to deliver recommendations for action. The action that companies are particularly interested in is making an up-sell or cross-sell offer that enhances the value of the customer to the business. However, context determines whether or not an offer should be made, what that offer should be, and even when it should be made. NBA has a role in programmatic advertising as initially discussed in Chapter 8. Advertisers can track consumers at cookie level click-by-click through their online journey in real-time, enabling the NBA to be determined. The NBA might be what advertising message to serve, what content to focus upon, or even what personalized promotion to offer.

Often, contextual conditions act as events that trigger certain types of organizational response (see coverage of event-based marketing in Chapter 8 for more information). If the customer currently has an unresolved complaint then making an offer would simply show a lack of awareness of, and concern for, the customer's experience. Perhaps a preferable NBA would be to make an outbound customer service call to establish what the customer expects by way of complaint resolution, to fix the customer's problem, or to offer compensation for the unsatisfactory customer experience. If a customer's interaction with a business has been positive, for example, because a customer service agent has provided helpful assistance, or a complaint has been resolved to the satisfaction of the customer, an offer would usually make more sense. An offer could be based on shopping basket analysis (people who have bought product A also buy product B) or sequential patterns (40% of people buying product X in January buy product Y the following July). Also, using mobile data, an offer can be triggered by proximity to a particular retailer. Naturally, all of the examples of use of data need to comply with ever more comprehensive data protection legislation designed to protect people from overly intrusive exploitation of their data. In many cases, context-sensitive management might prefer not to make an offer, even if business rules say it can or should be done. There may be a number of contextual conditions that shape the NBA of the firm, which if considered independently, would trigger conflicting organizational action. Consider a customer who has failed to pay an invoice on time, but who has also placed an order worth several thousand dollars. On the one hand, the triggered response would be a formal notification that the debt must be paid but the other triggered response might be a personal call from the store manager thanking the customer for the business. Simple rules-based recommendation

engines that rely only on predictive analytics but fail to take account of context can make things worse for the company, not better.

"Next best offer" (NBO) is a subset of NBA. The early groundwork for NBO was laid by Amazon.com who messaged their online customers with "people who bought this also bought that" recommendations based on simple correlations. Today's modeling is more sophisticated and based on more complex, context-sensitive, predictive analytics that enable the right offer to be made at the right time and in the right channel. The tools that support NBO are known as

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CASE ILLUSTRATION 12.1

NEXT BEST ACTION AT ING BANK[1]

As one of the largest financial services firms in Europe, ING has a high-volume direct marketing operation, sending out around 60 million pieces of direct mail each year. The bank realized that its campaigns were losing effectiveness because its campaign program – originally built for direct mail – wasn't meeting the needs of what was now a multichannel bank with a strong focus on the online channel.

ING went through a 15-month project that involved a budget of more than €5 million and around 50 full-time employees from marketing, IT, customer intelligence, and the different channels to build a state-of-the-art direct marketing program to overcome the old program's challenges.

ING's new *klantdifferentiatie* direct marketing program produces marketing messages that are personalized and delivered through different channels in real-time. The program allows ING to do the following:

- **Run campaigns via multiple channels.** Whereas ING's old campaign management program was exclusively based on outbound channels like direct mail, email and outbound call center calls, the new program supports marketing on inbound channels like branches, the bank's secure website, and inbound calls to the call center.
- **Synchronize marketing across channels.** As campaign management is centralized, campaigns run as a concerted effort across channels – both inbound and outbound. For example, a customer can receive the same savings account offer through email, on the website, or both in succession. ING has set norms to ensure that offers are communicated through channels achieving specified response rates.
- **Personalize marketing messages.** Each customer receives an individual product offer based on what's already known about the customer and what's been learned during the recent interactions. Branch employees can now see what the next best action (NBA) for each individual customer is and suggest a product during a client interaction in a branch.
- **Run as a continuous dialog.** Instead of focusing entirely on *ad hoc* campaigns, ING's new campaign management program runs on a continuous basis. By collecting customer responses from different channels and feeding them back into to the data warehouse daily, the bank can constantly optimize the offers made to customers. If an offer is shown several times and the customer doesn't respond, another offer will be shown.

recommendation engines. They work by identifying and statistically quantifying relationships in historical transactional and demographic data – this is called model development. These models are used to predict future behavior, a practice known as predictive analytics. Predictions usually take the form of probabilities or scores, providing marketers or agents with a list of ranked offers for the customer. The results of the offers, whether accepted or rejected, become additional data that can be further used to refine the model. Dynamic next best offers can be made to customers in real-time as they interact at a business's touchpoints, including website and contact center.

ANALYTICS FOR STRUCTURED AND UNSTRUCTURED DATA

CRM analytics for structured data are well developed. Simple statistical procedures such as computation of totals, averages, modes, medians and ranges are the foundation of many of the descriptive standard reports generated by CRM users. As questions become more complex and shift from mere description to explanation or prediction, the analytical procedures required to generate answers also become more complex. In Figure 12.1 we identify OLAP and data mining as two ways of interrogating warehoused data to deliver answers to these more complex questions. Whereas OLAP queries allow CRM users to drill down into the reasons why a particular piece of data – say a salesperson's exceptional performance – is as it is, data mining tools draw on a well-established array of statistical procedures, such as correlation, regression, decision-tree, clustering and artificial neural networks to produce insights for users. This book is not the place for a full coverage of these statistical procedures, though we do give a brief introduction to the CRM application of some of these techniques later in the chapter.

Unstructured data, as explained in Chapter 11, are data that do not fit a predefined data model: textual and non-textual files including spreadsheets, documents, PDFs, handwritten notes, and image, audio, video and multi-media data are unstructured. Unstructured data often reside outside the business in social media data repositories, which can be huge, hence the term "big data." Analytics for these types of data are still evolving.

The most advanced form of unstructured data analytics currently is text analytics. Text analytics extracts relevant information from unstructured text files and transforms it into structured information that can then be leveraged in various ways. Unstructured textual data is found in call center agent notes, emails, documents on the web, instant messages, blogs, tweets, customer comments, customer reviews, questionnaire free-response boxes, social media posts, transcripts of telephone calls and interviews and so on. When we write or speak in natural language, we use slang, dialect, jargon, misspellings, anachronisms, short forms, acronyms, colloquialisms, metaphors, grammatical idiosyncrasies and even multiple languages in the same stream. This presents challenges to analysts but there are a number of text mining tools that can help. SAS Text Miner®, for example, enables users to convert text, audio and other files into a format from which it is possible to extract information by revealing the themes and concepts that are concealed in them.[3] Goutam Chakraborty explains that text analytics has a number of potential uses in CRM:

- Unstructured data specific to the individual customers may be useful in improving the accuracy of predictive models. This unstructured data can be a customer survey response to a specific product or service. The basic premise for using text data in predictive models is that the terms contained within the text data represent the customer's

experiences (bad or good), which may explain the customer's decision to continue with the business or churn.

- Text analytics is widely used for automatic routing. Well-known applications of automatic routing are e-mail forwarding and spam detection.

- Root cause analysis (RCA) is a method of problem solving that tries to identify the root causes of faults or problems. Text analytics of customer service or complaint records may reveal issues that lie at the root of the problem.

- Trend analysis is a method of understanding how certain entities change over a period of time. Examples of such entities are part numbers of an appliance reported in a failure, serial numbers of a device being serviced, types of customer service request and technical support required. The standard method of analyzing trends is to chart and compare the most frequent entity mentioned in the document collection for a specific duration of time (a minute, an hour, a day or a month) compared to a longer period of time (a day, a week, a month, or a year).

- Sentiment analysis. An important goal of analyzing textual data is to get an insight into what customers (or former customers, potential customers, competitors or partners) feel and think about a company, brand, product, service, person or group. Are consumers' perceptions good, bad or neutral? What attributes (features) of the product or service they feel good or bad about? What do the customers think of the various attributes of a company's product such as quality, price, durability, safety, ease of use? Typically, if customer feels good towards an entity, it is classified as a positive sentiment. If the perception is bad, it can be considered as negative sentiment. Alternatively, if the customer has neither good nor bad opinion sentiment is neutral.[4]
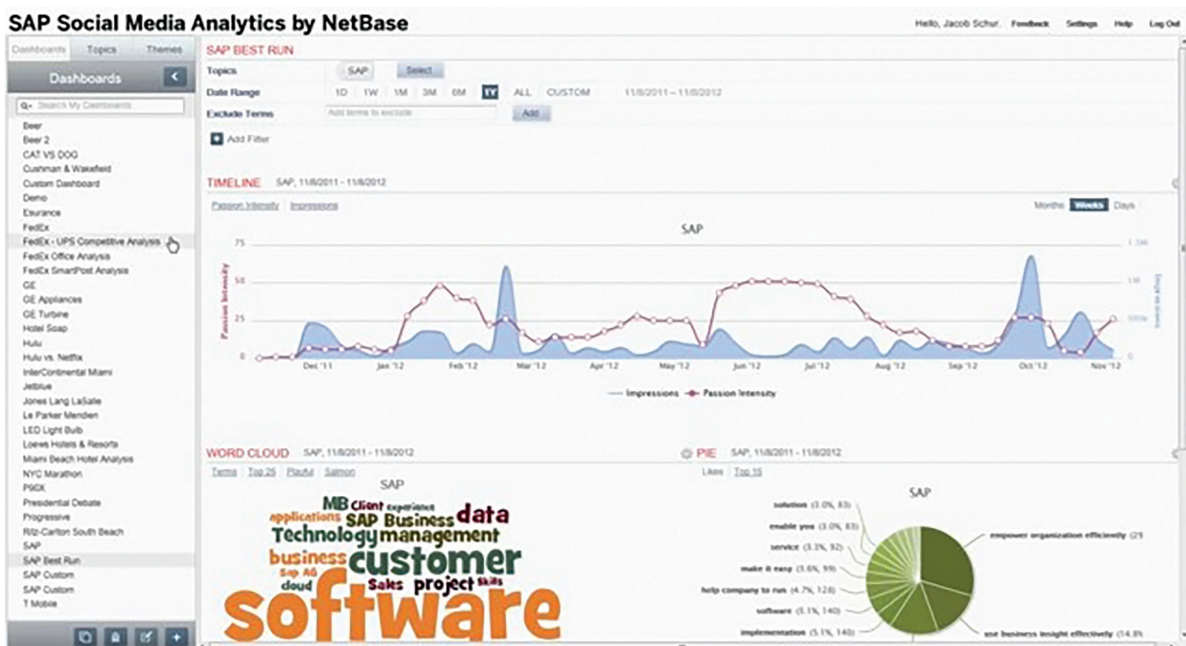
Figure 12.2 Social media sentiment analytics[2]

CASE ILLUSTRATION 12.2

TEXT ANALYTICS IN THE AUTO INDUSTRY[5]

Warranties cost US automotive companies an estimated $35 billion annually. Optimizing warranty cost is a very important lever in the cost equation for automobile manufacturers. One of underused methods for optimizing warranty cost is learning from service technicians' comments. Text mining these comments can provide insights into component defects enabling auto manufacturers to prevent them in the future. Key business questions that can be answered by mining technician comments include:

1   What are the main problems encountered by dealers?
2   What are the five components mentioned as problems most frequently?
3   Is there any seasonal pattern to component failure?
4   Is there any association between component failure and the component's warranty cost?
5   Which faulty parts receive frequent comment during a car's warranty period?

The text mining solution to answer these questions incorporates four kinds of unstructured data: technician comments on the dealer management system, customer comments on the CRM system, user-generated comments on social media and vehicle reviews in trade journals. The text was input to the application producing three outputs: a list of keywords, a higher-level abstraction of these keywords into key vehicle defect themes, and third is list of high-risk keywords such as "oil leakage."

The results allow automobile companies to take a number of actions to reduce warranty-related cost erosion:

- **Auto component sourcing decisions.** Auto manufacturers can share the results with product suppliers and undertake joint initiatives to reduce defect rates.
- **Re-engineer internal manufacturing processes.** If the component is manufactured internally, then the manufacturing process can be re-examined/re-engineered to eliminate reoccurrence.
- **Inventory optimization.** The frequency of occurrence of failed auto parts can be used to forecast demand for parts.

BIG DATA ANALYTICS

With the explosion in big data, many experts have tried to characterize the field. The most established characterization was developed by META Group, now part of Gartner, Inc. META's researchers identified three attributes of big data, known as the three V's: volume, velocity and variety.[6] IBM's data scientists, troubled about the quality of some big data, identified a fourth V – veracity.[7] We now describe the original three V's for simplicity and parsimony.

- **Volume**. This is the sheer scale of the datasets that are pushing traditional relational databases beyond their capabilities. Imagine CRM systems that can capture, say, 15 fields for each of 25 million customers and then imagine tracking the online behavior of the same 25 million customers as they make 200 clicks a day, every day. All of a sudden there is so much data that traditional databases can no longer manage it. The volume of data is partly a function of the other two V's; we have a variety of data (particularly online, social and mobile) that changes all the time. Relational databases are not designed for this environment.

- **Variety**. Traditional data in operational CRM systems are structured, rather like a spreadsheet. Big data, however, are not always easily amenable to being formatted into rows and columns, or numbers. The heterogeneity of big data is evident in social media posts, video, images, blogs, location and sensor data. There are tools and methods that try to convert these incommensurate forms of data into relational data, and that is all part of the big data challenge.

- **Velocity**. Big data are not just batched data, but also streamed and produced in real-time. Streamed data do not reside quietly in back office relational databases ready to be analyzed periodically. Streamed data update continually.[8]
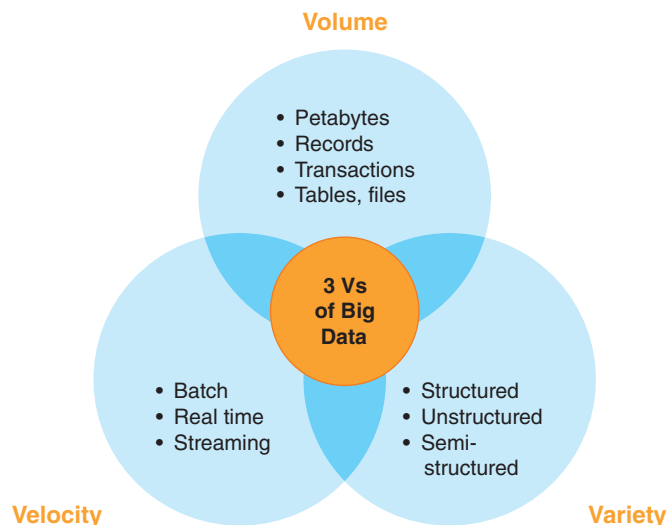
Figure 12.3 The 3Vs of big data[9]

Customer managers are migrating from periodic research into a narrow range of transactional data to a socially-connected, multichannel environment in which the volume of consumer-generated data has increased exponentially. Data volume will likely continue to grow with additional data generated by, among other technologies, smartphones and the

"Internet of things."[10] In 2013, Apple introduced iBeacon, which allows retailers to track customers in store real-time. iBeacon data streams can identify in-store traffic patterns, points of interest where consumers spend time, as well as act as a front end for real-time promotions depending on what the customer has just bought, seen or visited. The Internet of Things (IoT) describes the linking together of "dumb" objects to make smart solutions. For example, ever-decreasing prices for chips with radio transmitters (RFID) allow logistics firms to label each item in their system such that the firm knows where each item is in real-time, thus reducing errors, increasing accuracy, and avoiding lost items. Once the data stream is live and stable, these firms will allow their customers to access the feed and avoid costly service calls (e.g. where is my parcel?). Some Big data enthusiasts are already criticizing marketers for using expert judgement, rather than creating better simulations and trusting analytical models to make decisions![11]

Not only do companies and their data scientists face the problem of how to interpret and use unstructured data, but also how to integrate and then benefit from structured and unstructured data in combination. This presents a bigger challenge than the analysis of unstructured data alone. Rising to the challenge are some of the biggest names in IT and business intelligence: IBM, SAS, Oracle among others are making major investments in both the software and the know-how to help firms extract value from big data. IBM claims to have spent over $14 billion on acquiring analytics companies such as SPSS and Cognos.[12]

Analysis of big data can help managers distinguish important signals, or portents of trends and changes, from a storm of noisy data. eBay Inc. used a big data solution to identify a trend of people buying men's collectable basketball shoes. The trend was picked out from analysis of listings of tens of thousands of shoes sold daily, and other social media data. This information was then communicated immediately to potential sellers, who made additional listings, generating additional revenues for eBay.[13] Conventional research might have taken a month to deliver the same insight. The big data solution allowed the identification of this signal in a single day making the insight far more actionable and relevant.

Emerging big data solutions will enable companies to analyze customer service data streams, such as transcripts of call center enquiries, blogs, tweets and discussion boards to

CASE ILLUSTRATION 12.3

BIG DATA ANALYTICS AT BRITISH AIRWAYS[14]

British Airways (BA) enhanced its CRM program with a big data solution it calls "Know Me." This integrates data from its loyalty program, members' online behavior, operational data and buying history. The program allows BA's best customers to be welcomed by name by cabin crew, or to receive a personal apology on a return flight if their outbound leg had been delayed. Managed properly, such applications can personalize service and differentiate the carrier among its most profitable customers, a goal of many loyalty/CRM initiatives.

identify critical service problems in real-time, or close to real-time, and respond speedily. For example, imagine a firm releasing new software that, despite extensive testing, creates problems for some users' computing infrastructure. Instead of waiting perhaps weeks, if not months, for feedback from sales, summarized reports from customer service centers and analysis of incoming emails, big data analytics can identify the signal-in-the-noise highlighting the unforeseen problems in hours, allowing the firm to respond with a timely fix. This improves customer experience, promotes loyalty and reduces service costs by resolving problems more quickly.

Many companies deploy various social media analytics to understand what is being said about them, by whom and to what effect. By combining social media data with transcripts from service call centers and sales data, companies can determine with greater effect the value of positive social media publicity, or the damage caused by excessive and strong customer complaints.

The technology essentials

Big data solutions are built upon storing vast amounts of data cheaply, and building and testing models using that data. The backbone of most big data solutions is Hadoop,[15] an open source framework or computing environment that distributes data across a large number of computers, each of which processes a portion of the data, to permit fast computing of these extremely large databases. In addition, there are other open source analytics applications. Finally, commercial software-solution vendors add further management and decision support tools, frameworks and solutions to make it easier for organizations to install, configure and integrate unstructured data with relational databases, and analysts to use and prepare visual presentations of the data. As we write, a few technologies are well developed, for example the text analytics described above, but many big data solutions are complex to install, manage and use. Organizations will either need to have substantial in-house resources to assist CRM practitioners, or more likely, use third parties as partners. Customer-facing managers will, for at least the short term, need to engage actively with other functions and IT vendors in order to provide some strategic guidance for their use of big data.

ANALYTICS FOR STRUCTURED DATA

There are several different types of data kept in relational databases. Managers who act on the outputs of CRM analytics need to have a broad appreciation of these types of data so that they can question whether appropriate statistical procedures have been used in the analysis.

A fundamental distinction is made between **categorical** and **continuous** data. Categorical data, also known as discrete data, are data about entities that can be sorted into groups or categories, for example product type, gender or country. Categorical data that are unordered are called nominal data (e.g. customer name). Categorical data that are ordered are called ordinal data (e.g. a list of customers ordered by sales revenues). Continuous data are data

that can take on any value within a finite or infinite range. Continuous data can be either interval data or ratio data. Interval data are measured along a continuum that has no fixed and non-arbitrary zero point. Temperature scales are interval scales. Zero degrees Fahrenheit does not mean there is no temperature! Ratio data are also interval data, but with the added condition that the data point 0 (zero) means there is none of that variable. Height is an example of ratio data.

Nominal, ordinal, interval and ratio scales

Stanley Stevens developed our understanding of the hierarchy of four different data types: nominal, ordinal, interval and ratio.[16] Managers and their data scientists need to understand this hierarchy because it determines the types of analysis that can be performed on the data. Being a hierarchy of data types, each successive level has all the properties of the previous level and some additional properties of its own. We discuss some of the analytical procedures in coming pages, but at this time we want you to understand more about how data differs.

Nominal data are the most rudimentary, and are used only to classify, identify or categorize. A lot of customer-related data is nominal. Unique customer numbers, gender classification (M/F) and email addresses are examples of nominal data. Even though a database may choose to record that a customer owns a car with a numeric label '1' in the relevant field (with a non-owner being labelled '0'), this does not mean there is any rank order, that 1>0.

Ordinal data rank the variable being measured. Ordinal data tell you that an observed case has more or less of some characteristic than another observed case. They do not, however, indicate the order of magnitude of difference. We would know from an ordinal scale that the first ranked object had more of the measured characteristic than the second ranked, but we would not know whether the latter ranked a close or distant second. A list of customers ranked from 1 to n based on their sales revenues is ordinal data; you would know that the number one ranked customer generates most sales, but the size of the gap between first and second could not be known from the rank order.

Interval data solve the "order of magnitude" problem associated with ordinal measures. Not only do interval data identify rank orders, but the distance between the rankings is also known. Many survey instruments use interval scales to measure attitudes and opinions. Interval scales have no fixed zero point. The Celsius and Fahrenheit temperature scales are examples of measures that use interval data but have arbitrary zero points. Differences between interval data make sense but the ratios do not. For example, the difference between 20° and 10° is the same as the difference between 60° and 50°, but we couldn't say that 60° is three times as hot at 20°.

Ratio data, unlike interval data, have a fixed and absolute zero point. Ratio measures also have all the properties of nominal, ordinal and interval measures. Ratio data allow you to classify objects, rank them, and compare differences. Customer expenditure is measured on a ratio scale, as is age, weight and height. Whereas addition and subtraction are the only possible operations on interval data, multiplication and division become possible on ratio

data. Ratio data, for example, would enable you to claim that a customer paying $150 for a room spent twice as much as a customer paying $75.

The reason we should distinguish between these data types is that analytical procedures differ according to the type of data. Categorical data use nonparametric procedures such as logistic regression. Continuous data use parametric procedures such as linear regression. The methods that are used to test for correlations between sets of ordinal data differ from those used for interval data. Marketing researchers often use ordinal measurement scales, but analyze the data as if they were continuous. A Likert scale that measures customer satisfaction against five scale points – very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied – is actually an ordinal scale. However, analysts routinely use analytical procedures developed for interval (continuous) data to make sense of the data. Whether they should do so is a source of dispute!

We review a number of statistical procedures in the chapter's upcoming review of data mining.

THREE WAYS TO GENERATE ANALYTICAL INSIGHT

CRM users who want to interrogate customer-related data for analytical purposes, or receive management reports, have three main ways of doing this – standard reports, OLAP (online analytical processing), and data mining, as illustrated in Figure 12.1.[17]

Standard reports

Reporting is an essential element of an effective CRM system. The foundation of CRM is an understanding and differentiation of customers – something that depends on good customer-related information. Reporting can take the form of simple lists of information such as key accounts and annual revenues, to more sophisticated reports on certain performance metrics. Most CRM technologies enable the automated creation of periodic reports. Examples include monthly reports to sales management about sales rep activity and performance against quota, and daily reports of call center activity.

Reporting can be standardized (pre-defined), or query-based (*ad hoc*). Standardized reports are typically integrated into CRM software applications, but often need customization to suit the needs of the organization. Some customization of the report can be done when it is run, for example in selecting options or filtering criteria, but the end result is limited to what the report designers envisaged. Figure 12.4 is a standard report listing active accounts of a sales rep.

Query-based reporting, on the other hand, presents the user with a selection of tools, which can then be used to construct a specific report relevant to the user's role. This is far more flexible. This is a powerful tool in the right hands, as it allows specific reports to be requested, for example: "show me all of the customers that have expired on their maintenance agreement, in my territory, with annual revenues above $50,000."

Standard reports are often delivered to users in an array of visualization tools such as tables, charts, graphs, plots, maps, dashboards, hierarchies and networks. Reports can be output to other applications such as Excel for further analysis.
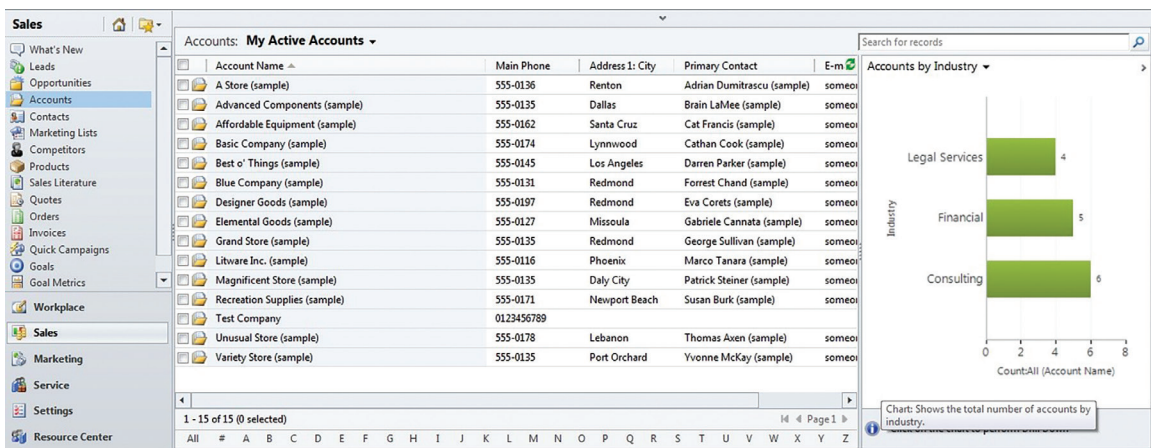
Figure 12.4 Standard report example[18]

As the requirement for analysis grows, the information in customer-related databases may not be structured to deliver the best results; for this reason, online analytical processing (OLAP) has become an essential part of CRM.

Online analytical processing (OLAP)

OLAP technologies allow data stored in a data mart to be subjected to analysis and *ad hoc* inquiry, using processes such as slice-and-dice, drill-down and roll-up. A data mart is typically a subset of data that is held in a larger data warehouse. The subset reflects the responsibilities of the business unit, department or team that owns the data mart. For example, a sales department would own a data mart containing only sales-related information. The data that are loaded into the data mart would depend on the sorts of analysis that users of the mart want to perform. OLAP is valuable to a range of CRM users who have different types of questions to ask of the data. Sales people can analyze their territory to determine revenue and profitability by customer. Service people can analyze call response rates and times. Partner managers can analyze the performance of partners by comparing marketing fund approvals to partner-generated revenues.

Data that are to be analyzed using OLAP are stored in one or several star schema, as shown in Figure 12.5. A star schema separates data into facts and dimensions. Facts are quantitative data such as sales revenues and sales volumes. These facts have related dimensions. Dimensions are the ways in which facts can be disaggregated and analyzed. For instance, sales revenues might be broken down by these dimensions - geography and time period. Dimensions can be hierarchical. The geography dimension might contain the hierarchical levels of country, state and city; the time dimension might contain year, month and day levels.
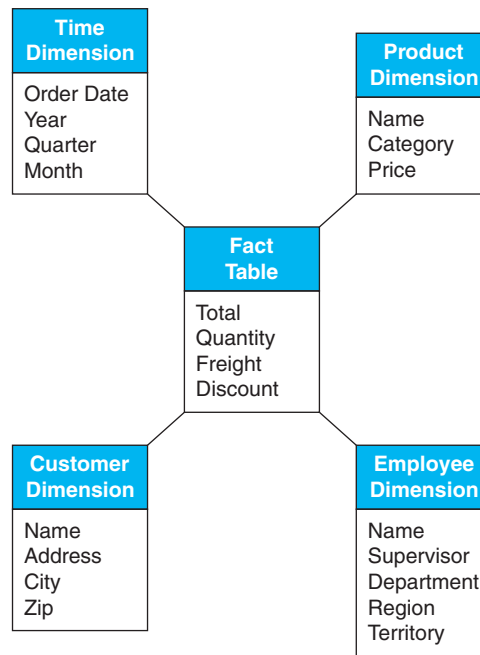
Figure 12.5 Example of a star schema: fact table and dimensions[19]

OLAP helps users explain why facts are as they are, by reference to dimensions. For example, if sales in Germany are struggling, the user can drill down from national sales facts into sales by metropolitan area, to find out whether the problem lies in a particular region. By progressively drilling down into hierarchical levels it may become possible to spot the source of a problem. If the problem doesn't appear to be specific to a metropolitan region the analyst can explore other dimensions such as time and product class.

A star schema contains a central fact table surrounded by several dimension tables, giving it the appearance of a star, as in Figure 12.5.

This data structure (central fact table surrounded by dimension tables) means it is possible to conduct many different types of analysis. Based on the tables shown in Figure 12.5, users could obtain answers to questions like these:

1   What discounts are offered to customer X?

2   How do the quantities shipped vary year by year?

3   What are the total sales of product ABC?

A data warehouse, unlike a data mart, will typically contain several star schemas, each organized around a central fact table based on customers, opportunities, service requests, activities and so on. The customer schema, for example, may contain information such as customer sales revenue figures, sales volumes, cost of sales, profit margins, discounts and promotional expense.

OLAP tools can also support decisions in real-time. For example, propensity-to-buy measures can be delivered to a call center agent while the customer is on the telephone. This allows a tailored offer to be made that is more likely to receive a positive response from the customer.

An important element in CRM analytics is the information delivery mechanism. Information can be made available on the desktop in a web browser interface with graphical layout and drill-down. This approach requires the user to search for a result. Another method of delivery involves setting trigger points (e.g. when a customer logs more than a certain number of service calls in a month). The analytics application then pushes the related information to the user via email, SMS or another alert mechanism. This approach, also known as "publish and subscribe," is a powerful management tool.

There are many players in the business analytics marketplace who offer users OLAP functionality.[20] Some major vendors are Tableau, Qlik, Microsoft, IBM, SAS, SAP and Oracle. Database vendors also provide OLAP functionality as part of an integrated offering.

Data mining

Data mining is the third way in which customer-related data can be interrogated. In the CRM context, data mining can be defined as follows:

> **Data mining is the application of descriptive and predictive analytics to large data sets to support the marketing, sales and service functions.**

Although data mining can be performed on operational databases, it is more common that it is applied to the more stable datasets held in data marts or warehouses. Higher processing speeds, reduced storage costs and better analytics packages have made data mining more attractive and economical, and larger volumes of data have made data mining more useful, if not essential.

Data mining analytics work in a number of ways: by description and visualization, classification, estimation, prediction, affinity grouping, and clustering.[21]

Sometimes the purpose of analytics is simply to **describe** a phenomenon. A massive customer database with millions of records may need to be analyzed just so that managers get a better sense of who buys what in which channels. Descriptive analytics answer users' questions about "what's going on here?" A good description reduces the complexity of a dataset and may motivate users to look for an explanation. Imagine a descriptive comparative analysis of the sales of different brands of hotdog. The analysis produces a ranking by sales, and the leading brand sells 300% more than the second ranked brand. Managers would be motivated to investigate why. They might explore a number of possible explanations: better marketing campaigns, stronger distribution, better taste performance and more attractive price point. Further analysis would have to take place. The description has led to an explanation. Once a description has been produced, many analytics packages offer users an array of **visualization** tools such as charts, graphs, plots, maps, dashboards, hierarchies and networks of many kinds to help users understand the information. Outputs from analysis can also be exported into any of a large number of data visualization packages.

Analytics also delivers insight by **classifying** some newly observed entity into a predefined classification scheme. The simplest example is classifying a new customer as female or male. A more complex example: you might have developed a hierarchy of existing customers based on their lifetime value (CLV) and created a descriptive profile of each group. When you identify a potential new customer, you can judge which group the prospect most resembles and assign the customer to that group. That will give you an idea of the prospect's potential value. From an analytics perspective, the existing hierarchy is a well-defined training set composed of pre-classified examples.

CASE ILLUSTRATION 12.4

DATA MINING AT MARKS & SPENCER

Data mining has proven to be a successful strategy for the UK retailer Marks & Spencer. The company generates large volumes of data from the 10 million customers per week it serves in over 300 stores. The organization claims data mining lets it build one-to-one relationships with every customer, to the point that whenever individual customers come into a store the retailer knows exactly what products it should offer in order to build profitability.

Marks & Spencer believes two factors are important in data mining. First, is the quality of the data. This is higher when the identity of customers is known, usually as a result of e-commerce tracking or loyalty program membership. Second, is to have clear business goal in mind before starting data mining. For example, Marks & Spencer uses data mining to identify "high margin," "average margin" or "low margin" customer groups. The company then profiles "high margin" customers. This is used to guide customer retention activities with appropriate targeted advertising and promotions. This technique can also be used to profile "average margin" or "low margin" customers who have the potential to be developed into "high margin" customers.

Whereas classification deals with discrete categories, **estimation** deals with continuous variables. A bank developing a marketing campaign for a new product might run its customers through an estimation model and give each customer a score between 0 and 1 based on the probability that they will respond positively to an offer. Estimations such as these mean that the customers can be rank ordered for treatment to the campaign, with some customers below a given threshold not receiving the offer. Churn modeling is widely deployed by CRM practitioners; this also uses estimation models.

Prediction is a particular application of either classification or estimation. All prediction problems can be recast as problems of classification or estimation, depending on whether the variable that is being predicted is categorical or continuous. CRM practitioners might want to predict whether a customer will refer a friend, increase their spending by 50% next year, or trade up to a fee-paid app. Prediction works by using training examples where the value of the variable that is to be predicted is already known (e.g. pay for an app)

and there are a number of records where this action has already happened. A model is built based on historical data and the model applied to the customers whose actions are being predicted.

Analysts use **affinity grouping** procedures to find out which things go together. Affinity grouping is based on finding associations between data. CRM practitioners in retail widely conduct shopping basket analyses, which might, for example, reveal that customers who buy low-fat desserts are also big buyers of herbal health and beauty aids, or that heavy consumers of wine also enjoy live theatre productions. Affinity groupings can be used to identify cross-selling opportunities, or plan store layouts so that associated items are located close to each other. One analyst at Wal*Mart, the American retailer, noted a correlation between diaper sales and beer sales, which was particularly strong on Fridays. On investigating further, he found that fathers were buying the diapers and picking up a six-pack at the same time. The company responded to this information by locating these items closer to each other. Sales of both rose strongly.[22]

Whereas shopping basket analyses often rely on cross-sectional data (data collected at one point in time), another form of affinity grouping considers the association between data over time. Sequential patterns can be identified by analytics. Analysts look for "if … then" rules in customer behavior. For example, they might find a rule such as "If a customer buys walking shoes in November, then there is a 40% probability that they will buy rainwear within the next 6 months."

Another form of analytics uses **clustering**. This involves taking a diverse dataset and finding the naturally occurring clusters within it. Cluster analysts do not try to fit new cases into a pre-defined model, as in classification described above. The general objective of clustering is to minimize the differences between members of a cluster while simultaneously maximizing the differences between clusters. In other words, clustering techniques generally try to maximize both within-group homogeneity and between-group heterogeneity. Clustering techniques work by using a defined range of variables (fields) in the clustering procedure. CRM practitioners often attempt to cluster customer records into groups. For example, a customer segmentation project could take a wide range of transactional, demographic, lifestyle and behavioral data to cluster records (customers) into groups. Another clustering project might consider a narrower range of variables to find out how customers who complain differ from customers who do not complain. There are a number of clustering techniques, including cluster analysis, CART (classification and regression trees) and CHAID (chi-square automatic interaction detection).[23] Once statistically homogenous clusters have been formed they need to be interpreted. Lifestyle market segments are outputs of cluster analysis on large sets of data. Cluster labels such as "Young working-class families" or "Wealthy suburbanites" are often used to capture the essence of the cluster.

These different approaches to data mining can be used in various sequences too. For example, you could use clustering to create customer segments, then within segments use transactional data to predict future purchasing and CLV.

Leading analytics software offerings include RapidMiner Studio, KNIME Analytics Platform, SAP Predictive Analytics, IBM Predictive Analytics, Dataiku DSS, SAS Predictive Analytics, Microsoft R and Oracle Data Mining. There are many other vendors.

Directed and undirected data mining

There are two approaches to data mining, which we first explained in Chapter 5.[24] Directed data mining (also called supervised, predictive or targeted data mining) has the goal of predicting some future event or value. The analyst uses input data to predict a specified output. For example: what is the probability that customers will respond positively to our next offer? Which customers are most likely to churn in the next year? What is the profile of customers who default on payment? Directed data mining stresses classification, prediction and estimation.

Undirected (or unsupervised) data mining is simply exploration of a dataset to see what can be learned. It is about discovering new patterns in the data. The analyst isn't trying to predict or estimate some output. The following questions require undirected data mining: how is our customer base segmented? Are there any patterns of purchasing behavior in our customer base? Undirected data mining focuses on clustering and affinity-grouping techniques.

DATA-MINING PROCEDURES

We now introduce you to a number of common data-mining techniques, as summarized in Table 12.1, organized by their use for directed or undirected data mining. This is not a complete list of all of the techniques used by data miners, and neither do we explore all the ramifications of these techniques here. We advise interested readers to refer to specialist authorities on data mining or business statistics.[25]

Table 12.3 Selected techniques used by data miners

Directed data mining techniques	Undirected data mining techniques
Decision trees	Hierarchical clustering
Logistic regression	K-means clustering
Multiple regression	Two-step clustering
Discriminant analysis	Factor analysis
Neural networks	

First, we describe the directed data-mining techniques. Remember that some of these techniques can only be used on particular types of data – nominal, ordinal, interval or ratio.

Decision trees are so called because the graphical model output of decision tree analysis has the appearance of an inverted root and branch structure. Decision trees work through a process called recursive partitioning. A dataset including the variable you are trying to predict, say purchase of life insurance, and a number of independent variables that you think might explain the purchase decision, are assembled. The decision tree algorithm progressively partitions the dataset into groups according to a decision rule that aims to maximize homogeneity or purity of the response variable in each of the obtained groups. At each partitioning step an additional explanatory variable is used to partition the groups. This partitioning

process is done recursively on each additional split until no further useful splits are found. When the recursive partitioning process is completed, a decision tree is formed. We provide an example in Chapter 5 of decision tree analysis being used to predict credit risk. The same process can be applied to predicting customer churn, response to marketing campaigns or referral of a friend. Decision trees can work with both categorical (nominal or ordinal) and continuous (interval or ratio) data.

Logistic regression measures the influence of one or more independent variables that are usually continuous (interval or ratio data) on a categorical dependent variable (nominal or ordinal data). The output of linear regression modeling reports regression coefficients that represent the effects of the predictor independent variables on the dependent variable. For example, you may develop a theory that the decision of a customer to upgrade to a new smartphone model will be predicted by the number of years the customer has been a user of the previous model, income, number of friends on Facebook, spending on data, and number of texts sent and received. A training model can be developed on a dataset that contains all these data. The coefficients computed by the algorithm reflect the relative influence of each independent variable on the target variable. Data for additional independent variables can be added to the model to improve its ability to predict the target behavior. Sometimes removing variables from the equation also improves the predictive performance of the model. Rarely does a logistic regression predict that a customer will definitely buy (or churn, or visit a store, or default). Regression models indicate probabilities of the customer engaging in the target behavior; outputs from regression can therefore be used to assign scores or propensities-to-act to the customer. A high propensity to buy would encourage a CRM practitioner to target that customer with an offer.

Multiple regression (like logistic regression) is a technique that uses two or more predictor variables to predict a dependent variable, but in the case of multiple regression the dependent variable is a continuous (interval or ratio) variable. For example, multiple regression can be used to predict sales revenues, customer profitability and repeat purchase rates. If you wanted to predict the number of subscribers to a streaming TV channel, you might hypothesize that the following factors might be useful predictors: the kilowatt strength of the channel's alternative free-to-air signal, the number of homes in the service area, the number of competing channels, the number of minutes of advertising on the channel relative to competitors, and channel subscription costs. Multiple regression modeling would indicate the relative influence of each of these variables. Model fit might be improved by progressively dropping the least influential variable from the equation until all the remaining variables are statistically significant predictors. You need to bear in mind the rubbish-in-rubbish-out rule. Multiple regression finds a statistical association between the independent and dependent variables. It does not tell you if your hypothesized model is correct.

Whereas regressions are essentially scoring models, **discriminant analysis** (DA) clusters observations into two or more classes. DA can be used to find out which variables contribute most to explaining the difference between groups. The technique can also be used to assign new cases to groups. For example, DA can use a person's scores on a range of predictor variables to predict the customer lifetime value group (high, medium or low) that the customer best fits.

Neural networks are another way of fitting a model to existing data for classification, estimation and prediction purposes. Despite the anthropomorphic metaphor of brain

function, neural networks' foundations are machine learning and artificial intelligence, which we discuss further below.

Neural networks (also called Artificial Neural Networks, or ANN's) can produce excellent predictions from large, complex and imperfect datasets containing hundreds of potentially interactive predictor variables. However, neural networks can be difficult to understand as they are represented in complex mathematical equations, with many summations, non-linear and exponential functions and parameters.[26] Neural networks need to be trained to recognize patterns on sample datasets. Once trained, they can be used to predict customer behavior from new data. According to Michael Berry and Gordon Linoff "neural networks are a good choice for most classification and prediction tasks when the results of the model are more important than understanding how the model works."[27]

CASE ILLUSTRATION 12.5

CHURN PREDICTION USING NEURAL NETWORKS[28]

Using a dataset from a cell phone service provider, analysis by neural network was performed to develop a churn prediction model. The dataset contained 20 fields of information about 2427 customers, plus a field recording whether the customer had churned (left the company). The SPSS data-mining software package (now owned by IBM) was used. The predictor variables were as follows:

1 State: categorical variable, for the 50 states and the district of Columbia
2 Account length: integer-valued variable for how long account has been active
3 Area code: categorical variable
4 Phone number: essentially a surrogate key for customer identification
5 International plan: dichotomous categorical having yes or no value
6 Voice mail plan: dichotomous categorical variable having 'yes' or 'no' value
7 Number of voice mail messages: integer-valued variable
8 Total day minutes: continuous variable for number of minutes customer has used the service during the day
9 Total day calls: integer-valued variable
10 Total day charge: continuous variable based on foregoing two variables
11 Total evening minutes: continuous variable for minutes customer has used the service during the evening
12 Total evening calls: integer-valued variable
13 Total evening charge: continuous variable based on previous two variables
14 Total night minutes: continuous variable for storing minutes the customer has used the service during the night
15 Total night calls: integer-valued variable

16   Total night charge: continuous variable based on foregoing two variables

17   Total international minutes: continuous variable for minutes customer has used service to make international calls

18   Total international calls: integer-valued variable

19   Total international charge: continuous variable based on foregoing two variables

20   Number of calls to customer service: integer-valued variable

The neural network produced from these data predicted churn with 92.35% accuracy (i.e. in 2241 or 2427 cases). The model allows the cellular service provider to predict possible churners and take proactive actions to retain valued customers.

We now turn to the undirected data-mining techniques in Table 12.3. Clustering techniques identify natural groupings within a dataset. For example, customers can be grouped into segments based on the similarity between their patterns of buying behavior. Shopping basket analysis also uses clustering to answer the question "what items are bought together?" By adding a time dimension, clustering techniques can be used to identify patterns in the sequences of buying behavior. In clustering techniques, there are no predefined classes or categories such as churners/non-churners. Clustering techniques group records according to the data input, so it is important when cluster modeling to give careful consideration to the fields of data that are to be clustered.

Hierarchical clustering is the "mother of all clustering models."[29] It works by assuming each record is a cluster of one and gradually groups records together until there is one super-cluster comprising all records. The results are presented in a table or dendrogram. Figure 12.6 is a dendrogram that groups export markets into clusters on the basis of historical sales, and the sales mix.

The managerial value of this sort of cluster analysis depends on what can be observed in the various clustering levels. In this case the analyst has decided that he can make sense out of three clusters (A, B and C in Figure 12.6). Cluster A consists of Northern Ireland to Greece (from the top of the graph), B consists of Philippines to Bangladesh and C Botswana to Uganda.

K-means clustering is the most widely used form of clustering routine. It works by clustering the records into a predetermined number of clusters. The predetermined number is "k". The reference to "means" refers to the use of averages in the computation. In this case it refers to the average location of the members of a particular cluster in n-dimensional space, where n is the number of fields that are considered in the clustering routine. The routine works by assigning records to clusters in an iterative process until the records are optimally clustered to create "k" clusters. The optimal solution will both minimize the variance within a cluster while simultaneously maximizing the distance between clusters. Unless there is good reason to specify a given number of clusters, a data miner may want to experiment with a number of different "k" values and see what the analysis throws up. After the routine has produced the clusters, the user will want to profile and name each cluster, to make them more managerially useful. Figure 12.7 is an example of graphical output of k-means clustering, showing three clusters of records.
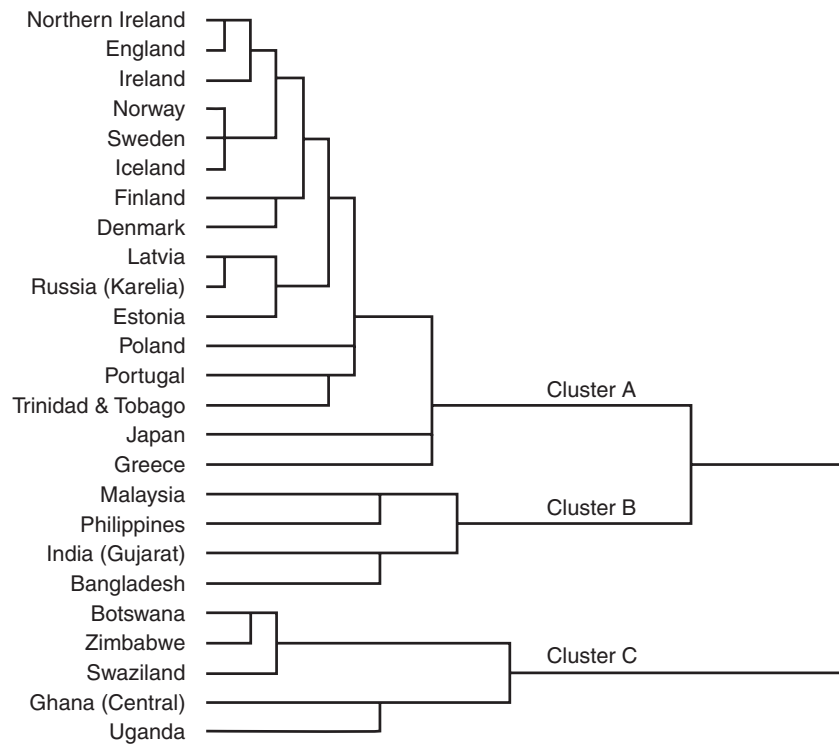
Figure 12.6 Dendrogram output from hierarchical clustering routine[30]
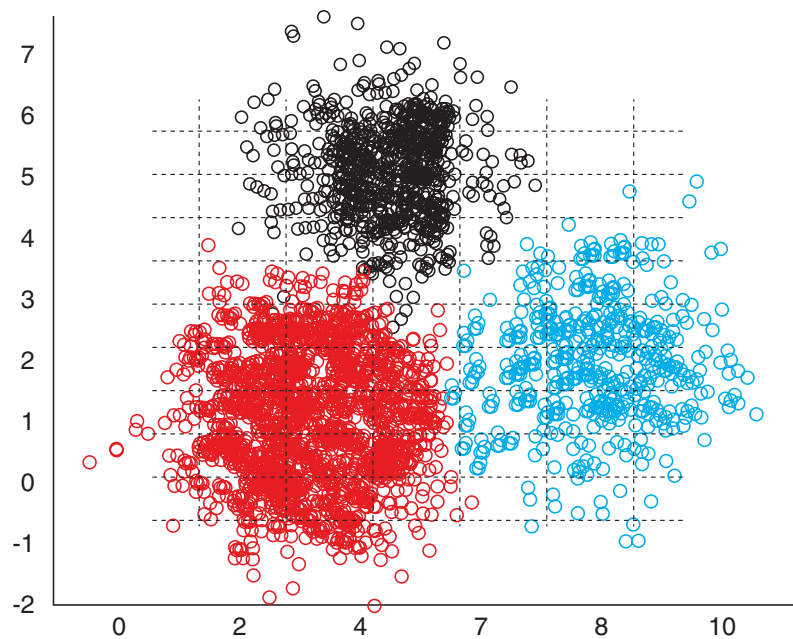
Figure 12.7 K-means clustering output[31]

Two-step clustering combines predetermined and hierarchical clustering processes. At stage one, records are assigned to a pre-determined number of clusters (alternatively, you can allow the algorithm to determine the number of clusters). At step two, each of these clusters is treated as a single case and the records within each cluster subjected to hierarchical clustering. Two-step clustering can work well with large datasets. It is the only clustering procedure that works with a mixture of categorical and continuous data.

Factor analysis is a data reduction procedure. It does this by identifying underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). SERVQUAL, which you read about in Chapters 6 and 10, is a result of factor analysis. SERVQUAL is a technology for measuring and managing service quality. When SERVQUAL was developed there had been very little work done to investigate what customers understood by the expression "service quality." The researchers conducted many focus groups from which they extracted hundreds of statements about participants' views on service quality. A long questionnaire was then created that listed many of these statements. This was administered to a sample of people who completed Likert scales reporting their level of agreement or disagreement with the statements. The results were subjected to factor analysis, as a result of which ten components of service quality were identified. These ten latent variables (listed in Table 12.4) were hidden in the survey response data and revealed only through factor analysis. Later, these were further reduced to five more inclusive factors.

Table 12.4 SERVQUAL's latent variables revealed by factor analysis

Reliability	Communication
Responsiveness	Credibility
Competence	Security
Access	Understanding/knowing the customer
Courtesy	Tangibles

The major analytics software vendors produce documentation that describes the various analytical tools that are available, and the uses to which they can be put.[32]

ARTIFICIAL INTELLIGENCE (AI), MACHINE LEARNING (ML) AND DEEP LEARNING (DL)

There is much excitement in the business community about the potential of AI but some confusion as well. We discuss AI, ML and DL in the context of CRM, but you should understand that their application is much broader.

The three terms, AI, ML and DL, are often used interchangeably, particularly AI and ML. Nonetheless, we start from simple definitions and describe how these terms became popular. The terms AI, ML and DL arose sequentially as scientists worked to make computers more "intelligent."

Computing started as single task execution, that is, programs or instructions were written for a computer to execute a given task. The machines were not intelligent in the same

way that humans are intelligent; they could merely execute a specific instruction. To make machines intelligent in a more human sense, it was felt that programmers would need to write instructions for hundreds of tasks and enable the computer to know which task it had to do. In the 1950s, scientists began to explore the possibility that computers could develop general-purpose artificial intelligence. Instead of writing programs task by task, an onerous undertaking, they asked if a computer could be given a general intelligence to learn various tasks – a sort of higher level of computer code that would permit intelligence. The term artificial intelligence is generally thought to reflect this endeavor.

There were different methods by which scientists tried to develop AI, but progress was extremely slow. One of the earliest methods was inspired by human biology (neuroscience particularly) based on the realization that the brain was organized as a network of neurons. Could we organize computing to resemble the intelligence of humans? Could we create a computerized or artificial neural network? This became known as an ANN or just neural net. ANN is a means of operationalizing AI. Neural nets initially were trained to recognize and classify objects, such as identifying animal species or recognizing hand writing. They were intelligent in so far as they could scan a picture of an animal, for example, and with a high probability correctly classify the species.

- The neural net receives inputs

- It determines the importance or weighting to give each input

- It deploys an algorithm for assessing the weighted inputs in what is called a hidden layer. These weights are determined in the training phase, where the network receives inputs and outputs, and calculates the weights to achieve an optimal matching between these two.

- It generates outputs.

Consider predicting the species, cat. Cats vary in many ways: shape of ears, type of fur, size, shape of face, length of tail and so on. To train the neural net, a data scientist feeds it an enormous number of pictures to cover all of the above variations, including cats in different settings, lighting and perspectives (front, side, back, above, below), and the machine improves its predictive ability. The larger the dataset, the more the net can learn. The ANN is said to learn from the data hence the term machine learning.

ANNs are becoming more widely used in CRM analytics, as we describe earlier in the chapter. However, instead of classifying animal species (we mean no disrespect to animals or animal lovers), CRM professionals tend to be interested in classifying, or predicting, who are or will be loyal customers, their propensity to buy, advocate or defect, and so on. Businesses have access to a range of internal data that can be used to feed the ANN, including but not limited to customer demographics, psychographics, recency–frequency–monetary value (RFM) data, tenure of the customer, price paid, payment method and number of service complaints. Increasingly, businesses are feeding third-party and external data into ANNs including data from retail point-of-sale systems and social media data such as likes, comments and group memberships. Contemporary developments in mobile data and the Internet of Things (IoT) are generating even more big data to feed ANNs. The IoT involves the connection of any device with an on/off switch to the Internet. This ranges from mobile phones and TV sets to jet engines and drills on oil rigs.

A key feature of ANN modeling is that CRM professionals do not need to have a prior theory about, for example, why someone fails to renew their mobile phone contract. The machine can learn from the inputs which factors matter most, how the factors interact with each other and accurately predict who is most likely to defect. Then the CRM user can focus promotional activity on those most likely to leave or stop recruiting new customers who have a profile that suggests they will churn at an unacceptably high rate. So ANN's – a method of machine learning – are useful in customer management.

However, there are drawbacks to the method. ANN's require substantial data and computing power – although these are becoming cheaper, more plentiful and easier to access. ANN's also requires good data scientists but they, too, are increasing in numbers. Perhaps more fundamentally, ANN's are "black boxes" with hidden layers. That is, users of ANN's see the inputs and outputs but how the inputs interact with each other through the layers of neurons is not visible, and therefore not decipherable. ANN's may predict well but explain little (Figure 12.8). If you really need to know why some customers are retained for longer the ANN provides less insight versus other ML methods such as decision trees which you read about earlier in the chapter.

While ANN's were an early form of implementing AI, other forms of ML that were less computationally demanding, such as decision trees, became the focus of research and development. However, ANN's have had a big resurgence in recent years as technology advances have boosted computational power and eliminated a major constraint on ANN deployment.

Fast forward to today, and advances in computing, mathematics and data have confirmed the importance of ML. On an ordinary laptop, running widely available statistics software packages, you can build an ANN in seconds providing you have a sufficiently large data set. A simple model of three inputs and two layers can be performed with the computing power of a mobile phone. However, increase the number of inputs to millions and use hundreds of hidden layers, and you will require a huge increase in computational power.
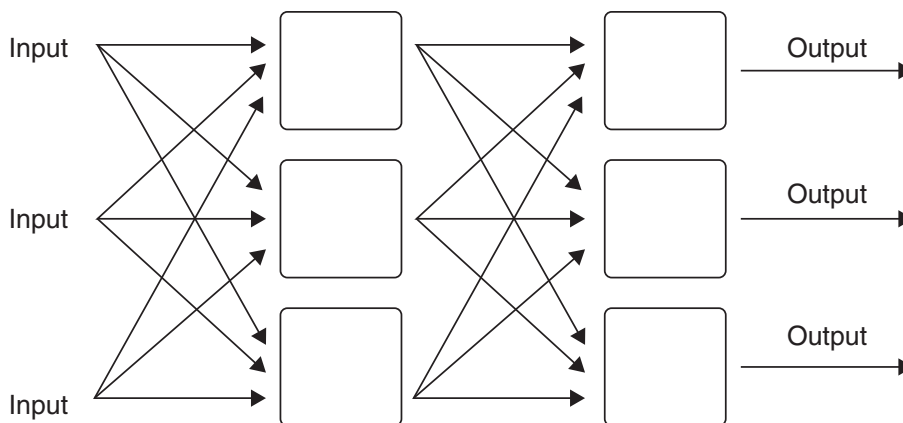
Figure 12.8 Simple two hidden layered neurons neural network (simplified representation)

Deep learning

As computing power has increased data scientists have taken on bigger challenges. Perhaps most topical is the development of self-driving or autonomous vehicles. In real-time, multiple sensors must "see" objects around the vehicle, classify them correctly (other vehicles, trees, roadside safety barriers, stop signs, traffic lights, pedestrians, etc.) and determine the right action. The sheer number of computations is staggering. However, commensurate advances in algorithms have found more efficient and effective ways to classify sensor data and the combination of more power and better algorithms promises not only to make self-driving vehicles a safe and driver-friendly option, but also perform complex medical diagnosis, optimize traffic flows, and automate complex supply chains.[33] Such machine learning is called deep learning (DL). A vehicle that drives on its own, respecting all the traffic laws in safety is something that most people could accept as intelligent, and it would certainly offer a different customer experience to an operator-driven vehicle!

Deep Mind, a company owned by Alphabet (Google), used deep learning to build a neural network that famously defeated the world champion Go player in 2016. Computers had beaten humans in checkers and chess previously, but Go is so complex, with many strategies that constantly shift, that this was considered a landmark in AI. Equally impressive is how fast DL mastered the game. Computers can now learn much faster than humans and exceed humans in some forms of intelligence. One survey of ML researchers predicts that AI will outperform humans in many activities in the next ten years, such as translating languages (by 2024), writing high-school essays (by 2026), driving a truck (by 2027), working in retail (by 2031), writing a bestselling book (by 2049), and working as a surgeon (by 2053). The respondents believe there is a 50% chance of AI outperforming humans in all tasks in 45 years and of automating all human jobs in 120 years.[34]

Deep learning is present in CRM as well. Chatbots that use advanced speech recognition deploy DL to make them far more acceptable and useful to customers than IVR (interactive voice response). Amazon's digital assistant Alexa is a cloud-based service in the form of a conversational interface. DL powers Alexa's ability to understand the context and idioms of our natural speech (using natural language processing) to respond to instructions and requests in the most appropriate way. Google's equivalent service is branded Assistant, and the two are competing for dominance in this application of AI. The inputs for such DL algorithms include our entire buying and interactive history with the company, context specific aspects of our lives and comparisons to others' behaviors. The ability to understand speech in all its nuances, interpret its meaning at an individual level and respond appropriately is perhaps the most obvious initial CRM application of AI – enabled through deep learning.

PRIVACY ISSUES

How organizations acquire, store, analyze and use customer data is an important issue for regulators; privacy and data protection are major concerns to legislators around the world. Customers are increasingly concerned about the amount of information commercial organizations have about them, and the uses to which that information is put. In fact, most consumers are not aware of just how much information is available to companies. When

you use the Internet, small programs called cookies are downloaded onto your hard drive from the sites you visit. A number of websites obtain permission from their site visitors prior to the download; many do not.

There have been two major responses to the privacy concerns of customers. The first is self-regulation by companies and associations. For example, a number of companies publish their privacy policies and make a commercial virtue out of the way they manage customer data. Professional bodies in fields such as direct marketing, advertising and market research have adopted codes of practice that members must abide by.

The second response has been legislation. In 1980, the Organization for Economic Cooperation and Development (OECD) developed a set of personal data protection principles.[35] Internationally, these principles provide the most commonly used privacy framework; they are reflected in existing and emerging privacy and data protection laws in the European Community and serve as the basis for the creation of best practice privacy programs and additional principles.

The eight OECD principles are as follows:

1   **Collection limitation principle.** Personal data should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject.

2   **Data quality principle.** Personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes, should be accurate, complete and kept up-to-date.

3   **Purpose specification principle.** The purposes for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or other uses compatible with those purposes.

4   **Use limitation principle.** Personal data should not be disclosed, made available or otherwise used for purposes other than those specified except a) with the consent of the data subject; or b) by the authority of law.

5   **Security safeguards principle.** Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification or disclosure of data.

6   **Openness principle.** There should be a general policy of openness about developments, practices and policies with respect to personal data. Means should be readily available of establishing the existence and nature of personal data, and the main purposes of their use, as well as the identity and usual residence of the data controller.

7   **Individual participation principle.** An individual should have the right: a) to obtain from a data controller, or otherwise, confirmation of whether or not the data controller has data relating to him; b) to have communicated to him, data relating to him i) within a reasonable time; ii) at a charge, if any, that is not excessive; iii) in a reasonable manner; and iv) in a form that is readily intelligible to him; c) to be given reasons if a request made under subparagraphs (a) and (b) is denied, and to be able to challenge such denial; and d) to challenge data relating to him and, if the challenge is successful to have the data erased, rectified, completed or amended.

8   **Accountability principle.** A data controller should be accountable for complying with measures that give effect to the principles stated above.

The United States Department of Commerce developed the *Safe Harbor* self-certifying legal framework to allow US organizations to comply with the EC Data Protection Directive. Because of the purpose, the framework's principles align closely with OECD's. There are seven *Safe Harbor* principles:

1   **Notice.** Organizations must notify individuals about the purposes for which they collect and use information about them. They must provide information about how individuals can contact the organization with any inquiries or complaints, the types of third parties to which it discloses the information and the choices and means the organization offers for limiting its use and disclosure.

2   **Choice.** Organizations must give individuals the opportunity to choose (opt out) whether their personal information will be disclosed to a third party or used for a purpose incompatible with the purpose for which it was originally collected or subsequently authorized by the individual.

3   **Onward transfer (transfers to third parties).** To disclose information to a third party, organizations must apply the notice and choice principles. Where an organization wishes to transfer information to a third party that is acting as an agent, it may do so if it makes sure that the third party subscribes to the *Safe Harbor* privacy principles or is subject to the Directive or another adequacy finding. As an alternative, the organization can enter into a written agreement with such third party requiring that the third party provide at least the same level of privacy protection as is required by the relevant principles.

4   **Access.** Individuals must have access to personal information about them that an organization holds and be able to correct, amend, or delete that information where it is inaccurate, except where the burden or expense of providing access would be disproportionate to the risks to the individual's privacy, or where the rights of persons other than the individual would be violated.

5   **Security.** Organizations must take reasonable precautions to protect personal information from loss, misuse and unauthorized access, disclosure, alteration and destruction.

6   **Data integrity.** Personal information must be relevant for the purposes for which it is to be used. An organization should take reasonable steps to ensure that data is reliable for its intended use, accurate, complete, and current.

7   **Enforcement.** In order to ensure compliance with the *Safe Harbor* principles, there must be (a) readily available and affordable independent recourse mechanisms so that each individual's complaints and disputes can be investigated and resolved and damages awarded where the applicable law or private sector initiatives so provide; (b) procedures for verifying that the commitments companies make to adhere to the *Safe Harbor* principles have been implemented; and (c) obligations to remedy problems arising out of a failure to comply with the principles. Sanctions must be sufficiently rigorous to ensure compliance by the organization. Organizations that fail to provide annual self-certification letters will no longer appear in the list of participants and *Safe Harbor* benefits will no longer be assured.

Safe Harbor is one of several cross-border data transfer options for organizations in the US that conduct business in the EU. For an organization to employ *Safe Harbor* as a compliance mechanism, the organization must be subject to the Federal Trade Commission's or Department of Transportation's authority. *Safe Harbor* is a very popular option, particularly for handling customer data.

However, the most important new development in this area at the time of writing is the European Union (EU) directive on data security and privacy: GDPR, the General Data Protection Regulation.[36] Its scope is far wider than anything that preceded it, as are its fines for transgressions. For large organizations guilty of data protection failures, fines of 20 million euros or 4% of global sales revenue (whichever is greater) can apply. The legislation applies to all companies processing data on European citizens regardless of where the company is located and where the data is processed. Conditions for consent will need to be much clearer; there is no hiding behind pages of small print. Some of the provisions include the right to be forgotten, to access data held about you in an inexpensive, quick and easy manner, protection by design and strict governance within companies. The legislation took effect in May 2018 and no doubt many of its complexities and ambiguities will be defined through court challenges, but the intent of the EU is clear. Among other concerns, GDPR establishes principles relating to 1. the processing of personal data; 2. the lawfulness of processing; 3. conditions for consent; and 4. conditions specific to the consent of children. How GDPR effects some of the most aggressive uses of marketing automation and CRM is yet to be determined. However, clearly, firms are going to operate with more informed consent and be much more transparent about what they do with data – and this might end up being a very positive step for CRM, which risks becoming overly intrusive.

CONCLUSION

This chapter has explored how organizations analyze and use customer-related data. We define analytical CRM as the process through which organizations transform customer-related data into actionable insight for either strategic or tactical purposes. Analysis of customer-related data supports strategic CRM by answering questions like "who are our most valuable customers?" and operational CRM by answering questions like "what offer should we next make to this particular customer?" Analytical CRM supports strategic and tactical decision-making by marketing, sales and service teams throughout the customer journey. CRM analytics are commissioned and delivered to users in three ways: through standard reports, online analytical processing or data mining. Analytical methods for structured data – the type of data that typically resides in relational databases – are mature. Analytics for unstructured data are becoming more widely adopted. Textual analysis is the most widely deployed form of unstructured data analytics. Analytics for big data are still evolving. Big data are characterized by their volume, velocity and variety. These attributes make analysis challenging. Data-mining technologies work in a number of ways: by describing and visualizing, classifying, estimating, predicting, affinity grouping and clustering. Managers and data miners need to understand the types of analysis that are appropriate for different levels of data – nominal, ordinal, interval and ratio. Artificial intelligence, in the form of both machine learning and deep learning, has an expanding role in CRM analytics. Privacy regulations place constraints on what can be done with customer-related data. Data analysts need to be aware of these constraints.

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REALIZING THE BENEFITS OF CRM

So far, we have covered why firms are, or should be, interested in CRM as part of an overall strategic approach to managing the customer journey, the tremendous opportunities afforded by new technology and business processes, and how CRM potentially benefits both customers and firms alike. However, extensive research from both business and technology perspectives concludes that neither the technology nor many CRM programs generate meaningful business improvement. Numerous surveys of CRM's impact in the early 2000s, when the many early adopters had gone live with their CRM implementations demonstrate that large numbers felt their investments had not been successful, even though many firms did not even measure the ROI of their CRM investment! The Gartner Hype Cycle that we introduced in Chapter 9 applies broadly to CRM technologies. The Hype Cycle points to the tremendous initial excitement associated with innovative CRM technology, inflated expectations about what can be achieved, and the subsequent disillusionment and rethink that is evident in so much of technology-led change. Given that best-practice CRM technology is available on the open market from a vibrant, competitive and global set of technology vendors (e.g. IBM, Oracle, SAP, SAS, Salesforce.com and Marketo to name but a few) it is unrealistic to expect that CRM technologies alone generate sustainable competitive advantage. Realizing business benefit from investment in CRM is the responsibility of management, not the IT vendor.

Chapter 13 covers the generation of a business case for CRM investment, the management of its benefits, planning the implementation and aligning the organization for its success. Chapter 14 focuses on the project management skills you will need to implement CRM programs.

PLANNING TO SUCCEED

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CHAPTER OBJECTIVES

After reading this chapter you will understand how to:

1. Generate a business case for CRM aligned both to strategic intention and the needs/behaviors of customers.

2. Identify and plan for the immediate operational benefits of CRM.

3. Identify and plan for potential future benefits arising from improved operational effectiveness.

4. Understand options for organizational structure to implement CRM strategy.

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THE LOGIC OF THE BUSINESS CASE

Success or failure of CRM is often determined well before you start investment; in preparing the business case, the outcome of the investment can be pre-determined. Imagine going to the board of your company and asking for $50 million over three years to develop/enhance a CRM program. You have looked at a number of CRM programs, spoken with peers, companies, suppliers and experts and have a good feel for the solutions, people and processes that you need to develop. These are relatively easy to estimate in terms of time and cost because CRM is a mature practice. You identify to your board colleagues the win:win argument for CRM just as we have in Chapter 1. You explain how technology can generate a comprehensive view of each customer's history, enabling you to apply sophisticated analytics that enable you to manage customers according to their unique profile in real-time, all with the expectation that you will be more profitable. The obvious questions are: how much incremental profit will you generate? What is the ROI? What is the risk?

The honest answer is that you don't yet know. Until you have engaged with customers interactively, learned from them, experimented with real-time customization of offers, experienced the reduction of service costs and so on, you only know with certainty what CRM

will cost. You have little idea about the size and timing of return. Typically, managers make heroic assumptions about customer retention rates, upselling, cross-selling and cost-to-serve. Sometimes these are made on the basis of claimed but unproven best practice metrics provided by technology partners, and other times they are just assumptions based on cost, as if you were asking: "What assumptions do I need to make for this investment to pay, and are they reasonable assumptions to make?" These estimated returns are put into a spreadsheet and discounted for the time value of money and a net present value (NPV) of the investment is determined.[1]

Traditional business case modeling does not fit the CRM context

The practice of discounting cash flows does not suit investments in IT-enabled change, such as CRM.[2] Discounted cash flow analysis (DCF) or finding the NPV works by computing the difference between cash inflows and outflows discounted for the risk associated with that class of investment. Discounting allows managers to compare inflows and outflows, typically occurring at different times through the project at a hypothetical time "zero." Where the NPV is positive, the real value of cash generated adjusted for risk is greater than the investment, and shareholder value is therefore created. This is the dominant model used by companies when allocating their investment funds. It is known as the capital asset pricing model (CAPM). If a company invests in numerous projects, each of which is expected to generate more real cash than it costs, then over time, the value of the firm will rise.

The economic logic of the CAPM is sound. However, it is based on assumptions that are questionable in the context of large-scale CRM investments.

- Where CRM is a "bet the business" imperative or a major, disruptive change in business strategy, the risk of failure is too great for "expected value" decision-making. If a company must become customer-centric quickly, then this is no longer one investment among many – it is a "do or die" situation.

- The variance of outcomes is sufficiently predictable to make an expected value meaningful. When faced with discontinuous futures, scenario planning may be a better option than using "expected value." A CRM change program that costs, for example, $100 million, might not generate one cent of incremental cash (rather, it loses $100 million) but, on the other hand, could transform the business fundamentally and generate $500 million (but nothing in between). DCF might show the investment has an expected value of $300 million but that is a meaningless figure for the board; they either lose $100 million or gain $500 million.

- No complementary assets and capabilities are needed. CRM's impact on business performance is almost always in conjunction with, or mediated by, other capabilities such as excellent brand management,[3] customer-focused management,[4] employee behaviors,[5] new product development[6] and organizational responsiveness.[7] If these capabilities are not developed, the CRM program might fail initially. However, over time it gathers so much customer insight that your new product development improves markedly. It is almost impossible to know that at the start or estimate the benefits up front. It is pure guesswork.

IT researchers have long recognized that investments in technology alone do not improve performance or economic output.[8] While they, too, identify similar complementary assets and capabilities needed, they emphasize the role of the conscious management of the potential benefits from IT investments: the "benefits realization" approach to managing CRM implementation.[9] The challenge of planning for CRM payback is that the returns tend to occur in two stages and the second stage does not automatically follow on from the first[10]. Typically, the first return on CRM investment is through improved operational performance. Duplicate databases are consolidated into a single view of the customer, front and back office integration is improved thus reducing costs, channels are integrated allowing the organization to serve customers anywhere at any time, self-service online reduces costs further, marketing campaigns are less costly to implement and may generate greater sales through improved customer selection. At this point, the company may declare success and manage the CRM for selective improvements over time. However, this improved operational performance likely has generated new CRM assets (databases, mining tools, customer relationships) and capabilities (data mining, database management, interacting with customers). These improved operational and analytic CRM assets and capabilities enable more ambitious strategic CRM initiatives; bigger changes to align the business to the needs of the most attractive customers in the market. Such benefits are said to be latent and staged or layered[11] and are realized over an extended time period.[12] Active benefits realization improves the return on IT investment.[13]

Given this staged or layered description of the benefits arising from CRM, the DCF approach to valuing CRM investments is inadequate. Moreover, it takes the company's attention away from identifying and managing latent benefits over time to a focus on short-term cash flow generation from enhanced operational CRM (e.g. campaign management, reduced service costs). Typical business cases, based on capital expenditure logic, assume a linear and continuous relationship between activity and cash flow that can be discounted back to time zero and contrasted with the estimated investment. CRM benefits are discontinuous: some operational benefits are experienced early on and then there is a "break" where management either realizes the latent benefits made possible by newly achieved customer insight and enhanced CRM capabilities – or not.

Such structure of benefit corresponds closer to another sort of investment analysis that is much more used in financial circles than in marketing circles: real options pricing models. You may be familiar with financial options, that is the right to buy or sell an asset at some point in the future for a price you set today. For example, farmers agreeing a price for their harvest in advance guarantee sufficient income to carry on farming; the risk of turbulent markets is too much to accept for some farmers. Similarly, a food manufacturer may purchase options to buy raw materials at a fixed price for, say, six months hence, so as to have some certainty of costs. A *real* option is the right to buy sell a physical asset, or even a business, at some point in the future.

A board member may believe that customer-centricity could be the future of his business but is unwilling to completely change the business model at this time; he feels it is too risky, too unproven and, in any case, he has better opportunities in front of him. He could, however, build a limited CRM infrastructure, with databases, tools and analysts to learn about customers and experiment with customization and marketing automation to see how it works. If customers do not respond, then he does not exercise the option to scale up to an expensive CRM solution. He will only have lost the cost of the limited CRM infrastructure

that is small versus the loss he would have made had he gone ahead with the bigger CRM investment and changes to the business model. However, if the limited CRM investment has demonstrated precisely how to make it work for his company, then he is very well placed to exercise the option to scale up. He has a blueprint for success, some capabilities, a management team in place and basic infrastructure. Implementing the more ambitious CRM program is far less risky than doing it cold and will take far less time. This "test market" of CRM, this investment in learning and building basic capabilities, can be considered a real option that is exercised only if CRM appears to have real promise. It limits the risk and exposure for the company but also provides it with the possibility to reap the rewards should CRM be right in this environment.

If the idea of testing CRM before embarking on a full-blown change program appeals, then how would you write a business case for it? How would you quantify the value of the learning that you have yet to acquire? The financial markets have long managed such investments. People may wish to participate in a stock's future growth potential without necessarily buying the stock outright, so they buy an option to buy that stock at a certain price in the future. Investment firms can price these options given the current share price, what you are willing to bet it will be in the future, how many months in the future and the risk in the market. For non-financial investments like CRM, the financial market's, "real options pricing" models provide a useful analogy and methodology.[14] The most popular of these models is called Black-Scholes and you can find websites that will calculate the option value online – Apple even has a widget for this!

Real Options has been demonstrated to work in the context of creating a business case for CRM.[15] The value of the real option can be added to the value of a traditional discounted cash flow that assumes a test followed by a full roll-out. By valuing the learning in the business, you are far more likely to design and manage CRM to learn from customers and to respond to what they are telling you. This contrasts to an approach you need to "justify" the investment by assuming, even before engaging with customers, that they will wish to be cross-sold to, pay more, be more loyal and so on. We believe that the business case sets the vision and values for the CRM program.

The benefits dependency network

Testing CRM asks an obvious question: what will success look like? What are we looking for with respect to customer behavior, selection, operating costs, and so on? These questions mean that managers of CRM implementations must work out how to identify immediate and latent benefits of CRM and test for their presence. IT experts have developed a framework for so doing that – the benefits dependency network or BDN. It is a logical structure of connected activities and events that are associated with identified benefits. Figure 13.1 provides a simplified illustration of a BDN.

It is important that each benefit, for example "increased conversion rate of leads to orders," has an owner in the business accountable for its achievement and empowered to work backwards through the BDN to bring about the changes to activities and processes that are necessary for the benefit to be achieved. CRM solutions enable those activities but do not generate them automatically. Too often, CRM is seen as a technology implementation project

Benefits Dependency Network – CRM investment
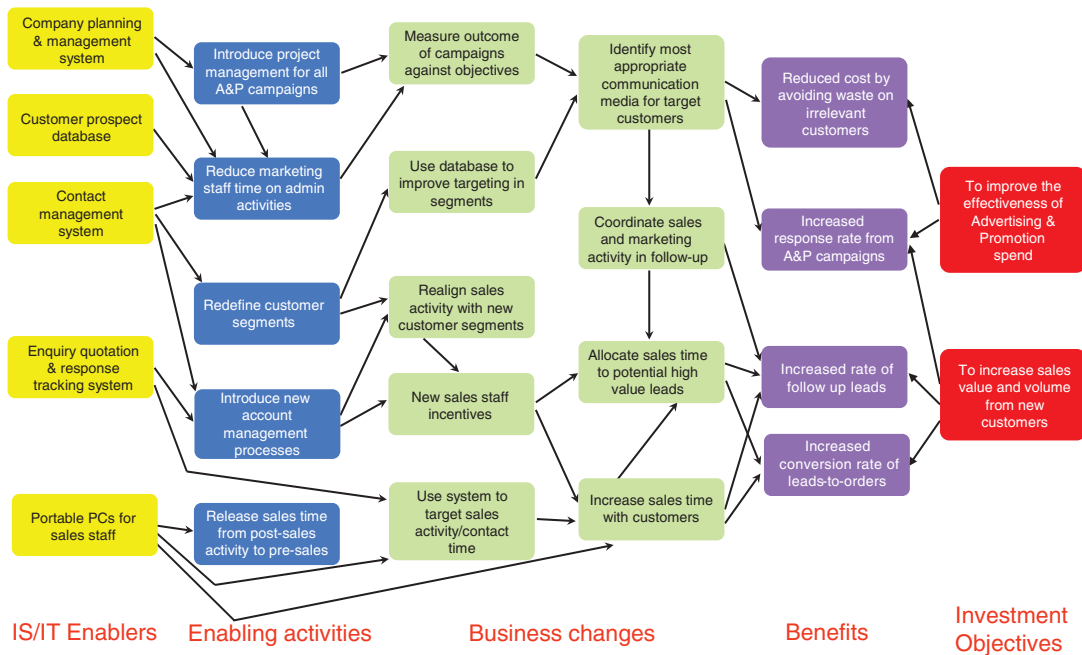
Figure 13.1 Benefit dependency network example[16]

whose success is determined by its functioning, rather than its delivery of business results. The BDN shifts management's thinking from technology to business benefits and the actions necessary to produce those benefits.

ORGANIZING FOR BENEFITS

Alfred Chandler is credited with the expression, "strategy before structure," suggesting that organizations should decide their strategic goals before designing the structure of the organization to bring about the achievement of those goals. [17]

Companies adopting CRM as their core business strategy need to create an organizational structure that achieves three major outcomes through its marketing, selling and service functions:

1   The acquisition of carefully targeted customers or market segments.

2   The retention and development of strategically significant customers or market segments.

3   The continuous development and delivery of competitively superior value propositions and experiences to the selected customers.

This is the core of strategic CRM and it needs to be supported by the organization's structure. No structure is perfect and each entails trade-offs; however, firms embarking on a customer-centric strategy need to make these trade-offs in favor of encouraging teams from across their organization, and those in supplier and partner companies, to work together to deliver customized communications and offers to the most attractive customers.

Conventional customer management structures

We'll start by considering a stand-alone company as it organizes to achieve these three CRM goals. This company is presented with a number of alternative structures:

1   Functional organization structure.

2   Geographic organization structure.

3   Product, brand or category organization structure.

4   Market or customer-based organization structure.

5   Matrix organization structure.

Functional structure

A functional structure has marketing, sales and service specialists reporting to a functional head such as a director or vice president. The specialists might include marketing analyst, market researcher, campaign manager, account manager, service engineer and sales support specialist. Small- to medium-sized businesses with narrow product ranges tend to prefer the functional organization. The three core disciplines that interface with customers –marketing, sales and service – may or may not coordinate their efforts or share their customer knowledge by depositing it in a common customer database. From a CRM perspective it would be better if they did! Elsewhere in a functionally organized business will be other specialists whose decisions can impact on customer acquisition, retention and experience, for example, specialists in operations, human resources and accounts receivable. These experts also would benefit from having access to customer information. Very often, functional specialists feel a sense of loyalty to their discipline rather than their customers.

Geographic structure

A geographic structure organizes some, or all of the three, core customer management disciplines – marketing, selling and service – on territorial lines. Selling and service are more commonly geographically dispersed than marketing. International companies often organize geographically around the Americas, EMEA (Europe, Middle East and Africa) and Asia-Pacific regions. Smaller companies may organize around national, regional or local areas.

Where customers are geographically dispersed and value face-to-face contact with salespeople, there is a clear benefit in salespeople also being geographically dispersed. Where service needs to be delivered at remote locations, field service staff must also be distributed geographically. Because selling and service costs can be very high, companies try to find ways to perform these activities more cost effectively. Some companies sell face-to-face to their most important

customers and offer a tele-sales service to others. Others provide service through centralized contact centers that might either be outsourced or company-operated. Websites and chatbots that enable customers to service their own requirements can also reduce cost.

One disadvantage of this approach, from a CRM perspective, is that there may be many different customer types in a single geographic area. A salesperson selling industrial chemicals might have to call on companies from several industries such as textiles, paint, or consumer goods manufacturing. The applications of the sold product may be diverse; the buying criteria of the customers may be quite different. Some may regard the product as mission-critical; others may regard it insignificant. The problem is multiplied if a salesperson sells many products to many customer groups. The salesperson develops neither customer-, nor product-expertise, and that is unhelpful for CRM performance.

Product, brand or category structure

A product or brand organization structure is common in companies that produce a wide variety of products, especially when they have different marketing, sales or service requirements. This sort of structure has been common in large consumer goods companies such as Procter and Gamble and Unilever, and in diversified B2B companies. Product or brand managers are generally responsible for developing marketing strategy for their products, and then coordinating the efforts of specialists in marketing research, advertising, selling, merchandising, sales promotion and service, to ensure that the strategic objectives are achieved. Normally, brand and product managers have to compete for company resources to support their brands. Resources are spread thinly across many brands and the company risks becoming focused on products rather than customers. Procter and Gamble found that brand managers became isolated, competing vigorously against each other, focusing on their own goals, rather than those of the broader business. Brands competed against each other, creating cannibalization.[18]

Many multi-brand companies have found that brand management makes it difficult to integrate the entire resources of the organization around the needs of customers. Brand management encourages competition between the company's product-brand offers rather than promote integrated customer offers. Product-brand companies lack coordination and have disregard for the value of the customer's time. The customer may also experience varying levels of service from the different brand or product managers. Some companies have tried to coordinate their product-marketing efforts by appointing product group managers to an oversight role or customer front ends to the product brand structure to help customers navigate around the complex offers.

Many leading fast-moving consumer goods companies have moved to or experimented with a category management structure. Kraft markets a number of different brands, including Louis Rich cold meat cuts and Oscar Mayer hot dogs. The company created a layer of category business directors to coordinate a team of functional experts focused on each major category (Figure 13.2). Brand managers sit on the category team. The category team works with a customer team that is dedicated to each major customer, to ensure that the category offer generates profit for both Kraft and the customer. The customer team works closely with customers to help them learn how to benefit more from intelligent product assortment, merchandising and promotion decisions. They also help retailers to better understand and exploit their own customer data.
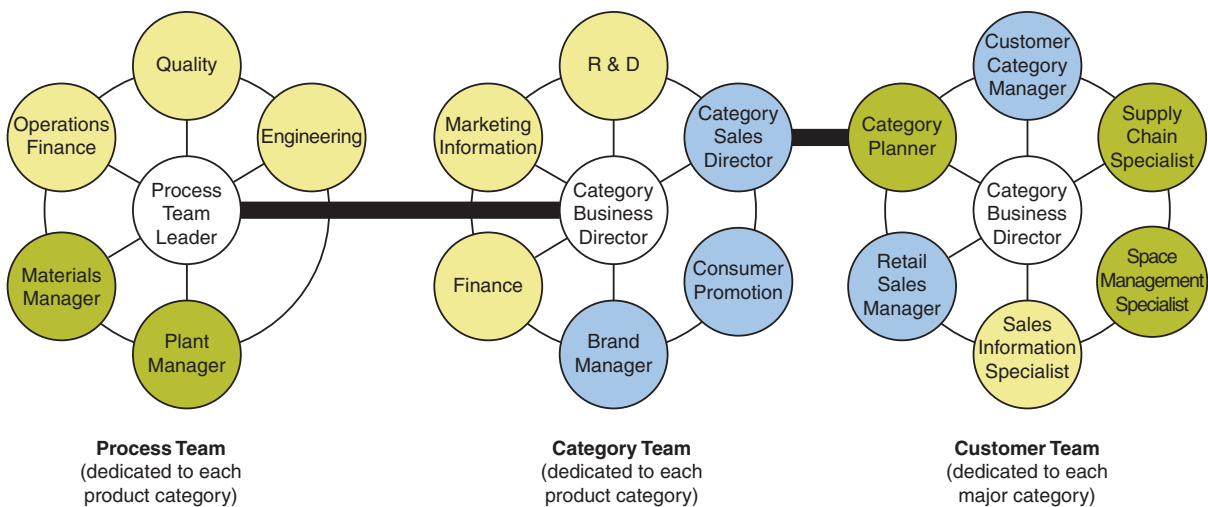
Figure 13.2 Category management at Kraft[19]

Also dedicated to each category is a process team that is responsible for ensuring that business processes are aligned with customer requirements. Typically, the process team addresses issues of quality management and logistics. This sort of structure attempts to integrate product, functional and customer considerations.

Market or customer structure

Market- or customer-based organization structures are common when companies serve different customers or customer groups that are felt to have different requirements or buying practices. Market- or customer-based managers come in many forms: market managers, segment managers, account managers and customer business managers, for example. The roles are responsible for becoming expert on market and customer requirements and for ensuring that the organization creates and delivers the right value propositions and experiences to the customer. National, key or global account management structures, that we look at in more detail later in the chapter, also fit into this type.

Matrix structure

A matrix organization is often the preferred structural solution when a company has several different products lines serving several different customer groups. A matrix typically has market- or customer-based managers on one side, and product managers on the other side of the matrix as in Figure 13.3. In the high-tech industries, another common matrix structure is geography against industry. The sales team includes a sales person and a pre-sales consultant. Sales people are organized into geographic territories, but pre-sales consultants are organized by industry. This allows customers to have not only a geographically convenient point of face-to-face contact but also an industry specialist on whose expertise they can draw.

A variation that is commonly found in multi-channel organizations is the replacement of customer managers with channel managers. Multi-channel retailers can have several

Customer managers

		1	2	3	4
Product managers	A				
	B				
	C				
	D				
	E				

Figure 13.3 Matrix organization structure

routes to market: stores, catalogues, online retailing, perhaps even a TV shopping channel. Financial services institutions also have many channels: branch networks, contact-center, mobile reps, agency outlets, and corporate website. Matrix organizations are thought to facilitate both horizontal and vertical communication, therefore improving coordination and reducing inefficiencies.

Market or customer managers in matrices are responsible for developing and maintaining profitable relationships with external customers. Generally, they view product managers in the matrix as suppliers. Sometimes the internal product manager will compete against external suppliers to become the market manager's preferred supplier. Then, market managers will form internal customer–supplier relationships, negotiate prices and agree service levels just as they would with outside suppliers. Pricing internal transfers can be a tricky decision. One of two approaches is taken: either the internal supplier sells at external market prices (as if they were marketing to an external customer, and aiming to make a profit), or they sell at an internally agreed transfer price that enables market managers to return a profit on their external transactions and relationships. This price then allows the market manager more flexibility in negotiating price with the external customer.

As an alternative to, or in some cases a prelude to, the development of a matrix organization, many companies have opted for the use of cross-functional teams. A cross-functional team is usually established when a project has implications that span normal functional, product or market lines. A cross-functional team is often used to consider the implications of the adoption of CRM. It will consist of experts from marketing, sales, service, technology, finance, and general management.

NETWORK AND VIRTUAL ORGANIZATIONS

Business networks compete, not just stand-alone companies. Virgin Atlantic's network competes with the networks of American Airlines and British Airways. Indeed, some members of VA's network may also be part of AA's and BA's networks.

In this networked world, it is no longer a simple matter to know where an organization's boundary lies. This brings us to the role of IT in organizational design. The role of IT in a stable corporate environment is to allow senior management to control information and decision-making.[20] As environments become more turbulent, and as companies attempt to forge network relationships, the role of IT has changed. Its role is now to provide information that enables the company and its network members to:

- Sense and respond rapidly to changes in the business environment
- Collaborate to develop and deliver better customer value propositions and experiences
- Enhance and share their learning about customers
- Improve their individual and joint cost profiles.

Customers do not want to learn how the organizations they patronize are structured. They do not want to have queries rerouted from one silo or specialist to another in search of a solution. Customers who hear the words, "That's not my department. I'll put you through to the right person" or find themselves looping through IVR menus in search of a solution are likely to be dissatisfied customers. Customers want their needs, demands and expectations to be met. Companies therefore need to create an organization structure that enables their products, services and information to be ubiquitously and immediately available in the channels that customers patronize. Traditional structures, particularly those that are function-, geography- or product-based, struggle to meet these standards.

Structures that are IT-enabled are more likely to meet customer requirements. For example, an online banking service is open every day and hour of the year. A typical branch-based service is open less than one-third of the time. If the branch network were to replicate the scale of the online service, it would require three times the staffing levels with a concomitant increase in management structure. Even then, this could not match the convenience of a home-accessed banking service, or its price. PWC reports that a branch-based transaction costs a bank 40 times the cost of an Internet transaction.[21] Some or all of these transaction cost savings can be passed on to customers in improved prices. For example, buying life insurance online is between 8% and 15% cheaper than buying through a bricks-and-mortar broker.[22]

At its most advanced, the IT-enabled organization is able to take any sales or service query from any customer in any channel and resolve it immediately. Among the preferred characteristics of such a design are:

- A customer interface that is consistent across channels and easy to use whatever the technology or device
- A first point of contact that takes responsibility for resolving the query
- A back-end architecture that enables the contact point to obtain relevant customer and product information immediately.

These IT-enabled structures eliminate the need for conventional silo-based geography-, function- and product-based arrangements.

PERSON-TO-PERSON CONTACTS

Interpersonal contacts between people from the seller and buyer dyad are important, whether they are conducted face-to-face or mediated by technology such as phone, chat and email. On the seller's side these contacts are important for identifying customer needs, requirements and preferences, for understanding and managing customer expectations, for solving problems and showing commitment. Over the life of a relationship, such personal contacts contribute to the reduction of uncertainty and the creation of close social bonds. Interpersonal communication also underpins the development of product and process adaptations that serve as investments in the relationship. These act as structural bonds.

Relationships between individuals on buyer and seller sides tend to be hierarchically matched.[23] Sales representatives meet with buyers; general managers meet with general managers. Researchers have also identified three main patterns of inter-organizational contact.[24]

- **Controlled contact** pattern, where all contacts are physically channeled through a single point of contact, typically a salesperson on the seller's side or a buyer on the customer side. This individual manages all the contacts with the other side of the dyad. There are two forms of this pattern: seller-controlled and buyer-controlled.

- **Co-ordinated contact** pattern. Many different departments or individuals have direct personal contacts with departments or individuals on the other side, but there is one department or person, usually a buyer or sales representative who is involved in and coordinates all these contacts. There are three forms of this pattern: seller-coordinated pattern, buyer-coordinated pattern, jointly-coordinated pattern.

- **Stratified contact** pattern, where individuals and departments on both sides of the dyad manage their own contacts with their equivalents on the other side of the dyad.

These established patterns are breaking down under the influence of new technologies. Now it is possible to have many-to-many communications between contacts on the buyer's and seller's sides, enabled by web technologies. The coordination of these contacts is one of the features of CRM applications. Modern customer communication requires the use of multi-channel consolidation infrastructures if all types of communication are to be consolidated into a single record of inter-organizational contact.

KEY ACCOUNT MANAGEMENT

Many B2B companies have adopted a market-based customer management structure variously called key account management, national account management, regional account management or global account management. We use the term key account management (KAM) to cover all four forms. KAM is a structure that facilitates the implementation of CRM at the level of the business unit.

A key account is an account that is strategically significant. This normally means that it presently or potentially contributes significantly to the achievement of company objectives,

such as profitability. It may also be a high-volume account, a benchmark customer, an inspiration, or a door opener, as described in Chapter 5.

Companies choose one of two ways to implement KAM. Either a single dedicated person is responsible for managing the relationship, or a team is assigned, as in the Kraft example mentioned earlier. The team membership might be fully dedicated to a single key account or may work on several accounts. Generally, this is under the leadership of a dedicated account director.

The motivation to adopt a KAM structure comes from recognition of a number of business conditions:

- **Concentration of buying power** lies in fewer hands. Big companies are becoming bigger. They control a higher share of corporate purchasing. Also, smaller companies are cooperating to create purchasing power and leverage purchasing economies. Even major competitors are collaborating to secure better inputs. For example, Procter and Gamble and Unilever, rivals on the supermarket shelf, cooperate to buy raw materials and input goods such as chemicals and packaging.

- **Globalization.** As companies become global they want to deal with global suppliers, if only for mission-critical purchases. Global companies expect to procure centrally but require goods and services to be provided locally.

- **Vendor reduction programs.** Customers are reducing the number of companies they buy from, as they learn to enjoy benefits from improved relationships with fewer vendors.

- **More demanding customers.** Customers are demanding that suppliers become leaner. This means they eliminate non-value adding activities. They want suppliers to supply exactly what they want. This may mean more reliable, more responsive customer services, and just-in-time delivery.

A supplier may decide that it wants to introduce a KAM system, but it is generally the customer who decides whether to permit this sort of relationship to develop. If customers feel that their needs are better met outside of a KAM-based relationship, they are unlikely to participate in a KAM program.

According to one study, suppliers are finding considerable benefits in the adoption of KAM.[25]

- Doing large amounts of business with a few customers offers considerable opportunities to improve efficiency and effectiveness, thereby reducing transaction costs.

- Selling at a relationship level can spawn disproportionately high and beneficial volume, turnover and profit.

- Repeat business can be considerably cheaper to win than new business.

- Long-term relationships enable the use of facilitating technologies such as shared databases.

- Familiarity and trust reduce the need for checking and make it easier to do business.

Although the research suggests major benefits for sellers, the companies that succeed at KAM are those that perform better at a whole range of management activities including selecting strategic customers, growing key accounts and locking out the competition. Companies that are most effective at developing strategic customer relationships spend more time and effort thinking about their customers' profiles, direction and future needs than the least effective. They spend relatively less time and effort considering how their strategic customers will benefit themselves as suppliers.[26]

Concentration of buying power has led to buyers taking charge of relationships. Many companies have supplier accreditation and certification processes in place. To be short-listed as a potential supplier, vendors often have to invest in satisfying these criteria. Buyers increasingly have documented processes that compel vendors to deal with specific members of a decision-making unit at specific times in the buying process. Under these circumstances, sellers may not have the chance to exhibit their exceptional selling capabilities. What they must do, however, is demonstrate their relationship management capabilities.

KAM differs from regular B2B account management in a number of important ways.

- The focus is not on margins earned on each individual transaction; rather the emphasis is on building a mutually valuable long-term relationship. The effect of this is that a more trusting, cooperative, non-adversarial relationship develops.

- Key account plans are more strategic. They look forward, perhaps as many as five or more years. Non-key accounts are subjected to more tactical campaigning designed to lift sales in the short term.

- The KAM (team) is in continuous contact, very often across several functions and at multiple levels of hierarchy. Special access is often provided to customer senior management. Contact with non-key accounts tends to be less frequent and less layered.

- Suppliers make investments in key accounts that serve as structural bonds. Indeed, even the allocation of a dedicated key account manager or team represents an investment in the customer. Additionally, suppliers are much more likely to adapt elements of their value proposition such as products, inventory levels, price, service levels and processes for key accounts. Some additional elements might be added to the value proposition for key accounts. This might include vendor-managed inventory, joint production planning, staff training and assistance with the customer's product development and marketing strategies.

KAM can be considered a form of investment management, where the manager makes decisions about which accounts merit most investment, and what forms that investment should take.

Researchers have made efforts to understand how KAM develops over time.[27] Figure 13.4 shows KAM developing through several stages as suppliers and customers become more closely aligned. As the relationship becomes more collaborative, and as the level of involvement between the two parties grows, the commitment to more advanced forms of KAM grows.
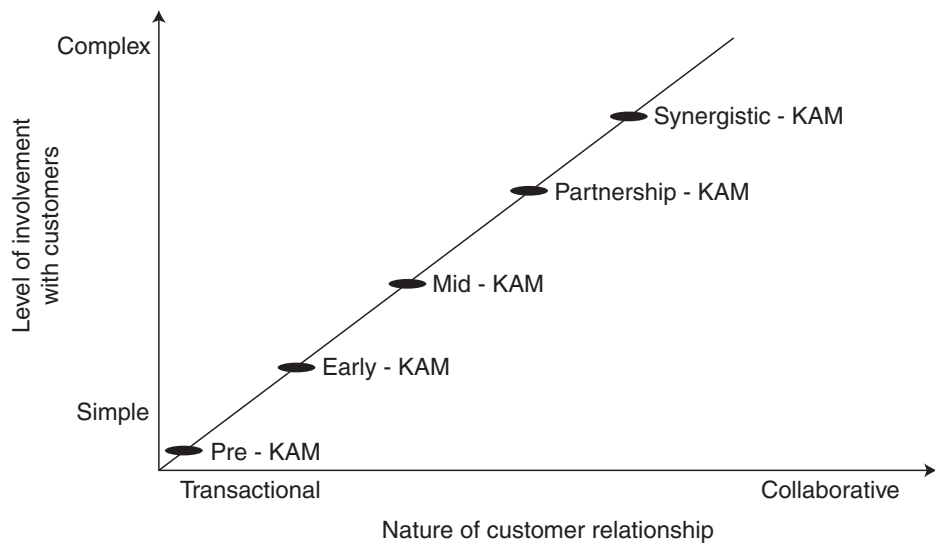
Figure 13.4 A model of KAM development

In the pre-KAM stage, a prospective key account – one that shows signs of being strategically significant – has been identified. In the early KAM-stage, the new supplier has won a small share of customer spend and is on trial. The early-KAM structure often takes the form of a bow-tie (Figure 13.5), in which the only contact is between single representatives of each company, typically account manager and buyer. These contacts act as gatekeepers, liaising with their own colleagues as needed.

The bow-tie is a very fragile arrangement. If either individual doesn't get on well with the other, the relationship might not evolve. If either changes job or retires, the relationship may dissolve. The ability of the supplier company to understand the customer depends on the skills of one person alone. If that person doesn't record what is known in a customer database, it might be lost forever. As it becomes clearer that the relationship is paying off for both parties, they develop stronger bonds. The supplier becomes a preferred, though not sole supplier. There are other, more senior, contacts between the organizations. As the relationship heads towards partnership-KAM status, the relationship becomes more established. The customer views the supplier as a strategic resource. Information is shared to enable the parties to resolve problems jointly. Customers might invite or even require suppliers to go "open-book" so that cost structures are transparent. Pricing is stable and determined by the tenure and value of the relationship. Innovations are offered to key accounts first before being introduced to other customers. There is functional alignment, as specialists talk to their counterparts on the other side. There is much more contact between the companies at every level. The job of the key account manager is to coordinate all these contacts to ensure that the account objectives are achieved.

The most advanced form of KAM, identified as synergistic-KAM occurs when a symbiotic relationship has developed. As Figure 13.6 suggests, the boundaries between the two
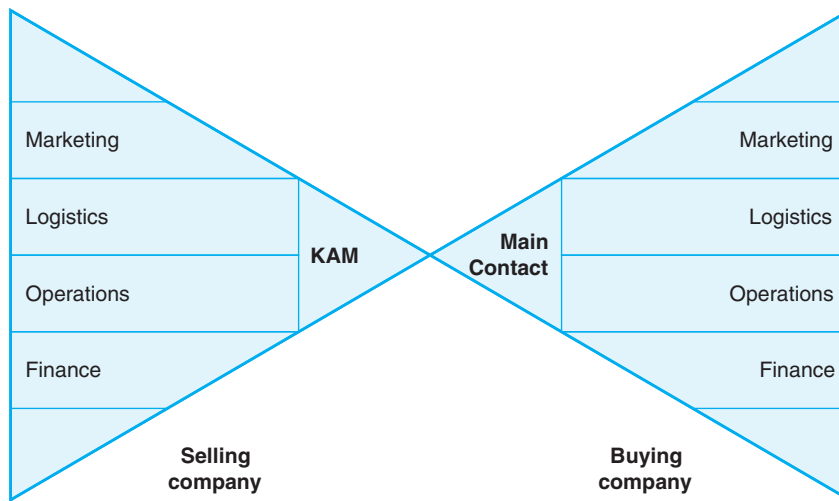
Figure 13.5 Bow-tie structure for early KAM
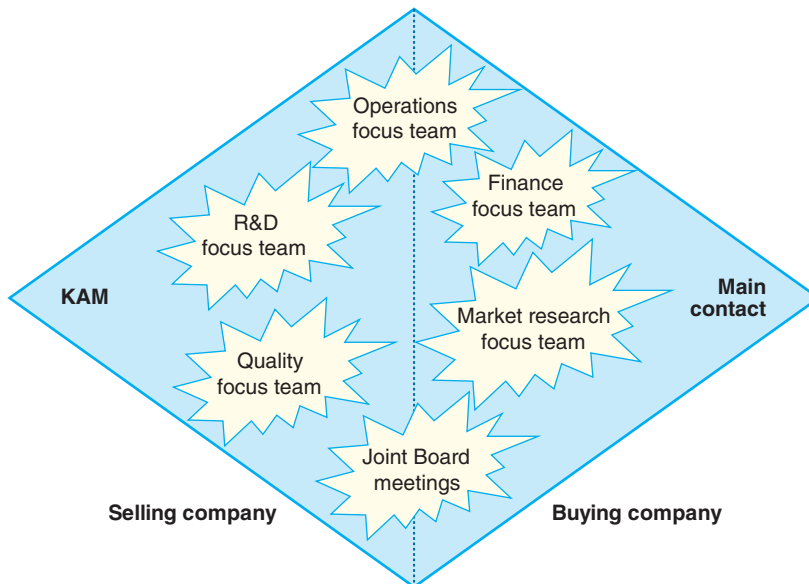
Figure 13.6 Virtual organization for synergistic KAM

organizations are blurred as both sides share resources such as data and people to work on mutually valued projects. These might be cost-reduction projects, new product development projects, quality assurance projects or other ventures beyond the scope of their present relationship.

This developmental model does not mean to suggest that all KAM arrangements migrate along the pathway towards synergistic KAM. KAM will only advance as far as the parties

want. If either party finds they are not benefiting from the arrangement, it can be reversed and become more transactional. Key account status might be withdrawn if the customer ceases being strategically significant, purchases from a major competitor of the current supplier, becomes financially unstable, displays unethical behaviors or demands too many concessions making the relationship unprofitable.

There are also situations that can lead to relationship dissolution. This might happen if the customer finds that the supplier has acted opportunistically, thereby breaking trust. Opportunistic behaviors might include ramping up price, betraying confidences to third parties, supplying the customer's major competitors, or artificially restricting supply. Suppliers can also "sack" customers, for example, when it is clear that there is no prospect of making a profit from the relationship even if it were reengineered to reduce cost.

Progress along the KAM pathway may also be limited by either party's relationships with other companies. It may be impossible for a vending machine company to develop a strong relationship with PepsiCo if it already has a strong relationship with Coca-Cola.

Team selling

Team selling is a form of selling that is often associated with the more advanced forms of KAM. A key account team is assembled that consists of a number of specialists that can sense and respond to customer concerns over a variety of issues. The team might, for example, include people from engineering, logistics, research and development, and sales. Collaborative team selling may even cross organizational boundaries. Representatives from two or more partnering organizations can come together to pitch for new business or service an established customer. Partner relationship management applications facilitate such arrangements by making customer, project and product information available to all partners.

These teams may be thought of as a multi-person selling center, in much the same way that the customer has a multi-person buying center, or decision-making unit. The selling center might have a fixed composition throughout the relationship with the customer, though the make-up is more likely to vary. For example, at the beginning of the relationship a "hunter" might initially win the account. Later a "farmer" takes over and builds the team to maintain and manage the relationship for mutual benefit.

Major issues for team selling are the composition of the team, coordination of team efforts and measurement of team performance. Coordination can be achieved through conformance to a cultural norm (for example, a focus on customer satisfaction, or mutual benefit), formal rules and plans, deference to hierarchical direction, and improved communication facilitated by committee meetings or IT. Intranets can be especially useful in this respect.

CONCLUSION

CRM should not be planned and managed as an IT project; management focus should be on the benefits, not the technology. The way most companies assess investments through DCF analysis does not align well with how CRM benefits are realized. CRM benefits are both immediate (mostly operational) and latent; the latter can only be experienced once the initial CRM investments have paid off in the development of appropriate customer assets

and relationship capabilities. The business case must somehow identify the potential for such latent benefits, emanating from the learning that occurs initially. Real options pricing provides a useful model for presenting the business case, given that latent benefits can only be realized if the company learns from its short-term experiences with CRM. Once the case is made, the organization must identify and plan the realization of CRM benefits, and the benefits dependency network (BDN) is suggested as a tool for accomplishing that. The BDN will suggest organizational changes required that facilitate the realization of benefits. Often, organizations implementing CRM need to either move from product and functional structures to more customer-centric ones. In the B2B environment this may mean key account management.

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IMPLEMENTING CRM

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CHAPTER OBJECTIVES

By the end of the chapter, you will be aware of:

1. Five major phases in a CRM implementation.

2. A number of tools and processes that can be applied in each phase of a CRM implementation.

3. The importance of project management and change management throughout the implementation process.

</div>

INTRODUCTION

A focus on benefits and the appropriate organization structure with which to deliver them, as described in the last chapter, is necessary but not sufficient for CRM success. Also required is an effective project or program management plan for CRM implementation. In our experience, functional managers in marketing, sales and service are not often skilled project or program managers, and lack the specialist change management expertise associated with large-scale CRM investments. It is not possible to cover this topic fully in one chapter; however, we highlight some aspects you will wish to consider when ready to implement CRM, so that you might seek out appropriate resources and advice to help you succeed.

We also note CRM professionals often distinguish between projects and programs with the latter being larger scale, more systemic changes. Given that readers of this book may be working across programs and projects of varying complexity and change, we use the terms interchangeably.

In this chapter, we'll look at the five major phases of a CRM implementation, and the processes and tools that can be used within those phases to ensure that CRM projects deliver what is expected of them.[1] Depending on the scope of the project some of these phases, processes and tools may not be required. The key phases are as shown in Figure 14.1 below.
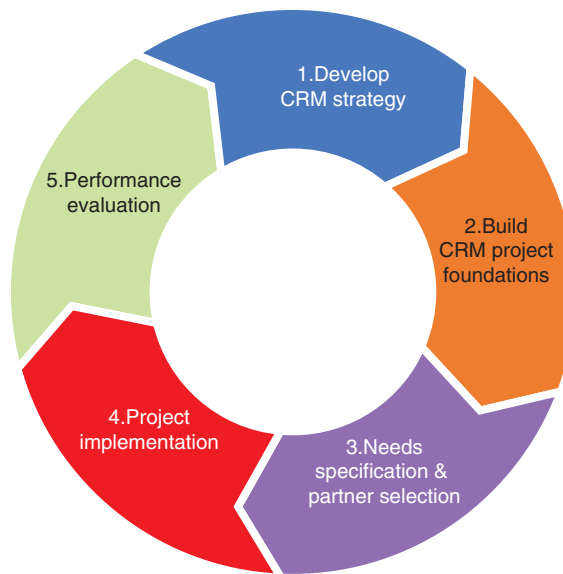
Figure 14.1 The five-step implementation process

1 **Develop the CRM strategy**
- Framing CRM and situation analysis
- Commence CRM education
- Develop the CRM vision
- Set priorities
- Establish goals and objectives
- Identify contingencies, resources and people changes
- Agree the business case with the board

2 **Build CRM project foundations**
- Identify stakeholders
- Establish governance structures
- Identify change management needs
- Identify project or program management needs
- Identify critical success factors
- Develop risk management plan

3 **Needs specification and partner selection**
- Process engineering
- Data review and gap analysis
- Initial technology needs specification, and research alternative solutions

- Write request for proposals (RFP)
- Call for proposals
- Revised technology needs identification
- Assessment and partner selection

4   **Project implementation**

- Refine project plan
- Identify technology customization needs
- Prototype design, test, modify and roll out

5   **Performance evaluation**

- Project outcomes
- Business outcomes.

PHASE 1: DEVELOP THE CRM STRATEGY

CRM strategy can be defined as follows:

> **CRM strategy is a high-level plan of action that aligns people, processes and technology to achieve customer-related goals.**

Situation analysis

Typically, a CRM program starts in response to changes in the organization's customer strategy. It helps to have an organizing framework to guide your analysis. The comprehensive models of CRM that are described in Chapter 1 might be helpful. Research suggests that a large number of CRM projects, perhaps as many as half or even two-thirds, fail.[2] Our own research suggests that a major contributor to failure is framing CRM as a technology investment,[3] led by IT wherein the software provides the "answer."

For most organizations, CRM is a comprehensive change program that seeks to move a company's focus from the products it sells to creating value for and from its customers. Too often, CRM starts with its most visible expensive asset, a software-based solution. CRM is therefore considered an IT issue. IT conducts a user needs analysis and selects a vendor – job done! The logic of the models in Chapter 1 and the benefits realization thinking we described in Chapter 13, is that the firm needs to develop an evidence-based strategy for how it will interact with customers in the future, develop the core competencies it needs to do so and build up its technology solutions as it succeeds with customers in the marketplace. Starting from the solutions, no matter how "seductive" they are, has proven to be an unsuccessful strategy.

A useful framework for clarifying customer strategy is the Customer Strategy Cube. This is a three-dimensional analysis of a company's served market segments, market offerings and channels (routes-to-market). The situation analysis answers the questions "Where are we now?" and "Why are we where we are?" in terms of the three dimensions of the cube.

Figure 14.2 illustrates the Customer Strategy Cube of a company that sells four different offerings to five different market segments through three different channels. Each block in
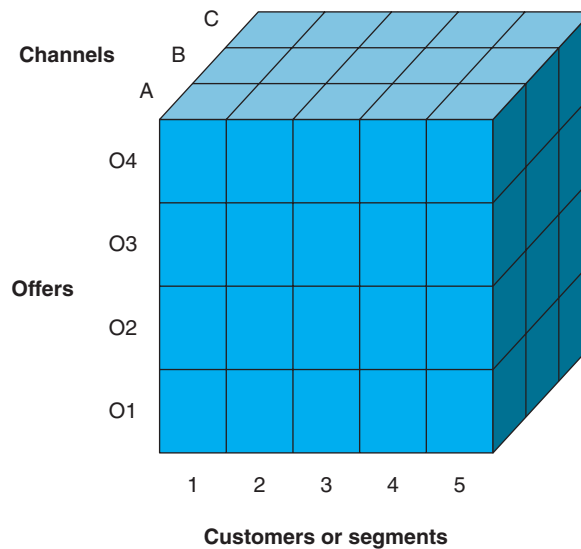
Figure 14.2 Customer Strategy Cube

this cube – there are 60 (5 × 4 × 3) of them – might be a potential business unit that would be subject to a situation analysis. In fact, most businesses do not operate in all potential blocks of their Customer Strategy Cube. They operate selectively. For example, AMP has traditionally sold financial products through a network of independent and tied financial planners. They have not sold direct-to-consumer. Not all offerings are sold to all market segments through all channels.

The situation analysis examines the three dimensions of the Customer Strategy Cube independently and jointly. Questions such as the following are asked.

Customers or segments: Which segments do we target? Which segments do we actually serve? What are our customer-related marketing and sales objectives? What does the customer-journey look like? How much do we sell to customers? How satisfied are they? What is our market share? What is our share of customer spending? How effective are our customer acquisition strategies and tactics? How effective are our customer retention strategies and tactics? How effective are our customer development (cross-sell and up-sell) strategies and tactics? What are the customer touchpoints? What do our customers think about their experience of doing business with us? Which customer management processes have most impact on our costs or customer experience? Which technologies do we use to support our marketing, selling, and service functions and how well do they operate?

Market offerings: Which products do we offer? What is our branding strategy? How well known are our offerings? Who do we compete against? What advantages or disadvantages do we offer vis-à-vis competitors? How do we augment and add value to our basic product offer? What benefits do customers experience from our offerings? How do our prices compare with competitors? What are our margins?

Channels: Which channels do we use to distribute to our customers – direct and indirect? Which channels are most effective? What level of channel penetration do we have? Which channels are becoming more/less important? Where do our competitors distribute? What do channel partners think of their experience of doing business with us? What margins do channel members earn? Which channel management processes have most impact on our costs or channel member experience? How are our channels integrated to provide a seamless customer experience?

The goal of this audit is to get a clear insight into the strengths and weaknesses of the company's current customer strategy before creating a CRM vision for the future. Data can be collected from executives, managers, customer-contact people, channel partners and, most importantly, customers. Business plans can be studied. One of the outcomes might be a customer interaction map, as in Figure 14.3, that identifies all customer touchpoints and the processes that are performed at those touchpoints. Normally, the interactions that have important impact on customer experience or your own costs become primary candidates for reengineering and automation. The audit will serve as the start point for thinking about what you want to achieve from a CRM implementation.
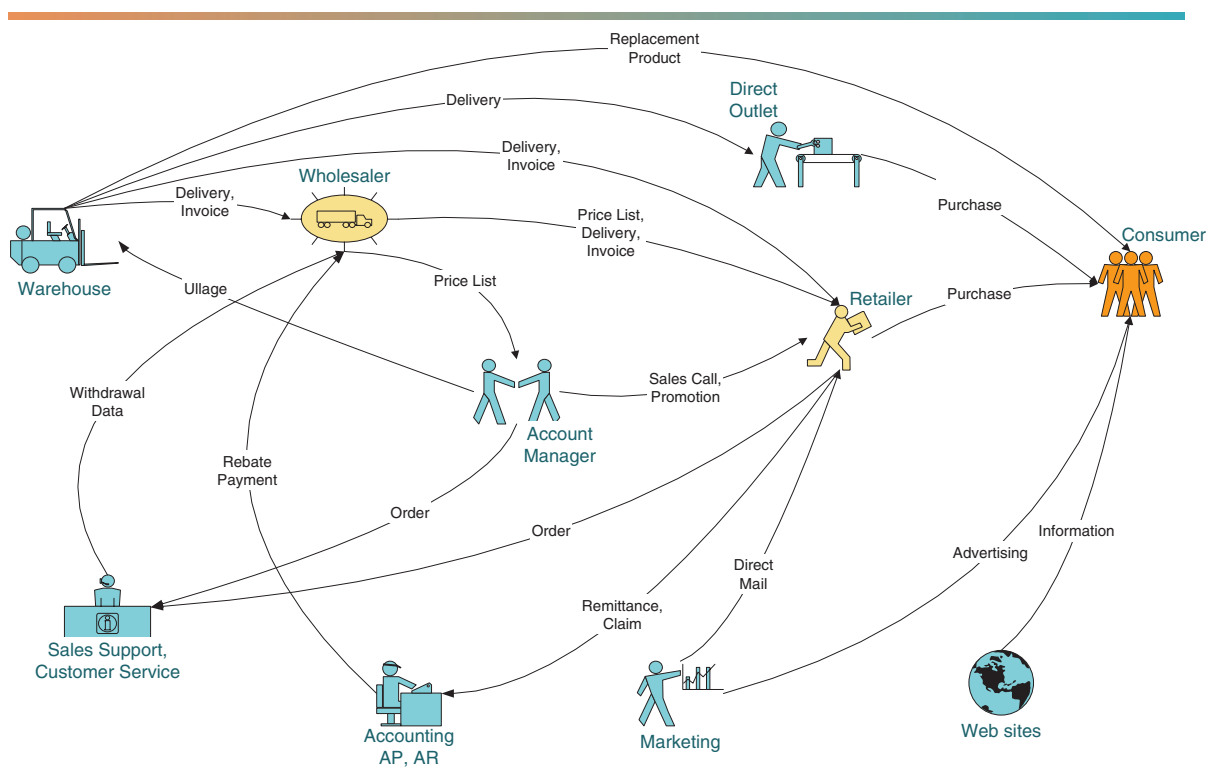
Figure 14.3 Customer interaction map

Commence CRM education

CRM, as you have read in Chapter 1, is a term that means different things to different people. It is important that all stakeholders have a clear understanding of what CRM denotes. Your IT people might think that it is a technology project, marketers may think it is campaign management and salespeople may think it is a customer contact database. Sales management may think of CRM as enabling management of the sales pipeline, while service management may see CRM principally as a means of reducing cost. This is not problematic if the organization's CRM vision (see next section) is merely a collection of independent point solutions; however, if the firm is giving CRM more strategic consideration, the implications across the organization need to be understood by everyone and agreed.

Develop a CRM vision

Your CRM vision is a high-level statement of how CRM will change the way the business relates to its customers. The vision addresses the need for change and articulates a destination. Examples of CRM visions are:

- We will work with our members in a trust-based relationship to represent their interests, and to satisfy their needs for high value, security, and peace of mind in motoring, travel and home.[4]

- We will build and maintain long-term relationships with valuable customers by creating personalized experiences across all touchpoints and by anticipating customer needs and providing customized offers.

- To be able to see all information in one place.[5]

The CRM vision gives shape and direction to CRM strategy. The CRM vision might be senior management's perspective based on what they learned from the education process, or it could be the product of a wider visioning process that engages more members of the company, and perhaps even customers and partners. The vision will eventually guide the development of measurable CRM outcomes.

Set priorities

CRM projects vary in their scope and touch on one or more customer-facing parts of the business – marketing, sales and service. Clear priorities for action, normally focused on cost reduction or enhanced customer experience, might fall out of the situation analysis, but more time and debate are often necessary. Priority might be given to projects that produce quick wins or are low cost. Longer-term priorities might prove more difficult to implement. For example, you may want to prioritize a new segmentation of customers based on their potential profitability. An impediment to that outcome would be your company's inability to trace costs of selling, marketing and service to customers. You may therefore need to prioritize the implementation of an activity-based costing system before performing the new segmentation.

Establish goals and objectives

Goals and objectives emerge from the visioning and prioritizing processes. Although the terms "goals" and "objectives" tend to be used synonymously, we use the "goal" to refer to a qualitative outcome and "objective" to refer to a measurable outcome. For example, a short-term CRM goal might be to acquire new customers. A related short-term CRM objective would be to generate 200 additional qualified leads by Q4 of the next financial year.

As shown in Table 14.1, CRM goals tend to cluster around three broad themes: enhancing customer satisfaction or loyalty, growing revenues or reducing costs. CRM strategies often pursue several goals simultaneously, for example, increasing customer retention and reducing customer service costs. An even more ambitious long-term "bet-the-business" CRM goal might be to shift from a product-oriented business model to one more focused on customers.

Identify the contingencies, resources and people changes

The next step is to build a benefits dependency network (BDN) around the goals. The BDN concept was explained in Chapter 13. The process of thinking about the business changes required in order to achieve the CRM goals is hugely important and ensures that the organization is aware of the scope of change required. Too often, CRM is seen as an IT project and a "let them get on with it" attitude prevails. As the program unfolds, customer managers will start demanding resources and changes to business processes. It is much better to have these matters aired and agreed before spending large amounts on CRM technology, only to find out that the organization is unable, or unwilling to develop the complementary capabilities and resources needed to make CRM work.

This step will also ensure that you identify the people, process, organization changes and technology requirements for the goals and objectives to be achieved. You'll return to these matters repeatedly as the project unfolds, but at this stage you need a general idea of the changes that are necessary, so that you can begin to identify costs, investments and time scales that form part of the business plan.

Table 14.1 Strategic goals for CRM

Customer loyalty/ satisfaction	Revenue growth	Cost reduction
Increase customer satisfaction	Increase sales revenues	Reduce cost of sales
Increase customer retention	Enhance cross-sell and up-sell opportunities	Reduce customer service costs
Increase customer loyalty	Increase customer profitability	Reduce marketing costs
Increase partner loyalty	Acquire new customers	Increase margins
Increase customer engagement	Increase marketing campaign response	
	Improve lead numbers and quality	

Agree the business case with board

While we discussed the business case in Chapter 13, it is worth reprising it here. The business case is built around the costs and benefits (identifiable and latent) of CRM and answers the question: "why should we invest in this CRM project?"

The business case looks at both immediate known and future potential costs and revenues. CRM implementations can generate additional revenues in a number of ways. We break these out into benefits that are more likely to be immediately achievable and those that are latent, i.e. become apparent after the organization has developed complementary CRM assets and capabilities. Latent benefits can be assessed financially as we discussed in the Chapter 13.

The costs of a CRM project extend well beyond the costs of CRM software or the subscription fees in the case of SaaS solutions. Additional costs might be incurred from systems integration, infrastructure costs, new devices, software configuration, data modeling, beta-testing, helpdesk support, change management, project management, process reengineering, software upgrades, training and consultancy services, let alone the opportunity costs of diverting staff members from their routine work. For a simple CRM project IT costs may represent one-quarter of total project costs; for a complex project IT costs may be as low as one-tenth of total project costs.

Some business cases are able to ignore technology costs. Many companies using enterprise software are already paying for CRM modules in their inclusive license fees. A licensed SAP-user, for example, might be using enterprise software for back-office functions only. However, the license fee permits the company to use the enterprise suite's CRM modules. No additional license costs are incurred. Other companies that elect to deploy CRM through the SaaS approach, rather than installing software on their own hardware, treat CRM software as an operating expense. They simply treat software costs, based on a per-user monthly fee, as an operational expense that can be allocated to marketing, sales or service budgets.

Many of these costs and benefits are measurable, but there are also likely to be some important latent or strategic benefits that are much harder to value, for example, development

Table 14.2 Immediate and latent benefits from CRM

Immediate benefits	Latent benefits
More sales leads	Unspecified new products and services arising from enhanced insight
More revenues from cross-selling and up-selling	Stronger customer relationships
Better margins (yield management)	Increased customer satisfaction delivering higher loyalty, willingness to pay and reduced costs-to-serve
Lower cost-of-sales	Realignment of assets to meet customer needs better
Increased retention and recommendation	New capabilities that enable strategies we cannot yet imagine
Lower cost of customer acquisition	More engaged customers

of a customer-centric way of doing business, better customer experience, improved responsiveness to changes in the market or competitive environments, more information sharing between business silos, more harmonious relationships with customers, and the development of an information-based competitive advantage.

PHASE 2: BUILD CRM PROJECT FOUNDATIONS

Having created the CRM strategy, BDN and business case the next phase involves building the foundations for the CRM implementation.

Establish governance structures

CRM projects are designed and implemented by people. Governance structures (see Figure 14.4) need to be put in place to ensure that project roles and responsibilities are properly defined and allocated.

The program director (PD) plays an important role in this structure. Ultimately, the PD has responsibility for ensuring that the project deliverables are achieved, and that project costs are controlled. The PD in larger projects is a full-time appointment. The PD has a boundary-spanning role – one foot is in the CRM steering committee; the other is in the program team. Another key member of the steering committee is the executive sponsor. This is typically a board level senior executive who commits real time to the project and ensures that resources are made available. The steering committee makes policy decisions about the CRM implementation – for example, which technology to buy, which consultants to hire – and ensures that the implementation stays on track and within budget. Other senior executives may sit on the steering committee to ensure that the project remains business-focused and does not slide into being an IT-dominated project. The program team is composed of representatives from the major stakeholders. They have the responsibility for implementing the project successfully. The stakeholder representatives may have their own advisory groups that ensure that stakeholders' needs and concerns are known and brought to the program team. CRM implementations can impose considerable demands on a company's own internal IT resources which might be called on to perform several project-related roles. The Lead Developer role ensures that the CRM software is customized to meet the needs of users. The Database Developer role ensures that customer-related data held in disparate databases is made available to end-users in the form required by the new CRM applications. The Front-End Developer role ensures that the user interface is easy to understand and use.

It is not uncommon for CRM projects to import resources and talents to help deliver the project. The governance structure in Figure 14.4 shows a CRM consultant working with the steering committee. It is unlikely that an in-house steering committee has sufficient experience of CRM project implementations. An experienced consultant can help the steering committee overcome problems as the project progresses. A Systems Implementer is also shown in this governance structure as an important external resource. For an installed CRM system, vendors generally supply technical help to ensure that the system is properly implemented. The implementer has a boundary-spanning role, being an employee of the vendor but working on site as the client's advocate.
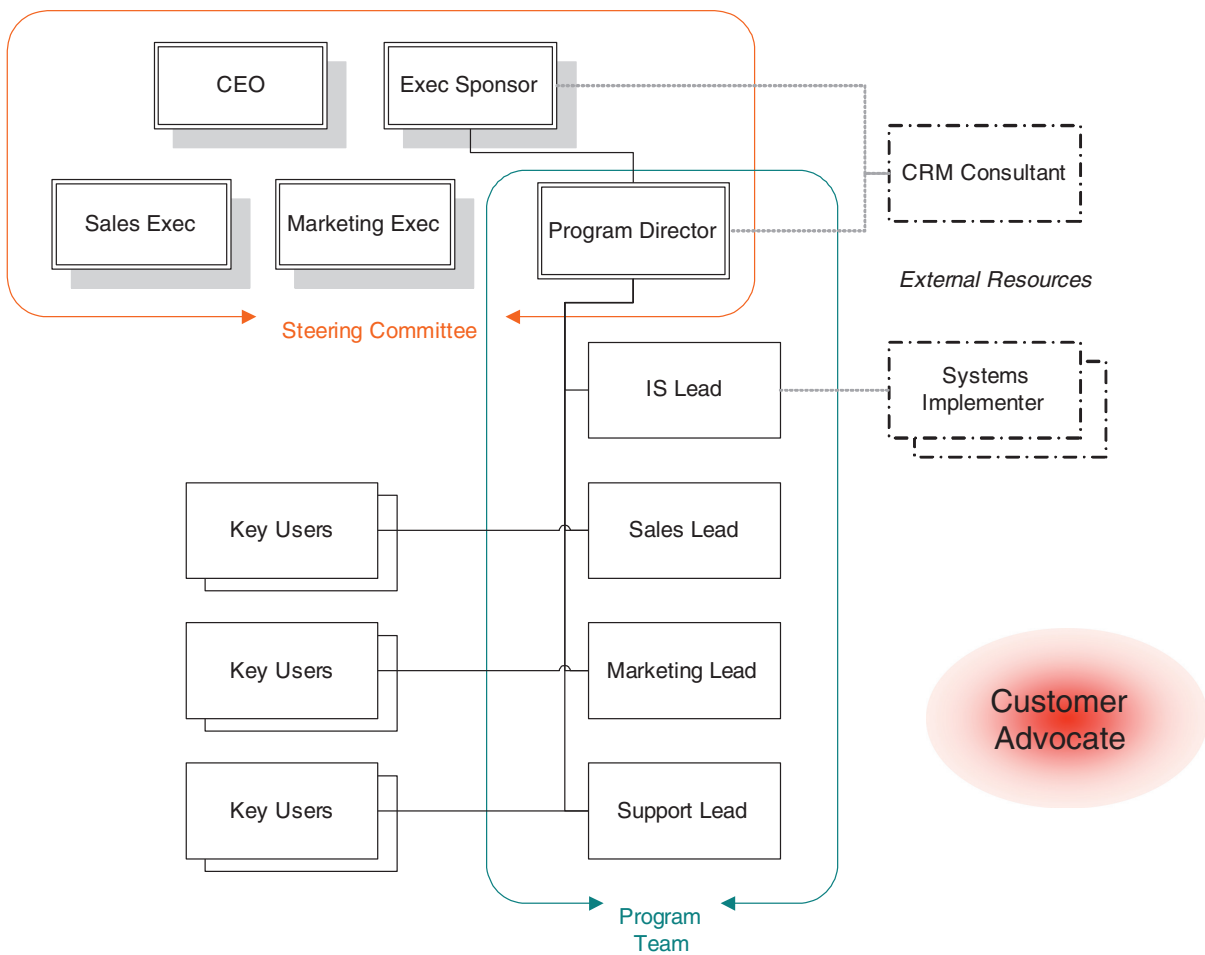
Figure 14.4 Governance structure[6]

A Systems Integrator may also be needed to align disparate systems into a coherent whole to support the project objectives. Systems integration can be defined as follows:

> **Systems integration is the practice of aligning and combining system components such as people, processes, technology and data for the achievement of defined outcomes.**

Very often, desired CRM outcomes are impeded by the poor interoperability of IT systems. For example, the IT system that supports web operations may be incompatible with the IT system that supports the customer engagement center. The result is that there may be two different databases containing important customer-related information. A Systems Integrator might be needed to program the interface that links the two systems.

Finally, the governance chart shows that the voice-of-the-customer has to be heard in the project team. Customers of companies that implement CRM are important stakeholders

because their experience of doing business will change. Some CRM projects fail to deliver optimal outcomes because the project team fails to ask, "What would the customer think?"

Specify change management needs

Even small CRM projects can prove challenging in terms of change management. A sales force automation project might involve centralizing data that is presently kept on individual reps' tablets and making that information available to all in the team. Reps will have to learn to share. In a distributed sales force, these reps may have not even met each other. If they have to change their selling methodology, record-keeping and reporting habits as well, there just might be some worry, if not outright resistance.

According to consultants Booz Allen & Hamilton, "Leadership teams that fail to plan for the human side of change often find themselves wondering why their best-laid plans go awry."[7] They describe change both in terms of top-down leadership and bottom-up buy-in, as does John Kotter whose eight-step approach to managing change is widely cited and deployed.[8] The eight steps are as follows:

1   Create a sense of urgency so that that people begin to feel "we must do something."

2   Put together a guiding team to drive the change effort (this is the governance structure described above).

3   Get the vision right and build supporting strategies.

4   Communicate for buy-in.

5   Empower action by removing organizational barriers to change.

6   Produce short-term wins to diffuse cynicism, pessimism and skepticism.

7   Don't let up but keep driving change and promoting the vision.

8   Make change stick by reshaping organizational culture.

Kotter emphasizes that successful change management programs adopt a see–feel–change approach. To bring about change it is necessary not only to get people to see the need for change, but also to feel so emotionally engaged that they want to change. He stresses the importance of emotional engagement with the program's vision and strategies.

Organizational culture

Organizational culture is a well-researched and complex phenomenon, and it is not possible to do it full justice in a section of a chapter in a book on CRM. We outline some aspects that we believe are important for project managers to understand.

In everyday language, organizational culture is what is being described when someone answers the question "what is it like working here?" More formally, organizational culture can be defined as:

A pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them with the norms for behavior in the organization.[9]

Essentially, organizational culture comprises widely shared and strongly held values. These values are reflected in patterns of individual and interpersonal behavior, including the behavior of the business leaders, and expressed in the norms, symbols, rituals and formal systems of the organization.

A number of studies indicate that organizational culture effects business performance.[10] Recent research has also shown that organizational culture is a predictor of CRM success.[11] Adhocracy, one of four organizational cultures identified in the Competing Values model (Figure 14.5), shows the strongest association with CRM success. Adhocracies are highly flexible, entrepreneurial, externally-oriented organizations. Their core values are creativity and risk-taking.

Cameron and Quinn have developed a process for companies wishing to change their culture.[13] They suggest that cultural change may involve adjustment to the organization's structure, symbols, systems, staff, strategy, style of leaders, and skills of managers, but emphasize that individual behavioral change is the key to culture change.

Buy-in

As noted by John Kotter, buy-in operates at an emotional or intellectual (rational) level. Intellectual buy-in is where people know what has to be changed and understand the justification for the change. New technologies are adopted more quickly when users believe that the system will be easy to use. Emotional buy-in is where there is genuine heart-felt enthusiasm, even excitement, about the change. The matrix in Figure 14.6 shows the possibility of four employee segments, reflecting the presence or absence of emotional and rational buy-in. Champions are emotionally and rationally committed. Weak links are neither emotionally nor rationally committed. Bystanders understand the changes being introduced but feel no emotional buy-in to the change. Loose cannons are fired up with enthusiasm but really don't understand what they have to do to contribute to the change. All these segments will be found in major change projects including CRM implementations.
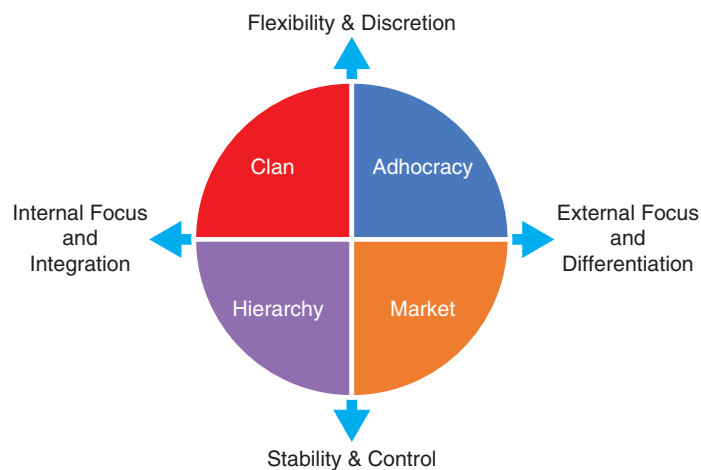
Figure 14.5 The Competing Values model of organizational culture[12]
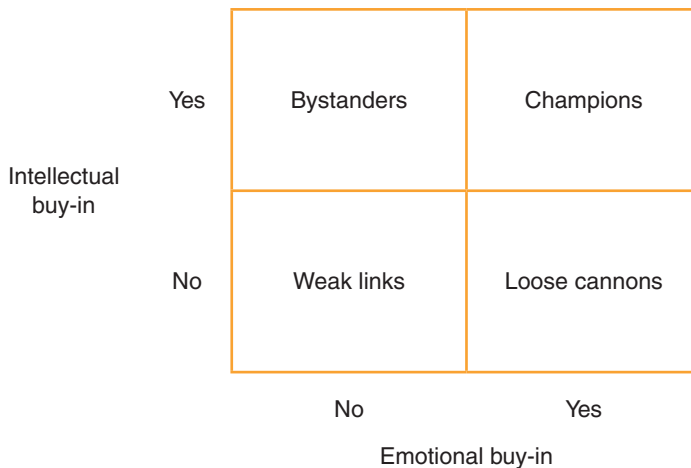
Figure 14.6 The buy-in matrix

The CRM project's vision and goals need to be accepted by each of these groups in different ways. The program team's challenges are to encourage bystanders to become passionate about the project's goals, and to educate loose cannons on the reasoning behind CRM. Weak links can be truly problematic if they are in customer-facing roles or impact on customer experience. It has been suggested that it can take many years to win a customer's confidence and trust, but only one incident to break it. If efforts to win them over fail, weak links may need to be reassigned to jobs where there is no customer impact.

Identify project management needs

CRM implementations can place considerable demands on project management skills and CRM project leaders need to understand their organization's capacity to manage complex change projects successfully.

The CRM project plan spells out the steps that will get you from where you are now (customer strategy situation analysis) to where you want to be (CRM vision, benefits, goals and objectives), on time and within budget. The CRM program director generally performs the project management role, but sometimes it is outsourced to a consultant. A project plan sets out the tasks to be performed, the order in which they are to be performed, the time each will take, the resources required to perform the tasks (including people and money), and the deliverables from each task. Tools such as Gantt charts, critical path analysis (CPA), program evaluation and review technique (PERT) or network diagrams are useful tools for project managers. Some tasks will be performed in parallel, some in sequence. As the project rolls forward there will periodic "milestone" reviews to ensure that it is on time and on budget. A CRM project that has the narrow goal of improving the productivity of marketing campaigns might be made up of a number of tasks or mini-projects each with its own deliverable and timeline, including the following: market segmentation project, database development project, creation of a new campaign management process, management reports project, technology search and selection project, and a user training project.
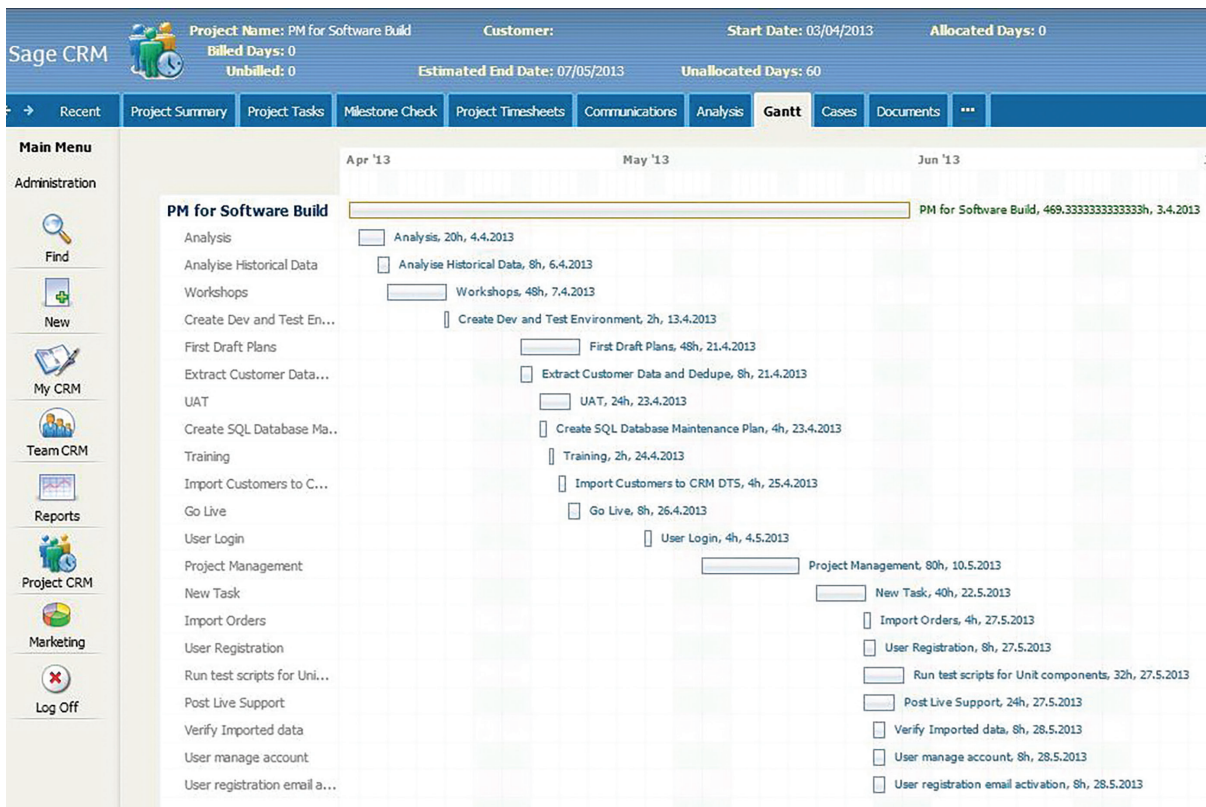
Figure 14.7 CRM project Gantt chart[14] (Source: Enbu Consulting, www.enbuconsulting.com, info@enbuconsulting. com)

Identify critical success factors

Critical success factors (CSF's) are the "must-haves" that underpin project success. Critical success factors can be defined as follows:

CSF's are attributes and variables that can significantly impact business outcomes.

CRM consultants and vendors offer a range of opinions on CSF's, mentioning the following: a clear customer strategy that defines your company's offers, markets and channels; an organizational culture that promotes coordination and information-sharing across business units; an agreed definition of what counts as CRM success; executive sponsorship of the CRM program's objectives; availability and use of pertinent, accurate, timely and useable customer-related information; a clear focus on people and process issues, not only technology; starting small with quick wins that are then promoted within the company as success stories; focus on automating processes that have major implications for costs or customer experience, and engagement of all stakeholders, including end-users and customers, in program planning and roll-out.

There have been very few independent studies of CRM CSF's. Da Silva and Rahimi[15] conducted a single CRM case-study test of three CSF models that had originally been developed in the context of enterprise resource planning (ERP) implementations. They found that CRM CSF's could be categorized as strategic and tactical. Strategic CSF's are encountered at the beginning of the project, while tactical CSF's become important later. Strategic CSF's include a clear CRM philosophy (we prefer the term "vision"), top management commitment and project management expertise. Tactical CSF's include troubleshooting skills, good communications and software configuration.

Croteau and Li conducted an empirical assessment of CRM CSF's in 57 large Canadian organizations.[16] Focusing only on the technology element – therefore ignoring people and process issues – they conclude that the CSF most strongly associated with CRM success is an accurate and well-developed knowledge management system. This has to be supported by a suitable IT infrastructure that can capture, manage and deliver real-time customer, product and service information in order to improve customer response and decision-making at all customer touchpoints. They also found that another important CSF is top management support.

Develop risk management plan

Of course, there can be many potential risks, ranging from overly ambitious objectives, lack of a well-defined customer strategy, inadequate project management, resistance of end-users to the adoption of new technologies and customer indifference to the new relationship management strategy. At this step of the CRM implementation process, you'll be trying to identify the major risks to achieving the desired outcomes. Once identified, you can begin to put risk mitigation strategies and contingency plans in place. As you'd expect, some risks reflect an absence of the CSF's identified above. Gartner, Inc. names a number of common causes of CRM failure: management that has little customer understanding or involvement; rewards and incentives that are tied to old, non-customer objectives; organizational culture that is not customer-focused; limited or no input from customers; thinking that technology is the solution; lack of specifically designed, mutually reinforcing processes; poor-quality customer data; little coordination between departmental initiatives and projects; creation of the CRM team happens last, and the team is composed of IT people, but lacks business staff; no measures or monitoring of benefits, and lack of testing.[17]

Risk mitigation strategies are your responses to these risks. Let's take, for example, the risk of management having little or no customer understanding. How might you mitigate to this? There a number of things you could do – management could work in the frontline serving customers (McDonalds' executives do this), listen in to contact-center interactions for at least one hour a week, or mystery shop your own and competitor organizations.

PHASE 3: NEEDS SPECIFICATION AND PARTNER SELECTION

Having built the CRM project foundations, the next phase involves specifying needs and selecting suitable partners.

Process engineering

The first task of phase 3 is to identify business processes that need attention – making them more effective or efficient, or flagging them as candidates for automation.

Business processes can be defined as follows:

A business process is a set of activities performed by people and/or technology in order to achieve a desired outcome. Business processes have a defined start and end point.

Put more simply, business processes are how activities are performed by the company. Processes can be classified in several ways: vertical and horizontal; front office and back office; primary and secondary.

Vertical processes are those that are located entirely within a single business function. For example, the customer acquisition process might reside totally within the marketing department. **Horizontal** processes are cross-functional. New product development processes are typically horizontal and involve sales, marketing, finance and research and development groups.

Front office (or front-stage) processes are those that customers touch. The complaints-resolution process is an example. **Back office** (or back-stage) processes are invisible to customers, for example, the procurement process. Many processes straddle both front and back offices: the order-fulfilment process is an example. The order-taking part of that process is in the front-office. The production scheduling part is back-office.

A distinction is also made between primary and secondary processes. **Primary** processes have major cost implications for companies, or, given their impact on customer experience, major revenue implications. The logistics process in courier organizations – from picking up a package through moving the package to delivering the package – constitutes about 90% of the cost base of the business and is therefore a primary process. Customers may have a different perspective on what is important. They typically do not care about back office processes. They care about the processes they touch. In the insurance industry these are the claims process, the policy renewal process and the new policy purchase process. In the courier business they are the pick-up, delivery and tracking processes. **Secondary** processes have minor implications for costs or revenues, or little impact on customer experience.

Strategic CRM aims to build an organization that is designed to create and deliver customer value and experience consistently better than competitors to targeted customers. Designing processes that create value for customers is clearly vital to this outcome. 3M's customer promise is "Practical and ingenious solutions that help customers succeed." It does this in part through new product development processes that are designed to identify good ideas and bring them to the market quickly.[18] For 3M, the innovation process is a primary process that enables the company to differentiate itself from competitors.

Operational CRM involves the automation of the company's marketing, selling and service processes and generally requires the support of analytical CRM. Figure 14.8 shows the campaign management process for a particular customer offer made by First Direct, a UK-based online and telephone bank. It shows that the propensity of a customer to open a High Interest Savings Account is determined by a scoring process that considers both
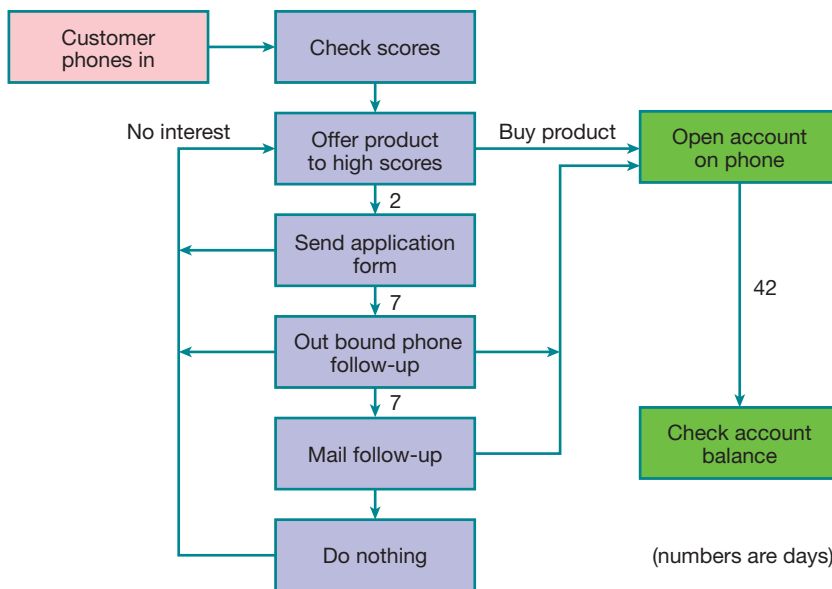
Figure 14.8 Campaign management process for high interest saving account

demographic and transactional data. The propensity modeling process is an illustration of analytical CRM. If a target score is reached an offer is made either by the customer service agent during the phone call or at a later time by email. This automation of the selling process is an example of operational CRM.

Flowcharting, which is also known as blueprinting and process mapping, is a tool that can be used to make processes visible. The flowchart sets out the steps involved in performing the process. It may also identify the people (or roles) that contribute to the process, and the standards by which the process is measured, such as time, accuracy or cost. Processes always have customers, who may be either internal or external to a company. Customers receive process outputs. Workflow functionality is embedded into many CRM applications and is used for process mapping. Flowcharts can be used to identify fail points where a process frequently breaks down, redundancies and duplications. They can also be used for induction and training of new people, and for illustrating internal customer–supplier relationships.

Processes can be rated according to the degree to which they can be improved. It has been suggested, for example, that processes be rated according to the criteria in Table 14.4.

Data review and gap analysis

Having identified processes for attention, the next step is to review the data requirements for the CRM implementation, and to identify shortfalls.

The fundamental issue companies have to ask is: what customer-related data do we need to achieve the CRM program's goals and objectives? Members of the program team should be well placed to answer the question. For example, the program team's marketing lead would be expected to appreciate the information needs of marketers running campaigns and events.

Table14.3 Evaluating processes[19]

	Process rating
Best practice (superiority)	The process is substantially defect-free and contributes to CRM performance. Process is superior to comparable competitors and other benchmarks
Parity	A good process that largely contributes to CRM performance
Stability	An average process that meets expectations with no major problems, but that presents opportunities for improvement
Recoverability	The process has identified weaknesses that are being addressed
Criticality	An ineffective and/or inefficient process in need of immediate remedial attention

At this stage of planning the CRM project, you are identifying the data that is needed for the defined CRM purposes, and creating an inventory of data that is currently available. The gap between what is available and what is needed may be quite significant. A useful distinction can be made between "need-to-know" and "like-to-know," that is, between information *needed* for CRM purposes, and information that *might* be useful at some future point. Given the costs of developing and maintaining customer-related databases, companies need to be rigorous in screening data requirements. Another data review issue is the quality of the available data. It is one thing to have available data; it is another for that data to be of appropriately good quality.

Initial technology needs specification and research alternative solutions

Earlier in this implementation process, you began to consider technology requirements. Now you can return to this question with a clearer focus on the process and data issues. There are a huge number of CRM software applications, many of which we discuss in Chapters 8 to 10. You now need to decide what applications will deliver your CRM vision and meet the business case requirements. You can learn about these applications by visiting vendor websites, joining online communities such as www.customerthink.com, or attending physical or virtual (online) exhibitions.

The "real options" approach to CRM investment that we discussed in Chapter 13 has implications for the decision to build, buy or rent the CRM applications that you choose. Your options are to build your CRM applications from scratch, to buy an on-premise site license or pay a monthly per-user charge for an on-demand (cloud) solution. If you opt to build from scratch you may find that some open source modules provide much or all of what you need. Open-source software is peer-reviewed software that gives CRM application developers the opportunity to view and evaluate source code. Open-source advocates suggest that being able to modify source code leads to improved software with fewer bugs, and that free distribution leads to more developers working to improve the software.

Hosted or on-premise CRM

As the market for CRM software matures, companies have a choice of excellent products, almost all of which are fit for purpose. An important decision is how to access CRM

functionality. CRM software is distributed in two ways. It can be installed on your company's own servers or it can be accessed on another party's servers via the Internet. The former is known as on-premise, offline, or installed CRM, an option that has been the preferred mode for many large-scale enterprises and early adopters of CRM. The alternative is the cloud, hosted or Software-as-a-Service (SaaS) model.

The cloud option is now the default option for most CRM adopters, particularly mid-market and smaller enterprises. Some larger organizations are also opting for online CRM solutions, and many enterprises are using a hybrid mix of hosted and on-premise solutions, which is feasible when the underlying data model is the same.[20] Cloud solutions deliver the same functionality as their on-premise competitors, including advanced functionality for competitive intelligence, social media integration, pricing, content management, data ware-housing, marketing analytics and workflow design.[21]

The choice of delivery model is often determined by consideration of total cost of ownership (TCO). TCO can be computed over different time periods, say one, three and five years. TCO may indicate that cloud is a better solution than on-premise for a small business's sales force automation project for ten sales reps. However, for a large-scale business transformation project with significant changes to business processes in mar-keting, sales and customer service, on-premise solutions may offer a better TCO. TCO of cloud solutions is largely a matter of the total number of seats (CRM users) using the solution. Cloud solutions offer easy and immediate scalability, substitution of fixed cost with variable cost (lower risk), regular updates to the software's functionality freely provided by the cloud based supplier, maintenance, free user training and online sup-port, and virtually no support costs. TCO for on-premise solutions needs to consider additional costs such as systems integration (integrating the CRM technology with the business's back-office processes, for example), customization, user training, additional IT staff members, additional hardware (such as web servers), support and periodic applica-tion upgrades.

There have been a number of published comparisons of the TCO of hosted versus installed,[22] and they vary in their conclusions. Some suggest the TCO of cloud solutions is superior; others claim the TCO of installed CRM is superior, particularly over the longer term. The TCO of hosted versus installed clearly depends on the scope of the CRM project (10 users versus 500 users; point CRM solution versus enterprise-wide CRM deployment), and the timescale over which TCO is computed. Readers are therefore advised to consider their particular circumstances in computing TCO.

The decision to opt for cloud or installed may be significantly dependent on answers to the following questions:

1   Are you willing to commit? Investing big money in a CRM program and the necessary supporting software only makes sense if you know exactly what you want from it. If your business is unsure what it wants, or simply wants to learn from trial-and-error or expe-rience, cloud solutions may be a better option.

2   Does your company have the in-house IT skillset to install, maintain and support an on-premise solution? The more complex the solution the more demanding it can be on IT resources.

3　Do you need systems integration? The more comprehensive the CRM project, the more likely it will need to integrate with other business technologies. For example, you might want your CRM system to "talk to" or share data with back-end systems for finance, inventory management and order processing. Currently, on-premise solutions offer the best prospect of successful systems integration. Cloud solutions are not integrated with other user company technologies. However, hosted CRM providers are striving to increase their compatibility. Both cloud and on-premise CRM vendors offer pre-integrated functionality such mapping systems (used by marketers) and global positioning systems (used by sales reps).

4　Is your business stable, growing or contracting? Some installed applications can be difficult and costly to scale-up or down, as user numbers grow or contract, or as business cycles change. Cloud solutions don't present that problem.

5　What do you know about the technology partner? Big names like SAP, SAS, IBM and Oracle are likely to be around for the long haul. They provide both installed and cloud solutions. Other cloud brands such as Salesforce.com, Microsoft Dynamics and Net-Suite are well established and have good reputations. You may feel you can trust your valuable customer-related data to these names, but not some of the less-established names. When you outsource customer data storage to a hosted solutions provider, you are also outsourcing data security. You need to consider whether their security standards compare favorably to your own in-house data security. We cover this issue in the introduction to Section C.

In addition to the costs of CRM software applications, businesses also need to consider hardware issues. What sort of device is best suited to marketing, sales, and service users? Perhaps salespeople need a tablet or smartphone for easy portability, whereas the contact center prefers desktops, and marketing people prefer laptop computers. Table 14.4 offers a comparison of tablet and laptop attributes.

Table 14.4 Comparing laptops and tablets[23]

Attribute	Laptop	Tablet
Content	Full	Narrow
Size	XXXX	X
Portability	Moderate	High
Speed of input	Fast	Slow
On-screen legibility	XXXX	X
Walk and use?	No	Yes
Presentations	Excellent	Poor
Replacement cost	High	Moderate
Synchronization	Good	Excellent

Write request for proposals (RFP)

Before calling for proposals you need to write a detailed RFP. This document becomes the standard against which vendors' proposals are evaluated. It summarizes your thinking about the CRM program and invites interested parties to respond in a structured way. Typical contents of the RFP include:

1 Instructions to respondents

2 Company background

3 The CRM vision and strategy

4 Strategic, operational and analytical CRM requirements

5 Process issues:
   a   Customer interaction mapping
   b   Process reengineering

6 Technology issues:
   a   Delivery model – cloud, on-premise, blended
   b   Functionality required – marketing, sales, and service
   c   Management reports required
   d   Hardware requirements
   e   Architectural issues
   f   Systems integration issues
   g   Customization issues
   h   Upgrades and service requirements
   i   Availability of free-trial periods

7 People issues:
   a   Project management services
   b   Change management services
   c   Management and staff training

8 Costing issues – TCO targets

9 Implementation issues – pilot, training, support, roll-out, timeline

10 Contractual issues

11 Criteria for assessing proposals

12 Timeline for responding to proposals

Call for proposals

The next step is to invite potential partners to respond to the RFP. You'll see from the RFP contents that CRM projects sometimes require input from several process, people and

technology partners. On the technology side, if your company is already paying for CRM modules as part of its enterprise IT system, you'll certainly want to add this technology vendor to the list of those invited to respond. Between three and six potential technology vendors are typically invited.

Revised technology needs identification

Proposals from technology vendors will sometimes identify opportunities for improved CRM performance that you may not have considered. Perhaps there is some functionality or issue that you had not considered. For example, you might not have considered the need to provide implementation support to sales reps in the field. A vendor who indicates that they'll be able to help reps learn the new technology in remote locations might be very attractive.

Assessment and partner selection

The next stage is to assess the proposals and select one or more partners. This task is generally performed by the steering committee. Assessment is made easier if you have a structured RFP and scoring system. There are two types of scoring system – unweighted and weighted. An unweighted system simply treats each assessment variable as equally important. A weighted system acknowledges that some variables are more important than others. These are accorded more significance in the scoring process. Some criteria, for example the availability of some essential functionality, may be so important that their absence prevents detailed consideration of the rest of the partner's proposal.

PHASE 4: PROJECT IMPLEMENTATION

So far, you have developed the CRM strategy, built the CRM project foundations, specified your needs and selected one or more partners. It is now implementation time!

Refine project plan

The first step of phase 4 requires you to cooperate with your selected partners in refining the project plan. Remember, this was originally defined without consideration of the needs and availability of your partners. You may find that your partner's consultants are already committed to other projects and that you'll have to wait. Your partners will be able to help you set new milestones and refine the budget.

Identify technology customization needs

It is very common that off-the-shelf technology fails to meet all the requirements of users. Some vendors have industry-specific versions of their CRM software. Oracle, for example, customizes its CRM offerings for banking, retail, public sector and other verticals. Even so, some customization is often required. The Lead Developer, Database Developer and Front-End Developer, in partnership with vendors can perform these roles.

Prototype design, test, modify and roll out

The output of this customization process will be a prototype that can be tested by users on a duplicated set, or a dummy set, of customer-related data. End-user tests will show whether further customization is required. Final adjustments to marketing, selling and service processes are made at this stage, and further training needs are identified and met. After a final review, a roll-out program is implemented. In most companies this is a phased roll-out. A new contact management system might be rolled out to the key account team before other members of sales team; a new campaign management module may be trialed on newer brands rather than established brands; a sales-force automation system might be rolled out first to the "champions," those identified earlier as buying in both emotionally and rationally. The idea is to iron out any problems before company-wide adoption.

CRM adopters are increasingly adopting practices from other fields of software development. Instead of a sequential process of specification, test and implementation, as described here, customer focus teams use agile development. Agile is based on breaking up the development of big solutions into very discrete and small parts, each which can be developed through a short "sprint" undertaken by a cross functional team called the scrum. The scrum may include customers. At each stage, the team is working up a minimum viable product – MVP – which is continually enhanced through short sprints. Agile is well developed in software development and operations management; there are standards, processes, software tools and best practice to guide it. Increasingly there are trained "scrum masters" and others with expertise to manage this fast-paced collaborative development process. CRM is increasingly adapting to a world of Agile.

PHASE 5: PERFORMANCE EVALUATION

The final phase of the CRM project involves an evaluation of its performance. How well has it performed? Two sets of variables can be measured: project outcomes and business outcomes. Project outcomes focus on whether the project has been delivered on time and to budget. Your evaluation of the business outcomes or benefits requires you to return to the project objectives, your definition of CRM success, and the business case and ask whether the desired results have been achieved.

If your single goal was to enhance customer retention rates, with a measurable lift from 70% to 80%, and this is accomplished then your CRM project has been successful. Congratulations! However, most projects have multiple objectives and it is common for some objectives to be achieved and others to be missed. Lead conversion by the sales team might rise but lead generation by campaign managers might fall short of objective. A critical issue concerns the timing of any business performance evaluation. It can take users several months to become familiar with new processes, and competent in using new technology. Periodic measures of business outcomes can be taken over time, to ensure that the program outcomes are achieved. On-going training, timed to coincide with software upgrades, can enhance business outcomes. In the short term it is generally impossible to assess whether the latent benefits specified in the business case have been achieved.

CONCLUSION

In this chapter, you've learned about the five major phases of a CRM implementation, and the processes and tools that are used to ensure that CRM projects deliver what is expected of them. The key phases are 1. Develop the CRM strategy; 2. Build the CRM project foundations; 3. Needs specification and partner selection; 4. Project implementation, and; 5. Performance evaluation. CRM projects vary in scope, duration and cost, but it is always important to be clear about what business outcomes are desired, and to measure the performance of the CRM implementation accordingly.

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LOOKING TO THE FUTURE

Section F looks to the future and considers where CRM is going and what it might look like in the years ahead. It consists of just one chapter.

THE FUTURE

CHAPTER OBJECTIVES

By the end of the chapter you will understand:

1. What CRM may look like in the near future.

2. How the explosion in customer-generated data will be transformative for leading businesses.

3. How some technologies, including wearables such as smart watches, the Internet of Things (IoT) and additive (3D) printing influence CRM practice.

4. The differences in opinion about whether data scientists or customer managers should lead CRM strategy implementation.

INTRODUCTION

It has been 35 years since the term relationship marketing (RM) appeared in the business literature promoting the idea that long-term relationships with customers make sound economic sense.[1] The RM pioneers presented a radical departure from the orthodoxy of transaction-focused, product brand marketing that had dominated marketing since its origins. Just behind this new recognition of the importance of customer relationships, enterprise software emerged to make it feasible to build and manage relationships with customers at scale and at a cost affordable for most organizations. At first, there was a debate as to what to call this new management practice, but, ultimately, CRM won out and this technology-enabled customer management practice is now established as part of most companies' way of doing business.

DATA AND TECHNOLOGY

Of course, pundits are always interested in "what's new?" and we have no shortage of candidates for our attention. Almost coincidental with CRM, we had the commercialization of the

Internet as e-commerce, which branched into m-commerce (mobile commerce) enabled by the fast adoption of smartphones. Almost in parallel, we witnessed the rise of Web 2.0 based on social media; as of writing this book, Facebook has 2 billion subscribers,[2] a size that dwarfs any customer database built to date. YouTube may have 300 hours of video uploaded to it every minute[3] and Twitter claims that 500 million tweets are sent every day.[4] The amount of data being created is, frankly, hard to imagine but it seems that we are in a phase of exponential data growth. IBM suggests that we create 2.5 quintillion bytes of data daily, and that 90% of the world's data has been created in the past two years.[5] The sheer volume of data being generated represents not only a huge challenge but also an attractive opportunity for organizations.

The rapid pace of technological innovation is, if anything, accelerating; and with it the explosion in the type and volume of data continues. Wearable technology and the Internet of Things (IT) will enable unprecedented levels of observation of customers (with attendant ethical, privacy and legal issues) and of business processes.[6] Wearable technology, after some false starts, is finding a place in the market; Apple may be selling more watches than the entire Swiss industry.[7] The IoT is a hot topic; it describes putting relatively "dumb" sensors in objects that can identify each object uniquely and then connecting them all to create an extremely intelligent system. Experts predict the IoT will spawn new solutions for supply chains, reducing food waste, enabling improved traffic management, health care monitoring and intelligent shopping, among many other changes. IoT applications that we cannot yet imagine will be enabled by the advances in computing power and algorithms we discussed in Chapter 12.

CRM came about only when database technology permitted the creation of a single view of the customer that could be understood effectively through data analytics and accessed by customer-facing service and sales people in real time. CRM needs data, and traditional CRM systems were built upon organizations' operational databases: customer records, sales data, service contact histories and so on. With the advent of social media and user-generated content, the interesting data is now "out there" rather than "in here" on legacy operational systems. At first, CRM vendors coined the term "social CRM" to indicate a toolkit for exploiting social media data. Integrating social media data with legacy data is unquestionably challenging. These new forms of data are unstructured and plentiful; integrating into highly structured databases is not a trivial task – this is one of the big data challenges. However, technology has pushed on and marketing clouds are now the leading edge of CRM technology; where technology leads, practice will follow. Some marketing clouds label CRM in a limited way, essentially as a form of database marketing to current customers. For us, CRM was always the implementation of strategies for customer acquisition, retention and development, and the idea of building a business to serve customers, particularly when enabled by technology. The challenge for customer managers, whether in marketing, sales or service roles, is to lead the strategic intent of this vision as the technology evolves rather than be overly concerned with labels *per se*.

Alongside the growth in technology, and all that it enables in terms of managing individual customers, management experts and thought leaders have increasingly focused upon the importance of building relationships with customers. The most prominent of these ideas is customer experience (CX) and customer experience management (CXM). There is a vast and growing literature on CX. Indeed, Oracle calls its CRM technology suite the Customer Experience Cloud. CX is built around two complementary notions of customers-as-detective (discovering clues and interpreting them across their journey) and managers-as-impresarios

(designing the experience clues that customers encounter throughout their journey).[8] Neither is incompatible with CRM as we define it, comprising strategic, operational and analytical capabilities. Guiding the design of customer experience should be an analysis of target customers, estimates of lifetime value and the ability to operationalize. For example, without an estimate of customer profitability, how do you know how much to invest in experiences? CX is both an outcome of excellent relationship management and a key means of its implementation. Similarly, another addition to the language of customer management is the notion of customer engagement. Substantial work has been undertaken to define the concept and differentiate it from related marketing constructs such as satisfaction and loyalty.[9] The focus of the much engagement research is the psychological state of the customer, whereas CRM relates to a set of purposeful managerial activities designed to simultaneously improve customer value while maximizing desired organizational outcomes (profit, retention etc.). CRM strategies are better informed, hence more effective, when managers understand customer satisfaction, experience and engagement; CRM should never become a managerial process machine untethered from its roots in understanding how value is created for customers.

SUPPLY-SIDE INNOVATION

On the supply side, there are technologies that will transform the design, manufacture and distribution of goods. One of particular relevance to CRM is "additive" or 3D printing, giving the ability to produce physical objects from a relatively small printer. Early designs were limited to simple objects produced by very large and expensive printers. But even as we write this chapter, the quality and complexity of what can be made is advancing rapidly, the size of the printers shrinking and their prices tumbling. Additive printing is now affordable and feasible for millions. With 3D printing, it is now possible to imagine truly customer-driven procurement processes starting with online collaboration to co-design a product and almost immediate manufacture and delivery. Additive printing at a customer's location means zero inventory, zero logistics, and no cost to manufacture borne by the supplier. This model potentially overturns the 200-year history of the on-going industrial revolution and we cannot yet really imagine the new business models that this will create. The nature of the relationship between customer and supplier will certainly be affected by such a radical transformation of the supply chain.

With the ability to understand millions of individual customers, monitor their activities, predict their behaviors and comprehensively customize fulfilment, there is a looming battle for control of this vast ocean of customer information. Jaron Lanier's *Who Owns the Future*[10] outlines a world where power moves up a data rich hierarchy to what he calls the "siren servers," the largest and most comprehensive data repositories. Candidates for control of data, and hence the economy, include Google, Facebook, Amazon and perhaps big IT services firms such as IBM. In this new world the average citizen merely provides his or her intellectual property for free, fueling the profits of the siren servers while impoverishing the middle class. This is at the root of a debate about unauthorized access to personal information and its use in political marketing. With a more prosaic commercial perspective, consider how the "free" is displacing journalists, photographers, newspapers, musicians and perhaps with the advent of free online education – teachers. There are those advocating that individuals

must take control of their own data through personal data stores (PDS) allowing them to limit what the siren servers access and/or charge them for their own data. Issues of privacy aside, information is power. PDS is a movement for returning that power to the people who generate that data. However, we believe that it is legislation rather than PDS that represents the more immediate and effective restraint on the exploitation of personal data. This need not slow down the growth of CRM it can force more responsible use of data and greater involvement of consumers in the relationship. Indeed, if the authenticity of communications that we receive is called into question, the effectiveness of the omni-channel, experience-led customer engagement building programs that marketers cherish, will be compromised. In the long term, effective operational CRM requires data integrity and consumers' valid, informed consent to have their data processed for given purposes.

In the last ten years we have seen a shift in how companies engage with customers. Three phases have been identified: presence, human connectivity and automation.[11] Initially, customer and supplier would interact face-to-face in physical venues such as stores and workplaces. Then communications technologies became widely adopted and began to replace face-to-face interactions. Telephone, email, chat, instant messaging, video and other channels that offered greater efficiency and lower cost became more dominant. Currently, we are witnessing a shift to automated communications. The pioneering technology was interactive voice response (IVR) but we are now experiencing chatbots, virtual assistants, interactive websites, and automated email response. The shift to these technologies is driven by cost considerations. However, greater efficiency may be coming at the cost of relationship quality. In order to recover some, if not all, of that diminished relationship quality, companies are exploring the use of technologies that detect the emotional tone of the customer's voice, text or image and adjust the automated response accordingly. We expect to see more widespread adoption of these technologies and analytical support. It remains to be seen whether customers will respond positively and find these automated interactions helpful and valuable. There is also an ethical question about whether firms should disclose the fact that these are automated rather than human-produced interactions.

DATA SCIENCE

With respect to CRM implementation, there is an unanswered question that we hear asked more and more: is it better to have data scientists lead CRM and teach them something about marketing, sales and service or to have customer managers lead CRM and teach them enough about data science to extract value from the investment? From a research perspective, this is work to be done and part of an active research program from one of the authors of this book. Our initial perspective is that analytical CRM needs to be a shared responsibility between line marketing and sales managers and data scientists/business intelligence functions. There is simply too much work to be done and the rate of increase in analytic work is so great, that merely outsourcing the activities to so-called experts will create bottlenecks and, moreover, disintermediate front-office managers from their customers and relationship management activities. In a world where all the CRM analytics are removed from line marketing, the function will be redefined in very limited terms to concerns such as graphic design and advertising. However, the technical knowledge and experience needed for, say deep learning,

is beyond the capabilities of almost all current marketing and sales people. It is unrealistic (and unproductive) to expect 100% of the current marketing and sales establishment to quit work, take a two-year course in data science and then return. Even if they wanted to, there is insufficient supply of courses and qualified instructors to retrain a generation of managers! Advances in data access and analytic software will permit managers to undertake more and more of the analytical work – and they should so that they understand the process and outcomes better. This will free up scarce and expensive resources for the projects with the greatest impact on the organization. That balance will arrive over time through trial and error.

With the revolution in data science underway, CRM as a set of business practices and technologies will undergo considerable change over the next ten years. We think what remains constant is the relentless focus on helping customers extract value from companies' offers by listening, targeting, customizing and supporting them throughout the customer journey. This requires complementary assets and capabilities including data and analytical tools.

We have, in this book, tried to help you understand the rationale for investing in managing customer relationships, how to build the strategic, operational and analytical capabilities it requires, understand how to realize the benefits of CRM (both immediate and latent), to organize and change for its successful implementation. The future will be every bit as challenging, but we believe that most firms will still have a need to identify themselves to their best customers and engage in a learning relationship with them so that firms prosper, and customers obtain the best solutions to their problems or needs.

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