

Issues and Challenges Facing E-Entrepreneurship and E-Innovation

Fang Zhao, RMIT University, GPO Box 2476V, Melbourne, Victoria 3001, Australia; E-mail: fang.zhao@rmit.edu.au

ABSTRACT

This paper explores key issues and challenges facing e-entrepreneurship and e-innovation through case studies. The case studies draw mainly upon interviews with senior managers of the case companies and documentary research of the companies' publications. One of the key issues facing e-entrepreneurship and e-innovation today, as demonstrated by the case studies in this paper is that e-business needs to respond closely to market needs and gain market credibility. Another key issue is that there should be credibility built within the e-business marketplace before inception of the business. In addition, the intangibility of an online service needs to be addressed in order to build brand awareness. The discussion of the issues as such provides readers with both theoretical and practical guideline for a further study.

Keywords: E-business, entrepreneurship, innovation, case study

1. INTRODUCTION

The dotcom crash and the following three-year economic downturn saw hundreds of Internet entrepreneurial startups closed down or sold. However, many of the innovations and technologies created by them “live on and play important roles in the future either via acquisitions, in new startups, or through copycatting by the industry's giants” (Hamm, 2003, p.52). Blogger.com was a troubled startup that hosted 200,000 Weblogs, personal websites where people could share insights and web links with all comers. It was bought by Google in 2003 and has since become part of Google's information storehouse. Another example was Liquid Audio, a digital music pioneer subsequently acquired by Anderson Merchandisers, a major distributor of music CDs to help create profitable online music distribution.

Despite the many failures caused by the dotcom crash, it presented new challenges as well as new opportunities to entrepreneurs of e-business. This author argues that a combination of entrepreneurship and innovation will be a crucial factor to the long-term sustainability of e-commerce and e-businesses. For the purposes of this paper, the terms of e-entrepreneurship and e-innovation refer to broadly entrepreneurship and innovation in the context of e-business activities and operations.

This paper aims to explore key issues and challenges facing e-entrepreneurship and e-innovation through case studies. The case study draws mainly upon interviews with senior managers of the case companies and documentary research of the companies' publications. In the following sections, the paper starts with a review of the concepts of entrepreneurship and innovation in the e-business context and then moves on to discuss generally key issues and challenges facing entrepreneurial and innovative e-business companies. After that, two case studies of the business models of two dotcom companies engaged with entrepreneurship and innovation were presented to illustrate the specific issues and challenges facing them. This is followed by a discussion of future trends of e-businesses and their implications for e-entrepreneurship and e-innovation. The paper winds up with conclusions.

2. THE CONCEPTS OF E-ENTREPRENEURSHIP AND E-INNOVATION

2.1 E-Entrepreneurship

E-entrepreneurship describes entrepreneurship in e-business. The e-dimension of entrepreneurship incorporates all the key elements of entrepreneurship including risk-taking, proactivity, and innovation in building, running and managing

e-business. The concept of e-entrepreneurship is not limited to small e-businesses but includes corporate e-intrapreneurship which is embedded in establishing e-infrastructure to do e-business in large organizations. E-business operates in a fast-moving, highly uncertain, unknowable and unpredictable context, and as such entrepreneurship in e-business by necessity exceeds the traditional concepts of entrepreneurship. For example, the traditional notion of entrepreneurship of being or becoming an expert or finding and protecting a unique knowledge in a niche market, clashes with the fact that e-business knowledge is often short-lived and available to everyone, anytime, and anywhere (Steinberg, 2003, 2004).

Empirical studies demonstrate that the concept of e-entrepreneurship has changed in the wake of the dotcom crash, presenting new challenges to e-entrepreneurs. In 2003, Steinberg (2003) conducted a multiple-case study on e-entrepreneurship in the Greater London business area, which provided intriguing findings about the changes in the social meaning of e-entrepreneurship since the dotcom crash. The study used a sample of 42 dotcom entrepreneurs who had started a small business in the wake of the dotcom crash in 1999/2000 or who had business which survived the crash. In the view of the entrepreneurs surveyed, entrepreneurship in e-business was different to classic entrepreneurship. In terms of skills and knowledge, e-entrepreneurship requires not only basic business skills and expert knowledge, but also the social skills necessary to be able to relate to other disciplines and sectors. In this regard, relationship and partnership with other sectors and businesses are crucial to e-entrepreneurship. The study also found that the dotcom crash had proven to be a positive turning point for a new generation of entrepreneurship which would open up e-businesses and endeavour to establish a new professional identity within e-business. E-business networks also played a central role within the new e-entrepreneurship. This e-entrepreneurship community was made up of business people who had previously been working in other sectors or in other firms and had moved into the e-business field to pursue a new personal and professional challenge. Traditionally, expertise in entrepreneurship was limited, by and large, to one specialist discipline, however, unlike the traditional entrepreneurship, the new sense of entrepreneurship in e-business was determined by the ability to creatively combine different sets of expertise to accommodate the wide range of needs of e-businesses powered by rapidly evolving and complex new digital technologies. The very character of e-business thus shaped the fundamental construct of e-entrepreneurship, that is, constantly engaging in, and developing innovative information and communication technologies in one way or another.

2.2 E-Innovation

E-innovation can be broadly defined as innovation that is related to e-business. Technological innovations in e-business have significantly changed inter-firm communications and have the great potential to revolutionize the efficiency and effectiveness of inter-firm relationships and their governance. Take Cybersettle.com for example. The company was founded in the mid-1990s by a pair of attorneys, and has not only survived the dotcom crash but attracted more customers and partners. The dotcom does what most do not and has created a thriving e-business model through e-innovation. Customers can use the website to settle a wide variety of commercial disputes online quickly and inexpensively. By August 2003, it had handled more than 75,000 transactions and over \$US500 million in settlements (Winston, 2003).

The common and most important functionalities of the e-business technological innovations are standardization, centralization and formalization to facilitate inter-firm collaboration. However, technological e-innovation is only one aspect of e-innovation. It may include establishing and/or implementing innovative processes, operations, service, strategy, structure, technology, etc. in relation to e-

business. For example, e-innovation may represent an innovative strategy enabling customers to do what best serves their purpose via information communications technology (Martin, 2004). In order to implement an e-business innovation strategy and realize the commercial value of the innovation, companies often resort to partnerships which provide complementary resources and advantages in order to get things done.

3. ISSUES AND CHALLENGES FACING E-ENTREPRENEURSHIP AND E-INNOVATION

Today's e-business 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 e-business marketplace. Mellahi and Johnson (2001) asked the question "does it pay to be first to market or should e-commerce firms wait for first movers to make an investment and then cannibalize the idea with lower entry cost?" The cause of the concerns are raised by a general belief that it is safer and less expensive to imitate the first mover in the e-business environment, where there is a higher level of technical uncertainties and rapid rate of technological innovation. For instance, many new dotcoms rushed to build an e-marketplace and chose imitation as a business strategy rather than innovation. This author argues that it is the lack of a combination of innovation and entrepreneurship capacity that has caused the demise of many imitators in the dotcom industry. The essence of innovation and entrepreneurship is taking a new idea to market, not imitating a new idea without taking into account the special needs of local markets, and being innovatively and proactively responsive to environmental changes by introducing a new product, process, service or implementing a distinctive business model as did the case companies studied in this paper.

In the early days of e-business, it was likely that most businesses could be applied differently online and offline. "Irrational exuberance" was prevalent within the market and venture capitalists were prepared to take on much more risk. However, since the dotcom crash, the market appears to have reverted to traditional models and methods. More attention has been given to the fundamental structural components of e-business, such as flow of revenue. E-business, to many companies, is now just seen as another channel to market (rather than signalling the demise of offline business as originally prophesized). Likewise, many senior managers interviewed for the present study indicated that there was no difference in the concepts of entrepreneurship online and offline. Traditional business models are here to stay. For new e-businesses to succeed, they need an innovative idea incorporated into a sound business model which is viable economically and which is facilitated by knowledgeable and experienced people.

As such, those entrepreneurial and innovative e-business activities which genuinely have utility for the customer (e.g. e-banking) are more likely to be successful. For example, the difference between retailing and banking is that while one is seen as an emotive and/or social activity, the other is perceived to be a chore. Therefore, offering an electronic channel to facilitate the latter is more likely to succeed than the former – people want convenience and speed when they bank but they are more likely to value other factors which an online channel may not necessarily be able to offer when they shop for goods and services. In this respect, dotcom companies should endeavour to enhance customer experience by offering tools on their Websites which enable customers to personalize the shopping process, and provide more personalized business services such as those offered by the bicycle company of the case study 2 of this paper.

3.1 Case Study 1: SpeakerDirect

SpeakerDirect (www.speakerdirect.com.au) is a young Melbourne (Australia) based dotcom, providing an online speaker portal. The online speaker portal business idea was developed in Dec 2003, and the portal was formally launched in March 2004, illustrating the fact that the founders believed that speed to market was one of the essential elements of their strategy, and a characteristic of the e-market. The Website system was developed from scratch with the premise that the company wanted a corporate friendly, and comprehensive tool for both speakers and speaker-seekers. SpeakerDirect is actually a business resource as well as a promotional platform. SpeakerDirect.com.au provides a free service for corporations to search and select corporate speakers. However, unlike their competitors, the company does not take engagement fees. The company has an ambitious goal of becoming the number one global speaker portal within five years

and to connect up the entire business community. The company philosophy is one that aims to offer both speakers and seekers a personalized service alongside the electronic service, although the emphasis of their efforts is on the latter (e.g. they might meet with a major corporate and maintain communications by telephone on a frequent basis).

The founders and current directors of the company came from marketing and public relations background and also have experience in introducing an online tool in a market traditionally run by agencies. During their time within the corporate world, they identified a need and a business opportunity for a comprehensive search tool for corporate speakers. Under the traditional model, speaker-seekers were required to contact individual agencies who would provide a list of their registered speakers. The agency would then charge a fee on top of the speaker cost. However, this model is administration-heavy, for both the agency and the speaker-seeker, therefore the company's founders came up with the idea for an online speaker portal. This essentially is an online database of corporate speakers and entertainers which is free to search and provides a profile of each speaker, online show reels and indicative fees. Searchers can then contact speakers through the company's online system to arrange bookings etc. Speakers pay an annual fee to be listed on the Website, and in return, they are given their own personal Website (they can also link to their own Website), and an email inbox to receive and respond to inquiries. This is complemented by regular reporting functions (such as the number of searches the speaker has been displayed on, personal website hits received etc). The success of the model is evident, and only six months after the formal launch of the portal, SpeakerDirect.com.au has around 300 speakers, and 12,000 hits a day.

From the perspective of the Company's founders and directors interviewed for the present study, entrepreneurship and innovation mean risk (financial, emotional and personal):

"Entrepreneurship is taking control and action on a concept or a dream in the face of adversity. The tangible aspect of making that happen is where innovation comes in. For example, I want people to communicate with each other over long distances (the dream), therefore I am going to do something about it and invest time and dollars to do it even when everyone is saying it cannot be done/I am mad/it is too risky (entrepreneurship/the risk) and a phone is designed to achieve this (the innovation to achieve the dream). A combination of both is the 'big picture' that requires tenacious and passionate people to turn an idea into reality by being independent and in control" (Interview Data, 2004).

The business model that the company has developed is in itself an example of a combination of entrepreneurship and innovation – it is the first of its kind, replacing the idea of the client having to deal with many agencies separately, by creating a one-solution portal. Another example of entrepreneurship and innovation is the system behind the website. This was designed to be multi-functional (but streamlined) and very user-friendly for both speakers and seekers. One of the most innovative features is a bulletin board where companies can advertise an event for which speakers can express an interest in being engaged for – this would be a useful tool for anyone who is time-pressed or needs a speaker at short notice.

Another key e-dimension of entrepreneurship and innovation that the case company demonstrates is responsiveness to client and market needs. For example, SpeakerDirect.com.au is seeking to position itself as a media tool (e.g. by providing a service whereby speakers are available to journalists for "expert comment", gaining valuable and credible exposure, but without actually being engaged on a fee basis). In the directors' words, they have "flipped the agency concept on its head", and as a result, many seeker clients believe the free service is "too good to be true".

The company's initial success relies not only on its entrepreneurial and innovation capacities but also its active partnering program which includes developing existing relationships with corporations, and building strategic alliances with trade associations and other dotcoms. Evaluation of the partnerships is done up-front (e.g. with speakers, how to position themselves and with clients, what their needs are and how they can be met). For example, the company has developed a strategic alliance with an online talent agency located in the same premises, and has become part of the agency's network. The two directors of this agency also sit on the company's board, complementing the company's experience with their own eight years' experience in international Website development and with

actors and entertainers. The company has also engaged in developing working partnerships with corporate speakers.

According to the directors of the company, a plan has been made to develop a systematic procedure and structure for selection of speakers and monitoring of their performance. At this early stage of the process, all speakers are accepted. However, it is likely that after 12 months, those speakers who have not received engagements because, for instance, they are unsuitable, will not re-list themselves. SpeakerDirect have however developed a reporting tool for speakers who want data in order to assess their relative successes, which details speakers' personal Website hits, enquiries, engagements etc.. Speakers are also encouraged to contribute to the marketing and public relations effort themselves by directing people to the Website and through self-promotion, because those who do not are likely to be less successful than those who do. Speakers do, however, have an initial consultation in which they can discuss their positioning. Subsequent evaluation by the company may include assessment of the speaker's fee, testimonials, their show reels and general credibility. On the client's side, key organizations and associations who may use the service are identified, and contacted in order to explore their needs and promote the online portal.

However, there are some issues relating to the company which may warrant attention. In terms of management of speakers, there needs to be people behind the system driving it and a commitment to the partnership between speakers and clients (seekers) on both sides. There is a corresponding need to be fluid, dynamic and responsive to needs, adapting to clients. Non-responsiveness or a slow turn-around and/or delivery of solutions are key problems which may damage the partnerships. In an online context, the intangibility of the service provided may also lead to customer dissatisfaction. The company has however tried to counter this with more tangible solutions, such as by producing company literature to give to speakers and seekers and through personal contact. The business model of SpeakerDirect is innovative in a sense that it is not an agency and takes no engagement fees, and it takes clients directly to speakers with the specific skills and areas of expertise they are looking for. However, the financial viability of the model remains a question, which inevitably reminds readers of the key lessons learned from the dotcom crash in 1999/2000.

There is also an issue of acceptance and credibility facing this young and innovative company. It has found that corporations have often been sceptical about the online speaker portal service, because they have been conditioned to think and work according to how the market worked previously: e.g. dealing with numerous agencies, or believe that they should be paying a fee for the service. In this respect, they think the online speaker portal concept may be *too* entrepreneurial. However, the company addresses these concerns with education, personalization of the service (e.g. telephone contact), and by evidencing its credibility within the corporate world. The founders also experienced difficulties in strategizing and implementing their idea, and believe that more education and funding for small businesses are required in order that e-commerce does not appear to be too elusive for startups.

3.2 Case Study 2: Bicycle Exotica

Bicycle Exotica was formed in 1999, after the owner-manager experienced frustrations while attempting to purchase a high-end bike for himself. Prior to this he had been employed by a bicycle wholesaler, and therefore had some expertise in the area. The case company imports a range of high-end (\$AU5,000+) bicycles and components and sells them direct to the public in Australia, unlike the traditional supply model where wholesalers sell to bike shops. The company employs one other full-time staff member and gets part-time support from the owner-manager's partner. Specific activities such as book-keeping and web site development are outsourced. Turnover was around \$AU750,000 in 2003.

The direct-selling business model is non-traditional and risky, as bikes (especially high-end models) are an emotive product and customers prefer to 'see before they buy'. However, the owner-manager's earlier experiences of trying to buy a high-end bike convinced him that not only could he improve access to the products for customers, but he could 'cut out the middle man' and so offer the bikes at a more competitive price than the traditional model of selling through shops. The Bicycle Exotica Website provides an online 'shop front', although the owner-manager encourages customers to contact him directly. He likes to offer a personalized service (he might speak to a customer five times before a sale), and in this way he overcomes the intangible element of his business. The

Website specifically does not offer a 'shopping cart service', again because of the product characteristics.

The company's business model obviously has advantages and disadvantages compared to the traditional bricks-and-mortar model. Australians often buy high-end bikes from the United States, because it has a smaller number of supply steps than the Australian market and therefore bikes can be offered at a cheaper price. However, Bicycle Exotica's business model means they can compete with the global market.

Bicycle Exotica has consciously tried to maximize the advantages of their business model, and minimize its disadvantages by using innovative methods. For instance, rather than using a print catalogue, the company developed a CD which comprehensively showcases its products. In addition, the company's Website has a level of detail higher than the standard amongst bike sellers. Most important of all, the Website is a core part of the business rather than an 'add-on'. The company has also developed a 'bike fit' program whereby customers can send their body measurements to ensure they get the right size bike, which again, is a departure from the traditional method whereby it is done in person. The owner/manager frankly admitted that he had "stuck his head out" by selling direct to the public because the bike industry is traditionally quite protective. Furthermore, the owner/manager's offering of a personalized service to customers provides for the emotive element of the sale. The company can sell high-end bikes at a similar price to lower-end bikes sold through shops. However, this philosophy has not been embraced by everybody. For example, one competitor applied pressure to an Australian bike magazine in order to prevent the company advertising within the magazine. Nonetheless, the company tries to maintain good relationships in the industry by offering bike shops discounted bikes for them to resell to their customers.

It is likely that the business model would not succeed if the company did not maintain good partnerships with other bike sellers, suppliers, Website developers and other Web technology providers. To enhance customer services and minimize the disadvantage of online sale, the case company has developed a tentative 'clicks and mortar' partnership with a Sydney bike shop in relation to one of the bike brands it sells. Customers can view the range at the bike shop and purchase them through them. The company will sell the products to the bike shop at such a price that they can offer them at the company's prices (ordinarily, although shops would buy the company's products to resell to their customers at a favourable price, the resale price would still be higher than what the company would sell it for). Customers are hence getting the 'best of both worlds' whereby they can view the products they want to buy, at a favourable price, although the profit margins would be lower for both the company and the bike shop than if the bike was sold direct.

Although the e-business model is working well, there are serious challenges the company has to address. The bike industry is a typical cottage industry, where many businesses are owner/manager or run by bike riders, but not business people. To this extent, entrepreneurship and innovation are still relatively new concepts. According to the owner/manager interviewed for the present study, at present the Internet is hardly being utilized effectively by the industry in Australia and most Websites are superficial. B2B electronic supply chains hardly exist in the bike industry (although he claims, they would be welcomed!). The market is also fairly small, with many competing products, which means that no one business has a big enough share that they can invest in innovative ideas. Nevertheless, the case company has survived the worldwide dotcom crash and is profitable, thanks to its innovative and entrepreneurial business model and good working relationship with its brick-and-mortar partners.

4. FUTURE TRENDS OF E-BUSINESS AND THEIR IMPLICATIONS

As the key premise of e-entrepreneurship and e-innovation lies in a thriving e-business environment, their future development is tightly bound with, and determined by, the future of e-business. The author speculates possible development trends in e-commerce and e-business in the near future on the basis of current development patterns and discusses the implications of the trends for e-entrepreneurship and e-innovation.

E-commerce and e-business practices will continue to grow. Industry analysts and renowned research groups such as Gartner Group projected a strong growth in e-commerce and e-business, estimating that the market would be worth \$US7.3

trillion worldwide in 2004, and will continue to grow in the next few years. But, unlike some of the present examples, e-business will be more mature (rather than experimental) in nature, in terms of the scope, quality and credibility of online customer services and products. Participating in e-business will be part of every executive's job in the near future. Despite its success, the recent initial public offering (IPO) of Google's shares saw them fall below the price range set by its executives, suggesting that many investors were still very cautious about e-business in the wake of the disastrous dotcom crash in which millions of shareholders around the world were badly burned. The response to Google's IPO indicated that the public expectation for high-tech e-business ROI tends to be normal now, and views e-business and e-commerce as the same as other businesses. The implication of this trend is an opportunity for growth as well as challenges of succeeding in a relatively mature market where quality and credibility of products and service count.

The collaboration of e-businesses is, and will continue to be, the key to sustained business success. An e-business strategy will be ineffective without an integrated e-partnership strategy, because the ability to leverage collaborative relationships becomes essential in today's competitive e-business world. Consumer/purchaser power will dominate the e-business world and propel smaller e-entrepreneurs to bind together to provide customers with an ever-widening array of products and services, real-time and rich information, and speedy and quality transactions. Moreover, collaborative e-partnerships help to streamline the product-to-market process through collaborative planning and design, improve efficiency from the channel network by reducing inventories, and ultimately generate profitability. However, alarmingly, many e-business alliances failed, or did not achieve their goals. How to make e-partnership work requires more than the navigation of technological hurdles and complexity. Human, organizational and cultural factors become more crucial as e-business moves towards maturity. The biggest challenges to managers include conflict in different organizational and country cultures, taxation, financial and commercial risks, and legal risks concerning on-line intellectual property, national and international on-line trade and law (Zhao, 2006).

Lee and Whang (2002) maintain that the future of e-business lies in intelligence. They believe that the next trend of e-business is intelligence at the supply chain level. Intelligence refers to the capacity for processing, accessing, controlling and managing information and knowledge. If this view holds true, the implications for future entrepreneurship and innovation are profound. To enhance the intelligence will be the main business line and the focus of e-entrepreneurial and e-innovation businesses.

In terms of e-marketplaces, it would appear that a trend has developed whereby the current highly successful mega e-marketplaces such as Amazon.com, eBay and the like increasingly drive smaller players out of markets and limit competition, thus turning e-marketplaces into oligopolies (Murtaza, et al., 2004). However, the ubiquity of the Internet is and will continue to be a strong counter force to the formation of oligopolies as there are actually no barriers to market entry in the cyber world, and the Internet provides constant opportunities to engineer new types of entrepreneurial business and innovation. Future e-marketplaces will require a whole range of quality services and innovative products, and alliances to deliver supreme value to customers. Thus, deals based only on price will be obsolete in future e-marketplaces.

Although the concept is as old as the manufacturing process, quality management will gain momentum in e-business management. The failure of many e-businesses and the dotcom crash have on the whole been caused by poor quality customer services and support, problems with Website security and technologies, and weaker change management (Janenko, 2003). The key principles of quality management will be the fundamental cornerstone to e-business success, which include:

- Customer focus;
- Continuous improvement and measurement to achieve customer satisfaction;
- Acquiring customer and market knowledge;
- Mutual respect, mutual trust and mutual benefit of all stakeholders;
- Consistent and precise performance to high standards in all areas of the organization;
- Striving for excellence through benchmarking, etc;
- Measurement of quality using data and tools;
- Improving quality and efficiency of decision-making;
- Better use of resources to achieve effectiveness and efficiency;
- Results focus;

- Management by facts and processes;
- Effective leadership and team commitment;
- Teambuilding and collaboration;
- Valuing employees & human and intellectual capital;
- Employee training/education/development;
- Empowerment and involvement; and
- Opening channels of communication.

These familiar components of quality management undoubtedly offer an essential guide for the quality operations of e-entrepreneurial and innovation businesses. It is a wide-spread fallacy that a good quality Web site design and a high volume of hits or traffic are good indicators of quality and will lead automatically to e-business success (Janenko, 2003, Ross, 2003). Indeed, it is this misconception that turned the "dotcom boom" into "dotcom doom". The primary fundamental quality management constructs therefore still have appeal in current and future e-business management.

5. CONCLUSIONS

In this frenetically changing competitive landscape, entrepreneurship and innovation enable organizations to gain competitive advantage and hold the key to their e-business success. The fast growth and business success of companies such as eBay, Amazon.com, travel.com and priceline.com, along with the bankruptcy of numerous dotcom firms worldwide in 2000 hold potent management implications for IT innovation and entrepreneurial organizations worldwide. As such, e-entrepreneurship and e-innovation have become emerging disciplines for proactively responding to changes in the e-business world.

This paper identifies and studies issues and challenges facing e-entrepreneurship and e-innovation. One of the key issues facing e-entrepreneurship and e-innovation today, as demonstrated by the case studies in this paper is that e-business needs to respond closely to market needs and gain market credibility. Another key issue is that there should be credibility built within the e-business marketplace before inception of the business. In addition, the intangibility of an online service needs to be addressed in order to build brand awareness. The discussion of the issues as such provides readers with both theoretical and practical guideline for a further study.

REFERENCES

- Hamm, S. (2003). Startups may die, but not their bright ideas. *Business Week*, March 10, 2003, 52-53.
- Janenko, P. M. (2003). E-business: the illusion of automated success. *The TQM Magazine*, 15(3), 180-186.
- Lee, H. L. & Whang, S. (2002). Supply chain integration over the Internet. In J. Genunes et al. (Eds.), *Supply chain management: models, applications, and research directions* (pp. 3-18). Bordrecht: Kluwer Academic Publishers.
- Martin, L. M. (2004). E-innovation: Internet impacts on small UK hospitality firms. *International Journal of Contemporary Hospitality Management*, 16(2), 82-90.
- Mellahi, K. & Johnson, M. (2001). Does it pay to be a first mover in e-commerce? The case of Amazon.com. *Management Decision*, 38(7), 445-452.
- Murtaza, M. B., Gupta, V., & Carroll, R. C. (2004). E-marketplaces and the future of supply chain management: opportunities and challenges. *Business Process Management Journal*, 10(3), 325-335.
- Ross, D. F. (2003). *Introduction to e-supply chain management: engaging technology to build market-winning business partnerships*. Boca Raton: St. Lucie Press.
- Steinberg, A. (2004). Entrepreneurship and success in e-business: on changing meanings of expertise and community in e-entrepreneurship. London: The London School of Economics and Political Science. Retrieved April 21, 2004, from <http://www.mariecurie.org/annals/volume3/steinberg.pdf>.
- Steinberg, A. (2003). *The re-definition of expert knowledge in e-entrepreneurship: a study on the sense-making of success and decision-making amongst e-entrepreneurs in the wake of the dotcom crash*. London: London School of Economics.
- Winston, P. (2003). Cybersettle Inc. www.cybersettle.com. *Business Insurance*, November 3, 2003, 37(44), 12.
- Zhao, F. (2006). *Maximize Business Profits through E-partnerships*, Hershey, NJ: IDEA Group Publishing.

0 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/proceeding-paper/issues-challenges-facing-entrepreneurship-innovation/33220

Related Content

A Systemic, Participative Design of Decision Support Services for Clinical Research

Alexandra Pomares Quimbaya, Rafael A. González, Wilson Ricardo Bohórquez, Oscar Muñoz, Olga Milena García and Dario Londoño (2014). *International Journal of Information Technologies and Systems Approach* (pp. 20-40).

www.irma-international.org/article/a-systemic-participative-design-of-decision-support-services-for-clinical-research/117866

Indigenous Knowledge Systems

Osarumwense Iguisi and Osaro Rawlings Igbinomwanhia (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 5036-5045).

www.irma-international.org/chapter/indigenous-knowledge-systems/184206

Machine Learning

Petr Berka (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 205-214).

www.irma-international.org/chapter/machine-learning/112329

Prediction of Ultimate Bearing Capacity of Oil and Gas Wellbore Based on Multi-Modal Data Analysis in the Context of Machine Learning

Qiang Li (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-13).

www.irma-international.org/article/prediction-of-ultimate-bearing-capacity-of-oil-and-gas-wellbore-based-on-multi-modal-data-analysis-in-the-context-of-machine-learning/323195

Design and Implementation of Home Video Surveillance Systems Based on IoT Location Service

Wei Xu and Yujin Zhai (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-18).

www.irma-international.org/article/design-and-implementation-of-home-video-surveillance-systems-based-on-iot-location-service/318658