Chapter 15
Marketing automation

Introduction

This is the second of three chapters that look at CRM technologies. This chapter is about technologies used by marketers. The preceding chapter reviewed sales-force automation and the next 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.

What is marketing automation?

Marketing practices have historically been very *ad hoc*. Some of the major companies, particularly fast-moving consumer goods companies such as Unilever and Procter and Gamble, have bucked the trend and developed marketing processes which brand managers and market managers are obliged to follow. However, they are the exception. In general, marketers have not been structured in the way that they plan, implement, evaluate and control their marketing strategies and tactics. Marketing automation has brought increased rigour to marketing processes. The term marketing automation (MA) can be defined as follows:

> Marketing automation is the application of computerized technologies to support marketers and marketing management in the achievement of their work-related objectives.

A very wide range of marketing positions can make use of MA including marketing managers, campaign managers, market analysts, market managers, promotions managers, database marketers and direct marketing managers.

Hardware and software are the key technological elements of MA. Hardware includes desktop, laptop and handheld devices. Software 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. Some integrated packages are dedicated to marketing applications only; others are incorporated into broader CRM

solutions that operate over the three front-office areas of marketing, service and sales.

Benefits of marketing automation

Marketing automation can deliver several benefits. These include:

- **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 processes that can be operated by any marketing incumbent, whether experienced or new to the role.
- **Greater marketing productivity**: in the days before MA marketers might have been 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 multiple channels simultaneously.
- **More effective marketing**: 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 15.1. 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. Companies can also identify and abandon failing marketing initiatives before they drain financial resources.
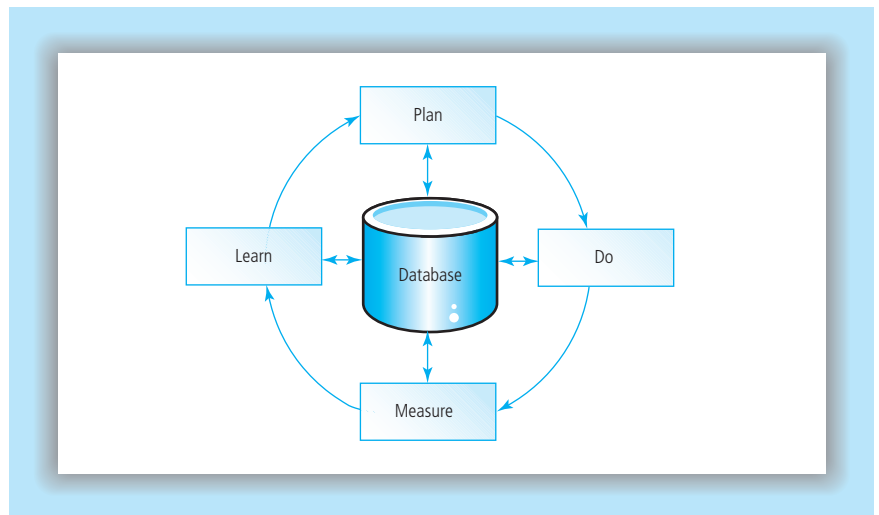
Figure 15.1
Closed-loop
marketing

● **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 they are 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 invitation to the customer to join a mother and baby club which offers additional customer benefits to new mothers.

● **Improved marketing intelligence**: embedded reporting and analytics functionality provides valuable management insights into markets, customers, campaigns, events and so on, leading to enhanced efficiency and effectiveness.

● **Improved customer experience**: customers receive personalized, relevant communications and offers at appropriate times. MA means less spam, from the customer's perspective.

Software applications for marketing

Marketing automation applications offer a range of functionality, as listed in Table 15.1. The table lists both macromarketing automation solutions that offer a wide range of functionality, and micromarketing automation solutions that offer a narrow range of functionality. The macro solutions, such as enterprise marketing management, deliver

Asset management	Market segmentation
Campaign management	Marketing analytics
Customer segmentation	Marketing optimization
Direct mail campaign management	Marketing performance management
Document management	Marketing resource management
Email campaign management	Partner marketing
Enterprise marketing management	Product lifecycle management
Event-based marketing	Search engine optimization
Internet marketing	Telemarketing
Keyword marketing	Trigger marketing
Lead generation	Web analytics
Loyalty management	Workflow engineering

Table 15.1
Functionality offered by MA software

much of the functionality present in the micro solutions. In the next few paragraphs, we'll describe this functionality in more detail.

Asset management

Asset management enables companies to identify and track the assets that customers purchase, license, use, install or download. Assets can be tangible, intangible or blended. The pallet hire company, CHEP, uses asset management to track where its tangible assets, pallets, are in their 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. Jim Beam uses asset management to track the use of its intangible asset, the Jim Beam brand, by other manufacturers. NXT uses asset management to track the licensed use of its blended tangible and intangible assets, manufacturing processes and technology, by other companies that want to manufacture flat panel speakers. Asset management can also be used to track and monitor the use of marketing assets such as point-of-sale materials and exhibition kiosks by customers, partners or sales representatives.

Campaign management

Campaign management automates the processes involved in planning, implementing, measuring and learning from communication programmes targeted at prospects or customers. Campaigns may be used to raise awareness, influence emotions or motivate behaviours, such as buying a product or visiting a website. The key elements of campaign management software are workflow, segmentation and targeting, personalization, execution, measurement, modelling and reporting.

- **Workflow**: before any campaign is run, the overall campaign development process must 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.
- **Segmentation and targeting**: the customer base or source list can be divided into subsets so that one or more subsets can be subjected to a customized campaign. Segmentation is the process of identifying subsets; targeting is the selection of the subset(s) that will receive the material. A common approach to segmentation is to partition customers based on recency of purchase, frequency of purchase and monetary value of purchase, targeting different offers at different subsets.
- **Personalization**: core messages and offers are tailored for individual recipients.
- **Execution**: the campaign is run when the message is delivered through the selected communication channels. Campaigns can be run

in many channels, independently, consecutively or simultaneously by direct mail, e-mail, telephone, fax or text message.
- **Measurement**: the results from the campaign are assessed at segment and individual recipient level. Measures focus on whether the objectives originally set have been achieved.
- **Modelling**: is the process of interpreting campaign results statistically, so that future campaigns can be based on statistical insight into what works and what does not.
- **Reporting**: campaign results are computed and delivered in standard or customized management reports to relevant parties.

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.

Case 15.1

Campaign management at Harrah's Entertainment

Harrah's Entertainment is the world's largest gaming organization. Through Harrah's Total Rewards programme customers earn credits each time they visit and play. Accumulated credits are traded for rewards, cash, coupons or complementary services, and tallied to determine customer loyalty levels of gold, platinum or diamond. Associated services and privileges become increasingly valuable at each higher level.

The Total Rewards programme is a key component of Harrah's CRM strategy and underpins the company's marketing campaigns. Customer-related data, gained primarily from card use, is enriched from other data sources so that Harrah's obtains detailed understanding of their customer profiles and behaviours.

Harrah's first established a data-based marketing approach in 1998. Using historical data, which showed how often customers visited and how much they spent, these early modelling efforts provided basic segmentation based on various demographic trends. Currently Harrah's applies predictive analytics to the customer-related data which can generate an accurate estimate of each customer's potential value.

Historical data shows how often a customer visits Harrah's casinos, but predictive models will reveal which customers are also likely to visit other casinos in the market. Based on share of wallet estimates, Harrah's can target them with campaigns that attempt to increase their loyalty to Harrah's casinos. As a consequence, Harrah's was able to increase its share of customers' gaming budgets from 36 per cent in 1998 to 45 per cent in 2005.

Source: SAS[1]

According to independent analysts, Gartner Inc., leading solutions for multichannel campaign management include SAS, Teradata and Affinium campaign management from Unica.[2] Affinium, for example, is

a comprehensive campaign management solution that allows companies to create, test, deploy and analyse multiwave, multichannel personalized communications. It offers optional modules for e-mail authoring and execution, real-time personalization, distributed campaign execution and cross-campaign optimization. This and similar products allow organizations to deliver personalized, one-to-one marketing messages across all touchpoints. Key features include:

- a web-based interface
- workflow for designing, executing and analysing, transactional, real-time, event-triggered and scheduled communications
- integrated customer analytics and predictive models for enhanced targeting
- automated response tracking
- the ability to merge and transform campaign data across databases and operational systems
- built-in and repeatable processes that speed training and time to market.

Customer segmentation

Customer segmentation is the practice of partitioning customers into homogenous subsets so that each subset can be addressed as a unique marketing audience. Historically, segmentation by marketers has been very intuitive. However, as you read in Chapter 5, when customer segmentation is performed from a CRM perspective, it is much more data-based. Both consumers and organizational customers can be grouped into clusters, based on a wide range of user attributes and usage attributes. In the data-driven world of CRM, marketers often need to use statistical processes to help them identify clusters of customers. Among the widely employed statistical processes are cluster analysis, discriminant analysis, classification and regression trees (CART) and chi-square automatic interaction detection (CHAID).[3]

Cluster analysis aims to sort cases (customers, in this instance) into groups, or clusters, so that the degree of association is strong between members of the same cluster and weak between members of different clusters. Cluster analysis can reveal associations between customers which, although not previously evident, are nevertheless sensible and useful once discovered.

Discriminant analysis is used to determine which variables discriminate between two or more naturally occurring groups. For example, a marketer may want to investigate which variables discriminate between buyers of standard size packs and buyers of economy size packs. A large number of variables are entered into the statistical routine and discriminant analysis is able to identify the variables which discriminate between purchasers of the two pack sizes. Those variables can then be regarded as predictors of pack size purchase.

CART is a non-parametric statistical methodology for resolving classification problems involving either categorical (nominal or ordinal)

or continuous (interval or ratio) dependent variables. If the dependent variable is categorical (e.g. buy/not buy), CART produces a classification tree. If the dependent variable is continuous (buys x, y … n occasions), it produces a regression tree (see Figure 15.2).
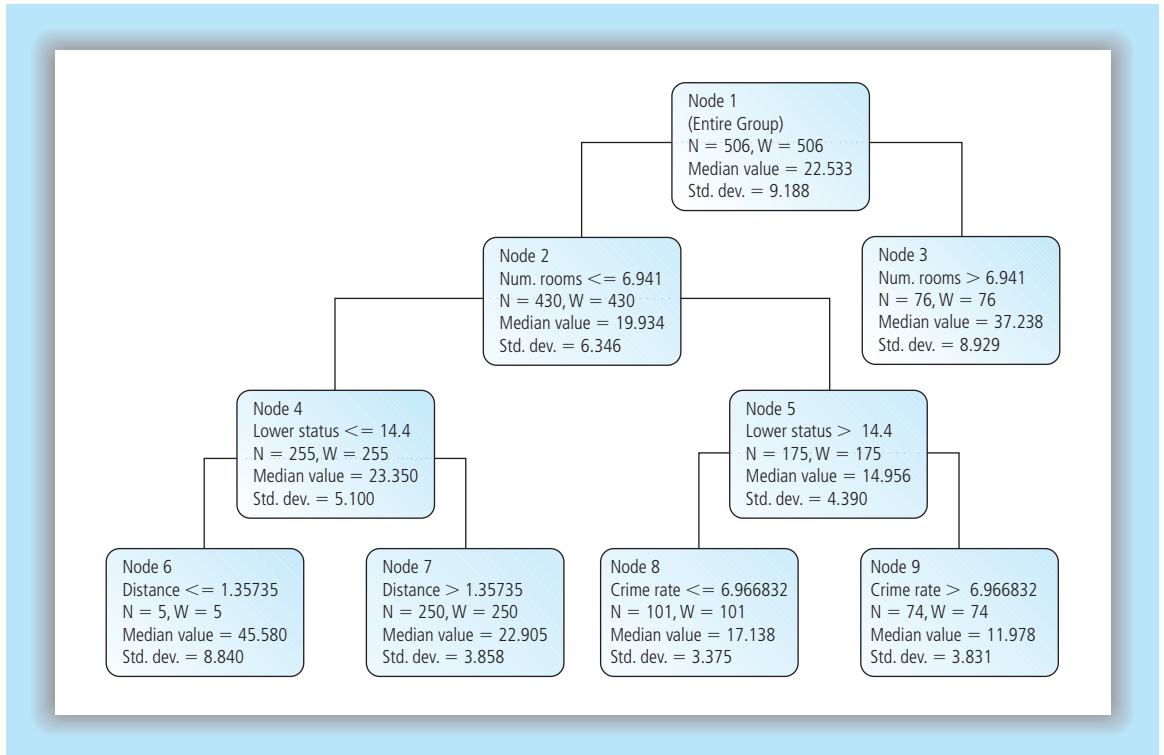
Figure 15.2 Illustration of regression tree output using CART[4]

CHAID is used to explore the relationships between a dependent variable (e.g. buyers or non-buyers of a product) and a number of possible predictor variables (such as age, gender, post-code, marital status, income, educational attainment, occupational status) that themselves may interact. The output of a CHAID analysis is a tree diagram that discriminates between buyers and non-buyers on the basis of the other variables.

Once customers have been clustered they can be treated to a range of customized and personalized communications and offers over time, designed to build value, multi-product ownership and loyalty. It is important to continue to find new ways of segmenting the customer base, as new clusters will often signal additional opportunities for value creation.

Direct mail campaign management

Direct mail campaign management is a specific form of campaign management in which the communication medium is direct mail. According to the World Postal Union:

> 'Worldwide postal statistics show very low growth in letter mail volumes. One exception, however, has been direct mail, which is experiencing significant growth in many parts of the world. Evidence shows that this growth has reached double digits in some developing countries. Even in more mature markets, there are still expectations of growth'.[5]

However, according to Euromonitor, UK spending on direct mail reached £2.6 billion in 2004 and forecasters were predicting that spending would stabilize at these levels because of direct mail's association with junk mail.[6] The Direct Mail Information Service (DMIS) reports 2005 direct mail expenditures of £2.3 billion, split between consumer (77 per cent) and business (23 per cent) mailings.[7]

Direct mail has many applications including lead generation, lead conversion, building awareness, up-selling and cross-selling, customer retention, database building or image enhancement. Important contributors to direct mail success are the list, the creative execution, the offer and the timing. Making the right offer to the right person at the right time in the right 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 that the conventional mass mailouts that have been marketing's tradition. The old cry that 'it's a numbers game' has been replaced by a clear focus on customized, personalized offers. The average response rate for both business and consumer mailings is around 8.5 per cent; about one in 12 recipients does what the mailer wants them to do, whether that is register for an event, redeem a coupon or call a toll-free number. Response rates range from below 1 per cent to over 30 per cent (for government mailings).[8] Many companies elect to outsource direct mail campaigns to third-party service providers, who are themselves big users of marketing automation.

Document management

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.
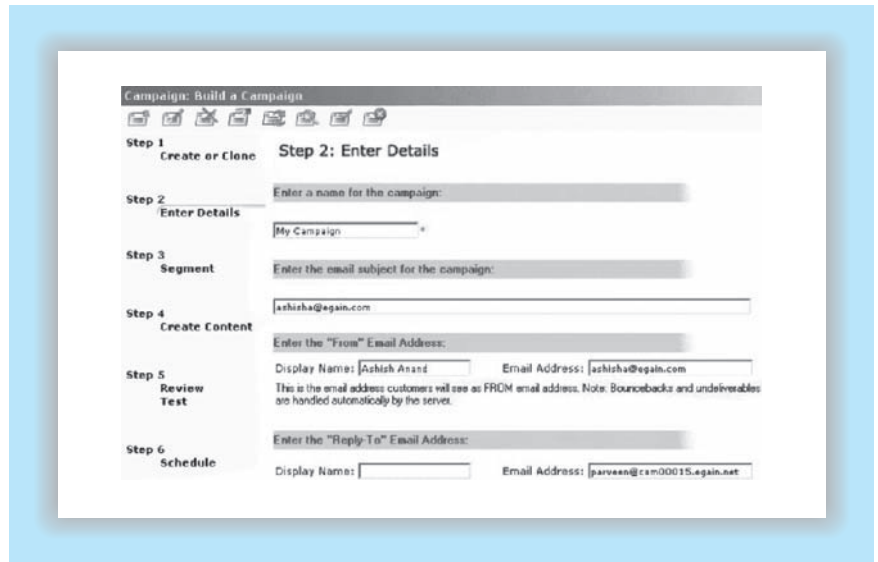
E-mail campaign management

E-mail campaign management is a specific form of campaign management in which the communication medium is e-mail. E-mail is cheap, easy to use and ubiquitous. Over 90 per cent of Internet users have one or more e-mail addresses.[9] E-mail marketing is a massive industry. In the US alone, eMarketer estimates that spending on e-mail marketing will grow from $338 million in 2006 to $616 million in 2011.[10] Legitimate e-mail marketing is tainted by the widespread use of e-mail spam, that is, unsolicited bulk e-mail. Fifty per cent or more of e-mail messages are spam. The typical legitimate opt-in (or permission-based) e-mail marketing message contains text and a link through to a website. Open and click-through rates, the most commonly used e-mail marketing metrics, provide marketers with some insight into how an e-mail 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. As with all customer communications, it is very important to specify clear objectives. If the objective is to sell 100 units, reporting success in terms of CTOR makes little sense.

There is a significant and growing volume of research into the effectiveness of e-mail marketing. The corporate website, www.e-maillabs.com, the E-mail Experience Council (www.e-mailexperience.org) and the E-mail Statistics Center (www.e-mailstatcenter.com) act as gateways to many of these resources. Among the statistics they cite are the following, which collectively indicate the potential of, and problems with, e-mail:

- for every dollar spent on e-mail marketing in 2007, marketers obtained $48 return on investment (ROI), compared to $7 for print catalogues
- the US e-mail marketing industry is estimated at $3 billion in 2007, inclusive of $1.15 billion for all the technology, agency, consultant and service providers
- e-mail generated sales in the US will show a compound annual growth of 14.9% from 2006 to 2011
- the average order conversion rate of e-mail is 6%
- permission e-mail marketing now accounts for 27% of the e-mail that consumers receive in their primary personal inboxes, up from 16% in 2003
- one in five e-mail is invisible and ineffective due to blocked images
- 45% of click-through landing pages do not repeat the promotional copy found in the e-mail, thus failing to reinforce the call-to-action that prompted the e-mail recipient to click on the link in the first place
- only 10% of e-mail campaigns are fully individualized in terms of salutation, images, timing and promotion.

There are many e-mail campaign management software packages, either standalone or integrated into more comprehensive campaign management or MA offerings. eGain is a leading vendor that divides the campaign management process into six steps (see Figure 15.3).

Figure 15.3
E-mail campaign
management
process

Enterprise marketing management

The analysts, Gartner Inc., describe enterprise marketing management (EMM) thus:

> 'EMM encompasses the business strategy, process automation and technologies required to operate a marketing department effectively, align resources, execute customer-centric strategies and improve marketing performance. It is best suited for large organizations with 50 or more people in marketing. This includes functionality for campaign management, lead management, MRM (marketing resource management) and analytics. However, EMM is more than simply the sum of "parts" (such as campaign management plus MRM). EMM also emphasizes the architecture and platform for role-based distribution of information, content, functionality, data and analysis for performance management. Critical elements of this platform include SOA (service oriented architecture), composite application functionality, data repository for structured and non-structured data, marketing data models and analytical toolsets'.[11]

The EMM market is immature in terms of both vendor offerings and user adoption. Companies like Aprimo, Siebel and Unica are offering these comprehensive suites of marketing applications. The ultimate purpose of EMM technology is to help marketers align their analysis, planning, implementation and control activities so that they can become more effective, efficient and accountable.

Event-based marketing

Event-based marketing occurs when an event triggers a communication or offer. Event-based campaigns are usually initiated by customer behaviours or contextual conditions. For example, a customer who uses a credit card less than six times in a three month period might receive an invitation to participate in a frequency reward programme designed to encourage repeated use. A bank customer who deposits $50 000 or more into a savings account might receive an offer of investment advice from a licensed financial planner. Contextual conditions such as a birthday, registration of a child's birth, change of address and religious festivals also provide opportunities for marketers to run context-specific campaigns.

Internet marketing

Internet marketing can be defined as follows:

> Internet marketing is the process of creating value by building and maintaining online customer relationships.

According to Rafi Mohammed and his colleagues, Internet marketing can be thought of as a seven-stage process (Figure 15.4). Internet marketing applications range across these seven stages, some more comprehensively than others.

Internet marketing software enables users to perform a wide range of online activities designed to generate website traffic and make it profitable. Users can do the following: develop and manage online content, create a pleasing online customer experience, obtain search engine listings, perform search engine optimization, implement keyword marketing, obtain customer information, customize web pages (known as dynamic web pages) and visitor communications, run online advertising campaigns using the likes of Google Adwords, manage pay-per-click programmes, operate affiliate marketing programmes, run e-mail campaigns and perform web analytics.

Keyword marketing

Keyword marketing is the practice of generating website traffic from Internet users who have entered keywords into search engines such as Google, Yahoo!, AOL, Ask.com and Live search (formerly MSN). A company that is interested in improving its complaint management processes might use the keywords 'complaint-handling' and 'ISO 10002' to search the web for useful information. The keywords will lead to thousands of listings. Keyword marketing software applications enable companies to feature early in these listings. Some keyword marketing involves purchasing advertising space, typically banners and text links, on the search results page. The other major form of keyword marketing is search engine optimization (SEO), which aims to get unpaid listings on
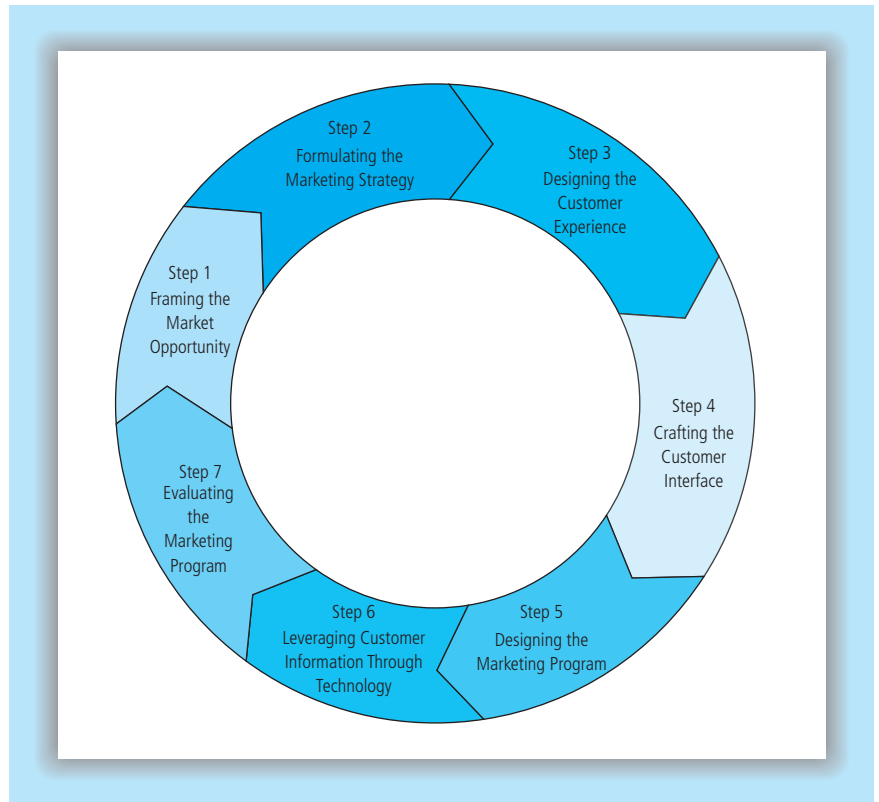
Figure 15.4
The seven stage
cycle of Internet
marketing[12]

the early search results pages. Google pages feature both. Advertisements
that have been bought appear on the right hand of the search results
page and SEO listings appear on the left. We cover SEO later in this
chapter.

Lead generation

Lead generation is an important marketing objective, particularly in
business-to-business contexts. Salespeople challenged to grow the
numbers of customers served need to be presented with high-quality
leads for follow-up. Marketers can deploy campaigns, events, seminars,
webinars and other tactics to generate leads.

Loyalty management

The development of customer loyalty is a goal of many CRM
programmes (see Figure 15.5). The availability of loyalty management
applications is a direct response to this need. Loyalty, or frequency,
programmes are important to several constituencies; the brand owner
who operates the programme, the member who collects and redeems
credits, and the channel partner who transacts with the member.
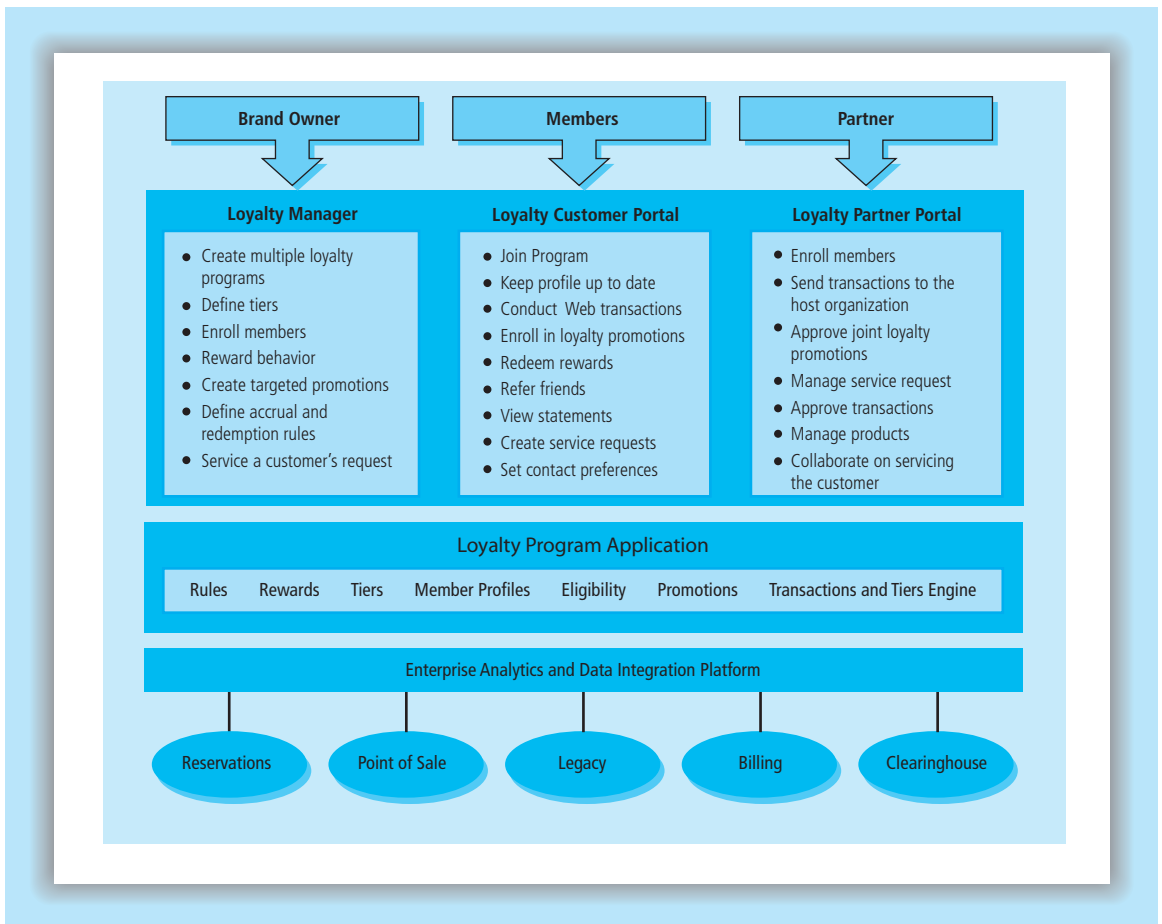
Figure 15.5 Siebel's loyalty management software application

Many loyalty programmes 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 made, for example 'Buy 5 cups of coffee, get the next one free'. However, there are other programmes which are operationally and technologically complex. Consider the Nectar loyalty programme operating in the UK. Nectar is the UKs largest coalition loyalty programme, with half of all UK households having a Nectar card. The Loyalty Management Group (LMG) owns and operates the Nectar brand. Over 15 consumer brands including BP, Debenhams, Hertz, Ford and the Automobile Association are members of the coalition. Consumers acquire points with purchases and can redeem them on a number of treats, including spa days, movie and theatre tickets and luxurious holiday breaks. There are around 6000 retail outlets where the card can be used to earn points. Nineteen Nectar cards are swiped every second of the day. The technology challenge is massive and ranges across many of the issues in Figure 15.5; partner web application, member web application, contact centre, loyalty programme administration, transaction processing, data

warehousing, campaign management, account management, rewards administration, member analytics, partner analytics, report engines and multiple interfaces to different partner systems.

Market segmentation

Market segmentation is the practice of partitioning markets into homogenous subsets, so that each subset can be addressed as a unique marketing opportunity. The same principles discussed in the context of customer segmentation and earlier in Chapter 5 apply here.

Marketing analytics

Marketing analytics is the application of mathematical and statistical processes to marketing problems. Marketing analytics can be used to explore, describe and explain. 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 analyse 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 and developing hypotheses to test or identifying key variables or relationships to explore further. A descriptive application of marketing analytics would involve the depiction of some marketing phenomenon, such as a customer group, market segment or product category. Descriptive applications focus on who, what, where and when. Some descriptive analyses are cross-sectional, others are longitudinal. A cross-sectional analysis involves description at a single point in time. Longitudinal analyses involve repeated data collection about the same variables over time, so that you can get a better sense of what changes. An explanatory application of marketing analytics would seek to obtain evidence of a cause–effect relationship. Analytics are used to explain why something has happened or to predict what might happen.

As noted in Chapter 13, there are three types of analytics: standard reports, online analytical processing (OLAP) and data mining. Standardized reports integrated into marketing automation may meet basic descriptive needs, but as the requirement for analysis grows they may be insufficient. OLAP offers more analytical power, in that it enables users to drill down into graphs and tables. 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, regression, correlation)
● multivariate statistical analysis (multiple regression, factor analysis, discriminant analysis, factor analysis, cluster analysis, multi-dimensional scaling, conjoint analysis)
● decision trees and neural networks
● data visualization that presents results in tables, charts and graphs.

Data mining can be used to answer questions such as:

● What segments do my customers fall into and what are their characteristics?
● Which customers are most likely to respond to my promotion?
● What is the lifetime value of my customer?
● Which customer is at risk of defection?
● What is the best channel to reach each customer segment?

Data mining can be used to produce:

● **scores**: the likelihood a customer will purchase a product
● **predictions**: how much a customer will spend in the coming year
● **descriptions**: what characteristics define profitable customers
● **profiles**: the common characteristics of each customer segment.[13]

Marketing analytics are built into the comprehensive CRM and MA suites available from vendors like SAP and Oracle. Specialist organizations like SAS and Teradata also operate in this segment.

Marketing optimization

Campaign management solutions are very popular, but most cannot handle a complex environment in which a fixed amount of campaign spend has to be distributed over many offers in many channels to many customer segments, with a view to achieving some overarching commercial goal such as maximum sales or contribution to profit. Marketing optimization is a mathematically-based solution to this problem. Users of marketing optimization software do not need to understand the complex optimization algorithm that underpins this application.

Marketing optimization software allows you to select an overall goal, such as sales or profit margin maximization, and specify all of the constraints of your 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, e-mail, text message, telemarketing), minimal cell size per offer (e.g. target customer segment size of at least 250 persons) product-specific volume requirements (e.g. must sell 10 000 gizmos this quarter), customer segments' propensities to buy different products, and channel constraints (e.g. call centre can only make 200 outbound calls per week), to name but a few. The software then determines which customers should get which offer through which channel to ensure your campaign objectives are met.

Marketing optimization software also lets you explore any number of 'what-if' scenarios by changing constraints and objectives before committing any marketing resources. The more advanced marketing optimization technology operates in real-time, allowing your website to present the right offer and your call centre agent to offer the right promotion during each customer interaction.

In short, marketing optimization enables marketers to extract the best return, however defined, from their campaign spend while taking

account of a range of constraints such as budgets, customer segments, propensity to buy, contact policies, channel availability and channel capacity (see Figure 15.6).
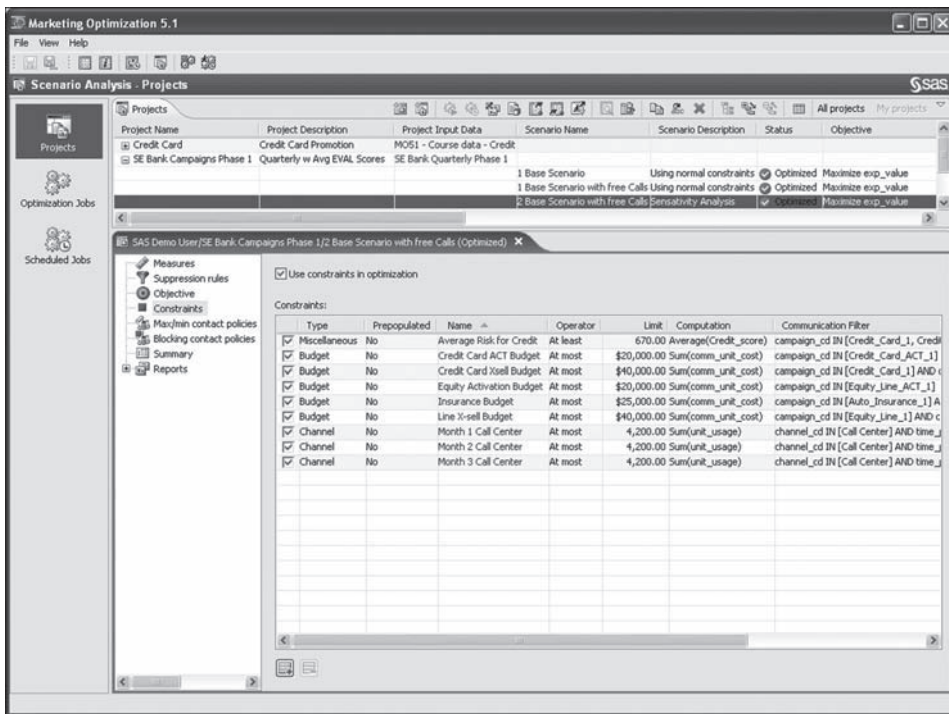

Figure 15.6 Constraints for marketing optimization[14]

Marketing performance management (MPM)

Marketing performance management (MPM) software enables companies to measure their marketing performance through analysis and reports and improve outcomes over time through closed-loop marketing. Senior management is progressively becoming more demanding that marketers be accountable for their expenditure, and MPM helps marketers meet that expectation. MPM, which is typically focused on analysis of marketing tactics such as events and campaigns, 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 programmes
- 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, SASs MPM product is able to deliver a range of reports against a number of KPIs, including:

- marketing programme metrics that report on the efficiency and effectiveness of marketing tactics
- customer metrics that report customer satisfaction, value, churn, migration, etc.
- business/financial metrics (sales, profitability, cost, etc.) that give executives 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, dashboards and text.

Marketing resource management

Marketing resource management applications consist of a range of automated tools that enable marketers to manage their marketing processes and assets more effectively, and to work at greater speed and with improved control. MRM toolkits may include modules for:

- marketing planning and budgeting
- new product launch
- marketing event calendaring
- event planning and registration
- project management
- campaign planning
- collateral production, proofing and approval
- digital asset management, including brands, trademarks, logos and collateral material
- expense and budget management
- time management
- media buying
- procurement.

These tools, like other CRM applications, can be accessed on demand or licensed for installation on your company's own hardware. Investment in MRM is more justified if marketing budgets are high; if you need to align implementation across several branches or offices; if collateral material is subject to frequent change; if brands, trademarks and logos

are highly valued assets that need to be protected; if you run more than one event simultaneously; if you run more than six campaigns in a year; if you launch more than one new product a year; if you need to facilitate collaboration across departments on projects, events and campaigns.

Partner marketing

Partner marketing solutions enable companies to coordinate and work collaboratively with channel partners and others. Sometimes partner marketing is referred to as partner or trade management. 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 centres. 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 and sign up, 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, administration of marketing funds and specialist partner incentive schemes.

Microsoft Canada's partner website describes the value of partnering with this message to their partners: 'Your goals: Increase profitability. Decrease business costs. Our goal: To provide the resources needed to reach yours' (see Figure 15.7).

Figure 15.7
Microsoft Canada's partner website

Product lifecycle management

Many products progress through a series of stages from their initial market introduction to their eventual withdrawal. Product lifecycle management (PLM) applications aim to help marketers manage lifecycle stages effectively and profitably.

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 and market development processes.

PLM applications offer a wide range of functionality, including:

● concept evaluation process
● new product development and approval process
● new product launch process
● product costing process
● product sourcing process
● product compliance process (compliance with legal, regulatory and voluntary standards)
● quality function deployment (QFD) process
● channel member qualification and recruitment process
● collaborative extra-enterprise product development process
● computer-aided design (CAD)
● computer-aided engineering (CAE)
● computer-aided manufacturing (CAM)
● product portfolio analysis (e.g. BCG matrix)
● engineering data management
● product delisting process
● workflow engineering
● project management and scheduling
● action item management
● document management
● product record.

Large corporations such as Oracle, SAP and IBM, and many smaller vendors operate in this field.

Search engine optimization

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.

Usually, the higher ranking results that appear earlier in the listings generate more visitors. SEO aims, therefore, to achieve high rankings, preferably on the first or second pages. The major search engines use web crawlers, also known as web spiders or web robots, to browse the

World Wide Web methodically. Crawlers visit websites, read the site's visible content and meta tags, and visit linked links, reading content and meta tags there also. 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 information at periods that are determined by the search engine's management. Unlike visible content, meta tags provide information about who created the page, how often it is updated, what the page is about and which keywords represent 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. Each search engine has its own algorithm which is a trade secret and/or patented.

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. The most successful websites employ methods such as strategic keywords that are well matched to the content of the site, strategic meta tags, website structure (each page having its own keyword/s), 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 the site is submitted to the right search engines.

Case 15.2

Filtrex implements search engine optimization

Filtrex (not their real name) 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 their 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 order spend 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%.

Source: Braveheart Design Inc[15]

Telemarketing

Telemarketing can be defined as follows:

> Telemarketing is the use of the telephone to identify and qualify prospects, and to sell and service the needs of customers.

Telemarketing takes two forms: inbound (calls from customers) and outbound (calls to customers). Some call centres perform a blended function with agents both making and receiving calls. Telemarketing is widely employed in both B2C and B2B environments, but is subject to legislative control due to its intrusive nature. For example, both the USA and Australia operate a 'Do Not Call' register on which telephone account holders can list their numbers. With a few exceptions, such as charities, political organizations and research firms, marketers are not allowed to call listed numbers and penalties apply if this rule is breached.

Telemarketing software applications offer a wide range of functionality over landlines, mobile networks and VoIP (Voice over Internet Protocol):

- autodialling
- predictive dialling
- automated voice-messaging
- contact list management
- agent management
- Do Not Call compliance
- screen pop with caller ID
- scripting, including objection response
- computer-aided telephone interviewing (CATI)
- interactive voice response (IVR).

Autodiallers 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 diallers predict when an agent is about to conclude a call, and autodial the next call in anticipation. Automated voice messagers (or messengers) will make telephone calls automatically to a contact list and convey a message to them. This can be used for lead generation, debt collection, political canvassing and reminding customers about appointments. Telemarketing 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.

Trigger marketing

Trigger marketing is the practice of responding to some 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. The event triggers the response.

As noted in the section on event-based marketing, the triggers are usually customer behaviours or contextual conditions. Opportunities for trigger marketing occur throughout the customer lifecycle. When a customer first makes a purchase you might respond with a thank you e-mail or letter. When a customer complains and you believe you've resolved it well, you might follow-up with a survey to find out the complainant's level of satisfaction with your complaints-handling process. When a customer is won back, having been lost to a competitor for a while, you might respond with a 'welcome back' note.

Trigger marketing software can be trained to identify events and either to send an automated response, such as an e-mail, digitally-personalized direct mail piece or text message, or to feed the information through to a salesperson or customer service agent for follow-up. Trigger marketing ensures that the communication is relevant to the recipient, because it is a contextualized response to an event in the customer's life. For example, when a customer is approaching their credit limit you might send an e-mail notifying them so they can avoid fees and charges. This would surely be welcomed.

Case 15.3

Trigger-based marketing at HPES

HPES provides education and training products and services to Hewlett-Packard's clients. Its offering includes partner training, virtual classrooms and a number of distance learning solutions, as well as accreditation programmes. In 2005 HP noticed that attaching HPES products and services to hardware sales enabled their customers to gain more from their purchase while the customer, in turn, became far more loyal and profitable to HP.

HP created a pilot study to assess whether or not trigger-based marketing could be used to identify opportunities to attach HPES products and services to existing sales opportunities.

HP sales teams had been reluctant to sell HPES products and services, so the pilot study set out to identify the correct points in the sales cycle to send sales representatives an appropriate trigger-based communication to encourage them, and provide them with the information, to make incremental HPES sales.

The HP CRM team collaborated with an external consultancy to explore the customer and sales data that resided in the CRM system. The result was a bespoke set of event-based rules that would trigger a personalized communication from HPES to the representative.

The e-mail contained information to assist in the conversion of the sale, while attaching a relevant HPES solution. The resultant communication was tracked and the results fed back into the Siebel CRM system to determine sales value and ROI measure. The 12-week pilot generated $450 000 of incremental revenue. An extended (EMEA) pilot generated additional revenue of $2 million and a projected sales uplift across EMEA of $8.2 million. The pilot achieved a 60 per cent response rate by HP sales representatives to the personalized automated communication and lifted the perception of HPES within the HP sales team.

Source: TW Connect[16]

Web analytics

Web analytics report the behavior of website visitors. Routine reports (see Figure 15.8) 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 e-mail. Two main technologies collect 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 web spiders from search engines. 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 web pages, 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). The Web Analytics Association has
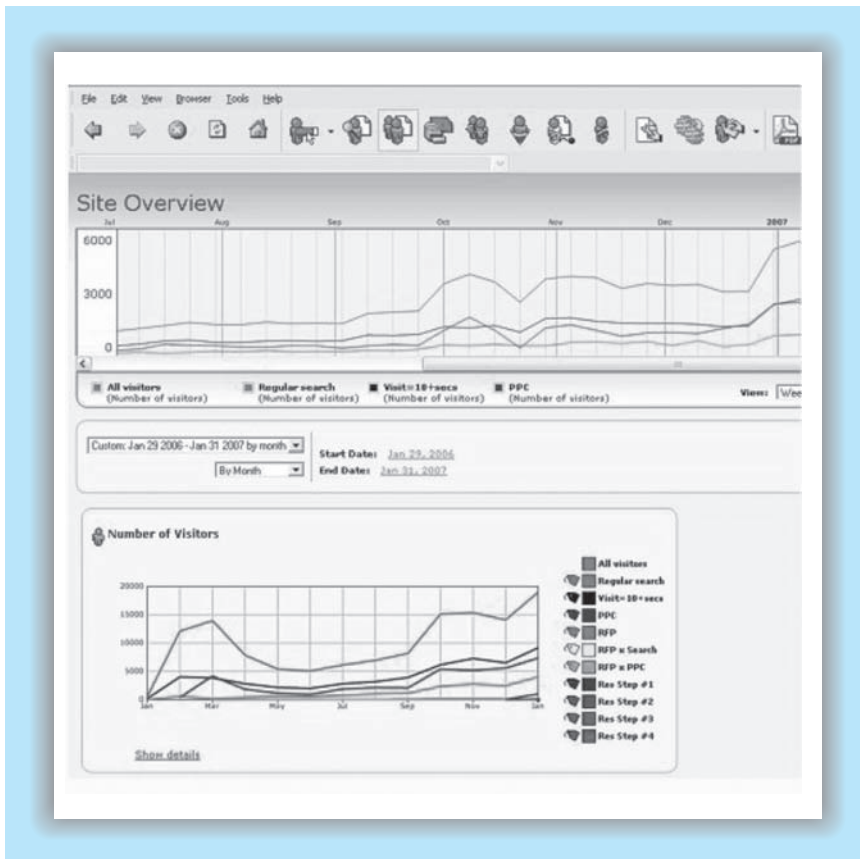

Figure 15.8
Web analytics
report[18]

defined a number of important terms that are used by web analytics vendors.[17] 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 of more requests for analyst-definable content. A visit usually contains multiple hits (in log analysis) and page views.
- **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 (see below for more information on cookies).
- **Repeat visitor**: a visitor that has made at least two visits to the website in a reporting period.
- **New visitor**: a visitor that 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 advertisements by tracking advertisement impressions, or the number of times their advertisements 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.

A cookie is a small file of information (normally less than 1k) that a website places on a visitor's computer hard drive 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
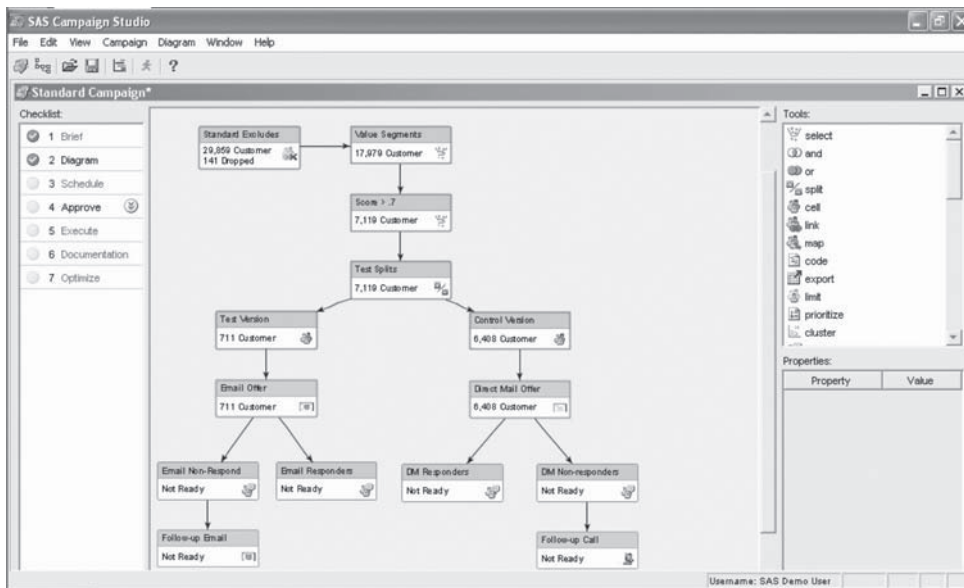
Figure 15.9 Campaign workflow[19]

goes offline. Web analysis, however, relies on persistent cookies that are stored on the visitor's hard drive until they expire (persistent cookies have expiry dates) or until the user deletes the cookie. Companies such as Omniture, Google Analytics and WebTrends are well-known players in this market.

Workflow engineering

Workflow engineering software is useful for designing marketing-related processes, such as the campaigning process (see Figure 15.9), event-based marketing process or the marketing planning process.

Summary

Marketing automation is the application of computerized technologies to support marketers and marketing management in the achievement of their work-related objectives. Many marketing positions can make use of marketing automation including marketing managers, campaign managers, market analysts, market managers, promotions managers, database marketers and direct marketing managers. Hardware

and software are the key technological elements of MA. Hardware includes desktop, laptop and handheld devices. Software 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 enhanced marketing efficiency, greater marketing productivity, more effective marketing, enhanced responsiveness, improved marketing intelligence and a better customer experience.

Marketing automation software applications help users in asset management, campaign management, customer segmentation, direct mail campaign management, document management, e-mail campaign management, enterprise marketing management, event-based marketing, Internet marketing, keyword marketing, lead generation, loyalty management, market segmentation, marketing analytics, marketing optimization, marketing performance management, marketing resource management, partner marketing, product lifecycle management, search engine optimization, telemarketing, trigger marketing, web analytics and workflow engineering.

References

1. http://www.sas.com/success/harrahs.html. Accessed 25 January 2008.
2. Gartner Inc. (2007) Magic quadrant for multi-channel campaign management, 1Q07.
3. Saunders, J. (1994) Cluster analysis. In: G.J. Hooley and M.K. Hussey (eds.). *Quantitative methods in marketing*. London: Dryden Press, pp. 13–28.
4. Courtesy of Phillip H.Sherrod (http://www.dtreg.com).
5. http://www.upu.int/direct_mail/en/index.shtml. Accessed 13 January 2007.
6. Euromonitor. (2005) *Direct marketing in the UK*.
7. http://www.dmis.co.uk/. Accessed 13 January 2007.
8. http://www.dmis.co.uk/pdfs/Response_Rates_Survey_2006.pdf. Accessed 13 December 2007.
9. http://www.e-maillabs.com/tools/e-mail-marketing-statistics. html#e-mailusage. Accessed 13 December 2007.
10. http://www.emarketer.com/Reports/All/Emarketer_2000382. aspx?src = report_more_info_sitesearch. Accessed 13 December 2007.
11. http://mediaproducts.gartner.com/reprints/unica/article11/ article11.html. Accessed 17 December 2007.
12. Mohammed, R.A., Fisher, R.J., Jaworski, B.J. and Paddison, G.J. (2002) *Internet marketing: building advantage in a networked economy*. New York: McGraw-Hill.
13. http://www.teradata.com/t/pdf.aspx?a = 83673&b = 84891. Accessed 17 January 2007.
14. Copyright © 2008 SAS Institute Inc. All rights reserved. Reproduced with permission of SAS Institute Inc., Cary, NC, USA.

15. Braveheart Design Inc. http://www.braveheartdesign.com/casestudies/ filters.htm. Accessed 17 December 2007.
16. TW Connect Ltd. http://www.twconnect.co.uk/upload/file/158/ 79244/FILENAME/HP_Education.pdf. Accessed 26 January 2008.
17. http://www.webanalyticsassociation.org/attachments/committees/5/ WAA-Standards-Analytics-Definitions-Volume-I-20070816.pdf. Accessed 18 December 2007.
18. http://www.customfitonline.com/solutions/web-analytics.htm. Accessed 18 December 2007. Used with permission.
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