Asia Pacific Journal of Research in Business Management
Vol. 8, Issue 6, June 2017 Impact Factor: 5.16, ISSN: (2229-4104)
www.skirec.org Email Id: skirec.org@gmail.com

ENTREPRENEURSHIP IN THE DIGITAL ERA

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ABSTRACT

The most obvious impact of the Internet for entrepreneurs is the creation of a whole new segment of online startups. The largest of these startups, including Google and Facebook, are now taking their place among the most valuable companies in the world. All of these foster innovations. As a result, the possibilities for entrepreneurship are expanding beyond the traditional boundaries of high-tech clusters to include all people in all regions that have access to the open Internet. By the very nature of the Internet and the virtual world environments in which digital entrepreneurs compete, the more digital an entrepreneur is, the more international their venture. Thus, the present paper focuses on elaborating the concept of entrepreneurship in the digital era. For this some of the previous literature was reviewed and presented. The literature suggested that the presence of ICTs has given a boost to SMEs and offered new opportunities which were previously unavailable. Next some terms and a model related to entrepreneurship in digital age have been given. Lastly, the authors have given certain tips for successful entrepreneurship in the digital age.

KEYWORDS: *digital, entrepreneurship, information technology*.

INTRODUCTION

Much of life has changed with the advent of the internet, and entrepreneurship is no different. Today's entrepreneurs have more resources at their fingertips than ever before. The internet made many tools available to traditional entrepreneurs but it also opened up an entirely new place to do business. Some of the biggest companies out there today are doing all of their business on the web. In fact, the business models wouldn't even exist without the internet. Today, overcoming the barriers to starting a business have never been easier. It's as simple as creating a video, placing it on YouTube, and asking for donations. It's the ability to secure funding from the every-day people. Gone are the days when a person with a great idea had to depend on bank or private funding to start their business **(Alton, 2014)**. Digital businesses are based on customer experience and innovation. Drucker defines entrepreneurship as using the tool of innovation to exploit change. When everyone with a smartphone is a media house, it is important to be interesting to stand out in the crowd. Digitization has redefined the possibilities of entrepreneurship. The barriers of the analog world are disappearing. Failure is getting to be less of a taboo - a sure sign that a society is ready to see the rise of entrepreneurs primed to make a mark in the universe **(Bhaduri, 2015)**.

Davidson and Vaast (2010) defined digital entrepreneurship as the practice of pursuing "new venture opportunities presented by new media and internet technologies". In digital entrepreneurship "some or all of the entrepreneurial venture takes place digitally instead of in more traditional formats" **(Hair *et al.*, 2012)**. Digital entrepreneurship is a subcategory of entrepreneurship in which some or all of what would be physical in a traditional organization has been digitized **(Hull *et al.*, 2006)**. Any new digital venture that has identified and mastered the technology needs to undertake defined business activity and must grapple with market orientation as another central determinant of success in digital entrepreneurship, with success defined in terms of creating a new digital enterprise. Three determinants of market orientation in digital entrepreneurship: technological skills to sustain the digital venture, tools for managing an information-rich business environment and knowledge of the wider and more diverse marketplace available to digital enterprises compared to non-digital enterprise. The principals of a new digital venture have had to identify and master the technology needed to operate their business, which is no small task **(Kearns *et al.*, 2005)**. They may feel that they now know what they need to know in order to be successful, disregarding the principles of market orientation and the question of whether to adopt a new technology **(Hull *et al.*, 2007)**, all of which in turn is likely to lead to the failure of the new venture.

In the present era where the smallest of tasks have been taken over by technology, there is need for new and upcoming businesses to keep track of the technological advancements. Entrepreneurs in this digital age must be aware of the changing scenario. Therefore, the present study aims to clarify the concept of entrepreneurship in the digital age so that the problems and shortcomings of traditional entrepreneurship do not present themselves to new and upcoming entrepreneurs. The study focuses on what has been done previously and what can be done in the future for success of such digital ventures.

REVIEW OF LITERATURE

Review of literature provides an up-to-date understanding of the subject and its significance in present times. Therefore, in order to understand the concept of entrepreneurship in the digital age, previous literature was reviewed and presented below in chronological order.

Osterwalder (2002) outlined a concrete methodology and proposed some practical tools that shall foster entrepreneurship and enterprise development for the Internet era in developing countries. A class of knowledgeable entrepreneurs and business architects must be developed if developing countries want to bridge the digital divide. ICT stay useless tools without the know-how to use them. But by using the new communication channels for knowledge transfer it is far from inevitable that ICT will have a negative impact on developing economies. The bridging of the so-called digital divide is an important issue in today's development efforts of international and non-governmental organizations and developing countries. This does not only concern access to new information and communication technologies (ICT) such as the Internet, but also access to the know-how to use these technologies for economic development. Many of the recent international initiatives to narrow the digital divide stress the necessity to develop a knowledgeable class of e-entrepreneurs that are able to use ICT.

Hull *et al*. (2006) presented a framework of digital entrepreneurship that included a typology of new digital ventures that encompassed three levels of digitization- mild, moderate and extreme, the characteristics of each type of new digital venture, and a discussion of how those characteristics shape the critical success factors of each type of venture. Specific issues addresses include digital or virtual products and services, digital or virtual workplaces and the effects of relying on computer-mediated communication, the changing role of market orientation across the different types of new ventures, and the instant globalization effect. The more immediate contribution of this paper is that it introduced a new line of thinking about the internet and about digital ventures.

Jackson (2009) explored the potential of digital entrepreneurship to create economic opportunities for unemployed and underemployed individuals living in low-income communities and the potential to improve the condition of the communities as well. The study reviewed current statistics on the digital divide and examined the dimensions of digital inequality that block entire sectors of society from a high quality of use of information technology. Community Technology Centers (CTCs) provide a physical place for low income residents in rural and urban areas to access computers and receive training. While CTCs afford valuable opportunities to connect those off-line at home to the web, it remains necessary to increase personal ownership of computers to enable people to truly capitalize on the opportunities in our digital economy. Youth today across virtually all segments of society are far more oriented to the digital world, be it through the use of cell phones, computer games, and other common consumer goods ranging from cameras to cars, which are increasingly computerized.

Davidson and Vaast (2010) suggested that entrepreneurship in the digital economy entails three distinct, yet interrelated, types of opportunities: business, knowledge and institutional. The knowledge intensive and ground-breaking nature of IT requires entrepreneurs to engage in each form of entrepreneurial practice to create sustainable ventures. The authors found that entrepreneurial practices in the digital economy are inherently socio material. Investigating these three forms of entrepreneurship together and the socio material practices through which they are enacted provides a deeper understanding of the nature and dynamics of new venture discovery and exploitation. The authors illustrated these points with the example of an online dating service, eHarmony, and developed a model to highlight how socio material practices of business, knowledge, and institutional entrepreneurship are exhibited.

Reuber and Fischer (2010) reviewed past research in international entrepreneurship, as well as the broader fields of entrepreneurship, international business, marketing, management and management information systems, to identify firm-level resources that are associated with the successful pursuit of international opportunities in internet-enabled markets. The authors presented a theoretically grounded review of the research that has been carried out on each resource. The review spanned 33 journals, representing five different business areas, during the period 2000–2010. The authors identified three internet-related firm-level resources: online reputation, online technological capabilities, and online brand communities.

Javalgi *et al*. (2012) contributes to the understanding of entrepreneurship in SMEs in emerging markets such as India. This aim is accomplished through the examination of companies that adopt the incremental decision-making methods proposed by Lindblom (1959). Advancements in internet technology are enabling Indian entrepreneurs to engage in entrepreneurial activities and

innovations using new business models to achieve scale and scope as they begin to compete in a global marketplace. An understanding of how these Indian entrepreneurs are successfully growing and rapidly expanding their businesses is critical, not only from research perspective, but also from a practitioner view.

Hair *et al*. (2013) explored the advantages and challenges that the networked world offers the Market-oriented digital entrepreneur. In particular, the authors examined the role of electronic community and communication and how successful digital entrepreneurs takes advantage of electronic community technologies to facilitate more effective communication with customers, partners, the digital organization, and in communicating the "product" of market orientation to the marketplace. This paper has shown the value of applying market orientation to entrepreneurial digital ventures and the potential for greater application of market orientation by the digital entrepreneur by the use of electronic communities and, more generally, CMC (Computer Mediated Communication).

Domenico *et al*. (2014) used data from a qualitative study of 23 online home-based business entrepreneurs, and proposed the augmented concept of 'mental mobility' to encapsulate how they approach their business activities. In-depth inductive research studied into entrepreneurs' experiences of running home-based online businesses. Drawing on Howard P. Becker's early theorising of mobility, together with Victor Turner's later notion of liminality, the authors conceptualised mental mobility as the process through which individuals navigate the liminal spaces between the physical and digital spheres of work and the overlapping home/workplace, enabling them to manipulate and partially reconcile the spatial, temporal and emotional tensions that are present in such work environments.

Ziyae *et al*. (2014) investigated the effect of entrepreneurs' international experience, innovation capability, and market capability on the internationalization speed of EBSs (Electronic Businesses). The current study is considered as an empirical research and the research methodology is descriptive-correlative type. The data was collected from Small and Medium-Sized Enterprises (SMEs) whose activities are partially internet-based and have involved in the international business processes. A total of 135 SMEs in the textile cluster were classified as the internet-based businesses. To test the research hypotheses, the study used Structure Equation Modelling (SEM) and the collected data were subjected to correlational analysis and path analysis. The results revealed that the speed of foreign market entry by EBSs is positively affected by entrepreneurs' international experience, business innovation capability, and marketing capability.

Jones *et al*. (2015) contributed to developing research enquiry relating to research at the Marketing and Entrepreneurship Interface (MEI) from the small and medium-sized firm (SME) marketing perspective. The paper presents findings emanating from a digital destinations project based on the south coast of England and a new, on-going project on implementing digital marketing strategies in the context of small owner-managed firms. This area of research advances knowledge in several areas. Firstly, there are still gaps in knowledge relating to the study of entrepreneurs and the challenges associated with use of digital marketing and social media, including Twitter, Facebook etc. In addition, there are reported difficulties with the embedding of e-marketing in SMEs for a number of reasons, notably employee resistance, a lack of technological 'know how' and, a lack of marketing competency, along with all the other associated limitations of a small business such as lack of finance, lack of business resource. Third, these firms are geographically remote, in a rural region where they are situationally embedded and dependant on the overall effectiveness of destination marketing and where small tourism businesses often rely on a range of stakeholder relationships and agents to help promote their businesses via traditional (administrative) marketing approaches.

Kende (2015) showed that instead of focusing on fully duplicating a high-tech cluster, governments could focus on creating an enabling environment. Such an environment would notably include Internet access that is widely available, affordable, and open. Access to the open Internet will then allow for more inclusive innovation—not just within developed regions but also extending to emerging countries. This new online entrepreneurship can enable entrepreneurs to surmount barriers not only of their physical location, but also barriers of education, gender, and physical disability. In addition, the innovations that result from access to the open Internet may themselves be inclusive, addressing needs in their home markets.

Ngoasong (2015) used qualitative case studies developed in Cameroon (Africa) to investigate how ICTs as operand resource shape the choices that digital entrepreneurs make when dealing with local contextual influences on digital entrepreneurship. Using in-depth case interviews, he explored how an emerging country's baby owner managers of small digital enterprises respond to local context challenges associated with digital entrepreneurship; and thereby contribute to existing studies on how entrepreneurs grapple with the opportunities and challenges of identifying and pursuing entrepreneurial opportunities offered by developments in ICTs. Based on empirical analysis of the cases the author developed five testable propositions about how digital entrepreneurs respond to local contextual factors in creating digital entrepreneurs.

Mohan (2016) focused on elaborating the importance of entrepreneurship, innovation in digital era. The author has studied the concept of innovation and entrepreneurship in her paper. She found that emerging markets are challenging developed economies as the leading source of entrepreneurial innovation. Entrepreneurs are ready to shift attitude toward more collaboration with large companies. Technology clusters, inspired by Silicon Valley, can provide a vital ecosystem for entrepreneurial success. Young entrepreneurs demand active support from government to sustain their leadership in technology innovation. The paper also includes examples of innovative entrepreneurs and how the innovation in products/services helps the business in survival and growth in present globalized market place.

Welsum (2016) studied how the digital technologies offer tremendous growth opportunities but require entrepreneurs to fully unlock their economic potential as the basis of new businesses or an enabler of the transformation of already established firms. Enabling digital entrepreneurs in developing countries is especially important as this allows for the creation of new markets, the exploitation of existing markets and integration into global value chains. Infrastructure, skills, financial inclusion and market access appear to be the enabling factors policy makers in these countries should focus on, at least initially. Ensuring affordable, reliable, safe and high-speed access to the technology—including at scale in the cloud—is in place is critical in removing barriers to digital entrepreneurial success.

TERMS RELATED TO ENTREPRENEURSHIP IN THE DIGITAL AGE AS GIVEN BY HULL *ET AL*. IN 2007

DIGITAL ENTREPRENEURSHIP: Digital entrepreneurship may be defined as entrepreneurship in which some or all of the entrepreneurial venture takes place digitally instead of in more traditional formats. Products, distribution, the workplace- any of these and more could take digital form in an entrepreneurial venture.

DIGITAL WORKPLACE: The reach of the Internet allows digital entrepreneurs to take advantage of potential employees and partnerships all over the globe without forcing anyone to relocate. Global virtual teams can offer considerable benefits to the digital entrepreneur, making it easy to locate and hire talent, harnessing cultural diversity, improving resource utilization and increasing flexibility and responsiveness.

DIGITAL PRODUCT: Having a digital product provides advantages beyond the ease of manufacturing, storing, and shipping. The product can be modified easily, to the point where incremental innovation can be done seamlessly and even radical changes can be made without seriously disrupting the process by which the product is marketed, produced and sold.

DIGITAL SERVICE: Offering services in the digital realm is a big business. From a technical standpoint, it may amount to nothing more than toggling a few bits. To the customer, however, the service may be much more, and considerable profits can be made when the cost of the service is minimal and the value to the customer is high.

DIGITAL MARKETPLACE: The internet makes available huge assortment of products and services to everyone on the planet with an internet connection. For digital products like music or software, the distribution of a product becomes instantaneous and free. With the introduction of a website, any venture instantly goes global.

MODEL FOR DIGITAL ENTREPRENEURSHIP

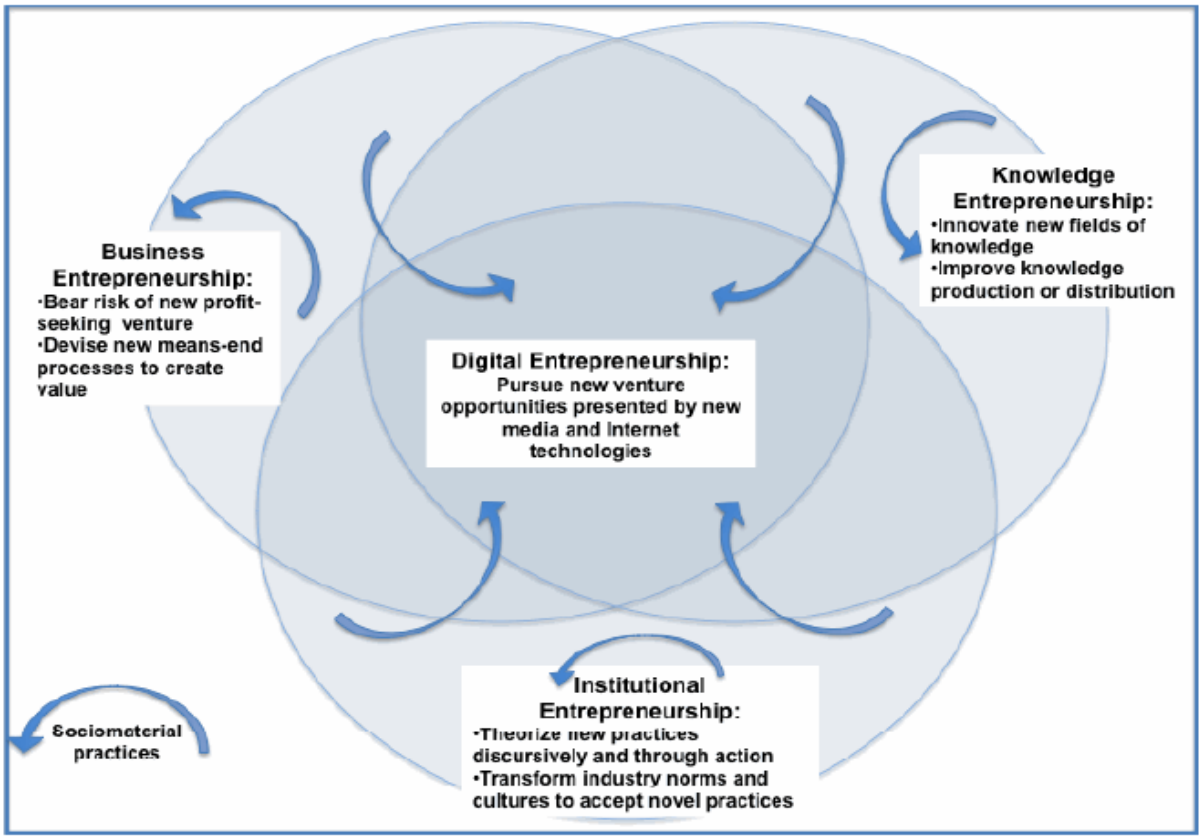

Figure 1: Analytic model for digital entrepreneurship

Source: "Digital Entrepreneurship and Its Socio material Enactment" by Davidson and Vaast, 2010, p. 8

Digital entrepreneurship may be better understood by examining the three types of entrepreneurial opportunities i.e. business, knowledge, institutional (Davidson and Vaast, 2010: 8). Each of these is explained below:

BUSINESS ENTREPRENEURSHIP: Business entrepreneurship practices are enacted through the IT its services are based on: users access the firm's website via the Internet to answer the questionnaire;

payment is electronic; profiles are run through computerized algorithms containing the database of subscribers; information on matches are presented electronically; and introductory exchanges between potential matches occur online through the firm's website services.

KNOWLEDGE ENTREPRENEURSHIP: Knowledge entrepreneurship practices are carried through a combination of live studies and online studies on the firm's website. The online site encourages users (whether registered customers or not), to participate in online studies. Data collected from millions of subscribers are utilized to assess the matching algorithm. Businesses also utilize their websites as a repository for "relationship science knowledge" with article postings and participative bulletin boards.

INSTITUTIONAL ENTREPRENEURSHIP: Institutional entrepreneurship practices are carried out through traditional advertising on television and online advertising, but readers' and customers' engagement with its various sites is also critical. For example, relationship success stories that legitimize its "science" are presented not only in TV ads but in self-reported (participative) stories on its advice website. Online participants in its research studies are encouraged to return frequently to try out new tests.

TIPS FOR SUCCESSFUL ENTREPRENEURSHIP IN THE DIGITAL AGE

1. Take advantage of the resources a co-working space provides

A lack of office space often prohibits people from starting a business. Co-working spaces solve this problem while giving you a place where you can easily collaborate. This is changing the pace that businesses are created and how quickly businesses iterate because they have access to great resources.

2. Use free services to monetize your business

Entrepreneurs should promote their businesses through one of the many free services that have recently cropped up. Now there are platforms for every entrepreneur to get out there and be successful without hiring a salesman and a team to build their website. Sites that help anyone monetize or sell their skills online (like TaskRabbit and ModCloth) are examples of these new platforms.

3. Use crowd funding to keep your equity

These aspiring entrepreneurs can also benefit from crowd funding, a platform that gives your product a global stage and lets the world be your funder. It is pointed out that crowd funding can help with later investment because it lets you keep your equity and stay in control. An entrepreneur has a harder time scaling his business and getting investors if he has given away his equity.

4. Invest in the global mobile market

As mobile devices continue to become smarter and more personable they are also becoming more affordable. According to reports, 67 percent of Google Play revenue is coming from outside the U.S. Statistics like this support the belief that entrepreneurs need to consider a global market.

5. Recognize innovation can come from anywhere

To boost innovation, create a forum for open, honest and respectful communication where employees can voice their opinions. It's important to allow anyone in your company to have direct access to the people making the big decisions. Hire great people and give them the chance to innovate. This will help them guide a business.

6. Be a data-driven entrepreneur

Making data driven decisions is key to helping the business grow. Taking advantage of the available data and using it to find out what works best. Small data-driven changes can have a huge impact on the success of a business. Feelings don't matter the same way as data. It is recommended to use services like Google Analytics for traffic statistics and Google AdWords to help improve SEO and hone in on your target market.

7. Make product advocates part of your team

Understand who the advocates are and use them to engage with community. Once these influencers are found, one should work hard to keep them engaged. If someone loves a product they will be productive for the venture, making the product a part of their life and sharing it with their friends.

CONCLUSION

Advances in information technology (IT) have meant that, for many, work is an activity rather than a place (Felstead *et al*., 2002). People no longer need to be bound by physical spaces in order fulfils their work commitments. Digital entrepreneurship is similar to traditional entrepreneurship in the sense that "digital ventures aim at generating a financial profit and are directly inscribed into the economic realm, such as creation of a new company or commercialization of an innovation" (Davidson & Vaast, 2010: 2). Besides this there are vast differences in the way a traditional or a digital firm operates. Digital ventures have greater market opportunities due to greater connectivity. Market orientation is critical for all businesses regardless of their structure or orientation; entrepreneurial or non-entrepreneurial and digital or non-digital. Entrepreneurs need to focus of various aspects which give them an advantage over the traditional formats. Therefore, the present study deals with the general idea regarding entrepreneurship in the digital age. For this some of the previous literature was reviewed to understand what has been done in this field till date. Next some terms and a model related to entrepreneurship in digital age have been given which examines the

three types of entrepreneurial opportunities i.e. business, knowledge, institutional. Lastly, the authors have given certain tips for successful entrepreneurship in the digital age. This will be beneficial not only to new and upcoming entrepreneurs but also for those looking to transform their businesses.

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