Strategic Decision-Making
In the Emerging Field Of E-commerce

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ABSTRACT

Electronic commerce is changing the traditional way of doing business and furthermore the growth of the Internet is creating new opportunities for business. This paper discusses how the nature of electronic commerce affects strategic decision-making. First, some features of electronic commerce are identified that distinguish it from traditional business - new markets and knowledge-based competition. This is followed by a review of literature on the theoretical background of e-commerce an academic consideration on what are e-commerce strategies. This paper then introduces some of the most common strategic tools used in decision –making, concepts for creating competitive advantage and value chains. Porter's Value Chain Theory, Five Forces Model is examined in the emerging world of e-commerce, as well as generic competitive strategies.

Keywords: E-commerce, Strategic Decision-Making

INTRODUCTION

E-commerce is defined as buying and selling products/services over the Internet and the use of computer systems to improve overall company efficiencies. It normally consists of trading which takes place through a buyer visiting a seller's website and making a transaction. Wysocki and DeMichiell (1997) stated that electronic commerce encompasses all business conducted by means of computer networks. It reflects a paradigm shift driven by two primary factors, a wide range of converging technological developments and the emergence of a so-called 'knowledge economy'. Recent advances in information technology have moved the Internet to the center of a global economy. The Internet has transformed global business activity by facilitating instantaneous, inexpensive contact among sellers, buyers, investors and advertisers anywhere in the world.

Pine (1995) argue that companies today are confronted with dramatic changes that require innovative answers, among these are the emergence of a competitive global economy, a trend towards an information based economy and a shift from mass production to a customer-driven economy.

E-commerce now creates the opportunity for companies to reach around the world with the click of a mouse. It has globalized almost every industry making it possible to purchase goods or services from around the world from your own home or business. This has created a more competitive environment making in necessary for business to strategically plan every aspect of their company according to their e-commerce strategy. It has allowed corporation to diversify from current distribution channels into new markets never before imagined possible. Afuah, Allen and Tucci (2001) suggested that the Internet has the following properties (a) mediating technology that interconnects parties (b) it is universal (c) it has network externalities that is greater the use, the greater the value, it act as a channel of distribution and is a transaction cost-reducer.

"IBM defines e-commerce in terms of business benefits that go beyond improving processes to leveraging the Web to bring together customers, vendors, suppliers and employees in ways never before possible, and Web enabling your business to sell products, improve customer service and get maximum results from limited resources" (Baker, 1999). This definition suggests that the concept of Porter's (1985) value chain theory can be a model use as a strategy between innovation and efficiency.

DEVELOPMENTS IN E-COMMERCE STRATEGY

E-commerce has allowed organizations to expand in areas that seemed to be at their peak performance. It has helped companies create more value, gain a sustainable competitive advantage, maximize profits, create better production efficiency, increase their product quality, and finally increase productivity. The increase in amount of information made available by the Internet has allowed organizations to maximize efficiency make better strategic decisions that impact the companies overall performance and success. Obviously, e-commerce had had a huge impact on all facets of the world of business according to the Economist (2000); electronic commerce first developed in the United States and then became world wide electronic commerce.
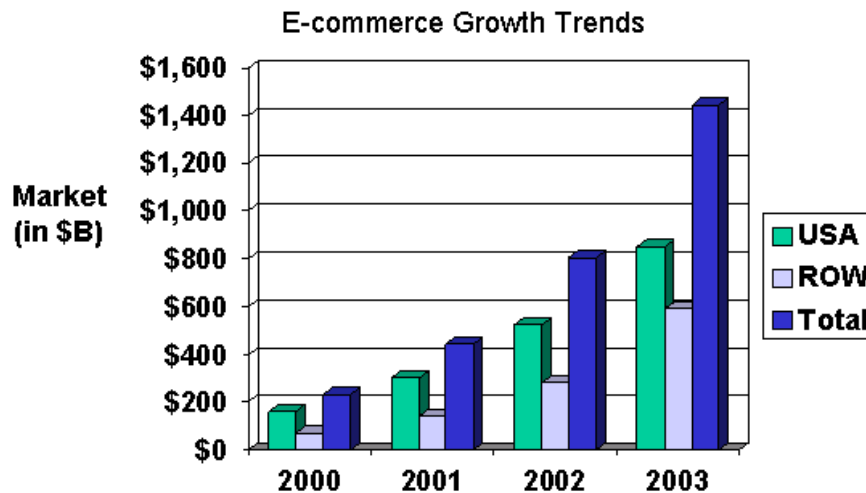
Porter (1985) suggested that companies mainly adopt three kinds of strategies (a) reducing their costs, (b) diversifying their distribution channels and targeting new markets and (c) improving the service to their clients and quality of their offering. Most companies try to elaborate their strategy between these extremes and investigate both their innovation by diversification and improvements and their efficiency in terms of cost reduction. The introduction of e-commerce also forces companies to adapt to new technology in an effort to remain competitive and survive in the marketplace. In adapting to new technology, organizations may undergo strategic and structural changes and may even transform the way in which they do business. Most organizations may choose not to operate traditionally any longer, but may move to a fully on line e-commerce environment. Some may decide to go for 'click and mortar', however with both approaches substantial changes are inevitable if their organization is to operative effectively.

New technologies require new organizational approaches. To be flexible and responsive to the market, new processes need to be implemented for the use of e-commerce, since its use significantly redefine conventional sales and marketing strategies. This typed of corporate change must be planned and managed. Porter's (1985) value chain theory is a well-known model in the study of business and information systems management. This model helps organizations identify and determine what and how value is added to a particular or service. The concept of value chain and its activities that consists of (inbound logistics, such as purchasing raw materials) production or operations such as designing a product or service, outbound logistics (such as shipping and delivery) marketing and sales service and support activities (procurement, technology development and human resource management. It can be said that electronic commerce affects the peripheral activities (inbound logistics, outbound logistics, marketing and sales, service as well as procurement). Therefore, electronic business could be defined as the complete orientation of all organizational activities, meaning that not just contact with suppliers and customers but also the internal communication with administration is moved onto the Internet or Intranet.

E-commerce is separated into four main areas, business to business (B2B), business to consumer (B2C), consumer to consumer (C2C), and consumer to business (C2B). Each of the industries run a combination of traditional business and technology, helping the company become more productive, increase market share, increase sales and become more productive. Business to Business is the industry most influenced by e-commerce, it is estimated that by 2005 more then 500,000 companies will be a part of an e-commerce transaction either as buyers, or sellers. Companies are now able to make more efficient purchasing with the assistance of e-commerce and the amount of information made available by the Internet. The Internet has created a new marketplace for transactions to take place, and companies have taken advantage of the internet to its fullest. Several companies (General Electric, Cisco, Oracle) have transferred most of their procurement, purchasing, sales and service activities to the internet (Economist 2000) causing a significant reduction in average transaction and service cost.

Business to Consumer e-commerce has also created new opportunities for organizations to expand their sales. E-commerce allows companies to reach consumers that were never imaginable before the Internet. Companies are now able to reach customers in their own homes, without having to physically come to the store or go through the process of ordering from a catalogue. This creates new markets for the business, and saves them the cost of printing and shipping catalogues. B2C companies can either be purely web-oriented companies like Amazon and Dell or have no standard retail operation or companies like Toys R Us and Walmark that have an added internet as an additional sales channel to their existing brick and mortar organizations.

The major threat to online business to consumer retailers is security. Many consumers are skeptical of hackers and fake websites stealing credit card information, and identity. It is a major challenge that organizations face to continuously upgrade security features making online sales safe and attractive to customers. Some retailers turn to the Internet to provide customers with discounts. Companies like Old Navy provide everyday low prices on their website by creating virtual online outlet stores selling outdated or overstocked items.

Consumer to Consumer e-commerce creates an opportunity for consumers to buy and sell new and used goods from other people around the world. Online auctions give customers the opportunity to purchase goods that may not be available in stores or at a cheaper price after being used. Consumers are able to find collectables or find buyers for any good they want to sell, all without leaving their own homes. Companies like eBay, offer a marketplace for consumer-to-consumer transactions. Much like a flea-market but without the limitations to a physical location. Ebay provides only the 'space' for the display of the products, organizes the bidding process and gets the partners into contact, however, it takes no active part in the settlement process.

Consumer to Business e-commerce is the smallest of the four sectors. It provides customers an opportunity to market their ideas to large companies. An example of consumer to business e-commerce is letsbuyit.com. This organization provides entrepreneurs the opportunity to show off their products in hope of gaining new suppliers and greater market share. Another example would be individuals being able to place their needs for a mortgage online and having companies bid to find which company best fits the customer needs. Another example is priceline.com C2B marketplace gives consumers the opportunity to make offers and businesses of either accepting or declining the offers. The businesses have a variety of offers to choose from and can decide which and how many offers by consumers they want to accept.

LITERATURE REVIEW

Many researchers have argued and examined e-commerce and have looked at its success, innovation and its implications for strategic decision-making. Hodgetts, Luthans and Slocum (1999) described how e-commerce can change the way managers think about customer value, both in the creation and the delivery of value. Not only speed and agility is important, but reduced transaction costs mean organizations can connect to any entity connected to the Internet at any time for any type of communication with relative ease. Jallat and Capek (2001) suggested that there must be an increased emphasis on the information value chain. Thus, they proposed that managers should carefully evaluate where their firm currently fits and where it could fit into the information value chain.

Cronin and Crawford (1999) claimed that e-commerce has changed the rules by increasing the likelihood of strategic surprise. This in turn requires managers to think more carefully about protecting their information assets

and assessing the threats that exist in a high speed, high technology world. It seems therefore, that there must be a revolution in manager's mental models as they consider the threats that exist in their environment and as they invest in asset protection, which now must include their knowledge and electronic assets as well as physical assets. Hodgetts, Luthans and Slocum (1999) argued that this emphasis on knowledge assets will redefine managers' roles and erode the traditional boundaries that have defined the relationships between individuals and organizations. In a speech, Nasser (2000), who at the time was the CEO of Ford, stated that the new economy is about using new technology to create new possibilities. He also framed this challenge as shifting from managing hard (physical) assets to intellectual assets. To meet this challenge, Ford has invested in upgrading all employees' computer abilities through a program for low cost computer and Internet access for every employee's home. Clearly, a manager in an e-commerce world must have a mindset oriented towards developing every bit of intellectual ability of each employee, and then integrating those abilities to create new capabilities in the wired workplace.

Schuette (2000) concluded that cultural issues will change the business model. First, e-commerce is not always viewed as trustworthy by customers; there is a cultural barrier to doing some types of business online. Second, there is an internal cultural barrier in many organizations, because some employees are not comfortable with the highly technical aspects of e-commerce, yet are unwilling to yield control of business functions to newer employees. Third, there is a cultural barrier to other stakeholders' acceptance of e-commerce as a valid part of an enterprise. Schuette (2000) described the fear that partners involved in channels of supply or distribution often exhibit when ecommerce is mentioned because of the disinter mediation that often takes place in e-commerce. Thus the value channel partners may flee to competitors if they fear being cut out of the loop. Bingi, Mir and Khamalah (2000) examined the global implications of e-commerce and concluded that e-commerce is "altering the contours of space and time, reshaping the meaning of value, shifting power to consumers and reinventing the nature of management".

Herman (2000) stated that e-commerce strategy is based on an integration of traditional strategies and forward thinking. He suggested six areas that must be covered to develop a complete e-commerce strategy: situation assessment (threats and opportunities), scope and scale of operations, customer interface initiatives, supply network initiatives, industry level initiatives, and administrative/internal initiatives. Further, Herman (2000) described another set of issues to be addressed that he labeled "architecture"; the goal of these issues is to determine strategic positioning. His issues are: What are the changes required for a true transformation? What are you optimizing for? How are people, processes and products/services going to change? What new interfaces are required? What holds the organization together?

Long (2000) believed that a key success factor in the new economy is strategic agility, that he defined as "a clear conception of strategic intent supplemented with an array of tactics that are constantly adjusted to remain true to that intent as you respond to the various changing circumstances in your environment". Strategic agility must be an attribute of the mental models of managers rather than just an attribute of the organization, and strategic agility is clearly required to survive in a hyper competitive environment. Long (2000) also defined seven facets of strategic agility: a clear vision, knowing the clients, understanding core capabilities, selecting strategic targets, sharing responsibility, knowing competitors, and taking action.

Porter (2001) suggested that the Internet is only one influence upon any business decision. He argued that traditional factors such as scale, process technology, and investments in assets remained key factors in developing competitive advantages. Using his traditional Five Forces, Porter (2001) decided that e-commerce simply alters competition by decreasing barriers to entry and increasing customer power. Thus, he concluded that strategic positioning remains fundamental, and is vital to success in the world of e-commerce. Andrews and Nast (2000) proposed a very basic set of steps to e-commerce success that mirrors traditional strategic analysis and includes items such as monitoring customer preferences and assessing risk versus reward. Lee and Whang (2001) suggested that matching the situation to the strategy chosen is key to e-commerce success; they defined the concept of situation in very traditional terms, such as the business environment and the characteristics of the products sold. Epstein (2000) recommended that structure, strategy and systems all need to be aligned before one can successfully implement e-commerce strategies. Further, Epstein (2000) prescribed integration of e-commerce strategies into existing business as the ideal, and suggested that distinct e-commerce segments should exist only when distinct segments are the only way to provide the speed and agility necessary to compete.

Porter and Miller (1985) discuss the strategic advantages created by e-commerce by stating that "the information revolution is sweeping though our economy…and no company can escape its effects."(2001) The article focuses on how management has to deal with the changing environment and how to respond to the fast paced changing world of e-commerce. Throughout the article the authors focus on answering three questions: "how will advances in information technology affect competition and the sources of competitive advantage? What strategies should a company pursue to exploit the technology? What are the implications that competitors may already have taken? And finally, of the many opportunities for investment in information technology, which are the most urgent?

Clemons and Row (2001) discussed the importance of cooperation "nature of industrial relationships is undergoing a significant change, and that cooperation is becoming increasingly important in the modern business environment." They go on to discuss how the nature of business has changed with the introduction of e-commerce and how IT reduces coordination costs making companies more efficient and profitable.

For example companies in the banking, insurance and news industries are already using high levels of information technology in the product and process, whereas companies in the oil refinery business are just now starting to incorporate information technology into its product dimension.

Venkatraman and Henderson (1998) discuss how interaction at all levels from producer to consumer has been facilitated with the introduction of e-commerce. The authors argue that information flows from a multistage distribution network involving wholesalers, retailers, customer service agents, and franchises. The introduction of e-commerce has allowed for the "emergence of a global, digital economy that allows for establishing and leveraging a two-way information link between a company and its customers.

Venkatraman and Henderson (1998) outlined nine challenges to corporate managers that must take place to make the transition information age businesses:

1. Shifting value Drivers
2. Designing the new business world
3. Governing beyond outsourcing
4. Interacting with customers for knowledge leverage
5. Navigating across multiple communities
6. Deploying an integrated IT platform
7. Allocating recourses under uncertainty
8. Designing an organization for knowledge leverage
9. Assessing performance along multiple dimensions.

One of the main areas that is most influenced by e-commerce is supply chain management. Buyers and sellers are now able to interact in an intelligent, multidimensional marketplace that connects multiple trading exchanges. This makes purchasing more convenient for consumers, enabling them to coordinate orders from many suppliers to fit their logistical activities. Managers are now able to collaborate customers and suppliers effectively and efficiently through the use of e-commerce that in the long run will help the company increase market share, reduce costs, minimize inventories and improve profits. (Donovan 2000)

According to Donovan (2000) one of the main goals of supply chain management is to synchronize suppliers, manufacturing, distribution, retailers and customers into an efficient and organized flow of information and materials. Companies are attempting to provide to their customers the right products/information, at an acceptable quality, at the right time, at the right price, without having excessive amounts of inventory.

Companies seeking to increase market share are especially concerned with improving supply chain management. They must focus on getting rid of non-value adding activities and trimming unnecessary middlemen. It is in the supply chain management where the company can have considerable cost savings and maintain the greatest competitive advantage.
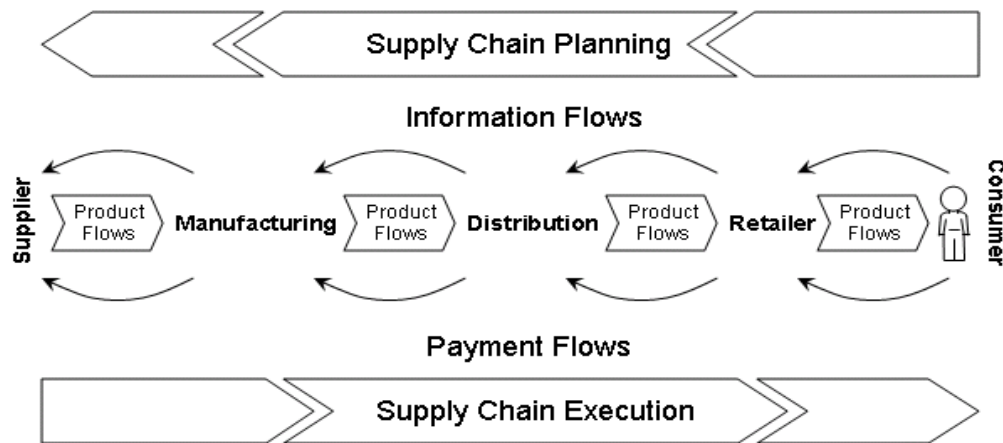
STRATEGIC CHALLENGES OF E-COMMERCE

Having reviewed the literature, it is clear that there is a relationship of strategy formulation and e-commerce. The tools used in strategic decision-making are very important to e-commerce. For example SWOT analysis is an effective tool for assessing ways to enter e-commerce because it can identify the strengths e-commerce can build upon and weakness that can be minimized through use of the Internet and opportunities in the world wide web. Jallat and Capek (2001) argue that this perspective is vital as firms examine their opportunities to innovate within their current value chain and examine how they could fit into other value chains.

Porter's Five Forces Analysis and Generic Competitive Strategies can analyze the changes in the competitive environment of the firm that arises from e-commerce and possible strategies that firms should follow when facing increased competition from e-commerce.

The Five Forces

Threat of New Entrants

The 'Threat of New Entrants' describes the competitive pressure that arises from the possible entry of new competitors. This is determined by likely reactions of establish competitors to new competition and barriers of entry that prevent new possible competitors from entering the market. In e-commerce there are reduced barriers to entry such as the need for sales force, access to channels and physical assets.

Threat of Substitutes

Substitutes are similar products that could replace the produced product. In e-commerce the treat of substitutes changes if potential substitutes can be delivered cheaper that the existing product or service. On the plus side by making the overall industry more efficient, the Internet can expand the size of the market.

Bargaining Power of Suppliers

The bargaining power of suppliers is an important force because the cost of material can be one of the most expensive of the overall costs. E-commerce can usually make a wider selection of potential suppliers accessible since market places can connect buyers and sellers from many distances. Therefore, e-commerce can integrate suppliers and lower its transaction costs. Procurement using the Internet also tends to raise the bargaining power of suppliers. The Internet also provides a channel for suppliers to reach directly to end-users.

Bargaining Power of Customers

E-commerce enables a firm to bypass intermediaries. The use of the Internet as a channel of distribution can enable the firm to offer the product at lower costs while at least maintaining its profit margin. The focus of e-commerce requires a shift from price and product towards the value created for the customer. The marketplace is driven service by added value information.

Porter's Generic Competitive Strategies

Porter's Generic Competitive Strategies are (a) Cost leadership, (b) Differentiation and (c) focus emphasizes two important dimensions for e-commerce cost and differentiation. The importance of differentiation in technology, service, and market is important to e-commerce. Firms need to follow a positioning strategy in order to achieve sustainable competitive advantage. Technology leadership is required to compete in these markets as well as a focus in building relationships with customers or even potential customers to customize the product and provide the most value adding effect for customers. Market leadership is also an important differentiation. The firm must develop a strong position within the market and also focus on expanding the existing market.

Having a clear focus will provide the framework for the organization to build operations and support systems using technological solutions. Differentiation can help the firm establish a brand image which should be the key to a successful e-commerce strategy.

CONCLUSION

The strategic issues and factors discussed in this paper suggest that all organization need to have a clear strategic vision when designing an e-commerce strategy. This is needed to focus the organization and provide the leadership on the changes that come with e-commerce. This strategic vision and leadership needs to be communicated at all levels of the organization for reaching strategic objectives. The purpose of this paper was to analyze weather or not the traditional strategic tools are applicable to electronic commerce and how a firm can adapt to this information based economy. Based on the review of literature it is clear that traditional strategic planning is still needed to carefully develop strategy for operational efficiency and gain a sustainable competitive advantage.

Electronic commerce has profoundly changed the business world and for companies to compete in the emerging digital economy, companies need to develop e-commerce strategies and consider strategic solutions. Through focusing on the value for customers in terms of costs, product and services, companies can build or join networks for coordinating value chains which will establish customization, relationships and customer intimacy. The future of e-commerce must be strategically planned with a clear focus, vision, mission and strategic objectives using the tools of strategic decision-making.

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