

FOUNDERS' PROFILE AND THE SUCCESS OF NEW DIGITAL VENTURE

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Abstract:

The development and advancement of information and communication technologies (ICTs), as well as the resulting innovations, have offered exceptional opportunities for many entrepreneurs to start new businesses in different fields of activity based on the use of information and communication technologies, hence, the emergence of digital entrepreneurship. A new form of

entrepreneurship, in which, digital start-ups constantly threaten the big companies from traditional market. For example, in just few months, companies like Air BnB, Booking, Über, managed to be the most credible competitors and threat for many multinationals. However, on the one hand, as there are survivors and successful digital ventures, on the other hand, not so many ventures survived. Furthermore, since digital ventures are characterized by distinctive features, any analysis of success of such ventures has to take care of such unique aspects. The present research is undertaken with the aim to identify factors related to entrepreneur's characteristics and their impact on new digital venture's success, therefore, develop a conceptual model and discuss testable propositions for digital entrepreneur's characteristics influencing digital ventures' success.

Key words: digital entrepreneurship, digital entrepreneur, success, new ventures

Résumé :

Le développement et l'avancement des technologies de l'information et de la communication (TIC), ainsi que les innovations qui en ont résulté, ont offert à de nombreux entrepreneurs des opportunités exceptionnelles pour créer de nouvelles entreprises dans différents domaines d'activité basées sur l'exploitation des technologies digitales, d'où l'émergence de l'entrepreneuriat digital. En effet, ces entreprises digitales menacent constamment les grandes entreprises du marché classique. A titre d'illustration, des start-ups telles que Air BnB, Booking, Über, ont réussi à être les concurrents les plus crédibles et les plus menaçantes pour de nombreuses multinationales. Cependant, malgré l'existence d'une part, des entreprises ayant su asseoir leur leadership sur le marché international et sont devenus des modèles de réussite pour les nouveaux start-upers, peu d'entreprises ont pu survivre. De plus, étant donné que les entreprises numériques se caractérisent par des caractéristiques distinctives, toute analyse de leur succès doit prendre en compte ces aspects uniques. De ce fait, la présente recherche est entreprise dans le but de mettre en relief, le rôle de l'entrepreneur à assurer le succès de sa nouvelle entreprise numérique. Par conséquent, nous développerons un modèle conceptuel et discuterons des propositions vérifiables des caractéristiques du fondateur qui affectent le succès de son entreprise numérique.

Mots clés : Entrepreneuriat digital, Entrepreneur digital, succès entrepreneurial, nouvelles entreprises.

I. Introduction:

The increasing advancements of Information and Communication Technologies (ICTs) and Internet affected enormously the business world. In this context, we've noticed the appearance of several digital ventures that solely operate in the digital sphere, moreover, firms with physical presence tend to get benefit from digital technologies in order to develop their operations, extend their markets and increase their sales. However, despite the evolution and success of several digital ventures such as facebook, amazon, airbnb.. and so on, which continuously create several job opportunities for a huge number of people, we have noticed the presence of very limited studies related to digital entrepreneurship or to digital ventures that operate solely in the digital sphere(Zhao and Collier, 2016; Recker and Von Briel, 2019; Zaheer et al., 2019a), especially, in the African context (Taura et al., 2019)

Indeed, digital entrepreneurship is claimed to be an entirely new field of research, given the unique characteristics of digital technologies (Hull et al. 2007; Nambisan 2016). Furthermore, since digital ventures are characterized by distinctive features, any analysis of success in such ventures has to take care of such unique aspects. Therefore, as part of this research, we seek to contribute to digital entrepreneurship research and shed the light particularly on digital venture's success, which is considered as, a notable research theme that needs to be investigated (Zhao and Collier, 2016). Our present research will focus on success factors of digital enterprises in their early stages, by emphasizing the role of the founder's profile and characteristics.

The present research was undertaken in consideration of the potential of digital entrepreneurship in contributing to social, economic and environmental regeneration. We believe that, the study is hopeful to attract scholarly attention in further exploring this discipline.

The article is organized as follows, after the introduction, a general review of digital entrepreneurship as well as, its main characteristics are presented. Afterward, a presentation of digital entrepreneur's major characteristics will be provided. Next we will identify factors related to digital entrepreneurs, which are considered to be relevant for their digital venture's success. Thereafter, we develop measurement indicators for new digital venture success. Finally, we propose a conceptual model of the study and address a conclusion.

II. The emergence of digital entrepreneurship:

Over time, from 1700s, entrepreneurship was broadly associated with being a risk-taking activity (Cantillon, 1755), later on, the concept of entrepreneurship has been related to the pursuit of opportunities (Stevenson, 1985), and also represented a source of perturbation of the economy because it generates conditions of creative destruction (Schumpeter, 1934). The entrepreneurs tend to destroy industries while creating new ones. This vision is similar to digital entrepreneurship vision as initiated by Davidson and Vaast (2010), since digital technologies, have created new ways of communication, and created new markets and industries, while threatening long existing ones.

The advancement in digital technologies and the spread of information via electronic data networks played a major role for future economic growth (Kollmann, 2006). Digital technologies influence enormously information transfer and exchange, as it became easier and accessible for commercial purposes. Therefore, the economy has shifted from traditional economic sectors of agriculture, production and services towards information industry sector (Kollmann, 2006). Moreover, with the intensive use of information technologies new opportunities has been created for entrepreneurs to create their digital enterprises and participate in the emergence of digital entrepreneurship relying on the need to “pursuit opportunities based on the digital media and information and communication technologies” (Davidson and Vaast, 2010, p:2).

While the term ‘digital entrepreneurship’ has been used by some researchers and policy makers, its definition remains quite ambiguous. European Commission (2015) appears to propose the following definition:

“Digital entrepreneurship embraces all new ventures and the transformation of existing businesses that drive economic and/or social value by creating and using novel digital technologies. Digital enterprises are characterized by a high intensity of utilization of novel digital technologies (particularly social, big data, mobile and cloud solutions) to improve business operations, invent new business models, sharpen business intelligence, and engage with customers and stakeholders. They create the jobs and growth opportunities of the future.”

This definition doesn’t enclose only digital ventures whose whole business model is based on digital technologies. But also, physical companies who intended to use digital technologies either to increase their sales or to improve their business operations.

In addition, other authors suggest that this form of entrepreneurship goes far more than just taking advantage or adopting these digital technologies within the processes of the organization itself (Ngoasong, 2018), but view these technologies to be a key entry factor (Giones et al. Brem, 2017), assuming that digital businesses would not exist from the basis without these technologies. In this sense, we will focus, in this article, on entrepreneurs who started a business that exploits digital technologies as a key factor in production and that offers products that necessitate digital engagement (Sussan and Acs, 2017).

III. Characteristics of digital entrepreneurship:

Hafezieh et al., (2011), based on the work of Hull et al., (2007) proposed characteristics of digital entrepreneurship enabling the distinction between digital and traditional entrepreneurship. Their distinction factors advances seven main characteristics. The first is ease of entry, here, creating digital venture takes few time, while as pointed out by Hafezieh et al. (2011), digital entrepreneurs don't need huge monetary support to start their business. The second and third are ease of manufacturing and storing; which highlights the low costs of manufacturing and storage; and ease of distribution in the digital marketplace relates to distribution in digital market which became much quicker and cheaper. As fourth, authors suggest digital workplace; as thanks to digital technologies digital entrepreneurs can recruit talents without geographic delocalization. Then comes, digital goods and services, as any modification won't cause the interruption of production or selling process, same for digital services which, provide a very important value to the customer. And finally the last characteristic concerns digital commitment, where not as physical companies the development of commitment in digital ones might seem harder.

Besides the pre-cited characteristics, others seem pertinent to give more insights of this form of entrepreneurship, including, what has been referred by Kollman (2006) to be the **establishing environment** of the venture, as this e-venture have enormous growth potential and, yet, is also characterized by uncertainty of its future development. Furthermore, Kollman (2006) mentioned that the base idea focuses strongly on '**information**' as a competitive factor. He noted also the need for continual and further development and administration of an e-venture.

In general digital entrepreneurship depends globally on digital technologies, as these technologies change very dynamically, it requires for entrepreneurs to be ahead of new advancement and innovate continually (carrier et al., 2002).

IV. Digital entrepreneurs:

It is quite difficult to assume the existence of only one definition of an entrepreneur, many definitions were developed. These include a person who creates develops a new business, responsible for undertaking the risk associated to operating the company, he is also considered to be an innovator (Schumpeter, 1934). According to Schumpeter an entrepreneur looks for changes as a way to exploit opportunities generally issued form innovation process. As for digital entrepreneurs, researchers addressed some characteristics related to them.

Following the classification of Hafezieh et al., (2011) who proposed a typology of technology based entrepreneurs' characteristics. We will attempt to identify specific characteristics of digital entrepreneurs in the table below:

Table 1 – characteristics of digital entrepreneurs.

Characteristic	Research by	Findings
Age	Hafezieh et al. (2011)	Digital entrepreneurs were found to be young at an average age of (25-35) at the time they started their digital business.
Personal characteristics	Hafezieh et al. (2011) Van H et al. (2016) Zaheer et al., (2019b)	Digital entrepreneurs had great interest in information technology, (Hafezieh et al., 2011). Furthermore, they are quick to act on entrepreneurial intention, even though frequently in an informal structure. Digital entrepreneurs are known to have a digital entrepreneurial mindset, that encompasses, entrepreneurial orientation as well as the ability to learn and develop general understanding of web and mobile technologies (Zaheer et al., 2019b)
Previous experience	Kolleman, (2006) Serarols et al., (2006)	Experience in the internet industry was a major factor when it comes to establishing an e-venture. Their experiences encompass either having an experience in Web design and programming, or implementation and so on. In other cases entrepreneurs must have previous managerial or technical experiences related to ICTs.

Education	Serarols et al., (2008) Zaheer et al., (2019b)	According to Serarols et al., (2008) digital entrepreneurs have a superior educational level. Digital entrepreneurs studied STEM (Science, Technology, Engineering and Mathematics) basis in their education (Zaheer et al., 2019b)
Motivation of digital entrepreneurs	Hafezieh et al. (2011) Serarols et al., (2006)	They had great interest in information technology and this got them run a business on the internet (Hafezieh et al., 2011). Satisfying a need of working for themselves and perceiving market opportunities are mentioned as motivators of digital entrepreneurs.
Response to market needs	Van H, et al., (2016)	Digital entrepreneurs use “digital channels and social media for relationship building and maintenance with customers, suppliers and competitors” (Van H, et al., 2016, p:298)

Source: our own creation and adapted from Hafezieh et al., (2011)

V. Objectives of the study:

Despite the evolution and success of several digital ventures such as facebook, Alibaba, airbnb.. and so on, whom have created several jobs, we have noticed the presence of very limited studies related to digital entrepreneurship or to digital ventures that operate only in digital environment. Therefore, digital venture’ performance is quite a notable research theme that needs to be investigated (Zhao and Collier 2016).

The present project was undertaken in consideration of the potential of digital entrepreneurship in contributing to social, economic and environmental regeneration. Researchers and government decision-makers regularly consider digital entrepreneurship as a solution to reduce social margins (Sussan and Acs, 2017). In view of this, a research related to the success factors of digital enterprises requires to be addressed, which will be considered as a contribution to the professionals and policy makers who are keening to enhance the creation and growth of those companies. Therefore, the present research is dedicated to address the following objectives:

- Identify the success factors related to the founder’s profile and develop propositions alleviating the impact of each related factor on digital enterprise outcomes.
- Develop a better understanding on the relevance of the success factors related to physical enterprises in assuming the success of a digital enterprise.

VI. Methodology:

The methodology included a broad range of literature connected to performance and success of digital enterprises. Due to a lack of research (Zhao and Collier 2016, Zhaeer et al., 2019a) and the fact that Digital entrepreneurship is claimed as an entirely new field of research (Zhaeer et al., 2019a). All the factors addressed in this article are derived, from reports, and E-commerce, entrepreneurial success for non-digital ventures, challenges faced by entrepreneurs as well as high technology ventures related articles, along with, qualitative studies conducted within the field of digital entrepreneurship. Moreover, our research was based on human capital theory, social capital theory and psychological theory. Thereafter, for a clear assimilation of the identified factors, we chose to classify them into three categories Digital entrepreneur's Personal characteristics, human capital and social capital. Furthermore, these categories included sub-critical success factors (variables), for a purpose to give these critical success factors a multidimensional overview (Satar and John, 2016) necessary to make it comprehensive and clear to get an overview about digital venture performance related to the entrepreneur profile, and hence, address the research need within this realm (Zhao and Collier 2016). As a result, we came up with the above conceptual model (see figure 1). In this framework we categorized the identified founder characteristics into 3 categories.

VII. The proposed framework: Success factors of new digital ventures related to the founder:

The following section will review the identified success factors related to the founder, issued from our literature review. Afterward, we will develop testable propositions for evaluating the influence of those factors on digital venture success. At final, the mentioned factors will be integrated into a conceptual model (see figure1)

VII.1. Digital entrepreneur's personal characteristics:

Gender:

Cliff et al., (2004) found out that, enterprises created by women had less growth chances. In digital venture studies related to successful entrepreneurs, the authors revealed that the majority of digital entrepreneurs studied were men, and only few of them are women (Serarols, et al., 2008; Zaheer et al., 2019b). While, according to Serarols et al., (2006) dot-com firms founded by women are more successful than average, even though they announced, that there are few

women dot-coms entrepreneurs. From a global point of view, evidence related to successful digital venture have been founded by men, such as, Ebay, Airbnb, Facebook, Amazon..and so on.

Proposition 1: Digital new venture success is dependent upon the gender of the digital entrepreneur.

Age:

Several studies revealed digital entrepreneurs found to be younger (Serarolset al., 2008; Zaheer et al., 2019b) However, in another context, Lasch et al., (2003) and Carrier, C. et al.,(2002) found out that, digital entrepreneurs in France were not younger which has been explained by the number of years dedicated from those founders to accumulate experience, and changed the global assumed idea that only university intelligent students create successful internet start-up.

Even though, several studies addressed the positive effect of age on success (Lussier and Corman, 1996). As for digital entrepreneurs, according to Serarols, et al., (2008) age relates negatively to start-up success, and younger entrepreneurs appear to create more successful firms and theyalso claimed for traditional ventures, that older entrepreneurs create more successful traditional firms.Globally, we would conclude that internet market is turbulent and dynamic which necessitate knowledge requirements and adaptation, therefore, young entrepreneurs may have the set of skills to better adapt and innovate(Serarols, et al., 2008). Thus we propose:

Proposition2: There is a significant negative association between age and new digital enterprise success.

VII.2.Entrepreneurial traits of digital entrepreneur:

According to Lumpkin and Dess, (1996) entrepreneurs in ICT sector are supposed to be particularly motivated and be able to fulfill the key criteria of Entrepreneurial Orientation (OE) such as the propensity to act autonomously, the willingness to innovate and take risks, the tendency to be aggressive towards competitors and the pro-activeness toward market opportunities. In consistence with the previous findings, the literature primarily addressed the major role of innovativeness, risk taking and pro-activeness related to entrepreneurial

orientation, to have a significant positive effect on financial performance of an organization (Zhao et al., 2010; Satar and John, 2016)

From another perspective, intention driven factors, such as pull and push factors related to the founder were considered as a determinant for digital new venture's success. According to Serarols et al., (2006), dot-coms founders driven by pull factors such as the desire to work for themselves or having the perception of market opportunity tend to be more successful. As opposed, to those founders, who were driven by push factors and create their business either because of loss of employment, also, known as necessity driven entrepreneurs (Baptista, et al., 2014).

Furthermore, it might seem, that creating a venture in the digital sphere look simpler than it is for other traditional businesses. However, it's not easy to continue working on start-up until it reaches its first stages of success. In general, it is a simple but not an easy process. In that case, considering the importance of having entrepreneurial skills, however, having those skills without commitment creates less value (Zaheer, H. 2015).

Therefore, we propose the following proposition:

Proposition 3: Entrepreneurial orientation, pull factors related to the founder and the degree of his commitment has a positive significant impact on new digital venture success.

VII.3.Digital entrepreneur humain capital:

Human capital refers to “ the stock of personal skills that economic agents have at their disposal” (Piazza and Georgi, 2002, p: 463). As follows, we will tackle the digital entrepreneur's human capital, by covering the role of his/her education, experiences and skills on the performance of his/her digital venture.

Digital entrepreneur education:

Research held by Serarols et al. (2006) and Carrier et al., (2004) highlight the fact that digital entrepreneurs who attained high level of education have more chances to succeed. Moreover, (Serarols et al., 2008) demonstrate that educational level affects positively the success of both

traditional and digital ventures. Consistent with these statements, Serarols et al., (2006) suggest that the higher the educational level of entrepreneur is, the more successful their start-up will be. Even though, Roberts (1991) noted in his general finding that high technology entrepreneurs with a PhD were less successful than entrepreneurs with a Master degree, however, Hsu (2007), mentioned in the Internet industry, the positive effect of having a doctoral degree on the chances of start-up to be funded via a direct venture capital (VC).

More detailed descriptions on founder education background, was provided. On the one hand, Zaheer et al., 2019b) discovered when he studied successful digital start-up founders, that the majority of them had an educational background in STEM (Science, technology, engineering and mathematics). On the other hand, Colombo and Grilli (2009) found weak effect of technology education on growth of new technology based firms, while disclosing the significant direct effect of number of years in management or economic university education on these firms success.

Proposition 4: There is a significant association between digital founder education level and background on digital venture's success.

Digital entrepreneur's competences and skills:

Welsum (2016) argues that entrepreneurial skills are extremely important to the success of digital enterprises. These skills include the ability to identify good talents for his team, pursue and materialize new technology business opportunities, or consistently adaptation the company's business model. In addition, to having the ability to communicate or "pitch" the business project, to investors, is also considered essential, this is what Welsum and Lanvi, (2012) referred to as "dual competence" or "e-leadership skills", which emphasize the combination of entrepreneurial mindset along with technical and communication competencies through the business operation levels (Welsum and Lanvi, 2012)

A number of findings uniquely related to e-entrepreneurship enhance the importance of possessing technical competences and know-how in computer science, information management and business administration including; marketing, business management, financing or investments; in order to successfully run their digital ventures (Kollmann, 2006). Indeed, having "technical understanding of web and mobile application in the dimensions of programming,

application design and hosting, user experience, visual design and ‘growth marketing’ are important requirements for achieving traction” (Zaheer, H. 2015, p: 63) for digital businesses specially in their first stages. Whereas, a **high level of expertise** in the previous mentioned requirements was stated by founders as not necessarily required. Instead having, at least, sufficient knowledge to assess technological options and processes (Zaheer, H. 2015) was assumed to be crucial. Even though, having minimum technical skills was found to be determinant. Other studies, argue about the importance of acquiring managerial skills. Sharma and Mahajan (1980) found that the reason behind the failure of almost 90% of new business ventures was related to the entrepreneur’s poor managerial skills (cited by Welsum, 2016). Equally, Razi, A. et al., (2004) considered having managerial incompetence and misuse of funds a relevant reason of dot-coms failure.

Proposition 5: There is significant positive association between digital entrepreneur competences and skills and new digital venture success

Founder previous experiences:

Several findings related to digital and technological ventures highlighted the significant effect of technological, industrial and managerial experiences on digital and technological new venture’s success. Having those experiences make it easy for founders to encounter the dynamics of digital sector and stay innovative while responding proactively to the market needs.

For instance, having a professional experience in the industry was considered to be a major factor for e-business ventures success (Serarols, et al., (2008); Ashurst et al., (2012)). Moreover, according to, Gimmon and Levie (2010) technological expertise affect significantly the success of high tech ventures. Furthermore, Kaplan and Strömberg,(2004) showed in their study that venture capitalists prefer founders with considerable experience.

In the same perspective, Kollmann, (2006, p: 334) stated that “*experience in the net industry, knowledge of the interrelated aspects of the Net Economy and real experience in operative management are increasingly the points that truly matter when establishing an e-venture*”. Not to forget to mention, experience in marketing, which has been highlighted by Song et al., (2008); when they conducted a meta analyses on several studies related to new technology venture’s success; they found out that having experience in marketing and industry affect

significantly the venture's success. Above all, studies has shown that having previous experience in a multinational or a big company doesn't lead to success compared to getting experience in SMEs or new innovative venture (Lasch, F.,et al., 2005). Another interesting finding of (Hsu, 2007) mentioned the major role of having a previous start-up management experience, in reducing the risk chances. Moreover, having prior experience in start-up creation or having a prior failing experience was considered as a variable affecting the start-up success (Serarols, et al., 2008). In fact, this experience, provides entrepreneur with advanced managerial skills and problem solving capacity (Serarols, et al., 2008).

Proposition 6: founder previous experiences have a significant positive influence over success of new digital ventures.

VII.4.Digital entrepreneur social capital:

Founder's social network:

There have been many studies addressing the importance of personal and business networks for the success of startups(Wirtz et al., 2010; Srinivasan and Venkatraman, 2018; Spiegel et al., 2011; Spiegel et al.,2013). As it may play a crucial role for the discovery of opportunities, securing resources, and obtaining legitimacy(Elfring and Hulsink,2003, Davidsson and Honig, 2003).Additionally, cited by Satar, M. et al., (2016) and related to online social networks, a study showed a positive effect of entrepreneur's network size in LinkedIn on entrepreneurial survival (Song and Vinig, 2012)

Moreover, founder's social network plays a major role in recruiting executives and bringing together founding team members, or co-founders, either, from personal friends or professional relationships in previous workplaces (Zaheer et al., 2019b). Consistently with the previous statement, Chandler et al., (2005)revealed that team founded ventures have a higher performance compared to the individually founded ventures, which highlights the importance of having a founding team for the performance of new ventures. Furthermore, relying on social networks, in getting financial support especially in early stages of the business is quite a substitutable solution

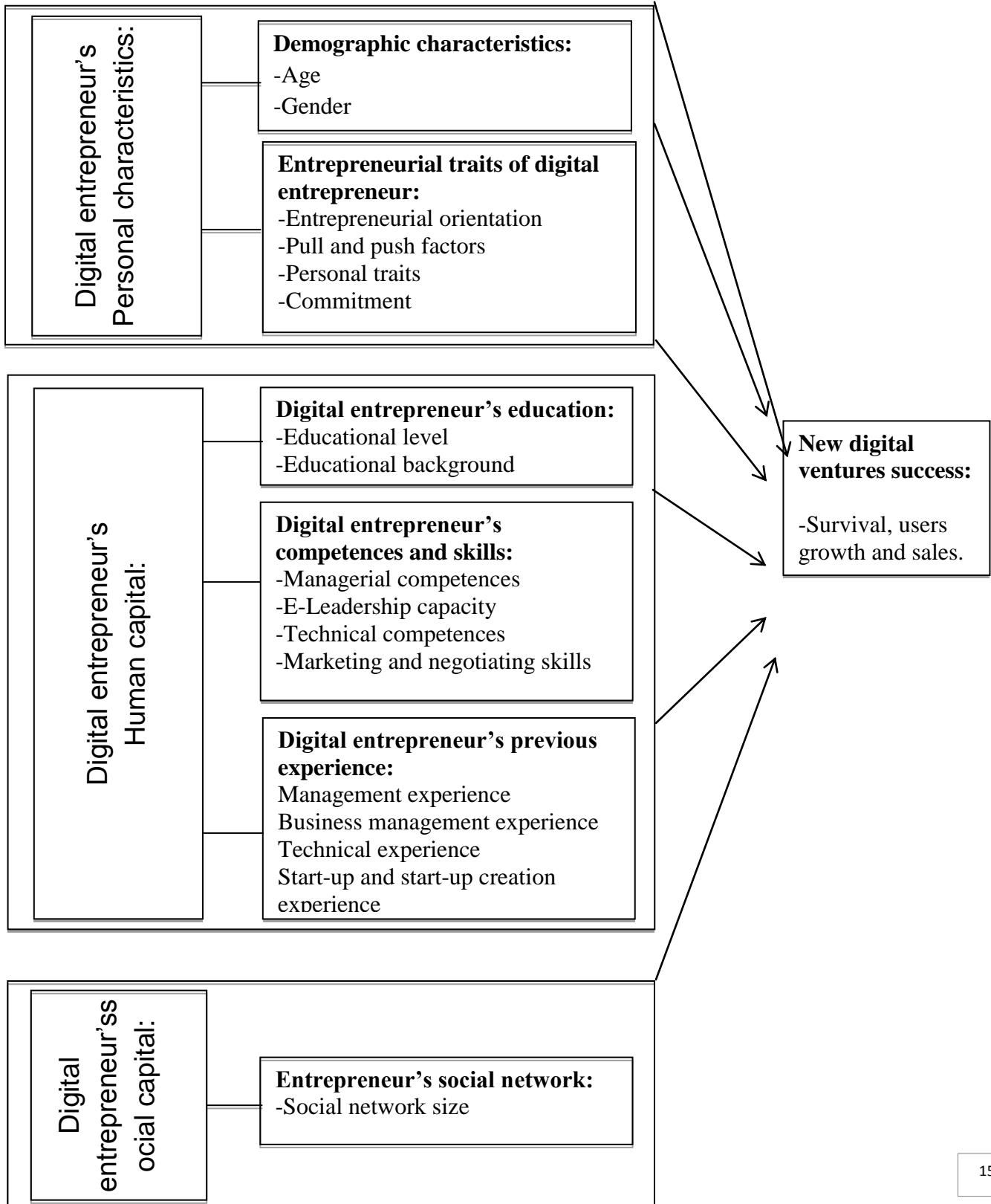
for founders, especially, in countries where funding support is less developed (Zaheer et al., 2019b).

Proposition 7: digital enterprise's success is dependent upon the networking size of the digital entrepreneur.

VIII. Indicators of measuring the success of digital new ventures:

The particularly difficulty of measuring success of new ventures resides basically on the lack of historical information, necessary to pretend their success. Moreover, sometimes success is not clearly defined or understood by digital entrepreneurs (Zaheer et al., 2019b). Some studies, related to doc-com ventures classified success indicators into objective and subjective measures. Objective measures as quantitative indicators, are related to the business results such as profitability, firm size and growth (Unger et al., 2010). While, subjective measurement depends on the entrepreneur's perception on the results achieved by its venture either financially or operationally. Along with subjective measurements, Serarols et al., (2006) distinguished two approaches, the first approach relates to entrepreneur perception and satisfaction within firm's performance and the second approach is based on competitor's results. Form another point of view, according to Zaheer et al., (2019b) the most frequent measures stated by digital founders concerning their new venture's success enclose firm survival, sales, sales growth, number of users and user growth. Considering the fact that, subjective measurements depend on entrepreneur's expectation and perspective, every founder has its own perception that it might differ from one to another.

Figure 1: The proposed Conceptual model



IX. Conclusion:

The present research was realized in consideration of the potential of digital entrepreneurship in contributing to social, economic and environmental regeneration as well as the need and importance of leading pertinent researches in other contexts.

This article presents a conceptual model relating digital entrepreneur's profile and new digital venture's success. Throughout the research, we have conducted a literature review, derived from dot-com firms, digital firms, e-commerce, e-entrepreneurship, high technology entrepreneurship and traditional entrepreneurship literature, even, from reports. Therefore, we developed a conceptual model and discuss testable propositions addressing the effect of digital entrepreneur's characteristics on new digital venture's success.

In light of the above, we ended up with identifying several factors that we classified into 3 main categories related to personal characteristics, human capital and social capital of the digital entrepreneur. Each category advanced a set of relevant factors which includes in general; demographic characteristics, entrepreneurial traits, education, competences and skills, previous experience, and social networks.

This paper may make a contribution to the literature on digital entrepreneurship discipline by its encountering of several findings related to digital entrepreneurs and addressing their profile characteristics more globally. Moreover, limited to our knowledge, there is no present quantitative studies related to our topic, researchers can advance the present research by validating a questionnaire and quantifying the relationship between these variables and new digital venture's success, especially in different contexts other than developing economies.

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