Impact of E-Commerce on entrepreneurs & small businesses: Opportunities, changes, & strategies

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Available at: https://works.bepress.com/todd_finkle/87/
IMPACT OF E-COMMERCE ON ENTREPRENEURS AND SMALL BUSINESSES: OPPORTUNITIES, CHALLENGES, AND STRATEGIES

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ABSTRACT

Small businesses and entrepreneurs are rushing to the Internet to do business and reach new markets. While e-commerce is used for advertising, business-to-consumer and business-to-business transactions, small businesses and entrepreneurs encounter several challenges. This paper examines both the opportunities and challenges that are posed by the use of e-commerce and makes recommendations to small businesses and entrepreneurs so they can overcome the challenges and exploit the opportunities presented by e-commerce.

INTRODUCTION

The Internet and the World Wide Web (WWW) are revolutionizing the way organizations are functioning around the world. The Web is used by organizations in a myriad of ways, some of which include collaborating, communicating information, obtaining information, providing information, and sharing information. One application of the Web that is grabbing headlines in virtually every media is Internet commerce or Electronic Commerce (e-commerce). E-commerce--the marketing, promotion, buying and selling of goods and services over the Internet is experiencing unprecedented growth (Williams, 1999). In the past 2 or 3 years, e-commerce growth has been astonishing and is expected to continue at a similar rate over the next four years.

Small business use of the Internet (e-commerce and other applications) has increased from 10 percent in 1996 to about 75 percent today; this use is expected to increase to 85 percent by 2002 (Song, 2000). However, currently, only 28 percent of small companies sell goods and services online (Maxwell, 2000). If one looks at businesses with fewer than 10 employees, one sees a slightly different picture. In 1999, about 15 percent of these 7.5 million small businesses in the U.S. conducted e-commerce (Business Week e.biz, 1999). This number is expected to increase to 20 percent by the year 2001. Although these statistics provide evidence that smaller organizations are now conducting e-commerce activities, large companies still account for the majority of e-commerce activity in the U.S. These statistics also fail to tell us whether or not
serving online is a better method for small business.

Over the past few years, a decrease in the prices for software and hosting services has reduced the barriers to entry in the online environment. Even the smallest of businesses can now have a presence on the web and conduct commerce. Selling online, however, is not without its perils. Blindly diving headfirst into the Internet without a complete understanding of technical, managerial, and competitive challenges may result in stressed operations or bankruptcy.

A question, then, arises: should small businesses and potential entrepreneurs embrace the Internet? The answer to this question lies in how well a business understands e-commerce opportunities in its environment and implements strategies to take advantage of these opportunities. This paper will examine the opportunities that are available for small businesses and entrepreneurs on the Internet, identify the challenges they are likely to encounter, and suggest strategies they can develop and implement to take advantage of e-commerce opportunities.

OPPORTUNITIES

E-commerce takes a number of forms: business-to-consumer (B2C), business-to-business (B2B), e-procurement, and e-marketplace. According to Forrester Research (2000), the U.S. share of global B2B e-commerce sales will grow to approximately $3 trillion by 2004, while B2C e-commerce sales will account for $184.5 billion (see Table 1). E-commerce is growing much faster in the B2B sector compared to B2C and is largely dominated by larger companies. By the year 2002, 85 percent of small businesses are expected to conduct business via the WWW.

Retailing or "e-tailing" is the most typical B2C activity. New ventures or small businesses can use the Internet to either start a new retailing or service business, enhance an ongoing business or provide hardware, software, or services that allow other businesses to integrate the Internet into their business model. A small business selling from a traditional store, called "bricks and mortar" may see the opportunity to increase market share by creating a Web page and selling on the Internet.

While there are many large Internet service providers (ISP), such as America Online (AOL), there are also many small businesses that provide this service. According to a report by Williams (2000), most of the 7,100 ISPs in 2000 have fewer than 12 employees; the number of ISPs is expected to reach 10,000 in the next 2 to 3 years; and the U.S. ISP market generated an estimate of $15 billion in receipts in 1998. The number of small businesses that provide Internet services have experienced tremendous growth because of the increase in demand for Internet access. Many of them are finding opportunities in providing additional hardware, software and service opportunities as they see the opportunity to host and design web sites for Internet businesses. They are also providing consulting services for those new businesses.
One of the major opportunities for entrepreneurs and small business in the future will be in the area of B2B. According to Boston Consulting Group, by 2003, more than 65 percent of all B2B e-commerce purchases will be made by six sectors: retail trade, motor vehicles, shipping, industrial manufactured equipment, and the government. This will provide ample opportunities for entrepreneurs and small businesses to find niches in this market.

B2B e-commerce is primarily concerned with increasing the efficiency of businesses through the use of Internet technology. It helps companies find buyers for specialized goods and services, time-sensitive goods, second-hand goods, and excess inventory. Small businesses can benefit from B2B e-commerce through the formation of coalitions that negotiate for better prices.

Sellers of goods and services can benefit through the reduction of costs associated with finding new customers. Other advantages of B2B e-commerce include improved service and retaining customer loyalty. B2B e-commerce also provides small companies an alternative to traditional EDI networks in doing business with large companies (buyers) who are increasingly forcing all of their suppliers to trade electronically.

Marketplaces have recently become an Internet application for business-to-business procurement using an auction mechanism where businesses that supply an industry bid for the opportunity to sell their goods. A number of general sites such as Commerce One and Ariba have pioneered this activity, but now individual marketplaces for specific industries have grown, developed by companies within these industries.

For entrepreneurs interested in software development, it is important that software be integrated with other software that the clients use. This can also be a barrier to entry if programming skills and intimate knowledge of the programming in other software packages is not available.

One of the primary reasons for the wide influx of new online ventures is the low barrier to entry. You can start an Internet business for as little as a few hundred dollars. In addition, companies like BigStep.com, eCongo.com, Earthlink.com, Tripod.com, and Freemerchant.com offer free online services to setup a business with access to online catalogs, credit card processing, and order-tracking services. However, entrepreneurs and small businesses must use caution because some companies require long-term agreements that would eventually lead to extra expenses for added services and expensive support for technical problems. Microsoft, Intel, Intuit also offers inexpensive sites. These trends have accelerated the migration of entrepreneurs and small businesses towards conducting commerce on the Web.

There are several advantages to having an Internet presence. For example, statistics show that the Internet is increasingly becoming global (Forrester, 2000). Furthermore, having an Internet presence allows a company to remain open seven days a week, 24 hours a day. You can also build your business in a phased approach. Additionally, in many cases the consumer will not be able to tell the difference between a small versus a big business, thus limiting your liability of smallness. You can be a one-person operation that competes with a 500-employee firm.

Small businesses can use the Internet to expand their markets, improve efficiencies, attract and retain customers, and exploit new e-Business opportunities (Oracle, 1999). Other opportunities
include customer service, technical support, data retrieval, public and investor relations, security and payment issues, cutting costs, and obtaining advice/information. Existing businesses have the opportunity to adopt e-commerce early and build an infrastructure that dramatically reduces the costs of doing business while improving relationships with buyers and suppliers. Through e-commerce efficiencies, they have the ability to reduce the costs of billing, payment, customer service, distribution/fulfillment costs, reduce supply chain management, procurement, and expense management costs.

Small businesses have the advantage of using the Internet to build relationships with suppliers who before gave them little recognition. With the Internet, small businesses have the ability to gather information and goods much quicker, reducing inventory and thus reduce costs. The use of customer service through the Internet can also assist a company through product descriptions, technical support, and order status information online. This frees up a company's customer service staff to handle more complicated matters. For example, Internet sites like Realestate.com have allowed consumers to reduce the time to purchase a home by 75 percent by providing information on purchasing homes.

One of the key opportunities of the Internet lies within the value chain. Companies have the opportunity to cut out the middleman or become a middleman. For example, the traditional value chain flows from the manufacturer, wholesaler/distributor, retailer, and consumer. With the advent of the Internet, entrepreneurs and small businesses have the opportunity to develop relationships with the manufacturers and sell directly to the consumer without having control of the products.

An example of an intermediary can be seen through an entrepreneur that developed a web site called www.avengers.com. The Avengers is an old television series from the 1960s. The site contains a plethora of information about the series and also has merchandise for sale that includes copies of the old shows. When you go to purchase some of the videos, it sends you directly to Amazon.com. If the person purchases the video from Amazon.com, the company receives a percentage of the sale.

Other opportunities on the Internet include companies whose business models are standard online storefronts (e.g., amazon.com), transaction brokers (e.g., e*trade), content providers (e.g., espn.com), auction sites (e.g., eBay), software development companies (e.g., ariba.com), startup consulting companies (e.g., exodus.com), and hosting services (e.g., sitehosting.net).

Small businesses can learn from some of the most innovative companies that have successfully used the Internet: Dell Computer, Sun Microsystems, and Cisco Systems. Dell Computer has become the ideal example for B2B e-commerce. They set up premier pages with over 5000 U.S. companies that allow businesses to order quickly with few errors. The pages are especially designed for each company, connected into their Intranet, and allow the employees to order directly online.

The Internet provides for improved customer service at a lower incremental cost. This is important since we are moving from a product driven to service driven (supplier versus demand) economy. The Internet also provides new distribution channels and new ways of exchanging
information. According to Porter (1999), supply chain management will be more cost effective as a result of the Internet. However, the basics of business (e.g., design, technology, and manufacturing) will not be altered. Porter states that the industries where the Internet is likely to be transformational are industries that provide the service or basic information (e.g., stockbrokerages, auctions, or providing digital goods). Table 2 summarizes some of the opportunities of Internet/WWW for small businesses and entrepreneurs.

CHALLENGES AND STRATEGIES

Small businesses have been slower than big businesses to embrace e-commerce. Although small businesses and entrepreneurs use of Internet is increasing, they will face a number of challenges as they start using Internet/WWW for e-commerce. Further global expansion of e-commerce will create new challenges for small businesses and entrepreneurs. This section examines both challenges and the strategies that small businesses and entrepreneurs can utilize to take advantage of e-commerce.

The B2C market is currently in its shakeout stage and is a low margin, high capital business that will take until 2003 to be profitable. Over the past few years, B2C companies have skyrocketed in value, however the recent downturn in the Internet sector has seen many companies lose 50 percent or more of their value. Investors are putting pressure on these firms to produce profits. In the past, these firms were valued by their sales, now investors are demanding that these firms produce net profits along with a strong revenue model.

As a result of these activities, money raised by B2C companies has dipped 23 percent to $1.4 billion in the first quarter 2000 from the fourth quarter of 1999. During the first quarter of 2000, only 5 percent of venture capital funding went to e-Commerce startups, down from 12 percent in the previous quarter (Donahue & Girard, 2000).

An increasing number of B2C companies are withering away due to an increase in the number of competitors (Oracle, 2000). This effect has been particularly felt in retail industries such as toy stores, computer sellers, and office supplies. Survival projections for several of the dot.com retailers look bleak (Forester Research, 2000). Clothing retailer boo.com recently liquidated their company after burning $100 million in six months.

The low barriers to entry and increase in competition will have an increasingly negative effect on entrepreneurs and small business owners' ability to survive within the B2C area. Both traditional and virtual companies' weaknesses have been amplified. Consumers have gained power in the distribution channel by demanding and receiving the lowest prices available. Consumers can achieve this through information intermediaries like CompareNet.com who have information on prices and vendors for over 100,000 consumer products. According to John Hagel of McKinsey & Co., "Consumer infomediaries can save an average client household the tidy sum of $1,100 a year by searching for the best deals on its behalf. The reduction in transaction costs will give more power to the buyer." It is estimated that these infomediaries will grow from $290 million in revenues in 1998 to $20 billion in 2002 (Hof, 1999).

There has been a tremendous surge in the number of B2B companies or exchanges, however
most of these businesses are nothing more than meeting places. Hence, it is likely that current projections of large-scale bankruptcies among B2B companies will also become true due to the lack of value-added services for the trading partners. These services typically include integrating back end systems, providing industry specific content, and assisting in the development of RFP’s. Horizontal exchanges (e.g., Freemarkets) that provide trading services for several industries are faced with the additional burden of providing compelling content for their customers.

In a sense, the pressure is on for small businesses because they have to eventually participate in buyer initiated exchanges. This is especially the case for small businesses that are tier two or tier three suppliers for large companies like General Motors. In an effort to rationalize and streamline their supply chain, larger companies are insisting their suppliers upgrade their IT systems to a level of sophistication that is on par with the organization. Larger companies want suppliers to deliver goods in a shorter period of time in a cost-effective manner. This requires not only sharing demand forecasting and inventory information but also exchanging information that is in compatible formats. It is also essential that transaction details be easily integrated with back end systems. For example, suppliers are likely to insist that order information should directly be pushed into their order processing systems, rather than retype all the information. On the other hand, large organizations would prefer that supplier initiated information be fed seamlessly into their internal ERP or legacy systems.

For small businesses that have not yet established formal relationships with large company's supply bases, there is also the question of whether to become affiliated with horizontal versus vertical exchanges. It is likely that eventually small businesses will have to participate in several of these exchanges. Typically, several of these exchanges require registration fees, subscription fees, and maybe even transaction fees. Hence, it is important for small businesses to perform a cost benefit analysis before joining an exchange.

Technical Challenges

Once a small business or entrepreneur has decided to conduct business on the Internet, their next strategic decision is to decide how to host their web site. These businesses have three options: host their own web site; host their site with a web hosting service provider; and host their site with a portal such as Yahoo or GeoCities. For a small monthly fee, portals like Yahoo will help any small business develop its site, perform payment processing and tax calculations, maintain the site, and collect site statistics. While this really reduces the development effort, it also reduces the flexibility. Most portals will not let merchants have a virtual domain name. So instead of www.merchantname.com, the address will be store.yahoo.com/merchantname. Also, these portal-based storefronts do not necessarily grow with the business and could get tedious, expensive, and cumbersome when the order volume increases. Since portals like Yahoo host several other storefronts, the download time for potential customers could be very high. Increasing the growth rate will eventually require a site that is more reliable. Finally, if the site requirements grow beyond the capability of a portal-based host, it is impossible to transfer the site contents into a standard format. This is because portals like Yahoo do not allow one to convert site contents developed in their storefront into any recognizable format such as HTML.

Another alternative to portal-based hosting is buying a server. There are downfalls to this
strategy as well. For instance, the business might not be able to make decisions about hardware, operating systems, and application servers. This also requires considerable knowledge in installation and setup of a web server. Server connection fees can be prohibitive. The merchant typically will need at least a 64 Kbps connection line to the Internet backbone. This entails line installation costs as well as any other costs for network routing equipment.

In most cases it is best to start with a web-hosting provider where the business is not concerned with hosting issues but at the same time has a certain degree of flexibility. However, selecting a web-hosting provider requires careful consideration of several issues: length of the contract, disk space offered per account, ability to run CGI (Common Gateway Interface) and other scripts, conduct secure transactions, e-mail management, availability of access logs, instant credit card validation, connection speed of the web host with the internet backbone, server redundancy in case of traffic spikes, adaptive pricing plans which correspond to scalable requirements, throughput--the number of http requests that a particular web server can handle, and the response time for the server to handle a page request.

Hosting the site with a web-hosting provider might require the business to incur initial development time, cost, and effort. However, with the advent of easy to use tools, this task has become considerably easier. At the most basic level, a typical e-commerce infrastructure for a small business or entrepreneur consists of a web storefront for buyers to browse the site and a payment gateway to collect credit card payments.

In order to perform these functions, several software components are required. First, storefront content development tools such as HomeSite, FrontPage, and PageMill are useful for developing site content and also include features such as creating customer survey collection forms. Second, database connectivity tools such as ColdFusion, ASP, and VisualInterDev are useful for creating database driven applications. Database connectivity is crucial because the web catalog should be consistent with the actual inventory database. Third, setting up a payment gateway requires an HTML based form that collects customer credit card and shipping information. This information is then encrypted using Secure Socket Layer (SSL) and sent to a third party provider (such as First Data), which then forwards the information to the customer's credit card issuing bank. After authorization and a deduction of transaction fees, the net amount is credited to the merchant's account. Typically, payment-processing software like QuickCommerce take care of some of the above functions. It is also important for the merchant to get authentication from a certification authority such as Verisign. Ancillary tools are useful for functions such as tax calculations (e.g., Taxware), site traffic analysis (WebAnalyzer), diagnostics (LinkSleuth), chat sessions (Ichat), live help (Humanclick), and e-mail management (eGain).

Another challenge is to maintain the business 24 hours a day, seven days a week. This requires staffing for customer service as well as technical problem troubleshooting such as site upgrades, hosting failures (server crash), and environmental failures (power outages). Sites also need to be constantly re-evaluated for stress testing (how well they handle peak traffic), page download times, link validation, and usability. It is also important to evaluate how many high margin transactions occur on the site. Small businesses and entrepreneurs with low margin items should consider offline authorization or authorization on a batch basis as opposed to real time credit card authorization. This is because third party payment processors such as First Data as well as
the customer's issuing bank charge fees for processing every credit card transaction on a real
time basis.

Security is one of the most important aspects of web site operations. Typical attacks include
hacking into the site for credit card numbers or even denial of service. Part of the reluctance on
the part of customers to buy on-line is their perception that their credit card and other
information is not secure. Hence, entrepreneurs and small businesses need to assure their
customers that they take adequate security precautions.

It is also important to have contingency plans in the event of an attack. The consequences of not
having adequate mechanisms and a contingency plan can be severe. The inability to thwart
security related attacks on the site would be unnerving to consumers. The direct effect of this is
an immediate drastic reduction in market share because the site is now branded with an image
that credit card and other private information is not secure. While contingency plans do not really
alter the damage, they can be more useful in that they can be used to reinforce the impression of
a secure site.

Business Challenges

When developing a web site, small businesses and entrepreneurs must make sure that they create
an attractive site with a sense of community. Building one-to-one relationships and a quick
delivery of quality products will be keys to success. Customize your site for clients and receive
e-mail to get feedback about the site. If you are selling products, have a virtual catalogue that
includes pictures on the site. To save space and decrease the download time, place pictures in
small thumbnails. Give the consumer the opportunity to hit a thumbnail to see the big picture.

One of the keys to having a successful online business is brand name recognition. With a lack of
brand name recognition, customer perceptions may lead to a lack of trust. Customers may be
reluctant to purchase online, especially give out credit card information for fear of hackers. To
overcome this objection companies are attempting to create a strong brand name through heavy
advertising. As competition increases on the Internet, companies will be increasingly forced to
develop their brand name on the Internet and the traditional marketplace. Some strategies that
companies have been using are creating gimmicks such as free shipping or offering free items to
entice customers to purchase items from their site. The problem with these gimmicks is that they
do not lead to a company's sustainable competitive advantage.

Innovative marketing is also a key to success. Some of the more common approaches include:
reciprocal links with complementary sites, banner advertising, retailer-search engine portal
alliances, prospect fees for visitors who complete some action, and affiliate programs with other
merchants. Given the click through rates of 2 percent and then further prospect conversion rates
of 3 to 4 percent, it is not only important to attract new customers, but also devise strategies to
increase purchases as well as strategies to retain existing loyal customers. These strategies
include: personalizing content and promotions, placing complimentary items beside core
products, attractive and functional design, and building a loyal user community with chat rooms
and discussion threads. For example, online grocery sites can be personalized for specific tastes
and preferences such as health conscious groups or international foods.
For sites that feature several product categories and brands, a big issue is usability. Navigation through 10 to 12 screens might result in a frustrating experience for the customer. Instead, it might make more sense to create personal shopping lists that are based on usual purchases. Yet another way companies can enhance their competitiveness is through the reduction of problems related to logistics (e.g., late delivery) and poor inventory management (e.g., out of stock). More recently, companies have found innovative ways of providing customer service on the web. Having links with answers to frequently asked questions is an innovative tool being used by companies.

The Internet has also created new challenges for companies that have traditionally fulfilled the role of middlemen; i.e. bringing buyers and sellers together (for example insurance agents). Companies that have been operating with physical storefronts have had to devise new strategies to compete successfully. This includes the ability to leverage their offline activities with their online operations. For example, Williams-Sonoma, a bridal registry, allows couples to register online while gift buyers can use kiosks located at various places in their physical storefronts to access an updated database of gifts bought.

It is also very important to understand the people who visit your site and which products they purchase. It would be worth investing in site evaluation tools such as SiteAnalyzer to identify typical customer profiles. These tools also provide information related to revenue by page or by product and also revenue by the incoming referral url address. This will help the merchant to evaluate the effectiveness of his banner advertising strategies. Other strategies include developing strategic alliances with other net companies and exchange banners on their sites, hosting a chat room or discussion group, or advertising on other sites.

Other Challenges

Entrepreneurs and small businesses also need to realize the scarcity of human capital. The U.S. economy is at its lowest level of unemployment in 30 years. Competition for the brightest workers has skyrocketed, resulting in high salaries and a lack of employee loyalty. However, with the recent downturn within the Internet sector, many companies are laying off employees to reduce their costs.

Other challenges include the theft of intellectual material on the Internet. It is essential to protect your site through copyrights and patents. Also make sure that the web designers make your site reliable. Users will also need to be assured that any information given out over the Internet will be used for internal use only and customer service must be in place. Finally, other concerns include the lack of a predictable legal environment, concerns that the government will overtax the Internet, and uncertainty about the Internet's performance, reliability, privacy, and security (Margherio, Henry, Cooke, Montes & Hughes, 1998).

The companies that succeed will take the time to understand the context of the industry in which they operate, rather than focusing on the technology. It is imperative that they understand the industry's distribution channel. If a company can find the fastest and cheapest way of performing theses activities, they will be in a strong competitive position.
Entrepreneurs and small businesses that are interested in doing business online should seek assistance through their local Electronic Commerce Resource Center (ECRC) (www.ecrc.ctc.com). There are over 50 centers located throughout the U.S. ECRCs offer free or low-cost training, seminars, technical support and outreach in a variety of e-commerce areas. Most of their classes are free and include areas like "Marketing Your Goods and Services Using the Internet," "Web Page Creation Using HTML," and "Using the Internet for Business-Related Electronic Commerce."

Finally, be aware that running a business on the Internet takes a lot of knowledge about both technology and business. It is best to outsource as much as possible. Overall, you will have to do a good job in all of the various aspects of running a web business in order to be successful. You must also move quickly to satisfy the customer’s needs.

Despite the enormous number of new ventures taking advantage of opportunities on the Internet, no one clear path or business model has been identified as a winner. Different models have worked for different organizations. Having a unique technology or brilliant management does not guarantee profitability. Being a first mover also does not guarantee success. Robert W. Pittman, president of America Online stated, "Consumers look for brand name first and foremost." Building brand awareness through advertising and marketing is critical to success in a new and evolving market like the Internet.

CONCLUSION

The Internet has completed its third or fourth year as a major technology disrupter, a role that will last 10 to 15 years and affect society as thoroughly as the auto industry did a century earlier. A steadily increasing number of people, machines, and data connecting to the Internet will fuel this growth, introducing new opportunities for entrepreneurs and small businesses to supply products and services to support the infrastructure. In the past 24 hours, 2 million new Web pages, 196,000 new Internet-access devices and 147,00 new Web users were added. By 2002, there will be more Web pages than people on the planet (Zander, 2000). Several other studies indicate that small businesses and entrepreneurs are embracing e-commerce and are contributing enormously to the booming new economy.

Entrepreneurs and small businesses are faced with many opportunities to take advantage of the growth of the Internet, however they need to create some sort of sustainable competitive advantage. Porter (1999) asserts that in five years the Internet will be much less prominent. His rationale is that the newness of the industry will have worn off and the Internet will be part of most companies' infrastructure. Furthermore, Porter states that people with Internet expertise are going to be perceived as less valuable and will get paid less in the future. Henry Blodget, a leading Internet analyst, recently stated that out of over 400 public B2C companies, only 10-15 will be profitable over the next five years. Furthermore, one-third of these companies will consolidate over the next two years (Swartz, 2000).

Findings from various research published indicates that the e-commerce is growing at such a rapid rate that ample opportunities will exist for entrepreneurs and small businesses in the near
future. While we feel that there is always room for new innovative ideas and products on the B2C side of e-commerce, we feel that the low barriers to entry and increasing level of competition (e.g., Wal-Mart) will drive prices and profits down, making it increasingly difficult to survive.

REFERENCES


Table 1  
Growth of E-commerce Activities in the U.S. ($ in Billions)

<table>
<thead>
<tr>
<th>E-Commerce Category</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
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<tbody>
<tr>
<td>Business-to-Business (B2B)</td>
<td>$449.9</td>
<td>$799.9</td>
<td>$1,310.2</td>
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<tr>
<td>Business-to-Consumer (B2C)</td>
<td>$38.8</td>
<td>$64.2</td>
<td>$101.1</td>
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<tr>
<td>TOTAL</td>
<td>$488.7</td>
<td>$864.1</td>
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<table>
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<tr>
<th>E-Commerce Category</th>
<th>2003</th>
<th>2004</th>
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<tr>
<td>Business-to-Business (B2B)</td>
<td>$2,043.4</td>
<td>$3,004.5</td>
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<tr>
<td>Business-to-Consumer (B2C)</td>
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<tr>
<td>TOTAL</td>
<td>$2,187.2</td>
<td>$3,189.0</td>
</tr>
</tbody>
</table>

Table 2: Opportunities of Using Internet/WWW

* E-mail
* Gathering information about potential customers
* Reaching new and potential customers
* Providing information more efficiently
* Providing technical support
* Promotion and advertisement
* Making online catalogs available
* Selling goods & services
* Get customer feedback
* Reaching new & prospective employees
* Expand globally
Table 3
Challenges and other Issues Related to Using Internet/WWW

* Cost of building and maintaining web site
* Cost of building a transaction based web site
* Developing back end integration into company's existing system
* Lack of technical expertise
* Difficulty in attracting and keeping technologically skilled personnel to serve the web site and customers.
* Security concerns--securing customer data (from fraud & hacking) and customer trust.
* Customer service (loss of customer contact)
* Privacy of consumers and businesses
* Taxation of goods and services sold over the Internet
* Exportation of e-commerce goods
<table>
<thead>
<tr>
<th>Table 4: Strategies</th>
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<tbody>
<tr>
<td><strong>Brand</strong></td>
</tr>
<tr>
<td>* Consumer awareness of what the company does</td>
</tr>
<tr>
<td>* Promotion</td>
</tr>
<tr>
<td>* Relationship marketing--Sending updates and other notices to consumers</td>
</tr>
<tr>
<td>* Community building--Facilitating interactions between individual shoppers</td>
</tr>
<tr>
<td>* Depth and breadth of product offering on the site</td>
</tr>
<tr>
<td><strong>Navigation</strong></td>
</tr>
<tr>
<td>* Navigation clarity</td>
</tr>
<tr>
<td>* Navigation access--Navigation is consistent and easy to find</td>
</tr>
<tr>
<td><strong>Fulfillment</strong></td>
</tr>
<tr>
<td>* Protection of personal information</td>
</tr>
<tr>
<td>* Provide feedback or a confirmation number once the order is placed</td>
</tr>
<tr>
<td>* Explain the return policy clearly</td>
</tr>
<tr>
<td>* Make it simple for the customers to buy online</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
</tr>
<tr>
<td>* Clarity of purpose</td>
</tr>
<tr>
<td>* Resemblance to other trusted sites</td>
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