INTERNET AND NEW ECONOMY:

E-Commerce for the Service Industry

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ABSTRACT

Internet commerce has become the new frontier for business around the world. Its huge development is introducing new benefits for both consumers and businesses, which are helping to reshape, some long held practices of commerce.

This paper on “E-Commerce for the Service Industry” analyzes the reasons and the key components for the success of online industries.

Internet allows the possibility of broadcasting information to a very large number of customers. It is an essential tool not only for the development of new multimedia companies but also to complement traditional business, amplifying the markets and contributing to the companies’ internationalization.

Due to the real time nature of the Internet, customers are able to get instant feedback about information or availability and delivery status of products.

The use of Internet is independent of time, language and geographic location of customer/company. It helps to break down traditional barriers, shifts the power balance between buyers and sellers facilitates comparison-shopping, distributes knowledge, expands markets and sustains growth.

This work examines the companies and customer benefits and discusses the implications of e-commerce on strategy and marketing management, considering the Porter and Kotler models.

The evaluation of some important professional service industries such as travel, healthcare/medicine, law, management consulting and banking/finance is also presented. The evolution rate of the service industries will vary considerably, depending on the specific characteristics of each one.
Globalization of products and markets will push companies to the online medium, in order to be competitive. In next decades the technologic developments of Internet will reshape the world of businesses and the economy of nations.
1. Introduction

The rise of the use of the Internet is changing the way we interact, learn, communicate and negotiate. At the same time, new consumer patterns are emerging due to the Internet and electronic commerce. An increasing number of enterprises are using the Internet in order to get higher added value to their business and keep their competitiveness in the global market. Those that are not following the technological changes most probably will be left behind.

According to the US Commerce Department 26 million people worldwide used Internet in 1995. In 2005 the estimated number of Internet users will be nearly 350 million.

The evolution of Internet generated revenue between 1994 - 2002 worldwide is presented in Figure 1.

In 2002, the expected revenue will be 1234 billions US dollars. The increase between 2000-2001 and 2001-2002 will be 90% and 72%, respectively.

![Figure 1 - Internet Generated Revenue 1994-2002](image)

Source: Active Media (1999).

The Internet has many success stories, namely Amazon, ebay, America Online and Yahoo that could not have existed before the proliferation of the Internet. The Internet is a vehicle to expand and attain greater market share for product and tangible based industries. Also in the service industry there are good examples of prosperity, for example in banking and travel.

E-commerce is changing everyday and is strictly connected with the technological development. Twenty years ago it was impossible to imagine the revolution that computer network would cause in the business world. However, the traditional commerce will always exist with e-commerce, such as cinema continues living with television. But management strategies need adaptations to the new reality.

The e-commerce is evolving very fast in the manufacturing industry. However, this evolution is not so relevant in the service industry, which has different development stages according to the type of service. The service industry has a large action field, that goes from traditional services such as healthcare or law, that require a direct contact with customer, until the compound service such as travel and retail banking, where the contact with customer is not so essential. Thus, in the evolution of the traditional service industry, the contact with customer is the key factor, what is confirmed, for example, by banking versus healthcare. Nevertheless some medical acts can be made since the customer has adequate equipment and is connected to the net.

2. Objective
The knowledge and information society has a strong support in the Internet. New ways of living and behaving are emerging, especially in purchasing, learning and exchanging ideas. The e-commerce is not only providing different possibilities to the customer in terms of convenient purchasing, efficiency and savings but also modifying the balance of power between sellers and buyers.

The purpose of this work is to study the impact of the Internet on the service industry:
- how the traditional service bound industries are changing;
- what adjustments must be made due to change client preferences and needs;
- how the Internet can be a way to develop the traditional service industry;
- how the Internet and the traditional via can complement each other.

This paper presents in section 1 the evolution of Internet and in section 2 the objectives of this investigation are referred. Sections 3 and 4 examine the reasons for the success of electronic commerce and the key components of e-commerce respectively. Section 5 evaluates the e-commerce in terms of customers and companies benefits and also studies the implications in management, namely in Porter and Kotler models. Section 6 investigates some professional service industries, namely travel, healthcare/medicine, law, management consulting and banking/finance. Main conclusions are presented in section 7.

3. E-commerce

The Internet is radically changing the way people operate on a daily basis and is creating a fundamental shift in information gathering that was not possible a decade ago. The rate of information dissemination that is possible with the Internet has reduced the barriers of time, geography and language.

The use of Internet and electronic commerce are having an exponential growth that can be attributed to:
- advantages of information dissemination;
- possibility of discussing ideas, issues and problem’s solving;
- availability of buying and selling;
- decreasing of personal computer prices;
- increasing of personal computers equipped with modems;
- availability and affordability of bandwidth;
- accessibility to user friendly software and graphical browsers.

E-commerce has become an integral part of any competitive business enterprise. The vast possibilities of the Internet have revolutionized the ways in which businesses are being done. Through ecommerce a business enterprise can radically shift or re-invent itself. E-commerce started another avenue for business to pursue efficiency and quality (Mougayar, 1998).

The two types of electronic commerce are business-to-business and business-to-consumer. Figure 2 shows the evolution of e-commerce in USA from 1998 to 2003.
According to Forrester Research (1999), business-to-business e-commerce is having a strong development, especially since 1998. In 2003 the estimated value for business-to-business, will be 1331 billions US dollars. This demonstrates a strong increase of 430% between 2000 and 2003.

The business-to-customer electronic commerce has helped to break down traditional barriers of retail trade. It represents around 12% of total Internet businesses. According to OECD (1999), USA represents more than ¾ of total world e-commerce.

4. Some Key Components of Electronic Commerce

Through the Internet, a direct connection can be established between the buyer and seller promoting greater awareness of customer needs. The merchants can keep the customers profiles and their shopping patterns, which allow suggesting important recommendations to customers. For example, Amazon has the reading preferences of their customers.

The Internet facilitates the relationship between companies and customers, increments shopping and improves customer assistance process. Clients are more proactive when searching for assistance online. However, companies should be aware that the Internet customer service feature does not mean the elimination of the traditional help desk functions.

Building relationships with suppliers, distributors and other components of the value chain is an integral part of business, what is enhanced using the Internet. Many online companies have a database for frequently asked questions (FAQ) what helps both businesses and consumers.

The main key components of e-commerce are the following.

- Design: The design should be simple, appropriate and easy to understand. It is also important to have the possibility of keeping the users’ profiles.
- Brand recognition: Brand recognition contributes to decrease the resistance to shop online. The recognition of the company reputation or the brand produces a comfort and confidence level that will greatly enhance the shopping experience online.
- Reliability and trust: It is crucial to sell the same product, whether purchased online or in the physical environment.
- Quality: The sales of online products will increase if they are certified according to the European standards EN ISO 9000 or American standards ANSI/ASQC Q9000, because they are under warranty.
- Availability: The product or service in the price list or in promotion should be available for acquiring.
- Delivery: The purchased product or service should be successfully and promptly delivered as guaranteed. The customer will give up the purchasing, if the conditions of the online contract are not fulfilled.
− Security and Privacy: The issues of security and privacy are major obstacles for online shopping and transactions. In order to protect online customers, it is very important to have legislation to regulate the use of personal information and security. According to Hagel et al (1999) “the rise of the Internet, which allows companies to get information about customers more easily than ever, has brought privacy to the center stage”.

The credit card to fulfill the purchase order is a common procedure. Several methods of security and protection can be used (Slater, 1999):

- Digital Signature: encryption keys used for privacy and authentication.
- Encryption: the data are encoded and only the desired recipients decode them.
- SSL (secured socket layers): is an early and now prevalent security and privacy mechanism.
- SET (secured electronic transaction): developed by Visa and MasterCard is a standard for safe electronic commerce transactions.

5. Changes in Business Strategies and Models

New business opportunities are being created due to the vast explosion of the Internet and many transformations are occurring in the management strategy. Thus, Internet originates new rules about businesses, creating benefits for customers and for companies.

5.1. Customers Benefits

The success of the use of Internet by customers can be based on several advantages, summarized as follows:

- Strong increase of information: the Internet has started a flow of information that did not exist before.
- No boundaries: the Internet has the advantage of breaking down barriers of time, language and geography.
- Easy purchasing: consumers have a simple and easy method of shopping an item without boundaries.
- Comparison-shopping: the Internet gives to the customer the capability to compare suppliers, namely products, prices, promotions, delivery time, discounts, and maintenance services. For example BOTS and mySimon can search hundreds of sites based on a set criterion. Thus, the consumer can easily compare price and model within the merchants that sign on for these services.
- Shift in buyer and seller power balance: in the traditional method of interaction between consumers and sellers, the power lies with the seller. With the increase of e-commerce there is a fundamental shift in power to the consumer and consequently he can reach greater value for money. The BOTS technology of comparison-shopping has greatly helped to shift the balance of power between buyer and seller.
- Value for eCommerce: the customer uses and values the Internet because its benefits and conveniences are greater than those provided by the traditional ways of purchasing.
- Changes in the way of thinking: customers are more aggressive because they can quickly find another supplier when they are not satisfied.

5.2. Companies Benefits

Companies are readjusting the total management practice. The benefits of Internet for large and small companies are the following:

- Dissemination of information.
- Better access to the technology transfer.
- Reduction of the company costs.
- Simplification of the logistics.
- Decrease of the streamline operations.
- Greater market share.
- Opportunity for new market segments.
- Increase of sales.
- Improvement of the products order.
- Better customer service.
- Advertisement of new and upgrade products.
- Promotion of the company image.
- Enhancement of customer satisfaction.
- Maintenance of customer relationship including the possibility of recommendations.
- Opportunity to keep customer profiles and preferences.
- Possibilities of finding new talented human resources worldwide at lower costs.
- Comparison with other competitors reacting to the changing of prices, product variation, and offerings using for instance BOTS technology.
- Easy intercommunication with suppliers and customers;
- Changing the suppliers’ way of thinking.

Knowing the importance of Internet companies are keeping storefronts but are changing their distribution system, once they are decreasing the involvement of warehouses and wholesalers and using more and more Internet services, such as ebay.

5.3. Porter’s Model

The Internet has also implications in the Michael Porter’s Model. The five competitive strategies have to be carefully analyze:
- The power shift between suppliers and buyers: the power of suppliers is no longer the same. The buyers can access to other supplier that will offer better conditions for the same product.
- The barriers to entry: the usual high barriers to entry for certain businesses are coming down. Amazon demonstrates perfectly that barriers to entry are coming down with its virtual bookstore, providing more choice than the great majority of stores.
- Competitors and substitute suppliers: the lack of boundaries in the Internet allows that the substitute suppliers and the competitors are abundantly available.

The change of mentalities and the cultural barriers are still present in many companies that are slow to accept and implement the new technologies. It took years before e-mail, computer, fax, and telex became a part of daily business.

The implementation of e-commerce in the business strategy, will improve chances of success, if the following requirements are achieved:
- Involvement of senior management.
- Adequate management of the conflicts within the organization.
- Outsourcing of external skills, when necessary.
- Innovation of new products and processes.
- Adaptability to markets and to customer needs.
- Equality between products provided online and those provided in the traditional manner.

5.4. Kotler’s Model

The basic 4 P’s of marketing mix (product, price, place and promotion) are still applicable to the ecommerce, although the interactive nature of Web requires the development of new marketing procedures based on an online personal contact.

The e-marketing mix strategies have a short reaction time when compared with physical environment. The main features of e-marketing are the following:
- Information reaches a large number of consumers in real time.
- Globalization of businesses, products and services.
- Increase of competitiveness among companies and products.
- Direct advertisement of company and products.
- Direct approach with customers.
- Increase of customer relations due to the intercommunication in real time.
- Easy intercommunication with the distribution channels.
- Fast introduction of new products and upgrades.
- Decrease of product life cycle.
- Ability to tailor a product or service to suit customer's needs.
- Advantage to capture new market segments
- Capability to acquire sensitive information that will define the marketing strategies, in order to increment competitiveness.

Marketers are dealing with both sides of the business, the ever-critical issues of fraud and privacy protection and, on the other hand, trust and integrity that are reinforced in e-commerce.

6. Analysis of some Professional Service Industries

The professional service industries, such as law, healthcare/medicine, management consulting and banking/finance are performing the transition to the online medium. For this services security and credibility are important issues. The principal benefit of the Internet is the availability of information and its accessibility.

Internet and electronic commerce are suitable for the service industries. Adaptations are being made, in order to realize gains from electronic commerce. Actually, the state of art does not yet allow the personal contact with customers what is fundamental in service industries. For example medicine/healthcare requires technical improvements in order to allow remote medical diagnostics answering to the patient needs.

The Internet is increasing the revenue of professional service industries, because of its vast potential in information diffusion. The information provided can complement the practice. The way how the service industries manage the balance of physical environment and Internet will contribute to the sustainability of their online businesses.

The study about travel, healthcare/medicine, law, management consulting and banking/finance industries allows the conclusion that they are moving to the Internet, namely to expand business and improve customer service. Other main results of this research are presented in next sections.

a) Travel
The Internet increases consumer choice and convenience. The online travel agencies have lower costs of sales and marketing. The advertising has a high penetration.

E-commerce for travel applications has the fewest constraints, since computer reservations systems have been online for the last four decades. In 1996, the value of online travel sales was 276 million US dollars. In 1997, Web users booked 822 millions US dollars.

Travel analysts predict the continuation of a rapid growth. In 2000 online travels can reach 5 billion US dollars, representing 7% of US airline revenues for passenger air travel.

b) Healthcare/Medicine
The need for years of experience and knowledge is especially true in the healthcare and medicine field.

The obstacle of cost has prevented many people from seeking proper medical attention and general preventive care.

The Internet is the perfect venue to dispense some basic medical or healthcare information that helps the consumer to make decisions and also to increment his knowledge. These sites do not replace a real doctor, however the number of healthcare/medicine Web sites available is large.

c) Law
In the law sector, given the complexities and different jurisdiction levels involved in law, the Internet may only be an information and resource center with limited scope.
The dissemination of critical information helps the consumer to make decisions and also to increment his knowledge. Legal organizations are providing the basic legal and current legislative information online and forums for discussion people are discovering a valuable resource for their legal questions and issues. These sites do not replace a real lawyer.

d) Management Consulting
The rules and the core of management consulting are based on knowledge, experience and trials of previous assignments. In spite of the complexity of management consulting online due to the specific nature of each company/client, there are success consulting firms. For example, Ernie the online consultant from Ernst & Young is a complement to its physical business. Ernie is able to answer questions within 48 hours and help clients to manage strategic changes. Ernst & Young through Internet is gaining benefits, multiplying its customer base and increasing the total revenue. However, the online consulting firms need the commitment of the client management in order to implement new management techniques and to keep a good customer relationship. One of the challenges that face management consulting industry is how to grow the business online without cannibalizing existing business.

e) Banking/Finance
Electronic commerce is changing the way in which traditional banking is managed. Banks are realizing that in order to fully exploit the capabilities of the Internet, they must re-shape their strategies and deliver products in a more innovative manner in terms of product variety and lower prices (Hagel III et al., 1997).
It is possible to conduct online, all the traditional features of banking, due to the product-oriented nature of banking/finance. Banks were driven by customers’ preferences to move away from traditional methods. The flexibility of the online banking/finance management resulted in nearly 30% of savings for consumers. This was the motive that justified the embracing of Internet by Wells Fargo bank (Johnson et al., 1995).
Online retail banking simplifies the management processes, has lower operating costs and offers new services that easily arrive at more customers. At the present almost every bank has their Web sites. They advertise their products and allow the customers to transfer funds, pay bills and check their balances. Is also available an integrated system of financial products, such as brokerage services and insurance (Crede, 1998).
If banks can provide what customers want and not be hampered by their own legacy of complex internal structures, they will have a chance for survival and growth through the Internet (Petersen, 1998). At the end of 2000, analysts estimate that around 15 million households will bank online. According to Booz-Allen and Hamilton, before 2010 most of the bank customers will do most of their banking on the Web.
7. Conclusions

The benefits and advantages of the Internet are not in question. The growth and strength of the Internet is truly extraordinary. Its huge development is introducing new benefits for both consumers and businesses, which are helping to reshape, some long held practices of commerce.

According to the present study, Internet is a complementary tool to service industries. Even the traditional industries, namely travel, healthcare/medicine, law, management consulting and banking/finance companies are able to make the transition to the online medium having great efficiency and value.

The main implications of Internet on the service industry is the possibility of broadcasting information to an extensive set of customers and be a complement of traditional business. Due to the real time nature of the Internet, customers are able to get instant feedback about information or availability and delivery status of products, what is independent of customer/company in terms of time, language and geographic location. Internet helps to break down traditional barriers, shifts the power balance between buyers and sellers facilitates comparison-shopping, distributes knowledge, expands markets and sustains growth.

Currently, there is a lack of legislation about privacy and security of online businesses. These matters are complex and are being studied in order to get credible solutions. Dispersion of information represents another important issue that conjoinly with privacy and security are the major obstacles for the industries expansion. At the present, caution is recommended to companies and customers to face frauds and useless information (Nath et al, 1998).

However, Internet is another avenue of interaction. It is a wonderful resource for business to business and business to consumer that will continue to grow. According to Forrester Research, in 2003, business-to-business will be 1331 billions US dollars, representing 93% of total e-commerce.
8. References


