

E-Commerce: The Next Global Frontier For Small Businesses

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Abstract

This paper discusses the growth of E-Commerce and its advantages to small business firms. Guidelines for small businesses to create a successful E-Commerce sites on the Internet are offered. Furthermore, tools for the trade and strategies for E-Commerce are discussed. Business on the Internet will continue to develop as technologies for the Internet evolve, and the evolution seems to be progressing at an ever-increasing pace.

Introduction

According to Nielsen Media Research (1998), one in three adult Americans uses the Internet each day and Forrester Research speculates that these consumers will spend \$17 billion buying goods and services online in the year 2001. Almost 17 million people will buy something from a Web site this year, up from 10 million last year and 5 million in 1996 (Levy, 1998). Fueling this growth is the fact that consumers are becoming more familiar, more comfortable with the Internet and they are less worried about using credit cards to make online purchases. Already many businesses such as Intuit, L. L. Bean, Barnes & Nobel, the major airlines such as Delta and American Airlines and many other mid-size and large companies have set up shop on the Internet seeking a share of future electronic commerce (e-commerce) business. According to one estimate, online investing (or electronic trading is projected to reach 2.2 billion dollars by 2002 (Ferrell and Hirt, 1998). With the growth of e-commerce in US, e-commerce in Europe is expected to reach some \$20 billion by 2000,

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according Jaap Kamp, senior executive vice-president of ABN AMRO Bank and Chairman of the steering committee for development of a set of guidelines for advancement of electronic commerce for small and medium-sized enterprises in Europe (Anonymous, 1998).

E-commerce is a system that includes transactions that center on buying and selling goods and services to directly generate revenue but also those transactions that support revenue generation, such as creating demand for goods and services, offering sales support and customer service or facilitating communication between business partners (Kosiur, 1998). From its inception, e-commerce has included the handling of purchase transactions and fund transfers over computer networks. It has grown now to include the buying and selling of new commodities such as electronic information. The opportunities offered by current technologies are not yet fully exploited since innovations (in the current technologies) are taking place every day. This suggests that the definition of e-commerce is not static and in addition to the new ways of doing what businesses have done in the past, businesses will also find new things to do with e-commerce.

Small businesses have many reasons for selling over the web. These includes such things as adding a distribution channel, increasing overall sales, expanding their reach beyond local markets, or gaining greater exposure in existing markets. Small businesses can enter into this huge market by building an Internet storefront for a retail shop at what could be called a cyber mall. However, such a storefront must satisfy the shoppers' needs, process payments in real time, and provide to the merchant (or store owner) the tools that help build sales. Small-to-medium sized businesses need a low-cost, secure, yet powerful and easy, way to build and maintain such an Internet storefront.

As with any new technology, there are a number of issues that need to be addressed before creating a successful presence on the Internet. The following issues must be considered to achieve success with any electronic commerce site (Peypoch, 1998; Levy, 1998; Ghosh, 1998):

- Ease of use
- Security of personal information
- Performance
- Reliability,
- Integration with existing systems
- Adherence to open standards,
- Access to infrastructure and market space
- Restrictions on contents.

Small businesses are slowly getting wired with just 9% of businesses with under five employees having Web sites (Foster, 1998). According to the United States Small Business Administration's conservative estimate, 30 percent of the nation's 24 million small businesses accept orders on the Web (Tedeschi, 1999). The purposes of this paper are to offer guidelines for small business to create a successful e-commerce site on the Internet, present the benefits of e-commerce to compete in the global market place, and discuss the tools for the trade and strategies for e-commerce applications for small businesses.

B-2-B E-Commerce

A new wave of e-commerce start-ups by small businesses is aggressively pursuing commerce opportunities with other businesses on the Net. This new wave is called Business-to-Business or B-2-B E-commerce. While Business-to-Consumer, also known as B-2-C E-commerce, is a common phenomena, Business-to-Business B-commerce has emerged as a new, untapped frontier. According to one study (Mhatre, 1999), for example, the Internet's e-commerce potential from industrial markets such as steel (\$600 billion annually), logistics (\$400 billion annually), and print services (\$200 billion annually) is literally ten times the size of equivalent Business-to-Consumer categories.

Organizations interested in B-2-B E-commerce should understand the three C's of B-2-B competition. The framework for categorizing B-2-B competition is as follows (Mhatre, 1999):

- *Compete:* A B-2-B e-commerce firm operates as virtual distributor that use the Web to compete directly with traditional middlemen. With zero-cost Web distribution, virtual distributors can offer broader product selection and significant price reductions.
- *Co-opt:* A B-2-B e-commerce company recruits traditional bricks-and-mortar distributors as OEM partners who then 'private label' and redistribute an Internet application to their installed customer base. Leveraging existing channel relationships allows rapid market share acquisition, but puts pressure on overall B-2-B margins due to revenue sharing.
- *Create:* A B-2-B e-commerce organization will leverage the Web to construct the world's first "organized" exchange where none existed previously, enabling distributors to simultaneously source and price products from multiple suppliers. The long term pay-offs are tremendous due to increasing network effects and natural monopoly power that accrue to exchanges that capture majority market share.

The use of Net for sale and purchase of products and services among the small businesses is on the rise. More and more small businesses are taking their window-front offerings on to the Internet. According to the U.S. Small Business Internet Survey, 56% of the small businesses online today regard the Internet as "essential" to the success of their businesses. Between the first quarters of 1998 and 1999, approximately 427,000 small businesses joined online. The study found that among small businesses that accept online orders, 71% say the Internet is essential to their success. About half of U.S. small businesses that sell online say online sales have met or exceeded their expectations. Sixty percent of those that accept orders on their Web sites report sales gains due to their online presence amounting to about 23% of total company sales (Gibbel, 1999; Stubbs, Moran, and Isaacson, 1999).

However, there is a peculiar trend in the Internet usage among small businesses. Despite the promise of increased sales through the Internet, most small businesses are using the Net for business shopping. According to one estimate (Gibbel, 1999; Stubbs, Moran, and Isaacson, 1999), the number that placed online orders for business goods and services jumped over 95% during mid 1998 to mid 1999, reaching a record high total value of small business online orders to \$19 billion, up 67% from \$11.4 billion in early 1998.

According to a report, the "Top 100 Retail E-Commerce Websites" with annual revenues of \$12 to \$120 million will only grow larger, as the Top 100 Web sites report average revenue growth of greater than 1000%. The report notes that Web sites that invest in marketing and Web site automation garner the greatest revenues and anticipate the greatest growth during 1999 (Wheeler, 1999). According to Wayne Flagg, VP-business strategy in Enterprise Web Management unit at IBM Corporation, the task of a business-to-business Web site has shifted in the last year, from marketing and transactions to knowledge management and customer service

(Blankenhorn, 1998).

Advantages of E-Commerce for Small Business

There are many advantages for doing businesses on the Internet for small businesses (Hsieh, Lin & Caveny, 1998; Levy, 1998; Ghosh, 1998). They are:

- All sites on the Internet are equal, and the small business has just as much space in the heavily used Web search engines as large corporations. Big companies do not gain any edge from their Web sites over their small counterparts, unless their web sites are better created and maintained. Small companies have the same freedom of pursuing multiple strategies and experimenting with new approaches on the Internet as large corporations.
- The Internet is also considered to be the least expensive way for small businesses to market the good and services globally. There are millions of potential customers surfing the Internet every day. A small business has a unique opportunity through the Internet to reach each and every one of them.
- The Internet allows small business to implement effective globalization strategies, which would be otherwise impossible to implement due to the complexity and cost of doing businesses in foreign countries.
- Use of the Internet allows the small businesses to maintain full-scale after-sale customer services at a relatively cheap cost and to maintain contact with the customer for all aspects of businesses activities on a continuous basis.
- The Internet allows the small business to demonstrate a company's products and services in a multimedia format.
- The Internet tends to reach younger, more affluent buyers.
- On the Internet small business can save on direct mail, postage, and other catalog expenses.

- The Internet will enable certain companies to dominate the electronic channel of an entire industry or segment, control access to customers, and set business rules.

Essential Ingredients for Success

In order for small business firms to facilitate the movement to successful e-commerce the following specific guidelines are useful and should be considered:

- *Demand Generation:* In order for a small business to have an effective presence on the Internet, they must drive traffic to their site, and more importantly convert the lookers into buyers. It takes a great deal of traffic to generate a transaction as the best e-commerce sites have one buyer for every 200 lookers (Behan, 1998). Some effective tools that can be used are contests, giveaways, coupons, advertisements, and partnership with affinity groups. For example, H&R Block effectively used a "We'll pay your taxes" sweepstakes to drive customers to their site.
- *Ordering:* Small businesses should provide an attractive and easy-to-use interface for shoppers to view items and place orders. Shopping cart technology is a basic requirement and techniques like up-selling can significantly increase the average order size. For example, the 1-800-Flowers.com site suggests an accessory, such as balloon or a stuffed animal, once the shopper decides to make a purchase.
- *Fulfillment:* Small businesses must ensure that the shopper's needs of a timely and undamaged delivery are met. Some e-commerce packages aid in this process by generating shipping labels and packing slips for the merchant. For example, the U. S. Post office allows customers to purchase mailing stamps on an Internet site called e-stamps without going to the Post Office. In another example, BookStacks leverages its distribution by having the distributors drop-ship the product to the shopper.

- *Payment Processing:* Small businesses must be able to verify and transfer funds from the shopper's credit card, checking account, ATM card etc. Approval must also be quick so they can expedite shipment of the order and still be confident of getting paid. All major retailers, such as CDNow, feature real-time processing to make their transactions more efficient.
- *Service and Support:* Small businesses must satisfy the shopper's support needs, such as pre-sales inquiries, order tracking lookup, and post-sales support. The cyber mall storefront must be designed to allow the customer to make contact via an online form, e-mail address, or phone number, and make responding to customer's inquiries the highest priority. For example, the Federal Express site allows customers to calculate shipping charges between any two destinations as well as track their shipped package.
- *Security:* Besides making sure that the web site is available when customers want to use it, it must also ensure that prospective buyers feel confident about buying online. It is important to make shoppers feel secure about transmitting personal information over the Internet. This is accomplished by using a Verisign Certificate and Secure Socket Layer (SSL) to encrypt all the information sent to the merchant. Further, a pledge must be made to all shoppers that their personal information will not be sold to marketing firm and a listings of key telephone numbers will be kept secure (Dickey, 1998).
- *Community:* Small businesses should create a solid relationship with the shopper to build loyalty and encourage repeat business. Some powerful tools are e-mailing special offers and new item announcements to current customers, and crediting frequent flier miles for dollars spent. For example, Amazon.com generates 58% of its sales from repeat customers.

Tools for the Trade

There are two main ways of setting up a

Storefront with real-time transactions: "In-House" and "Instant Storefronts." With the "In-House" solution, a small business must buy, develop, and implement an e-commerce software package, a server platform, Internet connections, secure payment processing network connections, and deal with maintenance. Generally, only large businesses that have an e-commerce competent information technology staff can afford this solution. The advantage of this approach is that the business has complete control of the system and integration into existing systems is much easier. However, this solution is very expensive and it can cost \$250,000 or more.

The alternative is to choose a ready-to-use online package from a vendor that can provide the desired features at a specific rate. With an online solution, the entire e-commerce software package is on the provider's servers, and the small business owner can access it with an Internet browser. This system can be managed from anywhere as long as there is an Internet connection, and the merchant is not required to upgrade to new technology. A specific drawback is that Storefront maintenance can be time consuming, depending on the speed of the Internet connection.

The dilemma is that the small businesses have little Internet experience and limited resources to tap into the e-commerce. Therefore, selection of an e-commerce solution that fits a small business's needs and budget should be decided on the basis of a firm's existing technology and level of technical proficiency. There are several e-commerce solutions for a small business: (1) outsource the process to an e-commerce hosting service or virtual mall. This allows a small business to not get involved with HTML coding or any part of the web site management, (2) ViaStore - a service provided by ViaWeb, which allows a business advertise and sell products on their own Web site. Businesses simply log on to ViaWeb's site and design a store online, while ViaWeb hosts, updates, and keeps the site secure, (3) enlist an Internet Service Provider (ISP) to run a small business's site,

thus, avoiding the task of coding and managing its site, (4) design, manage, and own a Web site using various software now available in the market. This option is particularly feasible for businesses with high degree of technical proficiency, techno-savy staff, and existing NT servers (Parish (1998).

Small business owners do not have time to worry about technology; they need to focus their efforts on promoting the storefront so the best solution for them is an online, ready-to-use package (Agarwal, 1998). There are many good software packages available in the world of e-commerce, but integration issues make implementation complicated. Any strategy considered for integrating e-commerce in business should focus on information -- not only its collection, dissemination, and use in marketing -- but also as a salable product in and of itself. For example, separating e-commerce transactions from other sales transactions can cause problems. What if customer service does not recognize the e-commerce purchaser, or inventory levels do not balance because the systems do not decrement each other? Powerful as new web tools are, it still takes old-fashioned IT know-how to integrate them into an overall technology and business structure.

Strategies for E-Commerce

Business on the Internet will continue to develop as technologies for the Internet evolve, and the evolution seems to be progressing at an ever-increasing pace. Essentially, these are not earth shattering technologies that are being developed at the rate of one a week; in many cases, the technologies are refinements of existing ideas that had originally been proposed or developed for smaller networks.

The older, more traditional hierarchical structures found in many small businesses emphasize information and, more importantly, control. This is contrary to information sharing indicating that Small business organizations with a flat structure are better suited to information sharing. One reason for this is that synergies of

e-commerce depend on a greater understanding of the customer, which in turn requires a free flow of information, both inside and outside of the business. This produces a new type of alignment between the customer and the small business that is more customer driven than product-driven, with more interactions among departments and individuals rather than between an individual and an account representative.

Small businesses can improve any aspect of their business processes to take advantage of e-commerce. For example, they can create better product promotions to improve sales by adding multimedia to Internet presentations and by offering more detailed product descriptions on the Web. Organizations can also design their Web site and e-mail services to incorporate information from databases to tailor information to individual clients instead of demographic groups. Small firms can also establish the Internet as a new sales channel, perhaps by trying sales directly to an online catalog and order form.

Using the Internet as a communication medium can reduce the direct cost of business. In a business-to-business environment, a firm could relay purchase orders in electronic form, eliminating the need for reentering crucial information. Putting an electronic catalog on-line, instead of printing and mailing it, also reduces the time as well as the cost, it takes to get product information to the customers and distributors.

E-commerce on the Internet also affords small business opportunities to transform their business as they shift from the value chain to the virtual value chain. Customer relations can be changed from one-way asynchronous communications to two-way interactive communications. Instead of relying only on telephone conversations restricted to working hours and subject to telephone tag, businesses can use the Web and e-mail to exchange information and opinions between their customers and the business. Further, small businesses can also collect data about customer preferences and habits by tracking their

action at the Web site; this information can be used to customize offerings and services.

Doing Things Differently in the Marketplace

As small businesses plan to incorporate e-commerce into their business, they should be prepared for a number of issues that will arise. These issues can be organized into two categories: organizational and marketing.

Accomplishment of e-commerce is a technological project, it also involves changes in current business processes and practices. Along with the changes in business practices come changes in the business communications and information infrastructures. One of the biggest challenges for companies when implementing e-commerce is managing these organizational changes.

In many cases, crucial organizational changes revolve around the treatment of information and communications. For example, a comprehensive communication capability should be a fundamental part of the small business infrastructure. This can be as simple as e-mail or as complex as a Lotus Notes database or client/server application. There should be a common data platform for customer service, one for inquiries via the phone and a second for Internet-based inquiries. Small businesses working with business partners on an e-commerce project may be required to match their own communication capabilities with those of their partners.

Revamping business processes to accommodate many of the new opportunities offered by e-commerce is a continual task. There will always be external pressures exerted by technological changes on the Internet as well as changes expected by customers in a continuously evolving marketplace. This thought should not freeze small businesses into immobility, nor should it keep small businesses from starting an e-commerce project because all the pieces are not yet in place. Small businesses should take the advantage of the fact that the Internet has evolved into a truly interactive medium; Web

sites should include dynamic data and support transactions between buyers and sellers. This creates new problems and opportunities for marketers. E-commerce systems on the Internet can collect information on customer needs and behavior patterns that will allow for a more personalized relationship between the suppliers and their customers. Thus, small business can reach out to the newly created customer groups, such as smaller groups and online communications.

Customization of products and promotions via the Internet does not always have to occur on a one-to-one basis, as micro segmentation of market niches often proves adequate. But small businesses have to be cautious against creating market segments that are too small. The finer the segmentation, the easier it will be to appeal to people's narrow interests. However, make those market segments too small and they may not support the costs of developing specific products, even if the Internet reduces these costs considerably. Thus, as part of the segmentation strategy, small businesses should look for opportunities to create or target communities of interest. These communities are excellent forums for providing information about small business itself and its products, as well as gathering market data.

As the Internet has become more of an interactive communications medium, it has focused greater attention on the differences between push and pull marketing. Businesses that are accustomed to working with the more traditional advertising media such as print, radio, or television have to tread more softly when advertising on the Internet. For example, an e-mail can be a good way to reach communities of interest, however, many Internet users do not appreciate receiving what they consider to be junk mail. Thus, if small businesses are going to use vehicles such as e-mail to send information to current or potential customers, they should get some idea of customers' receptiveness to such approaches first.

The issues surrounding e-commerce that

may well have the greatest impact, but still remain to be resolved, are the legal ones. This includes issues surrounding individual privacy, security, intellectual property protection rights, and taxes on e-commerce.

Conclusions

The business activities of many business organizations have been thrust into the information age, forcing firms to cope with a deluge of technological advancements. This study addresses how small business firms could survive as well as grow in the global marketplace with the help of e-commerce. With the advent of e-commerce (B-2-B and B-2-C), companies are able to accomplish various objectives that would strengthen their competitive position in the global marketplace.

The Internet is not a static environment. To the contrary, it seems to have introduced an even faster pace of change to the software world than ever before. As more options become available, so too will customer expectations and the competitive landscape will continue to change. Businesses conducting e-commerce on the cyberspace must also be prepared to change as the technologies and markets change, moving from static data publishing, to increased interactivity, to real-time transactions, and finally to merging business processes between business partners.

Much as the Personal Computers revolutionized important functions of every business enterprise in the past few decades, the advance of e-commerce on the Internet will reinvent important business aspects of every organization in every industry, redefining the value chains of the future. For now, we have seen only the tip of the iceberg of the massive impact this new wave of technology has in store for the human kind. As we enter the new millennium, today's e-commerce start-ups will grow into next century's new high-tech industry giants.

The Internet is no longer simply a better way to publish and distribute information. It has become the conduit for the billions of informa-

tion exchanges that help make up daily life, thus, exerting a significant impact on corporations as well as human kind. After all, the Web is rapidly becoming a "way of life".

Suggestions for Future Research

Numerous factors will play a pivotal role in creating a successful presence on the Internet and in achieving success with any electronic commerce site in the future. Therefore, additional research is recommended on various issues related to e-commerce such as ease of use, security of personal information, performance, reliability, integration with existing systems, adherence to open standards, access to infrastructure and market space, security through encryption and protection devices, privacy, restrictions on contents, intellectual property protection rights, and taxes on e-commerce.

Additional research is required to better understand how to design, develop, and deploy an online business strategy or an e-commerce site. Building an online business strategy encompasses several factors including image branding, online and offline marketing and advertising, proper functionality of the site, interactivity with visitors, capturing data into a database to later be utilized as sales leads, and secured transactions. Furthermore, research is recommended to explore the impact of e-commerce applications on the types of industries and size of firms. ☐

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