Perspectives

E-services and their role in B2C e-commerce

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Keywords

Electronic commerce, Service, Internet, Customer service

Abstract

E-services are important in B2C e-commerce for managing customer relations and enhancing sales. In the electronic world the customer and the merchant do not meet face-to-face, and the clients are more discerning with increased options and solutions available to them online. With the click of a mouse a customer can find another provider. As customers embrace e-commerce their expectations about service, support, and how they make purchases are changing. Services to customers offered electronically to enhance their online shopping experience include search support, e-response to customer queries, orders and transactions, e-payment, e-transaction record management, e-assurance and trust, e-help and other online support in the B2C e-space. This paper discusses the role of e-services in B2C e-commerce and how they can be applied to enhance the online customer shopping experience. Findings of two research projects that shed some light on both business and customer perspectives of the role of e-services in the B2C e-commerce are launched in this paper.

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Introduction

As customers embrace e-commerce they have escalated expectations about service and support to enable them to shop online. Customer service applications in electronic commerce are more critical than in conventional sales, since customers and merchants do not meet face-to-face. A click of a mouse is enough for an online customer to select a new provider. Electronic commerce is exponentially increasing the availability of information, giving customers access to more knowledge, of better quality and faster than before. Businesses online provide an information-rich environment by which competitors can identify, match and improve product innovation. A company that can respond to the needs of customers, accommodate their requests promptly and support their buying decisions creates value and wins customer patronage and loyalty (Singh *et al.*, 2001). A proactive strategy to assist customers with online services is thus an important attribute of B2B e-commerce. In this paper an e-service in business-to-consumer e-commerce refers to an online service offered to customers to support their shopping experience over the Internet.

Online customers expect fast, friendly and high quality service. They want choice, convenience and a responsive service with a personal touch (Zhao and Gutierrez, 2001). In the electronic commerce environment clients are more discerning with increased options and solutions available to them. The increased information available to marketers and advertisers, the streamlined supply chain, and the new retail channel, made possible by electronic commerce, significantly affect the satisfaction of customers, whether they are individual consumers or in other businesses (Adam *et al.*, 1999). Ho and Wu (1999) suggest that in electronic commerce all potential Internet users are potential customers. For businesses to win these potential customers and to convert them into real ones depends on effective customer relationship management. E-services that win customers and positively contribute to effective customer relationship management also enhance B2C e-commerce and the volume of transactions. Online services such as easy search of products and services, provision of product specifications that reduce communication costs, secure

electronic payment systems to complete transactions, updated product delivery information and quick responses to customer queries are important to win online customers and to make them keep coming back to the site for further purchases (Turban et al., 2000).

Archer and Gabauer (2000) emphasise that building and maintaining customer relationships are the key to success in e-commerce, which depends on maintaining effective customer service. They also suggest that in e-commerce, unless service is maintained, customer loss may result, more than offsetting any cost-efficiencies due to the introduction of e-commerce technology. Relationships in the business-to-business environment are based heavily on information exchange, which has a fundamental effect on market growth and structure. In B2C e-commerce Singh et al. (2001) suggest that effective customer support and services are vital to encourage customers to shop online as it is a lonely experience, does not allow touch and feel and has a high degree of concern regarding security and privacy of information. Archer and Gabauer (2000) further explain that, when a network links supplier and customer, in each of these functions information is entered, used, generated, and transmitted by internal information systems, which potentially may be shared between the parties. In each function there are opportunities to gather information during customer procurement activities, and to use this information to improve the possibility of continuing a profitable relationship between partners. Information is integrated to improve service, save customers' time and ease frustration.

The acquisition of e-customers is difficult and expensive (Singh et al., 2001). Customers can quite easily evaluate and compare the benefits of competing services which result in low switching costs. Relatively little is known about how consumers perceive and evaluate electronically offered services and how they develop loyalty to their providers (Riel et al., 2001). This paper discusses the applications of e-services, and tools and techniques for providing these services to customers in an electronic commerce environment. It also presents research findings of two projects from which the role of a number of e-services in the B2C e-commerce have been determined. A discussion of the two

perspectives highlights some differences and similarities between the providers and receivers of e-services.

Literature review

A customer realises the full value of a company's offering through its service. According to de Ruyter et al. (2001, p. 186), "an e-service is an interactive, content-centred and Internet-based customer service, driven by the customer and integrated with related organisational customer support processes and technologies with the goal of strengthening the customer-service provider relationship". Providing personalised and accurate customer information with better tracking, delivery and payment details is an online service in B2C e-commerce generally appreciated by customers. Other services such as interactive and personalised customer communications, speed and accuracy, enhanced capability to track and measure transactions, instantaneous 24×7 communications, and the ability to offer different combinations of product and service elements please customers and improve buyer and customer relationships in the B2C e-space.

Since e-commerce is a new way of doing business for both the customers and online businesses, research and literature on e-services that support B2C e-commerce are scarce. Riel et al. (2001) support this claim by emphasising that research on e-services is in its infancy and there are no generally accepted theories for customer evaluations of these services. However, the importance and relevance of e-services in customer service support in the B2C e-space have been realised (Turban et al., 2002). Voss (2000) illustrates three levels of service delivered over the Internet, namely, foundations of service, customer-centred service, and value-added service. Foundations of service include site responsiveness, meaning how quickly and accurately the service is provided, site effectiveness, meaning how well it meets the needs of users, and order fulfilment, meaning fast delivery and global payment capability. Customer-centred services include order tracing, configuration, customisation and security and trust. Value added services include a proactive strategy to assist customers with various applications of

exchange, experience and exploitation of information. Five service quality dimensions identified by Parasuraman et al. (1988) are:

(1) tangibility;
(2) responsiveness;
(3) reliability;
(4) assurance; and
(5) empathy.

Riel et al. (2001) suggest that these dimensions can be applied in e-commerce by replacing tangibility with the user interface, since it, to some extent, describes how the service is offered to customers. Responsiveness could refer to the speed of the company's response to the customers, reliability could relate to timely delivery of ordered goods, accurate information and correct links. Assurance could be interpreted as the safety of online transactions and the policy for using personal information by the company, while empathy could refer to the degree of customisation of communications based on customers' personal needs.

E-service functions that support online shoppers identified from the literature (Korner and Zimmermann, 2000; Otto and Chung, 2000; Turban et al., 2000, 2002; Voss, 2000; Watson et al.,1999) are discussed in this section of the paper. The functions are described and discussed in relation to the eight steps of consumer mercantile activities identified by Kalakota and Whinston (1997). The eight steps are:

(1) product search;
(2) comparison shopping;
(3) product selection;
(4) negotiation of terms;
(5) placement of orders;
(6) payment authorisation;
(7) receipt of product; and
(8) after-sales customer support.

Customer activities in B2C e-commerce

Kalakota and Whinston (1997) are of the opinion that an online customer goes through the following activities to make a purchase online with the expectations of quality, convenience, value, low price and control.

Product search

During this phase customers are searching for a product that best meets their needs with attributes such as best price, service and support and quality of product. Customers place great importance on the ability to get free information on demand. Detailed information as well as general browsing, readily available at the click of a mouse on a point of interest provided as a service during the pre-purchase phase, become as important as the purchase itself. Innovative use of links and key words need to be the norm for building Web sites that keep the consumer coming back for more information. The Internet provides the ability to embed numerous links into other information sites to get further useful information on products, transactions and relevant information from experts.

Search support with the application of intelligent and software agents may also be provided. Software agents are computer programs that help customers find and compare products. Such agents enable customers to conduct routine tasks, search and retrieve information, support decision making and act as domain experts without the need for human intervention. Photographs of products, video presentations, textual descriptions, articles, reviews and downloadable demonstration files provided electronically assist customers to determine their needs. Providing customers with an experience on the Web such as access to games, entertainment, music, chat and online community or interest group membership gives them an experience and encourages them to return to the site.

Comparison shopping

A consumer generally compares product attributes available from different sellers. A decision support system available on some sites (such as www.dell.com) aids user decision making. Some sites provide links to efficient search engines such as compare.com for such purposes. Search engines that support customer comparison-shopping are described as "computer programs that can automatically contact other network resources on the Internet, search for specific information using key words and report the results" (Turban et al., 2000, p. 103). With so many stores online and many more added constantly, it is difficult for a customer to quickly find what they want and make a decision to buy. E-service functions incorporated on e-commerce sites that can quickly provide online shoppers with decision-making support win e-customers and get them to make a purchase. For example, 1-800-Flowers Web site provides useful

information from experts on their site or allows customers to enter online contests. This value added service motivates customers to choose 1-800-Flowers as their floral delivery provider (Turban *et al.*, 2002).

Product selection
Interactive experiences need to be tailored to induce the customer to commit to a purchase. Once a customer is decided the shopper can be presented with a variety of useful information concerning the product. For example, airlines and hotels are offering customers the services of providing links to maps, price comparisons, and information about cheap tickets to favourite destinations, weather, travellers' experiences, and other relevant news. Other sites offer information on product size, weight, final cost including tax, loan terms, additional product requirements such as batteries or fuel, complementary items and opinions of other users. The ability to place orders at any time over the Internet has expanded business hours to round-the-clock for both vendors and consumers. Customer service by Dell Computers includes pre-packaged "specials" to customers who are given the option to "custom-build" systems. Add-ons, troubleshooting, and frequently encountered problems are handled with ease on these sites. The ability to download manuals and problem solutions at any time is another innovation of electronic commerce customer service.

Negotiation of terms
As a customer negotiates for terms and conditions, electronically available information regarding price, delivery, payment methods and after-sales support is an e-service appreciated by customers. Services such as a free product for trial or free bill payment differentiate an online provider and win customers. Assurance to customers such as delivery information and secure transactions are also important for shoppers to accept this service.

Placement of orders
E-services that allow customers to order online include e-order placement, automated e-mail response to confirm receipt of order, delivery information and total costs. Additional information on products ordered such as recipes with food items, links to "how to use" manuals, membership to e-communities comprising other users of the product, clubs and information on additional related products or warranties cover make up for online business deficiency of "immediate gratification".

Payment authorisation
E-payment systems, digital cash, ensuring secure transactions with data encryption, information on security, as well as multi-payment systems such as by cheque, money order, cash on delivery to allow customers the comfort of using a payment method they are familiar and happy with are important services that support online purchase of goods and services. Information about each payment method and system should be included on the Web sites and available to customers, to enable them complete the transaction.

Receipt of product and after-sales customer support
Notification to customers by e-mail of the acceptance of an order, the anticipated delivery date, and later the actual delivery date is a further service that customers appreciate. A thank you, an apology (for delays) and a greeting to customers strengthens the relationship between the shopper and seller. Phone and e-mail contacts for assistance with setting up or installing the purchased product, troubleshooting, the warranty period, and contacts for repairs and improvements information can be packaged and presented as a link on the Web site.

E-service tools for B2C e-commerce
There are many new Web-related tools available to provide e-services in electronic commerce. These tools can be applied in innovative ways to offer online services to customers in e-commerce.

Personalised Web pages
Many companies are allowing customers to create their own Web pages. These pages can be used to record customer purchases and preferences. Also, customised information such as product details, add-on purchases and warranty information can be delivered on these Web pages. The information is easily disseminated when the customer logs on to the electronic commerce Web site. Not only can the customer pull information as needed, information analysed to match customer interests is pushed to him/her. The customer

databases record purchase queries, problems and requests. This information can be analysed and utilised to improve customer service. Personalisation is important for Internet marketing, and especially for managing customer relationship to increase customer loyalty. Involving customers in the personalisation process makes them feel more comfortable with, and more in control of, their Web site visits (Deitel et al., 2001).

FAQs

Frequently asked questions (FAQs) are the simplest and least expensive tool to deal with repetitive customer questions. FAQs are developed to provide answers to common questions about products, services or their applications. Self-service FAQ software and Web software assist companies in providing helpful answers to common customer questions. Online customers use this tool by themselves (on the Web), which makes delivery cost minimal, freeing up time for customer service representatives to handle questions that cannot be answered without human interaction. FAQs are e-services on Web sites presented via links.

A chat room

Online text chatting provides real time communication between customers and suppliers. Those who are not able to get an answer online have the option to contact a service representative immediately if the company offers text chatting (Deitel et al., 2001). Chat rooms also attract new customers, increase customer loyalty and enhance relationships. For example, a virtual vineyard's chat room allows a customer to discuss issues with both company experts and wine lovers. This is an e-service that is widely used to support e-communities. E-mail addresses of loyal customers can be provided to prospective customers to enable them to seek the opinions of other users of the product on sale.

E-mail and automated response

The most popular tool for customer service is e-mail. Inexpensive and fast, e-mail is used to disseminate information (e.g. catalogues), to send product information and order confirmations, to conduct correspondence regarding any topic with customers and business partners, and responding to enquiries from customers. To answer a large number of e-mails quickly and cost-efficiently

automated e-mail reply systems are increasingly implemented. Automated e-mail reply responses to customer inquiries are developed using intelligent agents that recognise key words and quickly respond to common queries. However, the greatest advantage of e-mail as a communication tool is providing quick and accurate information to all customer queries. E-mails can include forms, reviews, referrals and new contacts sent to customers as attached files.

Help desks and call centres

To find answers to electronic commerce queries customers can communicate by telephone, fax or e-mail. However, because this communication was done initially by phone these remote help desks are referred to as call centres. For electronic commerce new technology products are extending the functionality of the conventional call centre to e-mail and to Web interaction, integrating these into one product. For example, eFrontOffice combines Web channels such as automated e-mail reply, Web knowledge bases, and portal-like self-service, with call centre agents or field service personnel. Such centres are sometimes called telewebs.

Ho and Wu's (1999) research indicates that the most important factors in electronic commerce e-services appreciated by customers are logistical support, technological characteristics, information characteristics, homepage presentation and product characteristics. Logistical support requires quick response to customers' needs via e-mail or fax, quickly delivering goods to customers, and providing after-sales service. Technological factors include modern computer and network facilities and well-structured information systems. Information factors encompass reliable output information and secure transaction. Homepage presentation should provide for an easy to use interface and detailed information about goods. Product characteristics include the details of a variety of goods and services made available at lower prices.

Turban et al. (2000) suggest that increasing customer satisfaction increases customer loyalty. It has been suggested by Doney and Cannon (1997), cited by Jarvenpaa et al. (2001), that trust is an "order qualifier" for purchase decisions. Jarvenpaa et al. (2001) have further qualified trust to be a belief or expectation that the word or promise by the

merchant can be relied on and the seller will not take advantage of the consumer's vulnerability. It is a critical factor in any relationship in which the trustor (e.g. consumer) does not have direct control over the actions of a trustee (merchant or store), and there are possible negative consequences of one party not fulfilling its promise (Deutch (1958) and Mayer (1995) cited in Jarvenpaa *et al.* (2001)). It is also necessary for customers to have trust in electronic commerce infrastructure and environment. E-services that provide detailed information on trust and the security system implemented by companies for secure transactions are important attributes in B2C e-commerce.

Research methodology

This paper discusses the findings of two research projects that highlight the importance of e-services in B2C e-commerce from the business and the customer points of view. The first research project was an exploratory study investigating e-commerce initiatives, opportunities and trends with the early adopters of e-commerce in Australia. An analysis of the findings of this project revealed the importance of customer service support in e-commerce from the business perspective. The second project was an extension of the first project to confirm some of the claims made by the business organisation representatives interviewed in project one by analysing their company Web sites; and establishing the opinions of customers to qualify the use of e-services offered online and to explore the impact of e-services on their online shopping experience. E-commerce being new and unproven has wide scope for research, however, the discussion in this paper concerns the findings of two small projects that were exploratory in nature.

Project one

During 1999 an exploratory study in electronic commerce was conducted in Australia to identify electronic commerce initiatives, opportunities and trends. Data were gathered from 20 online organisations by means of semi-structured interviews with e-commerce project leaders or managers of the 20 organisations. The interviews explored reasons for adopting e-commerce, anticipated opportunities, challenges encountered and the

impact of electronic commerce on business. The companies were selected on the basis that they had been identified as undertaking significant e-commerce initiatives. The names of companies were acquired from documents that listed them as "electronic commerce success stories" (Phillip, 1998) and from Internet searches. Although it was intended to investigate different industry sectors, the 20 e-commerce enterprises with which semi-structured interviews were conducted were those organisations that agreed to participate in this project. Initial contact was made by phone with the person who headed the electronic commerce project at the organisation. Since this research project was exploratory, the semi-structured interview method was considered to be the most appropriate for data collection. Yin (1994), describes exploratory studies to contain a number of "what?" and "how many?" type of enquiries, which were the nature of questions included in the interview tool used to collect data. E-commerce project leaders in each of these organizations were interviewed. With the permission of the interviewees all interviews were recorded on tape and later transcribed. Data collected were qualitatively analysed using a meta-matrix. Miles and Huberman (1994) have described meta-matrices as master charts assembling descriptive data from each of several cases in a standard format.

Of these 20 companies three were "pure plays", that is businesses that had an online presence only, with no bricks and mortar outlet. Others were examples of "clicks and bricks", which are businesses that have been bricks and mortar, but adopted the Internet as a new channel of business. While most of the organizations investigated were business-to-consumer retail businesses, four were examples of government, city council and university services to consumers. E-services identified from this part of the research are presented in column one of Table I as business perspectives of customer service support.

Project two

Project two was conducted in the year 2000 in two parts. Part one of this project entailed an analysis of ten e-commerce sites by the author to identify e-service tools and techniques applied by the businesses investigated in project one to offer customers convenience and support their online shopping experience. These ten

Table I E-services in B2C e-commerce – research findings

E-service	Business perspective	E-service application	Customer perspective
Supporting customer search for products	24 × 7 shop front, comprehensive product selection, online catalogues, targeted responses, shopping privacy, one-stop shop for customers, suppliers dealing directly with customers, FAQs, help desks, Web site attractors	24-hour access to product information, FAQs for quick response to common questions, search facilitated by key words, search engines, links, icons to additional information, e-mail, FAQs, chat, Web page design and updates	65 percent indicated that easy to follow information on the Web site was important, 8 percent ranked convenience (24 × 7) to be an important issue, links to additional information and key word search reduced search time, finding information from search engines
Comparison shopping	Easy comparison shopping with product and price information highlighted, e-mail responses addressing customers with first names to strengthen one-to-one relationships	Links to additional information of how to use the product and inclusion of Web sites of suppliers of complementary products, e-mail addresses of other users, information on e-communities, chat and product highlights	88 percent indicated they compared product price from different providers, 72 percent indicated a personal greeting, e.g. a thank you and an apology were appreciated, they appreciated being recognised after one enquiry, links to additional information on products and their use/applications were also useful
Product selection support	Determine customer demands, interests and changing needs with cookies and data mining and push information relevant to customer queries, reviews and online communities	Information and demonstrations of complementary and additional products, automated e-mails to acknowledge orders, queries, prices and registration request, personalised greetings	Accurate transaction records, total costs including tax and delivery costs, e-responses provided quick communication
Negotiation of terms	Offer customers multi-payment methods, after-sales service, contact phone numbers of regional support personnel, annual service	Customer registration, personalised Web pages	Personalised Web pages, if available, gave customers more control, 48 percent indicated personalised feel was appreciated, help in filling in the forms appreciated
Placement of orders	Online orders avoid human error, illegible data on handwritten faxes, and typographical errors, electronic order receipt response	Online ordering, inclusion of security information on their home pages either as a link or as an icon, specified fields and characters for online orders, e-mails	100 percent indicated that security was the most important issue they considered when placing an order, confirmation of orders via e-mails was important, information on total costs was useful
Authorisation of payment	E-payment, credit card and multi-payment methods	Multi-payment methods	Payment with cheques was useful
Receipt of product and after-sales service	Online account history post-sale product information	Online invoices, receipt of payments, e-mails with delivery information, tracking	Follow-up e-mails, online catalogues, useful links to information
Other	Effective Web page design, e-mailing online catalogues, regular updates, all customers treated the same, e-services offered online is the same to all customers	Some provided information about how to use the product, new product information, links to e-communities	Web page design, easy navigation, updated information, 10 percent considered product range was important, 5 percent indicated that access from remote areas was useful, 85 percent indicated that timely delivery of product was important

sites were a subset of the 20 organisations investigated in project one. This part of the research was conducted to confirm the customer service claims made by e-commerce organisations identified from project one.

The author became a member of the e-commerce sites that required customers to become members and made a purchase to experience the online customer service. Thus the e-commerce sites chosen for analysis were those that offered a variety of affordable products. E-service applications identified from the analysis of e-commerce sites are presented in column two of Table I.

Part two of project two was carried out to get the customers' perspectives of e-services in B2C e-commerce. It was accomplished via structured interviews with a cohort of 35 people who were randomly selected from age groups of 18 and above, and from different professions based on the assumption that these people were more likely to have shopped online. The participants were chosen on the basis that they had access to computers, Internet connections and credit cards. A sample size of 35 was considered sufficient due to the scope of this project. They were all presented with the same set of questions which established their online shopping experience, age, e-services that affect their decisions to shop online, importance of these services, and the impact of tools and techniques that enabled ease of tracking their orders and completing a transaction. Customer service support to customers with the application of innovative tools and techniques, and how these supported their decision to shop online was established.

Of the 35 customers who agreed to participate in this project, 50 percent were between the ages of 18 to 24, 32 percent were between the ages of 25 to 34, 14 percent were between the ages of 35 to 44 and the other 4 percent were between the ages of 45 and 54. Hence, most of the respondents were the younger generation. Data gathered from this part of research are presented in column three of Table I as customer perspectives of e-services.

Findings

Findings of the two projects are presented in Table I, which indicate that business organisations placed a lot of emphasis on customer service support in B2C e-commerce. They supported customer search for products by offering a 24 × 7 access to information on their Web sites, a comprehensive product selection guide with useful, friendly information to enable customers find what they are looking for. Three organisations offered customers a one-stop shop to complete their transaction and also incorporated personalized e-responses to customer queries. The value of FAQs and help desks was recognized by many of the business respondents. All of these organisations provided online catalogues on their Web sites. Analysis of e-commerce sites indicated that information on products sold was available 24 × 7, most had built-in FAQs even if it provided only very basic information, and in two cases search was facilitated by key words. From the customer point of view it was clear that at the product search stage a comprehensive Web site with easy to follow information was important. Customers appreciated search facilitated by key words and links to additional information on products, however, very few valued round the clock information access. Products offered online were generally found from different search engines.

Business organisations provided product details including prices on their Web sites. They strongly believed that friendly and polite e-mail responses to customer queries, addressing them by their first names, developed a strong one-to-one relationship, which encouraged customers to buy from them. Product attributes such as quality, applications, warranty period and other details also won online customers. Site analysis proved that most sites included links to additional information about the products, price of products, payment methods and e-mail addresses of some valued users of the product. From the customer perspective price of product was the most important factor affecting their decision to buy. Personalised greetings and product details also affected customers' decision to return to an online provider's site.

A few of the more developed business organizations applied data-mining and warehousing tools to analyse customer demands and interests, and send them relevant information. Others used cookies to record the number of visits to their sites and accordingly updated information. Most of the businesses investigated were eager to explore and implement new technologies to assist customers in their decision to purchase process. Site analysis identified the applications of a lot of useful links and the implementation of some new technologies. From the customer point of view it was apparent that detailed information about total costs, delivery charges and tax implications were important issues that influenced their decision to choose a provider.

As customers negotiated the terms of purchase, some business organizations offered buyers multi-payment methods and after-sales

441

support. A few e-commerce sites included some advanced technological applications of customer registration and personalized Web pages to give customers control and privacy of shopping. A large number of the customers interviewed indicated that a personalized feel during their online shopping experience was appreciated.

To allow customers to place orders online most e-commerce sites included online catalogues from which items could be selected and dropped into online shopping carts. E-forms with specified fields for alphanumeric and numeric data with allocated space for decimal points were significant features of online orders on e-commerce sites. Different payment methods, e-mail responses to confirm orders and inclusion of security information were identified to be prominent features of Web sites analysed. All the customers interviewed indicated that assurance of secure data transmission was most important for them to commit an online purchase. Customers also appreciated quick electronic responses to confirm orders and clear indications of total costs of the purchase. To pay for online purchases most businesses preferred payment by credit cards, however, it is clear from this research that using traditional methods of payment was an advantage. Customer response confirmed that they were more comfortable with traditional methods of payment due to security reasons.

Business organizations emphasised the importance of providing customers with online account history and post-sale product service information. Site analysis proved order tracking on most sites, delivery information and account history. Follow-up e-mails, new product information updates, and useful new links were appreciated by customers. Other issues important to businesses were treating all online customers the same and offering the same e-services to all of them. Site analysis showed the inclusion of information about how to use the product, links to new products, online communities and other useful information. From the customer point of view Web page design was important for easy navigation. Some considered product range and access from remote locations to track their shopping records as useful aspects of e-commerce. However, most

emphasised that timely delivery of products bought was essential.

Discussion and summary of major findings

From the findings of the two projects, it is apparent that services offered online to support online customers have an important role in B2C e-commerce. Services included in the B2C e-space that assist customers to make a purchase are those that aid product search, promptly answer customer queries, enable completion of transactions online and offer trust and assurance of security and privacy of data transmitted. Although no statistical analysis on data was carried out, it is apparent from the findings discussed above and presented in Table I that the following e-services have an important role in B2C e-commerce.

E-search

From the findings of this research listed in Table I it is apparent that an important online service that supports customer search for products is enabling information access 24 hours a day, seven days a week. This information is made available in the form of online catalogues, which include product description and prices, after-sales support, payment methods and opinions of some valued users of the product. Search for products is facilitated by key words and by listing businesses on various search engines. Customers also appreciated information about complementary products during the search process. Site analysis highlighted an extensive application of links to additional information which customers could access if they desired. E-search was enhanced with the application of new technological developments such as intelligent agents, which are software that support the search process with key words from information bundled together. Other technologies that supported online search evident from this research were data warehousing and mining. These technologies analysed information for complex queries, identified customer demand trends enabling online businesses to send information pertinent to customer interests rather than inundating them with extraneous information. Web sites that were

easy to navigate also supported customer search for information and products.

E-response

Findings of the three components of research presented above highlight the fact that e-responses to customer queries, order acknowledgement, delivery and payment information via e-mails or automated responses are greatly appreciated by customers. It has also been highlighted that the nature of e-responses also helps strengthen the relationship between the supplier and the customer and makes up for the personal response that prevails in the traditional shopping arena. One of the business respondents emphasised that "via e-mail order acknowledgment, we recognise and address our customers by their first names", strengthening e-relationships with this service. Another business was of the view that "a close relationship with customers can be developed from a distance with e-responses". E-mail responses were widely used by businesses to acknowledge receipt of orders, payment and delivery of information. An e-response to say thank you, an apology for any delays, tailored e-mails from analysis of shopper profile to provide online shopping guidance, and to announce the release of new products and specials supported online shoppers. Customer responses confirmed the value of e-responses in the B2C e-space.

E-transaction and e-payment

It has been confirmed from the online businesses investigated that orders received online compared to handwritten ones received via fax assured accuracy and further improved customer satisfaction. Orders placed online were done on standard forms with allocated spaces (fields) for numeric and alphanumeric characters avoiding wrongly read and printed figures, further enhancing assurance. Customers were given control by allowing them simple enquiries like account history and checking order status online. Account balances could be called up and simple problems solved independently by clients. Customers could enquire and inform the supplier about any discrepancies in their orders such as incomplete information, typographical errors and incorrect account details. The customers surveyed appreciated this service, and their ability to check orders and total costs before the shipment of goods.

Although most e-commerce organizations allowed their customers to shop at ease by allowing them to use a payment method that suited them best such as by cheque, money order, or cash on delivery, e-payment methods are essential in e-commerce to attain the speed of processing payments and for accuracy of transaction information. Site analysis confirmed additional payment methods, although credit card payments were the most popular method.

E-assurance and trust

Online business organizations investigated had realized secure transactions and transmission of information to be an important service offered to customers. It was emphasized by one of the respondents that "many potential Web shoppers abort their transactions due to security fears". Another business indicated that a better relationship with customers is developed by trust, letting them know how well they are recognised by the seller, and that their personal data are not available to others. Another response was "online customers are won or lost by a company's privacy policy". Site analysis indicated that these organizations had incorporated secure transmission of information and transactions. All the online e-commerce sites analysed had taken measures to inform customers that transactions and communication between them were secure by providing security information on their home pages either as a link or via an icon. All of the customers interviewed indicated that security of online information was the most important factor affecting their decision to make a purchase online.

E-help and e-technologies

Supporting customer queries with product information, FAQs, photographs of products and inclusion of opinions of some valued customers on their Web sites were popular methods of promoting sales. One business response was "customer service is improved through the introduction of comprehensive electronic tools and technologies".
E-commerce site analysis confirmed that many organisations were taking advantage of the hyper link capability of the World Wide Web to provide customers with information about new products and services. They were also applying technologies such e-mail, fax on

demand, online information and chat to provide better pre- and post-sale support to customers. Business organizations had also realized the importance of new and fresh information on the Web site to keep customers interested and to make them visit the site again and again. As quoted by one of the business respondents, "it is important to regularly update Web pages to keep customers interested". Site analysis identified the applications of help-desks, technical support systems, Web site attractors, FAQs, chat and automated responses. It was apparent from site analysis that organizations capitalised on multimedia applications to better present information and services to customers. One e-commerce site programmed Web capabilities to deliver gratitude, congratulations and confirmations to clients. Customers, on the other hand, highlighted the importance of online support in filling in online forms, being able to save the form for completion at a later time or date for continuation. They also indicated that they appreciated Web page designs that were easy to navigate, self-explanatory and easy to follow while completing an electronic transaction request.

Other findings

Other e-services evident from the research are providing a "one-stop shop for customers" allowing them to complete all transactions electronically. Another view captured in this research was that "with electronic business all customers are treated the same". The nature of business is global and services offered on the Web are the same; therefore customers from different countries, regions, social status and age are treated the same. Business organisations investigated were of the opinion that products and services, along with friendly e-services made available online, result in satisfied first-time customers who will "gain the education/knowledge to use it again". Some sites asked customers their birth dates so that they could push information to them about products suited to their age group. Others recorded delivery addresses and messages incorporated in gifts ordered by customers to remind customers if they wanted to use the service again at each anniversary. Most sites provided information about new products and special deals. A few had well developed links to information about customer experiences and opinions such as reviews. Others provided information about how to use the product.

Managerial implications

B2C e-commerce is still new and unproven to many customers. Companies need to develop e-commerce with a customer focus to increase market share. E-services discussed above, carefully planned and applied to e-commerce, support customers in finding what they are looking for and completing their transactions with confidence. A proactive strategy to develop and implement e-services is an important requirement in B2C e-commerce.

Most customers like to find out things their own way and in their own time. Convenient shopping hours, 24×7, are a service that also takes care of problems of parking, waiting in queues for shop attendants, and other hassles of traditional shopping. B2C e-commerce also offers customers shopping privacy, which is a unique characteristic of e-commerce. Adoption of new technologies to offer e-services that assist customers in their search process, comparison shopping, find quick answers to queries, and assure trust and secure transactions wins customers. Trust and assurance increase satisfaction, reduce risk, encourage anticipated continuity and promote favourable pricing (Pavlou, 2002).

From the research findings presented above, it is apparent that the quality of e-services in the B2C e-commerce environment can be enhanced with the application of new tools and techniques. The Web activities of users give businesses an opportunity to create user profiling to build a customer database for providing value added e-services. Companies that implemented technologies to gather and store information about individual customers, which can be accessed every time an individual interfaces with the organization, could easily understand customers' changing needs and accordingly provide e-services to satisfy those needs. Data mining helps online businesses to streamline and develop services only of interest to specific customers. By targeting clients with personal offers, advertisements, promotions and other e-services online businesses proffer individual attention, winning customer loyalty. Thus new technologies should be implemented effectively and quickly to augment additional e-services.

In the online environment the power is fast shifting to consumers who can switch to a new provider with a click of a mouse. This necessitates that online enterprises offer extraordinary services and create positive customer experiences. It can be seen that a complete organisational focus on e-services supported by appropriate electronic technology is essential to maintain loyal customers, improve operational efficiencies and boost revenues as promised by electronic commerce.

Maximum efficiency is gained when customer contacts are managed by tying Web technology with back office systems such as order processing, purchasing, payment integration and after-sales service. An integrated and responsive e-business is then able to present itself to the consumer as an online store front. Clients would then satisfactorily receive end-to-end customer service from initial contact through to the purchasing cycle from order taking to delivery and after-sales service. Ideally there would be quick and appropriate responses to queries, complaints, product returns and billing, adding to overall customer comfort. In a market where so many players are now customer-centric, organizations which view the Web as a completely separate entity from their back-end systems and customer service functions may not achieve success.

Conclusion

This paper discussed the role of e-services from the business as well as customer perspectives in e-commerce. The success of a company is measured by how effectively it interacts with its customers. Thus customer-centricity, facilitated by the Internet and the Web, is at the heart of electronic commerce. Site analysis findings listed in Table I indicate more features on e-commerce sites than those claimed by businesses in column one; however, this can be attributed to the fact that project two was carried out a year later and the nature of e-commerce is such that it is fast evolving and these new developments were quickly adopted.

Research findings presented in this paper clearly highlight the fact that online businesses in Australia have realised that the nuances of customer service in electronic commerce need to be handled by systems that are easy and intuitive to use, that furnish timely and accurate responses to customer requests and handle secure information transmission. To increase the customer base in e-commerce it is important to implement and continuously review the quality of e-services. It can also be concluded that further research is required to identify the value of each e-service in B2C e-commerce.

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