

# Factors to be Considered when Developing Online Markets for E-Retailers

C.S.D. Ellepola<sup>1</sup>

<sup>1</sup> Department of Computer Science and Informatics, Uva Wellassa University, Badulla, Sri Lanka

## ABSTRACT

*E commerce has gained popularity as an extremely convenient method of conducting business. With the advancements of the technology, people tend to seek for more efficient and easy ways of doing transactions. Many retailers can use this opportunity to increase their customer base by taking their business to an online platform. This research was carried out with the expectation of identifying how e commerce can be utilized as a means of expanding the customer base of e-tailers. The data for this study was obtained through published journal articles, books and other online sources. The gathered data were analyzed to find out the factors that need the most attention when having an online presence. Four main categories of important factors for e commerce based market development were identified. These four components consist of technical and financial capabilities, product and marketing techniques, packaging, logistics and shipping, and legal frameworks. Each of these components comprises of several other sub factors which need to consider under the given categories. These factors are considered to be useful for potential online retailers to carefully plan out their online business. The identified factors consist of areas that an e retailer needs to consider when starting to use e commerce to expand his business across a wide geographical area.*

**Keyword:** - e commerce, e business, market development

## 1. Introduction

Electronic commerce which is commonly called as e commerce is a component of electronic business. While, electronic business consists of both internal and external activities of an organization such as conducting online transactions with customers, online procurement, human resource management, inventory control, marketing, finance, risk management and other related activities, E commerce primary focus relies on activities connected with the customers. This can include taking orders, sales, marketing activities, and customer services etc., which are done through computer mediated networks. Electronic commerce even though is a subset of e business, can be considered as the most vital component of electronic business. According to experts, e commerce evolved as phases. The first phase was where companies believed that they ought to have a website. During the second phase companies started to do online transactions. The third phase, which we are currently experiencing now is all about profitability through increased gross margins.

Even though at times both words e commerce and e business are used interchangeably, it is important to identify the scope of activities involved in each of them. At present, e commerce has become part and partial of businesses. It has become an integral factor for any business which plans to reach a global market. e commerce activities should be carried out with great caution or else it can end up as a failed endeavor. Therefore, before initiating e commerce, according to (Lee, 2001) there are five essential steps to consider. Firstly, companies need to consider about redefining the competitive advantage. As internet revolutionizes the way a business operates itself also changes the facts affecting competitive advantage. Therefore, companies need to pay close attention to these new factors when moving on to e commerce. Secondly they need to reconsider their business strategy. Thirdly business should think about their current (traditional) business and the generated revenue. Fourthly companies should reengineer their business processes to be compatible with e commerce. Finally, they need to reinvent customer services. Once these steps have been carried out, a business can take up e commerce.

The main objective of launching an e commerce site is for a company to expand its customer base, to explore a new market. To fulfill this purpose, businesses use many methods and models. E commerce caters to this requirement by

creating an e marketplace which brings together both buyers and potential customers. In this era businesses pay attention towards finding competitive advantage in areas such as customization, differentiation and finding niche markets. E commerce enable companies to reach out to potential customers throughout the world, understand their requirements and cater to their specific needs.

For a company which wishes to take up e commerce, there are two main paths. Some companies operate purely on the web. They do not have physical retail stores to which customers can directly come and buy goods from. On the other hand, there are companies which has a physical store, as well as an online presence. At this point it is useful to understand the concept of pure and partial e commerce. According to the degree of digitization, e commerce can be categorized as either pure e commerce or partial ecommerce. If the product, the processes involved and the delivery method, all comes in the digital format, its considered as pure e commerce, where as if any one of these are done physically, its referred to as partial e commerce.

According to experts in the field of e commerce, (Kalakota & Whinston, 1996) there are four perspectives of e commerce. Communications perspective which refers to e commerce as a method of delivering information, goods and services as well as payments made through electronic medium. The business process perspective deals with the automation of the business processes. The third perspective is the service perspective which considers the quality, cost and the speed of the services provided. The final perspective reflects on buying and selling of products online and is referred to as online perspective.

## 1.1 DIGITAL ECONOMY

The contribution of the internet, Information and Communications Technology (ICT) and digital technologies to the economy can be loosely defined as digital economy. (Combe, 2006) digital economy refers to all the online interaction of people, processes, data and businesses. Digital economy is backed by the interconnection of individuals, organizations and business processes through the concepts such as internet of things (IoT), web and mobile technology and internet itself.

## 1.2 E BUSINESS MODELS

A business model represents the product organization, flow of service and information, revenue generation methods and the possible benefits that could be given to customers and suppliers. The main components of a business model include, value proposition, revenue model, market opportunity, competitive environment, competitive advantage, market strategy, organizational development and management team. In the digital economy, e business models serve the same purpose in a digital environment. The main use of having a business model is that it helps a business to identify how to add value to the activities of the organization and thereby increase profit of the company. E business models help a company to identify how to utilize the digital infrastructure and e communications to add value to the organization.

Most common e business models are:

- Business-to-Consumer (B2C)  
Eg: e-shops, e-tailors, e-malls, portal, content provider, market creator, transaction brokers
- Business-to-Business (B2B)  
e-auctions, e-procurement, e-distribution
- Consumer-to-Consumer (C2C)  
e-auctions, virtual communities

Even though there are several others, these are considered as the most common types of e business models which currently available. Companies who wish to engage themselves in e commerce need to understand which model is most suitable for their company. Other than the models mentioned above, the government (G) also can be involve in e business through G2C, C2G, G2B, B2G and G2G models.

## 2. E COMMERCE AND MARKET DEVELOPMENT

Chung Shing Lee, in his research (Lee, 2001) states that electronic commerce is much more than a mere way of sustaining or enhancing the existing business practices. In this research an analytical framework was developed based on transaction cost and switching cost. The demand side and supply side economies of scale along with the scope were also considered when developing the framework. This framework is useful when deciding the critical success factors for e commerce. Furthermore, revenue models were discussed along with e commerce value creation strategies.

In another research, (Aldridge, et al., 1997) discusses the importance of developing a detailed marketing strategy based on the general popularity of the web. It states that there are several key factors around which e commerce revolve. They are, the difference in consumer market, users needing control, marketer accessibility, direct communication, authenticity, open competition and security.

### **2.1 Advantages of using e commerce for organizations**

The main advantage a company can have by starting an online retail store is that it can sell its products across the world. It will create a global market for the company and thereby help them to reach out to customers, whom they otherwise would not have had a chance to reach to.

Another advantage of using e commerce is that it acts as a medium of sending products and services to the market, within a very short time frame. Unlike in traditional stores there is no waiting time in e commerce. The products can be instantly sold online to the customers.

Companies being able to serve the customers 24x7 is another advantage of using e commerce. Companies can provide information and other related services to the customers whenever such service is needed.

One of the main advantages of using e commerce is that the company gets a chance to increase the sales. When the customer base is extensive there is a high chance of making a good profit.

Furthermore, the companies can reduce the overhead cost as it does not need certain facilities such as physical store, large number of employees and other similar services a physical store will need.

### **2.2 Advantages for the customers**

Customers get to purchase items at any time of the day, throughout the year. They also can go through the reviews and comments made by the other buyers and get to know the pros and cons of the product before buying it. Furthermore, customers get the product delivered to their houses and thus it can be a time saving convenient option for them. Also they have all the information they need in order to make the purchasing decision. This information is provided through FAQs, reviews and other information provided through web pages.

### **2.3 Disadvantages of e commerce**

There are several technical disadvantages associated with ecommerce including issues related to security and reliability of e commerce websites, problems related to the bandwidth of the network and issues arising when trying to integrate e commerce software with the existing applications. (Lawrence & Tar, 2010)

It also has other disadvantages such as high initial cost, privacy concerns, as well as customers do not get the chance to touch or feel the product or test it before buying. Also most customers have a fear to do transactions online.

## **3. FACTORS TO BE CONSIDERED WHEN DEVELOPING ONLINE MARKETS**

Market development is the process of trying to increase the customer base using existing products. This study focuses on finding the main factors which need to be considered when developing online markets. The below mentioned factors were identified as important factors which need to be given proper consideration when developing websites to sell goods to potential customers.

### ***Technical and financial capabilities***

Starting an online store can be quite tempting especially when it has become a trend in the retail industry sector. Even though it seems like launching and operating an online store is easy and less costly, in the practical scenario, it seems to be a different story. Obviously the first main requirement of an online store is to have a competitive website along with the other necessary IT infrastructure. This study identifies technical capabilities as a significant part of e commerce. Under this topic several sub topics are arranged for the convenience of identifying the components.

### ***Content***

The web content serves the purpose of giving the relevant information to the customers and acts as the platform to carry out the online transactions. It is important that the online stores have up to date content in their web sites along with the ease of use. The information provided in the web site needs to be correct and should include all the information the users wish to know. It is further required that only updated

information is available on the web site which can be easily comprehended by the user. Only the relevant information should be presented in the web site in order to avoid confusion. Also the usability of the site and the convenience, the site provides to the customers should be taken into account at an early stage. The using of images, audio and video should be used in a way that adds value to the site. They should not be overused so that it will hinder the speed and performance of the site.

### ***Security***

Security is one of the major concerns of e commerce. All the e commerce sites should have a mechanism to protect the information provided by the customers. A website in order to ensure that it is safe need to acquire a SSL certificate from a Certificate Authority (CA).

(Merwe & Bekker, 2003) states that security is one of the main technical components coming under the facts that are used to evaluate an e commerce web site. (Alsmadi, et al., 2009) identifies two factors which needs to pay attention regarding the security of an e commerce web site. According to them, it is essential to have a CA along with a e payment system with high security.

### ***Software and Payment options***

When planning on using an e commerce website, a company must decide whether to purchase it or build it by themselves. Even though there are several platforms such as Apache Web Server, Linux Operating System, MySQL database and other options for free, they might not be having the capacity to handle the requirements of high traffic sites. Therefore, a company needs to pay attention to the software requirements as well as on the fact that whether they prefer to buy a built in software or make it by themselves.

Also a company entering into e commerce needs to consider the payment options available for their customers. One click payment option is essential when entering a highly competitive market place as your competitor is just one click away. Therefore, the security and the ease of the payment systems need to be considered very thoughtfully. Payment gateways are used to act as a virtual point of sales. Payment gateways will provide several options of payment from which the owner of the e commerce website can decide from. These methods include the likes of Visa, PayPal, Master and AmEx. Also a company needs to consider how it will get the funds. Some online stores let customers pay once the shipping process has started while some prefer the funds to be transferred to the merchants account at the time of the sale.

### ***Search Engine Optimization (SEO)***

Search Engine Optimization is the mechanism of getting a website to be listed on the top of the results page of search engines such as Google, Yahoo and Bing. E commerce sites find SEO as a must for the success of their online store. Search Engine Optimization can attract more customers to e commerce websites thereby increasing the number of purchases made. Search engines uses few methods to show the content that is delivered through the results page. Crawling, indexing, and calculating the relevancy are few such methods. SEO can be done through mainly two methods, namely on page and off page SEO. These methods use techniques like having good content, using appropriate keywords, using suitable titles and creating links to get into the top of the search engine results page.

### ***Network and Hardware requirements***

When considering the hardware requirements for web sites which may attract high-traffic, will depend on several factors such as how many transactions are carried out per second, number of queries to be dealt with in a second, number of hits occurring in a second, how many queries handled by the RDBMS in a second; how many pages can be served in a second with all other factors. The attention needs to be given to the usage of backup servers when setting up a high traffic e-commerce site. The number of backup servers will depend on the size of the business.

When considering the networking requirements, high bandwidth should be considered as a priority. The Internet Service Providers should be selected with careful consideration. The networking component will be comprised of but not limited to routers, ports, protocols, fiber optics, wireless communication channels and firewalls.

Especially a company which plans on taking up an e commerce venture needs to decide how they are going to host the web pages. The decision needs to be made on the fact that whether the company is going to have their own web servers or are they going to use the service of a hosting site. There are several web servers including Apache HTTP Server, Internet Information Server (IIS) and WebSphere. Since maintaining a



webserver can be extremely troublesome it is advisable that specially small and medium companies go with hosting sites such as GoDaddy.

### ***Financial Competencies***

A company that plans on taking up an e commerce initiative needs to have a strong financial background to carry out the necessary operations. Even though some falsely believe that e commerce requires less finance, actually it needs cash as much as any other traditional business needs. The financial sources, along with the expected expenditure and make or buy decisions need to be made well before starting the e commerce venture.

### **Product and Marketing Techniques**

When launching a web site for electronic commerce, a company must come to the decision of what the company plans to sell. A seller does not necessarily need to develop a new product, instead should consider how he can sell the product to the new online customer base. It is essential that a company gets a clear idea on the product they wish to sell based on a market research. Some companies, may try to sell everything they have, online. Even though this is possible, it is not always practical. Therefore, the product to be sold should be considered under practical scenarios.

When marketing on the web, a company must make sure to understand the market segment they wish to address. This segmentation can be based on several factors such as demographics (age, gender, nationality, race, income level etc.) behavioristics (what is the status of the user, what does the user expect from the product, how ready the user to buy the product, usage rate), psychographics (activities, interests) geographic (location of the customer).

Some online stores prefer to sell their products to local markets while some wish to sell the products to a worldwide audience. Based on these preference marketing techniques need to be followed.

It is also important to identify the possible marketing techniques. Social media is a popular marketing method for online shops. Since most of the people are currently using social media as a source of getting information, a retailer can have his advertisements on social media sites to get the attention of the possible customers. Other popular methods include, pop up messages, pop under messages, banners on popular web sites and sharing information through emails.

### **Packaging, logistics and shipping methods**

One of the most important components of online stores is that they ship the product to other countries so that the customer will get the product they ordered to their door step. Even though this seems like a good thing from the customers' perspective, a seller may have to go through many obstacles to ship product to overseas.

Mainly a seller needs to focus on the packaging of the product. It obviously is based on the type of the product. Especially when the product needs to be sent overseas via shipping or by air mail the packaging needs to be done with a lot of care. The expenses for packing the products will include cost for boxes and containers, bubble wraps, envelopes and labor.

Unlike physical stores, or click and mortar companies, companies which carryout transactions purely through the websites do not have a physical location to display their product. Yet they too need a warehouse in which they need to store their products. Goods need to be stored and sent to be shipped on a timely basis. Therefore, the logistics department of an e commerce business venture is quite important.

Most of the online customers expect goods to be shipped without charging an additional fee. Most of the online stores have the option of filtering the products which are shipped for free. It goes on to show how important this feature is. In reality the shipping is an expensive process. The online store owner needs to decide which shipping method is to be used. The cheaper methods such as postal service may take several business days to send the products to a customer while paid services such as FedEx or DHL takes less time. The customers make it a point to find sellers who provide free shipping and delivers products sooner than other retailers. The online retailers need to address this dilemma carefully in order to not to lose the customer. Also the retailer needs to find a safe and reliable shipping method.

There will be taxes imposed on the products that are to be shipped especially if they are shipped overseas. Therefore, it is essential to have a trained staff which is capable of handling all the shipping aspects of an e commerce business venture.

### Legal framework

There are several rules and regulations which needs to be adhered when carrying out online transactions. All most all countries use legal frameworks to remove legal barriers and enforce legal certainty necessary for e-commerce ventures.

Therefore, before starting an online store it is important to understand the legal context of such venture. Every online store is required to have a privacy policy and terms of use. Strict adherence to these policies are expected from all parties and therefore it is essential that careful consideration is given to the preparation of such policies before the launch of an e commerce site.

### 4. CONCLUSION

This study was carried out with the intention of identifying the factors which need to be considered when developing online markets. This study was based on secondary data collected through reliable sources such as journals, books and trusted web sites.

The data collected through journals and other publications were thoroughly analyzed to identify the most essential components of e commerce when used as a technique for market development. E commerce was critically analyzed to understand the merits and demerits of it. Currently available market development techniques and other related factors were given special attention during the data collection and analysis. These factors along with other important factors were analyzed to find a connection between e commerce and market development techniques.

Four main categories of important factors for e commerce based market development were identified. These four components are: technical and financial capabilities, product and marketing techniques, packaging, logistics and shipping, and legal framework. Each of these components comprises of several other sub factors which needs to consider under the given categories. The sub factors are considered in a broader sense and shouldn't be interpreted using narrow definitions. All these factors can be used to understand the essential aspects which needs careful consideration before launching an e commerce web site.

### 5. REFERENCES

- [1]. Aldridge, A., Forcht , K. & Pierson, J., 1997. Get linked or get lost: marketing strategy for the Internet. *Internet Research*, 7(3), pp. 161 - 169.
- [2]. Alsmadi, I., Alhami, I. & Alsmadi, H., 2009. The Requirements for Building an E-commerce Infrastructure. *International Journal of Recent Trends in Engineering*, 2(2), pp. 7-9.
- [3]. Asokan N, Janson P.A, Steiner M & Waidner M, 1997. The State of the Art in Electronic Payment Systems. *IEEE Computer*, 30(9), pp. 28-35.
- [4]. Bakos.Y, 1998. The Emerging Role of Electronic Marketplaces on the Internet. *Communications of the ACM*, 41(8), pp. 35-42.
- [5]. Beane, . T. & Ennis, D., 1987. Market Segmentation: A Review. *European Journal of Marketing*, 21(5), pp. 20-42.
- [6]. Cao, M., Zhang, Q. & Seydel, J., 2005. B2C e-commerce web site quality: an empirical examination. *Industrial Management and Data System*, 105(5), pp. 645-661.
- [7]. Combe, C., 2006. *Introduction to E-business*. 1 ed. Burlington, MA 01803: Elsevier Ltd.
- [8]. Eroglu, S. A., Machleit, . K. A. & Davis, . L. M., 2001. Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business Research*, 54(2), p. 177–184.
- [9]. Kalakota, . R. & Whinston, A. B., 1996. *Frontiers of Electronic Commerce*. 9 ed. New Delhi: Pearson Education India.
- [10]. Lawrence, J. E. & Tar, U. A., 2010. Barriers to ecommerce in developing countries. *Information, Society and Justice*, 3(1), pp. 23-35.

- [11]. Lee, C. S., 2001. An analytical framework for evaluating e-commerce business models and strategies. *Internet Research*, 11(4), pp. pp.349 - 359.
- [12]. Merwe, R. V. d. & Bekker, J., 2003. A frame work and methodology for evaluating e commerce websites. *Internet Research:Electronic networking applications and policy*, 13(5), pp. 330-342.
- [13]. Wind , Y. & Robertson, T. S., 1983. Marketing Strategy: New Directions for Theory and Research. *Journal of Marketing*, 47(2), pp. 12-25.

