

**CHAPTER 10**

**E-COMMERCE ENTREPRENEURSHIP:**

**EMERGING PRACTICES, KEY CHALLENGES**

**AND FUTURE DIRECTIONS**

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# E-COMMERCE ENTREPRENEURSHIP: EMERGING PRACTICES, KEY CHALLENGES AND FUTURE DIRECTIONS

## Introduction

Market needs and the enabling technology required to capitalize on new opportunities has created one of the most challenging environments for entrepreneurs. In particular, e-commerce technology has forced many entrepreneurs to assess how their firms gather, synthesize, utilize, and disseminate information across customers, employees, and supplier networks. Those who are willing to experiment with new product and service offerings will be positioned to compete most effectively (Hodgetts, Luthans, and Slocum, 1999). The extent to which entrepreneurs capitalize on the conditions presented by e-commerce and engage in experimentation and innovation is of major interest in contemporary research.

Because of the demand for innovative organizational behavior present in e-business, this is an important domain in which to study entrepreneurship. However, because it is so recent, very little is known about the role attributes or innovative activities of entrepreneurs in Internet organizations, including: What enables emerging organizations to achieve effective performance? What are the opportunities and constraints in operating within this environment? These and many others questions are arising as the field of Internet entrepreneurship grows and develops. The answers will inform the development of the growing research base in this area and will facilitate the

subsequent comparison of key variables and relationships found in firms engaging in e-commerce with those in traditional brick and mortar firms.

This chapter presents the emergent practices and processes of e-commerce entrepreneurship, explores the key challenges facing the new ventures, and offers research suggestions to guide future work in this area. The chapter draws on recent research findings and focuses on founders and organizations whose activities *encompass* the Internet, conducting multiple transactions on the Internet, rather than on organizations that use the Internet only for customer advertising and information gathering purposes. It is the premise of this chapter that the first major step in developing a model of e-commerce entrepreneurship is to examine the processes and behaviors found within the ventures. The examination is conducted along several dimensions and contributes to our understanding of the nature, opportunities, challenges, and future directions of the entrepreneurial firms.

This chapter addresses the following areas of e-commerce entrepreneurship:

- What does the entrepreneurial landscape for e-commerce look like, and what are some recent trends in Internet entrepreneurship?
- What are the values and strategic orientations of Internet entrepreneurs (“netpreneurs”)?
- What focus does innovation take within these firms?
- What specific human resource practices are critical to the success of these firms?

## **Emergent Trends in E-Commerce Entrepreneurship**

The 20th century has been described as the "century of the entrepreneur" (Bangs and Pinson, 1999). The entrepreneurial landscape continues to be transformed; as the 21st Century unfolds, a new form of entrepreneurship is taking shape. With the rapid acceleration and availability of technology, electronic commerce is changing the nature of business.

Over the past five years, electronic commerce experienced dynamic and rapid growth in the late 1990s. Total Worldwide Net commerce -- both B2B and B2C -- is expected to hit \$6.8 trillion in 2004 (Forrester Research, 2001). By some estimates, annual online sales will reach \$200 billion by 2004 and will exceed \$1trillion a year within 10 years. It is projected that, by 2003, 40 million U.S. households will shop on the Web, and revenues will approach \$108 billion (Forrester Research, 1999). These statistics reflect the increasing number of ventures that will be launched on the Internet.

Evident from the recent trends in e-commerce is the expression of a new set of entrepreneurial values and behaviors that are increasingly coming to characterize an emerging model of Internet entrepreneurship. In the next section, we identify from recent research some of the primary variables that shape the entrepreneurial actions in these organizations.

## **Netpreneurship: The Key Values and Strategic Orientations of Internet**

### **Entrepreneurs**

The e-commerce environment demands that netpreneurs strive for "relentless innovation," leading their firms through the continual infusion of new ideas (Cohen and Jordan, 1999). A new set of core business values appears to distinguish e-commerce entrepreneurial teams from other entrepreneurial teams. These values are constant innovation, experimentation, and rapid change. Such an orientation is similar to what Miller and Blais (1992) characterize as "maverick" behaviors, with firms adopting innovative modes based on their competencies, competitive situations, or managerial preferences. The environment of e-commerce enables firms to rapidly try new approaches, quickly share successes and failures, and monitor what is new and useful (Oliva, 1998). As founders of Internet ventures attempt to meet the opportunities and demands of this new economy, a set of entrepreneurial strategic orientations and behaviors will emerge that can begin to characterize the nature and process of e-commerce ventures.

Miller and Friesen (1983) first characterized the entrepreneurially oriented firm as one that innovated and fully exploited environmental opportunities while repressing environmental threats. Researchers have since identified two key dimensions that underlie an entrepreneurial strategic posture (Covin and Covin, 1990) or an entrepreneurial strategy-making mode (Dess, Lumpkin, and Covin, 1997). The two dimensions are the competitive aggressiveness entrepreneurs display as they pursue new opportunities, innovation, and experimentation, and the proactivity that leads to

their being the first mover among their competitors. An entrepreneurial strategic posture emphasizes a value for innovation. Page (1997) characterized such a posture as the identification or recognition of opportunity and its proactive pursuit. A challenge for e-commerce ventures is the entrepreneurs' ability to recognize a highly competitive environment and proactively change their strategic orientation to survive and grow (Page, 1997).

Kanter (2001) has described strategy in e-commerce firms as "improvisational theater," in which the performances of many "troupes" accumulate to take the organization in a new direction entrepreneurs perceive strategy it as emerging and revealed through action; the action itself shows the goal. Thus, the primary mode of strategic operation in these ventures is sense-and-respond, as opposed to the traditional make-and-sell (Bradley and Nolan, 1998). This orientation enables entrepreneurs to move at Internet speed; consequently, the traditional strategic plan is one on which these entrepreneurs can no longer rely. The strategic orientation of e-commerce entrepreneurs includes behaviors such as experimentation, going to the customer, and building the customer into the venture as an "actor" (Oliver, 2000). This is similar to Kanter's metaphor of strategy as improvisational theater, in which the "audience" (or customers) interacts with the venture and influences its outcomes. Further, strategy tends to flow through the organization in all directions, rather than from the top down as it has conventionally moved.

## Identifying and Recognizing New Opportunities and Innovations

Kickul and Gundry (2000<sup>a</sup>) measured the relationship between the entrepreneurial posture of Internet business owners who operate within a highly uncertain environment (i.e., their rapid response to change, value for innovation, and development of inter-firm alliances) and their opportunity recognition behaviors. Further, we investigated whether this relationship influences the technological innovations implemented by Internet entrepreneurs.

Our study found that the strategic orientations of rapidly responding to change as well as placing value on innovation were linked to externally oriented opportunity search behaviors. According to Koshiur (1997), netpreneurs must be continually prepared to make changes within the infrastructure of their businesses to meet and prepare for future opportunities and technological advancements. In addition, flexibility further allows the business to be a successful player in the virtual value chain – “converting the raw information into new services and products in the information world” (Koshiur, 1997, p. 103).

Developing relationships with other firms was also shown to be a determining factor associated with externally oriented opportunity search behaviors. A promising application for netpreneurs and their firms in electronic commerce is to use Web technology for business-to-business interactions (Choi, Stahl, and Whinston, 1997; Shannon, 1999). Contracting with other organizations allows the netpreneur to have a more decentralized, non-hierarchical organization that may foster the recognition and implementation of opportunities associated with new product/service ideas and

solutions (Morino, 1999). Moreover, having inter-firm relationships that are fluid may also be necessary for uncovering opportunities related to the marketing and distribution of information about the value of the firm's products and services.

Finally, our study also found that Internet firms engaged in opportunity search behaviors that are externally focused had implemented technological innovations dealing with new information technology, and new computer technology, as well as new methods of advertising. Our results suggest that Internet entrepreneurs tend to rely on network activity (Singh et al., 1999) to enable them to capitalize on opportunities and to reach technological innovations for their businesses and for the marketplace. Given the rapid pace of technology and business, Davis and Meyer (1998) have asserted that there is a greater need for entrepreneurs to be connected with their suppliers, customers, and business partners. This need for connectivity forces Internet-based organizations to evaluate the intangible benefits of the company's technology infrastructure and its product/service offerings. It is expected that, as more Internet businesses are established and identified, research attention will grow and focus on additional strategies and behaviors of this pioneering group.

### **The Focus of Innovative Behavior in E-Commerce Entrepreneurship**

Drucker (1998) described four areas of innovative opportunities that exist within a company or industry, including unexpected occurrences, incongruities, process needs, and industry, and market changes. Even though these innovative opportunities may be present to Internet entrepreneurial teams, there may be additional areas such firms may

identify for potential innovative actions. This emphasis on innovation and change will be oriented not only to the outcomes of these organizations (e.g., products, services, and new markets) but also to the structure and work arrangements of the ventures themselves. Oliva (1998) has noted that a successful Internet study needs to be designed to assess the following research questions: To what extent have these entrepreneurs been engaged in innovations? What is the direction (type) of these business innovations?

In another study, Kickul and Gundry (2000<sup>b</sup>) examined the type and direction of innovative actions incorporated by Internet entrepreneurs in their businesses. Six distinct innovative behaviors displayed by netpreneurs were uncovered, ranging from continuous product/service improvements to managing human resources. These innovations varied to the extent that they were considered and implemented into the operations and business of the Internet firm. Improving products/services, seeking alternative markets and opportunities, and incorporating additional marketing strategies were the critical factors associated with initiating innovation and change. According to Koshiur (1997), netpreneurs must be continually prepared to make innovations and changes within the infrastructure of their businesses to meet and prepare for future opportunities and market/industry advancements. The current electronic marketplace will require new innovative models that deal with firm organization, production, and overall market institutions (Choi, Stahl, and Whinston, 1997; Lange, 1999). Indeed, as others have suggested (Cohen and Jordan, 1999; Oliva,

1998), Internet firms that emphasize innovation and rapid response to change are best positioned for success in this new form of entrepreneurship.

Although our study examined the various types of innovations engaged in by Internet entrepreneurs, future researchers should investigate how these innovations are related to the firm's strategic focus and orientation. More work should test the strategic requirements for successful Internet enterprise developments that have been proposed in the literature, including: How do the strategic orientations of first-to-market, first-follower, competitive aggressiveness, and rapid response to change predict innovative behavior? Does the enactment of innovative marketing behaviors, for example, give competitive advantage to a firm? What types (direction) of innovative actions seem to matter most to a firm's ability to respond rapidly to change?

Many of the entrepreneurs in our sample reported innovative behaviors that can be characterized as growth extending, as they adapt to market conditions and negotiate a position for their ventures in the rapidly expanding e-commerce environment. Of further research interest is determining the degree to which entrepreneurs eventually increase their growth-enabling behaviors as a means to sustain performance. What role, for example, do recruiting or training play in the development of technological innovations (a growth-extending behavior)? More research is needed to ascertain the behavioral supports found in firms.

Additionally, more researchers should investigate how Internet entrepreneurs form and develop strategic relationships and alliances with other organizations. How are partnerships formed and dissolved to meet clearly defined business goals and

imperatives? As discussed by Hartman, Sifonis, and Kador (2000), Internet firms that are able to define their core competencies and work side by side with complementary partners will be able to exploit many of the opportunities existing in the marketplace. Moreover, those firms that are able to continuously improve their businesses and competencies as well as their alliance structure will also have an advantage when meeting the next new opportunity (Choi, Stahl, and Whinston, 1997; Griffith and Palmer, 1999; Shannon, 1999).

As more entrepreneurs enter the arena of electronic commerce, research is also needed to examine how they effectively design and integrate new business processes and practices. Although researchers have made important first steps in identifying dimensions of innovative behavior associated with and found inside Internet firms, more work should concentrate on how innovations relate to changes in organizational training and development, channel management, and client and customer relationships. These are all particularly relevant, given that the expanded description of electronic commerce includes on-line information technology and communication that is used to enhance customer service and support (Choi, Stahl, and Whinston, 1997; Koshiur, 1997). Keeney (1999) has outlined several areas of customers' concerns and values that can be used by an entrepreneur to design and grow Internet ventures.

In order to build and grow an entrepreneurial organization around e-commerce strategies and initiatives, an entrepreneur needs to consider several factors.

Entrepreneurial firms should use the opportunities and possibilities of the Internet, Intranets and Extranets to *transform* their core e-business processes. As noted earlier,

such opportunities fundamentally change the way a firm does business. Company owners should not only be very open to changing core processes but also have a vision of how such a transformation will improve their businesses. Building upon existing systems and applications, e-businesses should also build new and improved applications and systems quickly and easily, in response to the ever-changing market and customer demands. Moreover, e-commerce organizations should establish a hardware infrastructure that can grow easily with the business. They also need to understand how to manage a network computing environment and how to keep it secure. Finally, e-commerce firms need to take a strategic approach in order to leverage their knowledge and information over time. Ultimately, they should be able to capitalize on the information and experience they already have and quickly apply new intelligence and knowledge.

### **Emerging Entrepreneurial Practices and Behaviors Within E-Commerce Firms**

Distinctive innovative behaviors appear to characterize the emerging group of Internet entrepreneurs when they are compared with owners of ventures not fully dedicated to electronic commerce. "What sets netpreneurs apart is not that they are different from other entrepreneurs but that they are operating in a universe of transforming change. As pioneers of the new networked society, they are both defining and learning new ways of doing business" (Morino, 1999, p. 1). Because of the rapid acceleration of technology, it is becoming more critical that Internet entrepreneurs have the ability to respond quickly to changes by bringing revolutionary new ideas into their

businesses and the electronic marketplace. In this way, they are creating new patterns of entrepreneurial behavior and performance.

Whether the managerial emphasis on innovation and change results not only in the creation of new products, services, or markets but also in the nurturing and establishment of innovative internal and external relationships is the focus of another recent study (Kickul and Gundry, 2001) on the impact of top management team functional diversity and creative processes on the assessment of new e-commerce opportunities for the organization. Further, the study investigates the relationship between opportunity assessment and innovative organizational practices. These innovative practices are operationalized as external relationships (network membership with vendors, customers, and competitors), internal relationships (recruitment, retention, and rewarding of top talent in the organization), and generating new products and services.

As a first and foundational step to increasing our understanding of managerial practices in e-commerce organizations, we examined entrepreneurs' perceptions surrounding key firm behaviors that foster innovation. The emphasis of recent work by Iansiti and MacCormak (1997), Hodgetts, Luthans, and Slocum, (1999), and Shannon (1999) has been on the significant roles of adaptation, innovation, experimentation, and change in the environments of e-commerce organizations. The necessity of realigning managerial roles and practices so that these organizations can take advantage of emerging opportunities has been proposed. Accordingly, our study attempted to measure empirically some of the managerial processes that stimulate innovation. If, as

scholars have suggested, e-commerce firms must innovate to survive, we have begun to explore the prerequisites and primary influences on this critical set of actions. The results of our study yield information that will be useful in guiding future research addressing key factors present among these top management teams, including comparative studies between e-commerce and traditional, brick-and-mortar organizations. Exploring the new managerial roles and practices, such as the development of innovative relationships with suppliers, customers, competitors, and employees of these businesses, will facilitate the construction of new models to predict success factors for managing e-commerce organizations.

In a recent study by Inmomentum, Inc., an organization that researches the best practices of Internet economy businesses, reported that companies that helped their employees feel connected to their vision and values were growing at a rate of 141%, compared with a 10% growth rate for companies that did not do this well. This emphasis on the development of internal relationships in the e-commerce firm is an interesting one to watch as entrepreneurs continually search to recruit and retain top talent for their ventures. However, the reality is that, in the early part of 2001, there were more than 200 CEO searches under way in Silicon Valley. Further, 300 CEOs had been in their positions for less than one year. Developing and delivering a clear vision and connecting it to company values is a very great challenge.

Internet entrepreneurs' ability to harness the richness in breadth of perspective made available to them by functionally diverse team members is a key component of innovative actions. But a further step is needed to make the creative exploration useful

in the form of actionable ideas and opportunities. Our research has shown that effective opportunity assessment has a mediating effect on the interaction of diversity and managerial creativity, facilitating the formation of external and internal organizational relationships as well as the introduction of new products and services. Thus, such an assessment enables managers to form strategic alliances necessary to achieve market growth and to develop methods to attract and retain the top talent so in demand by Internet organizations. Exploring the direction of such behavior contributes to our understanding of the changing roles, challenges, and opportunities confronting managers in e-commerce firms.

The development of innovative internal management relationships was operationalized in our (Kickul and Gundry, 2001) study as finding unusual and creative ways to recruit, retain, and reward employees. These are emerging as one of the most significant entrepreneurial challenges of the information age. The predominance of knowledge workers has shifted the balance of traditional organizational resources of equipment, capital, and people. Although historically production workers have been replaced with technology, leading to strong productivity gains, the same scale of substitution is not possible in knowledge-based organizations, as pointed out by Pottruck and Pearce (2000). Those authors concluded that the most critical parts of the human resource in an organization cannot be synthesized, and those are the creative brain, imagination, and spirit that fuel the information economy. Some of the new managerial practices of the entrepreneurs in our sampled firms included unusual methods of retaining top talent in their organizations, as shown in these responses:

*"We are more than an employee's paycheck. The firm is committed to the belief that it shares a large part of the responsibility for the overall well-being of a given employee, and this spiritual belief alone is what helps us keep our best employees. They see us putting their welfare at a higher priority than the numbers on the quarterly profit reports, and they wind up sticking around when the going gets rough for a while."*

*"Our arrangements permit a literal network of top level, talented and proven services and professionals to 'morph' to suit the problematic demands of new clients. The organization is truly a team, with me as 'leader' but without any hierarchical or concomitant structure. Only via affiliate resourcing can this be accomplished in the information sector where 'trust is paramount' and 'content is everything' in terms of both branding and perceived reliability."*

Ester Dyson, one of the foremost thinkers on the implications of the Internet for business and for society as a whole has said: *"The limitation on the application of technology will never be ideas or capital. It will be finding enough people who are trained and excited about taking the ideas of the technologist and making them real in the world"* (Dyson, 1997, p. 69).

We also found that entrepreneurs engaged in forming innovative external relationships with their key constituents, including suppliers, customers, and competitors. This increased connectivity may allow e-commerce organizations to become responsive and flexible in meeting each customer's particular needs and demands (Neese, 2000). Contracting with other organizations also allows the e-commerce firm to have a more decentralized, non-hierarchical organization that may foster the implementation of new product/service ideas and solutions (Morino, 1999).

The nature of these relationships is described by the following responses of entrepreneurs in our study:

*“We use what others would call competitors a lot. We have no competition, just resources we have not used yet!”*

*“We rely upon strategic partners around the globe. They are the keys to our success.”*

## **Conclusion**

The issues, challenges, and future directions presented in this chapter represent one of the first comprehensive discussions of the entrepreneurial strategies, values, and behaviors that describe the internal and external processes of emerging e-commerce firms. Although much work remains, it is our hope that future researchers will continue to examine how entrepreneurs build, realign, and grow their organizations within a marketplace that demands speed, agility, and constant innovation. Exploring these new entrepreneurial roles and practices, such as the development of innovative relationships with suppliers, customers, competitors, and employees of these businesses, will facilitate the construction of new models to predict success factors in e-commerce organizations.

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