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Entrepreneurship and Innovation in E-Business

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Abstract

The fast growth and business successes of eBay, Amazon.com, priceline.com, etc. and the bankruptcy of numerous dot.com companies worldwide in the late 1990s has held potent management implications for IT innovation and entrepreneurial organizations worldwide. Entrepreneurship and innovation are emerging disciplines for proactively responding to changes in the e-commerce world. This paper explores the synergies between entrepreneurship and innovation and investigates their roles in organisational development in general and dot.com companies in particular.

Keywords: innovation, entrepreneurship, e-commerce, business, technology

INTRODUCTION

Digital technology has transformed the economy. Value creation for customers has shifted from the physical good to an economy that favors service, information and intelligence as the primary source of the value creation. At the centre of this economy transformation is e-commerce.

E-commerce is closely links and relates to the use of Internet. Internet-enabled business practices have actually engaged the world very quickly and with exponential growth rates in the use of internet continuously occurring. The Internet is a crucial aspect of the information economy and it provides new stages for business and allows access to new markets. E-commerce is believed to have created a new role, impact as well as another dimension for business applications. The dot-com crash in year 2000 has created new challenges and new opportunities to entrepreneurs. In this competitive world, e-entrepreneurship and innovation assist organization to gain competitive advantage to hold key to their e-business success.

Globalization and information technologies are radically changing the face of business and organizations. There is a growing interest in the use of e-commerce as a means to perform business transactions over the internet. In the past few years, the term of e-commerce is everywhere across the entire world. People define e-business in various ways and images that it has no standard definition. E-business or e-commerce is often interpreted as selling products over the internet. In its broader sense, e-commerce can be interpreted as the use of electronic transmission mediums to engage in the exchange, including buying and selling, of products and services requiring transportation, either physically or digitally, from location to location. Electronic commerce involves all sizes of transaction bases and it requires the digital transmission of transaction information.

In commercial point of view, e-commerce can also be defined as transaction activities between firms and individuals, also it involves in the exchange of money, goods or duties. This definition clearly excludes email, telephone, fax, as well as internal computing accomplished by accounting sales, inventory, treasure, personnel or executive information systems. In short way of expressing this definition will be by excluding inter-organisational systems in total. There are many forms of commercial transactions that can occur in daily life from business to business or B2B such as electronic data interchange, auction markets etc. Commercial transactions can also occur in B2C or business to consumers, such as retailing in the internet and electronic brokerages. E-commerce has tried to take advantage of economies in single point keying to reduce errors and cycle time, a high degree of customizability of product or services to meet customer needs and customer interaction with databases at very low marginal cost.

LITERATURE REVIEW

The purpose of this paper is to investigate and analyze the role of entrepreneurship and innovation in e-business. A review of principal and current literature on e-business perspective of entrepreneurship and innovation was undertaken to collate the existing theories about the two and to explore the conceptual relationships between them.

Innovation

For many years, R & D (research and Development) has been closely associated with technological innovation. Invention is the narrowest definition of innovation. According to Drucker (1994), there were seven basic sources of opportunities to innovate but only one of them was to do with inventing something new. Therefore, innovation is more than invention and does not have to be technical. There are numerous examples of social and economic inventions. Innovation is a proposed theory or design concept that synthesizes extant knowledge and techniques to provide a theoretical basis for a new concept (Sundbo, 1998). Innovation thus has many stages and is multidimensional. The most prominent innovation dimensions can be expressed as dualisms; radical versus incremental, product versus process; and administrative versus technological.

Innovation can be radical and incremental. Radical innovations refer to discontinuous, revolutionary, original, basic or pioneering innovations. Incremental innovations are small improvements made to enhance and extend the establishment processes, products and services. Kanungo (1998) stated that product innovations reflects change in the end product or service offered by the organizations, whereas process innovation represents changes in the way firms produce end products or services. Some researchers have categorized innovation into technological and administrative innovations. Technological innovation is about the adoption of a new idea that directly influences the basic output processes whereas administrative innovations include changes that affect the policies, allocation of resources, and other factors associated with social structure of the organization. For the purpose of this research, innovation is defined broadly to include new products, new processes, new services, new forms of organisation, new markets, and the development of new skills and human capital.

Maintaining a Competitive Advantage with E-commerce

E-commerce is becoming a key aspect in differentiating products an services from one another. For many mature industries, the commoditization of product offerings is reality. In these cases, differentiation is becoming more difficult and more costly, thus placing further stress on profit margins. Organisations that take advantage of e-business may be able to offer substantial forms of differentiation, enabling enterprises to achieve more significant margins. They can enhance their services, augment their products with web-based information, or speed up search an information processes.

A sustainable competitive advantage is a competitive improvement that cannot easily or quickly be emulated by competitors in the short-term. As technology is often easily copied or purchased, it does not automatically create a sustainable competitive advantage. Competitive advantage base on the new information systems can, however often is maintained: dynamics of IT in the organization lie in the interactions between the technology an business context. The success of IT applications lies in fitting with specific organizational strategies. Competitors within a short to medium period of time will not be able to duplicate the major factor of these contexts, including business strategies, organizational structures, corporate culture and politics. The notable names in the internet e-commerce have entered existing markets or created new markets using web technologies at a time when the entry cost to those markets or create new markets using web technologies at a time when the entry cost to those markets were low an the elements of surprise was greatest. In producing technologically sophisticate sites an developing their supply chain logistics, they have considerably raise the entry cost for newcomers to those markets. They nee to continue to develop their sites and their service to keep ahead of the competition but their most precious asset is the brand name that they, as first movers, have established for themselves.

Identifying the Strategic Opportunities of E-business Innovation

E-business innovations are digital transformation of business processes which has a profound effect upon existing business practices (Pulley et al., 2000). In addition to that, according to Singh (2004), e-business innovations are about embracing change to company culture, which has been generally described as a system of shared meaning within an organization determining the way employees act. E-business in organizations is linked with the internet and the growth in the use and application of computers. The identification and establishment of strategic opportunities of e-business for the firm will lead to an understanding of the innovation and its justification for improved business, competitiveness and customer service. Hackbarth and Kettiger (2000) suggest a four stage strategic breakout model addressing initiation, diagnosis of the industry environment, breakout to establish a strategic target and transition or plotting a migration path, emphasizing need to innovate away from traditional strategic approaches using the term ‘breakout’ to show the need for new marketplace structures and business revenue models. It has been suggested for a short term planning horizon for e-business projects, an iterative strategic planning cycle to incorporate the pace of technological change, an informational power bases for access, control and manipulation of critical information instead of a positional power base and the core focus to be on customers rather than the factory and the production of goods. Kalakota et al. (2000) emphasis that the focus of e-business strategy may differ depending on the evolutional state of e-business, suggesting that the focus will transform from selling channels to value-chain integration and creation of values networks.

The strategic importance of e-business should be carefully analysed on the basis that it contributes positively to the competitive advantage edge of a company through the benefits it offers. The speed at which change may occur in e-business is indicated by the speed which new access technologies are adopted. Although an entrepreneur may have a strategic plan to introduce s-business and associated changes, the responsibility for the choice of implementation and financial evaluation of e-business innovation is invariably given to technical staffs, who sometimes fail to perceive e-business as part of company strategy. Other issues to consider are the financial position of the organsiation for the required investment, the ability of a company in terms of resources to accommodate e-business, and if the innovation will conform to the business strategy of the organization.

Entrepreunership

According to Johnson (2001), entrepreneurship in its narrowest sense involves capturing ideas, converting them into products or services and then building a venture to take the product to market. A noticeable trend in the study of entrepreneurship in recent years has been drifted away from the subject of small business towards the concept of entrepreneurship. This present study reflects this trend by emphasizing the concept of entrepreneurship itself, rather than the personality or psychology of small business entrepreneurs. Entrepreneurship represents organizational behaviour. The key elements of entrepreneurship include risk taking, pro-activity and innovation (Miller, 2002). However, Slevin and Covin (1990) have argued that these elements are not sufficient to ensure organizational success. They maintained that a successful firm not only engages in entrepreneurial managerial behaviour, but also has the appropriate culture and organizational structure to support each behavior.

Every huge and well-known company in existence such as Coca Cola, Hewlett-Packard, Dell, and etc. were once established as a point start-up by a combination of an entrepreneur and an idea. E-commerce start-ups are no different in this sense: the entrepreneur is critical to the start-up's early development. The entrepreneur has the idea that evolves into a vision for a business. And although the Internet boom made entrepreneurship seem commonplace, the subsequent crash illustrated the difficulties of successful entrepreneurship.

The Conceptual Relationship between Entrepreneurship and Innovation

The economics of innovation, in particular, have attracted increased attention in recent years (Grupp, 2001; Arora et al., 2002; Stoneman, 1995). Sundbo (1998) summarized the basic theories of the economics of innovation and identified three competing paradigms in the current theoretical discussion of innovation:

1. the entrepreneur paradigm
2. the technology-economics paradigm
3. The strategic paradigm

The entrepreneur paradigm can be tracked back to the 1930s when Schumpeter (1934) first attempted to establish a linkage between entrepreneurs and innovation in theory, and viewed the entrepreneur as innovator. He maintained that innovation contributed to the growth of the economy because entrepreneurs produced innovations. The concept of entrepreneur as innovator underpins the entrepreneur paradigm in which the role of the entrepreneur is highlighted in the innovation process. According to this paradigm, only a person who founds a new company on the basis of a new idea can be called an entrepreneur. Entrepreneurship is viewed as a creative act and an innovation. Entrepreneurship is about creating something that did not previously exists. The creation adds value to the individual and the community, and is based upon perceiving and capturing an opportunity (Johnson, 2001). Legge and Hindle (1997) also expressed a similar thought. They regarded entrepreneurship as a change of state, a dynamic process and a unique event. They also believed that people who led teams and organizations to introduce innovations were entrepreneurs. Entrepreneurs seek opportunities, and innovations provide the instrument by which they might succeed. Corporate entrepreneurship often refers to the introduction of a new idea, new products, a new organizational structure, a new production process, or the establishment of a new organisation by (or within) an existing organization. As Kalakota et al. (1999) have observed that innovation requires three basic components; the infrastructure; the capital; and the entrepreneurial capacity needed to make the first to work. As time flies, the market evolves so does the basic components in linking the entrepreneurship and innovation. Entrepreneurship is linked with seven basic components in detail which includes finance, accounting, media, technology, strategic management, operation logistics and marketing.

Innovation is the specific tool of entrepreneurship by which entrepreneurs exploit change as an opportunity for a different business or service. There is a considerable overlap between entrepreneurship and innovation. Moreover, innovation has to address market needs, and requires entrepreneurship to achieve commercial success.

METHODOLOGY

This research paper aims to give a better understanding of the complementary nature of entrepreneurship and innovation through an empirical study of e-commerce companies. In order to acquire decent results, the authors has decided to use current literature review on entrepreneurship and innovation and case study analysis from different sources. In addition to this, interviews were conducted to examine the perceptions of entrepreneurs in e-commerce regarding entrepreneurship and innovation and the factors affecting the development and integration of entrepreneurship and innovations.

The main purpose of the literature review was to collate the existing theories and basic knowledge about the entrepreneurship and innovation and to explore the conceptual relationships between them. A review of the current literature on e-commerce as well as entrepreneurship and innovation was conducted. In addition web research was conducted to support the literature review. The sources provided by the web research were the most convenient and the fastest due to its accessibility. The analysis of some case studies has been done to support the literature review. Six case studies were undertaken to explore organizational behaviour and practice, entrepreneurship and innovation in e-commerce companies. In addition to the case studies, interviews were conducted in several companies to explore the conceptual relationship between entrepreneurship and innovation in e-commerce, and the factors affecting the development and integration of entrepreneurship and innovation. These interviews focused on how these e-commerce companies have been managed, how they have succeeded and what lessons can be learned from the experiences. Six companies participated in the interview.

Case Studies

The companies that were selected for the case studies encompass various business sectors: (ex; online book retailer, manufacturing company, pharmaceutical industry etc) operating in different nations and cultures, and moreover have different histories, varying in size and length of time in operation. Only three case studies are reported because of space limitation.

Case study 1 (Company A)

Company A is a successful online retailer who received an award for the most entrepreneurial internet site. In the beginnings the owners dreamt up the idea for a business that could take orders for gifts using the Web and which made sure that deliveries met deadlines. The company was founded in 1998. The business plan was developed in early 1999 and implementation of it started in mid 1999. The owners invested around $80,000 predicting that profitability would be achieved in 4 years by 2003. The website was first launched in July 1999.

The website had around 55,000 viewers each month in its first 3 months of operation and by Christmas 1999 the company was delivering gifts to around 30,000 homes. In April 2000 they successfully raised a further $15 million capital to scale up the business, making investments in online ordering and fulfillment operations in terms of staffing and infrastructure. Company A now employs around 60-70 employees and was consistently ranked in the top 10 Australian e-tailing websites during 2001. It has evolved its business model through various alliances and acquisitions and the development of other services and reward program for partners.

When company A was first established, there were two options for online retail business that were being considered by the founder. These are product-driven or build a business around customer need. The owners thought that the latter would be higher risk but more sustainable in the long run. From the outset they counted on two revenue streams, corporate gifts and individual gifts. The owners recognized that they were a direct marketing company and getting customers to the company website was the first problem that needed to be addressed. The owners took less costly approach in building their brand, believing that there were much smarter ways to make an income and attract and keep a loyal customer base. They implemented a number of coordinated strategies that provided discount incentives to get customers online and ordering from them, and believed that combining this with a superior shopping experience and customer service would give them the best change of getting customers back again without the discount incentives. The owners' view was that spending big on marketing would not only add to their costs but it would also take their focus off the main game, preventing them from investing in the core of the business – the technology, the people and automation. They preferred to build slowly and steadily from the ground up, managing growth so that the customer experience would not be compromised.

One of Company A's unique feature in the early days was the website itself – clean, uncluttered and easy to use, with a sophisticated search function to search by age, relationship, interest, occasion, price range and personality type to help customers find what they are looking for and a simple and yet user-friendly payment process that notes customer details so that they do not have to be re-entered when ordering again. Drop down boxes clearly tell the customer what they will have to pay for delivery, when they can expect it to arrive. This was vastly different from many other e-retailers websites at the time, which were difficult to use and navigate. Company A's success rests on creativity and ideas and then implementation and execution. The company uses technology to gear up the whole business around unparalleled service levels instead of competing primarily on price, even though they often sell at around 5-10 percent below the retail price. This explains to a large extent why much of the process, including most technology and design work, is retained in-house. The key exception is the credit card security system, which was purchased from an established name the business. In order to assure a superior customer service experience, Company A recognized that it needed to have control over the whole end-to-end customer experience. Customer's or shopper's experience has been a major determinant whether they would return again. It is a core guiding principle for the company, and timely delivery with a product was central to this. The owner believed that control over fulfillment as essential to ensuring customer satisfaction and being able to develop a loyal customer base so he decided that the company would fill its own orders and allocate the cost of packing and delivery to its marketing budget.

Case study 2 (Company B)

Company B was the first company to move book retailing from bricks and mortar industry on line. On top of that, no company so far has done more to show how the Web overturns conventional assumptions about distribution than Company B. Company B has become synonymous with e-commerce and it is one of the few Internet brands recognized all over the world. It is the most visited e-commerce website in the USA, and one of the top two or three in the UK, France, Germany and Japan. The Company B model is simple yet attractive. Company B began operating in 1995 by an innovative computer science graduate who realised the potential of e-commerce on the internet early so he conducted an analysis of 20 product groups and performed a value analysis of each one. The outcome of his analysis was books because of the category's larger size, greater diversity, and lower risk. The owner also believed that the large number of books title available made book selling an aptly-suited retail business on the Internet. Unlike the traditional bookstores, Company B kept a small inventory of books on hand which are usually the best selling items and ordered the books directly from book distributors or publishing houses when orders were place by customers using its Website. This business model, unlike that of bricks and mortar booksellers, allowed Company B to achieve inventory turns equivalent to 70 per year, as opposed to an industry average among traditional booksellers of approximately 2.7.

The owner believed that convenience, selection, price and customer service were the key factor of success for consumer buying books on the Internet especially in Company B. Like many e-business websites, Company B offered customers the opportunity to place orders at any time of the day, seven days a week. Visitors could browse through company's 1.1 million plus title catalogue by searching for a particular book by author, title, subject, or keyword. The entire inventory was seven times the inventory of the world's largest mega-bookstore and 30 times the size of an average mall bookstore. Approximately one-third of the company's book inventory was available at 105 off suggested retail price. It provides a simple and user-friendly service for the customers when they order the books for the first time – simple 12 step procedure that involved providing name, mailing address, email address, and credit card information. According to the owner, delivering the books ordered within the time frame promised was crucial to the company's reputation.

During 1997, the war of electronic bookselling was fought along seven dimensions. They were pricing policies, customer acquisition, associates/affiliate programs, personalization, customer service, user navigation, and legal challenges. In 1997, Company B sustained an operating loss of approximately $27.6 million on net sales of $148 million, compared with a loss of 45.8 million on $15.7 million sales in 1996. Despite these losses, the owner felt that the company was succeeding along the three dimensions of strategy that would position the company for long term success: extending the company's brand position in the online world; providing outstanding value to users through users superior online shopping experiences; and achieving significant sales volume to realize economies of scale. During 1999, Company B had aggressively franchised in several ways. These included the addition of new product categories, increased distribution capacity, international growth and strategic partnership with several key online retailers.

As Company B expanded its retail categories to auction items, electronics, toys, home improvement, software and video games, the owner noted that the complexities of running the business increased and each individual product category was now managed by a general manager who oversaw a management team. To support the expanded product categories, Company B increased its distribution capacity to 5 million square feet and it had seven distribution centres in 1999. In addition to U.S. operations, Company B's United Kingdom and German sites were also in the top 10 most visited Website and leading e-commerce site for each respective country. Besides expanding its own operations, the company took equity in several other e-commerce companies as a way to allow its customer to receive a wider range of products and services as well as to generate additional revenue from these companies by helping them sell to the Company B's customer base.

Rapid and continuous innovation in the electronic commerce area has been Company B's heritage. For instance, in 1995 Company B was the first company to truly harness the power of the rapidly expanding Internet to provide an online book retailing service to customers. It has also been the first company to enable customer to search for and order, hard-to-find books as easily as bestsellers. Company B offered the 'one-click' program which streamlines the buying process by storing detailed customer information, including credit card numbers. In addition to that Company B has been the first on-line company to use collaborative-filtering technology, which analyses a customer's purchases and suggests other books that people with similar purchase histories have bought. Such valuable information has proven effective in capturing new markets online and mass customization. Furthermore, Company B has been the first online company to introduce two innovative processes to facilitate customer purchases. Through its acquisition of another company in 1998, Company B has developed comparison-shopping that gives customers a way of finding products that it does not sell directly. Reciprocally, Company B's affiliates program, which numbers over quarter of a million participants, directs customers from other sites to Company B store site.

Company B has also been the first online company to provide customer with reminders and tracking of their orders through e-mail alerts. Consequently, Company B's innovative history suggests that the company could become a dominant provider of online shopping behaviors in the future. As such, Company B has stayed ahead of competition by rapid and continuous innovation. It must be pointed out all these innovations are quickly imitated by other e-commerce companies. Although competitors were able to free ride on the technology and Company B's innovations, Company B's 20 months head start online over its closer rival has resulted in the company B retailing over five times as many books, and acquiring five times as many customers. Being first to market and continuous innovations have enables Company B to achieve the following:

- A highly recognizable and trusted brand name.
- Company B has been able to assemble a great store of information on the buying habits of each to its customers. As such, the company has been able to be proactive and second guess what customer want.
- Company B is able to forecast demand more accurately and thus is able to get a better deal from publishers.
- By being first to market, Company B has set the industry standards.

Case study 3 (Company C)

This particular case study concerns about a successful online wine shop, Company C. It was founded in 1995 by two fantastic entrepreneurs ideas. On January 1995, Company C, one of the most popular wine-buying sites on the Internet was created by two entrepreneurs. Company C provides a neat yet simple and therefore quickly downloadable graphics combined with flowering description of wine to replace a real-world retailing environment. Custom-designed tasting charts with ratings of each wine and photographs of vineyards provided an information-based alternative for the traditional customer activity of cradling a bottle or scrutinizing a label.

Company C announced averaging more than 1,500 visitors a day to its Website in November, 1995, and its revenues increasing 20% per month. Company C was devoting millions in investment capital to developing its site, automating order fulfillment, building a database to track website usage and orders, and developing its brand through advertising. However, due to heavy investment in automaton and technology, Company C had yet to reach profitability in large part.

Company C website was designed and build and maintained largely by in-house operation. The site was designed to be attractive, but simple, with few graphics to ensure that it would load quickly when accessed by users with slower connection to internet. The textual content of the company website was provided by one of the two owners. In addition to the website, Company C operated a mailing list in which the company would discuss new wines, good wine and food combinations, the state of the current crop, and other items of interest. Company C has one operations manager whose primary responsibilities included maintaining relationships with the vineyards that supplied the company and overseeing order fulfillment.

The company believed that their customers were people interested in a good class of wine with diner, but not wine connoisseurs. Their deal target was a woman or man with moderate to high income, who was interested in learning more about the wine. Company C advertised on the Web itself, buying advertising space on other websites that the owners believed were visited by the kind of people they targeted, instead of employing direct mail. Their advertisements allowed the viewers of the advertisement to click on it and more to their home website. Company C implemented a registration process whereby the site could store customer's billing and credit card information to facilitate faster purchasing. The registration process surveyed customers with only a few questions about themselves, because the company believed his target customers were time constrained and that there were only a limited number of categories of customer information that the company could use. Survey data represented only a small part of what Company C learned on an ongoing basis about customers using its site. Such information was augmented by automated records on customer behaviour with the site, including the number of visits made to each part, the internet address of the computer used by each visitor, the amount of time spent looking at each page and what pages a user returned to during subsequent visits. It seemed likely that much of Company C's appeal to customers lay in its friendly, personal interactions with users through an interface that delivered service that was preferred over physical retailing channels.

DISCUSSION AND CONCLUSIONS

The study has explored the synergies between entrepreneurship and innovation in e-commerce through a review of principal literature in this field, case study analysis, web researches and interviews with dot.com companies. The results of this study have shown that entrepreneurship and innovation is a crucial factor for the long term sustainability of e-commerce and e-business.

Results drawn from the study are summarized under the following headings:

E-commerce Opportunities and Lessons Gained after Dot-Com Crash

The dot-com crash phenomenon that happened in year 2000 was caused by poor investment and business practices. Essentially, many people borrowed too much money, set up websites and internet-based businesses and spent too much money on advertising, trying to attract people to their websites. But many of these initial attempts at new economy businesses were not based on sound business principles. Some of them had no clear plan about how to generate a sound revenue stream, much less a profit stream. Dot.com crash however has created new opportunities to the e-commerce world. New market conditions have created a dynamic environment, where high rates of innovation require organizations to embrace a flexible strategy. It is through the alignment of the organisation's strategy and processes that the sustainable competitive advantage will be provided.

Understanding the Disruptive Attributes of E-commerce

The internet is transforming the rules of competition and inventing new value propositions. The changes made possible by the internet are strategic and fundamental. Entrepreneurs in the traditional brick-and-mortar business facing the challenge of transforming their businesses in the digital economy must be able to understand the disruptive nature of e-commerce. Some of the major disruptive attributes brought by e-commerce are: economics of exchanging information, connectivity and interactivity, sped of change, industrial context, network economies of scale, economies of abundance and merchandise exchange. Entrepreneurs must be able to identify and take advantage of these key performance attributes to create new product and services, reach new markets, build customer loyalty, achieve market leadership, optimize business processes, enhance human capital and harness technology.

Spotting E-business Trends and Patterns

In order to create effective strategies, companies must be able to spot trends as soon as possible. Trend spotting requires entrepreneurs to learn to identify and to take advantage of the discontinuous change the future inevitably brings and the resulting unsettling shifts arriving on an uncertain schedule. This provides an entirely new landscape for entrepreneurs to navigate, and only the trend spotters can hope to conquer it. Accurately identifying trends helps business analyze and synthesize consumer behaviour, eliminate uncertainty, and identify new opportunities. Trend spotting is not just for entrepreneurs looking to start new companies or for marketers attempting to sell old products in new packages. It is useful for identifying new business opportunities as well. The smart entrepreneur stands at the forefront of trends, such as wireless before they become mainstream.

First Movers in E-commerce

First movers in e-commerce are subject to exogenous, competence destroying jolts from lack of regulations, new entrants and new technologies that could lead to the erosion of competitive advantage very rapidly. Empirical studies conducted by the authors show evidence to suggest that the critical resources in the e-commerce industry that result in competitive advantage are largely intangible assets and capabilities, such as innovativeness, technical expertise and knowledge. Companies like company B are not effectively protected from imitation by legal, financial or easy to imitate tangible barriers, but by knowledge barriers. Several points of lessons can be gained from Company B case about the first mover advantage in the e-commerce world. The three critical factors to stay ahead of late movers are speed, continuous innovations, and patenting. Company B sustains its momentum in the competitive market by continuously develop new innovations in order to stay ahead of late movers. Company B and many other e-commerce companies are leveraging patent to protect their innovations and sustain their first mover advantage.

E-commerce businesses operate in an age of new realities. Thus, a fundamental shit in thinking is necessary for coping with these realities. While mortar and bricks companies have struggled to try to sustain their advantage, if fact, in e-commerce no organization can build a competitive advantage that is sustainable. In e-commerce it seems that every advantage erodes. So in this new business environment, e-commerce organizations must actively work to re-create a new competitive advantage through continuous innovation, speed of implementation and patenting.

Issues and Challenges Facing Entrepreneurship and Innovation in E-commerce

Today's e-commerce operates in a highly competitive marketplace where sustainable competitive advantage is almost impossible as there are minimal barriers to new entrants and competitors in the marketplace. Innovation faces constant challenges of imitation and erosion. There have been different views in the literature about the benefits of first movers in the e-business marketplace. A general belief in e-commerce world is that it is safer and cheaper to imitate the first mover in the e-business environment, where there is higher level of technical uncertainty and a rapid rate of technological innovation.

The issues facing e-commerce today are that entrepreneurship and innovation need to respond closely to market need and gain market creditability. Ideally, there should be credibility build within the marketplace before the conception of the business. In addition, the intangibility of an online service needs to be addressed in order to build brand awareness.

Entrepreneurs in Identifying and Evaluating new Opportunities and Innovations

The electronic marketplace presents an extraordinarily challenging environment for entrepreneurs and their organizations. The fast acceleration and availability of technology is shaping a new economy, with different forms of distribution, marketing, selling and arranging work becoming observable. Attributes of this economy include collapsing boundaries between firms, suppliers, customers and competitors. Since e-commerce is relatively new, the foundation will support the future market has yet to be solidly defined where much of the thinking and building needed to harness its potential has just begun. Internet firms that emphasize innovation and rapid response to change may e best positioned for recognizing and identifying new opportunities and ideas for their business. Identifying new opportunities can be critical in initiating innovation and change associated with improvements in products/services, technological capabilities, and seeking alternative markets and opportunities. Those internet firms which adopt a more conservative and defensive e-business strategy of retaining their market positioning may not fully value innovations associated with incorporating additional marketing strategies or improving business processes. One personal attribute that may serve as critical link in determining whether the firm uses new opportunity information to develop and integrate e-commerce innovation is the pro-activity or proactive personality of the entrepreneur. The proactive personality is defined as one who takes action to influence environmental change. Proactive personalities includes scan for opportunities, show initiative, take action, and persevere until they reach closure by bringing about change.

From the review of the principal literature and from cases studies conducted by the authors, the results revealed that e-commerce firms that emphasize a market leadership position and rapidly respond to changes within their environment were more likely to identify and assess new opportunities and ideas for their business. It is suggested that internet firms that emphasize constant change with their strategic orientation may be positioned for success in this new form of entrepreneurship.

In conclusion, entrepreneurship and innovation should be regarded as ongoing, everyday practices in organizations.

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