UNIVERSITY OF GHANA

EXAMINING DIGITAL ENTREPRENEURSHIP ECOSYSTEM IN A DEVELOPING ECONOMY: EVIDENCE FROM GHANA

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DECLARATION

I do hereby declare that this thesis is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged.

I bear sole responsibility for any shortcomings.

15/09/2020

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CERTIFICATION

I do hereby certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

15/09/2020

DR. KWAME ADOM **DATE**

(SUPERVISOR)

DEDICATION

This long essay is dedicated to my parents, Nana Kwame Nkansah and Comfort Agyabeng. I am appreciative of all the investments you made in my education. To my daughter Akua Tawia Ofosu Nkansah, I dedicate this work to you as well.

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ABSTRACT

The purpose of the study was to explore the digital entrepreneurship ecosystem of Ghana. Specifically, it sought to identify the actors in the digital entrepreneurship ecosystem; explore the success factors of digital entrepreneurship in Ghana; discover the challenges digital entrepreneurs in Ghana face. In academic discourse, there is a paucity of studies that examine digital entrepreneurship ecosystems. More so, the sub-Saharan African region has witnessed an academic marginalization with respect to this research phenomenon, thereby necessitating this study. The study adopted a qualitative research approach in its enquiry. It drew data from six (6) respondents to present its case. The snowballing sampling technique was used to draw the sample from the population with the initial contacts provided by the Accra Digital Centre Limited. The respondents were digital entrepreneurs and government officials with agencies or desks responsible for driving digital entrepreneurship in Ghana. Data were collected via qualitative online survey and analysed using the textual thematic analysis approach. The study found that digital entrepreneurship ecosystem in Ghana consists of actors such as government, platform providers, content developers (digital entrepreneurs), media and investors, mentors, and human resources (academia). These play either direct or indirect roles and are not bounded by the territories that define Ghana. Also, the study reveals that the Ghanaian culture was not fully supportive of digital entrepreneurship in Ghana. On the success factors of digital entrepreneurship in Ghana, it was found that creativity, collaboration, and funding (CCF) are key to entrepreneurial success in the digital space, with creativity being the most eminent. Poor internet connectivity, insufficient funding, slow acceptance of digital products, and inadequate physical infrastructure are the challenges that digital entrepreneurs in Ghana face. It was then deduced that the challenges of digital entrepreneurs in Ghana are external to their organizations than internal. The study recommends that there is yet the need for providing market linkages to digital entrepreneurs by stakeholders.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter covers the issues of interest to the research phenomenon. It discusses the background of the study, the research gaps the study seeks to fill, the purpose of the study, the research objectives and questions, the significance of the study, as well as the chapter disposition of the research.

1.1 Background of the Study

Digital entrepreneurship has become a topical issue in academic discourse owing to the numerous opportunities that have arisen as a result of technological advancement (Hull et al., 2007; Kraus, Palmer, Kailer, Kallinger, & Spitzer, 2019; Lehmann & Rosenkranz, 2017; Schulte-Althoff, Schewina, Fürstenau, & Lee, 2020; Steininger, 2019; Nambisan & Baron, 2019; Nambisan, Wright, & Feldman, 2019). The surge in demand for digital content in different forms like video, electronic-books, music, podcast, among several others, have created exciting entrepreneurial opportunities (Guthrie, 2014). Digital entrepreneurship has had gigantic effect on different spheres of life in the last decade (Kraus et al., 2019; Steininger, 2019). Digital products such as Google, Microsoft, Facebook, and the likes have transformed commerce and the way humans communicate among themselves. It can therefore be asserted that we are in the digitalization era (Hull, et al. 2007). Novel digital technologies over the years have changed the nature of uncertainty that hitherto was inherent in the entrepreneurial process and ways of dealing with it (Nambisan, 2017). Hence, the connection between entrepreneurship and digital technologies have been questioned, breeding the area of entrepreneurship known as digital entrepreneurship.

Digital entrepreneurship is defined as the reconciliation of traditional entrepreneurship with the new way of creating and doing business in the digital era (Le Dinh, Vu, & Ayayi, 2018). In this vein, digital entrepreneurs are people that aim to create value via the creation or extension of economic activities that are Information Communications Technology (ICT) related. Digital entrepreneurship arose via technological advancements like internet, information and communications technology (ibid). Noting the differences between traditional and digital entrepreneurs, Hull et al (2007) maintain that the challenges faced by digital entrepreneurs is different from those faced by traditional entrepreneurs. This is because the activities of these different entrepreneurs differ in terms of products, marketing, and workplace activities (Hair et al., 2012).

Globally, interest in digital entrepreneurship has surged in recent decades as technology keeps advancing, albeit, the participation in digital entrepreneurship differ at regional and national levels. Bosma and Kelly (2019), in the Global Entrepreneurship Monitor report, indicate that, globally, Uruguay has the highest number of nascent digital entrepreneurs with 24% of residents participating in the gig economy starting new ventures in the area. The United States of America and Chile follow with a percentage of about 22%. Also, it is expected that, within the next three years, the highest number of people that will start businesses in the gig economy are found in Sudan. For the European Union (EU), Autio, Szerb, Komlósi and Tiszberger (2018), in The European Index of Digital Entrepreneurship Systems (EIDES) ranking for 2018, opine that in relation to digital entrepreneurship, countries in the European Union can be classified as leader, followers, catchers-up, and laggards. In that report, countries such as Denmark, Luxemburg, Finland, and Sweden are leaders in digitalized systemic environment that facilitate digital entrepreneurship with Denmark, in particular, leading in all digital entrepreneurial start-ups. The group of countries that are classified as “followers” in the digital entrepreneurship space in the EU are Austria, Malta, Germany, United Kingdom, Belgium, France, Ireland, Netherlands and Estonia. The third cluster of countries according to the report are termed “catchers-up”. These countries are Czech Republic, Portugal, Lithuania, Spain, Cyprus, and Slovenia. The last cluster, made up of “laggards” are Latvia, Croatia, Slovakia, Bulgarian, Romania, Greece, Italy, Poland, and Hungary. This reveals the differences in the digital entrepreneurship space among countries.

On the African continent, according to United Nations Conference on Trade and Development - UNCTAD (2019), sixty percent (60%) of digital entrepreneurship activities were accounted for by four (4) countries (Nigeria, Egypt, South Africa, and Kenya). Twenty percent (20%) of the digital entrepreneurship activities were undertaken by six countries; Ghana, Morocco, Senegal, Tunisia, Uganda, and Tanzania. The outstanding forty-four (44) African countries contributed a combined twenty percent (20%) of all digital entrepreneurship activities on the African continent. It is deduced, based on the preceding information that Africa has made less significant strides in digital entrepreneurship compared to other continents. And hence, there is the need for a conducive environment that promotes digital entrepreneurship in the African continent. Thus, the digital entrepreneurship ecosystems in Africa, should be examined.

According to Edoho, Sheriff and Muffatto (2015), entrepreneurship ecosystems are useful for the formulation of beneficial policies for countries. For entrepreneurship to thrive, a supportive ecosystem of entangled factors such as infrastructure and financial access is essential (Nadgrodkiewicz, 2013). Entrepreneurship ecosystem is defined by Ács, Szerb, Lafuente, and Márkus (2019) as “the socio-economic level having properties of selforganization, scalability and sustainability as '…dynamic institutionally embedded interaction between entrepreneurial attitudes, abilities and aspirations, by individuals, which drives the allocation of resources through the creation and operation of new ventures'" (p. 3). Isenberg (2011), indicates that although a country's entrepreneurship ecosystem can be described in view of enabling policies and leadership, quality of human capital, availability of financing, conducive culture, institutional and infrastructural support, and the availability of markets to absorb products, the entrepreneurship ecosystem of each country is unique because these ecosystems are as a result of the complex interplay of numerous of elements. For this reason, it is erroneous to practically pick and apply one country's model of developing entrepreneurship blindly to another (Nadgrodkiewicz, 2013).

The popular discourse is that digital entrepreneurship is a means through which under-resourced and socially marginalized individuals become economically empowered (Martinez Dy, Martin, & Marlow, 2018). Perhaps, recognizing this, the Ghana government in the year 2018, launched an ICT innovation project as part of the "E-Transform Ghana" programme of the Ministry of Communications, which birthed the Accra Digital Centre – a hub for digital start-ups. The Innovation module of the "E-transform" project is tailored to develop new ventures and promote digital entrepreneurship among the youth especially, which would subsequently be a job creation platform (Christian, 2018). This initiative has since received financial support from the World Bank (World Bank, 2019) and Rockefeller foundation. It has thus become imperative that a study that explores how the Ghanaian environment is conducive for the survival and growth of digital enterprises be conducted.

1.2. Statement of the Problem

Over the years, the field of entrepreneurship has become more established to an extent that different sub-fields has emerged within the overarching field. One of such fields is digital entrepreneurship. Despite the emergence of the digital entrepreneurship sub-field a few decades ago and its increasing importance in the global economy and academia (Recker & von Briel, 2019), the field is still at its infancy (Kraus et al, 2019) and there is still a paucity of research in the area (Nzembayie, Buckley, & Cooney, 2019). To buttress these views, Guthrie (2014) maintains that digital entrepreneurship has received little attention in academic discourse. To Bogdanowicz (2015), irrespective of the rising interest in research in digital entrepreneurship and its noted importance in modern times, the field is still largely underexplored. This suggests that more scholarship is needed in the research domain. However, in the light of the few existing studies on digital entrepreneurship, Nambisan (2016) stresses that there is a dearth of empirical studies that examine the viability and returns of digital entrepreneurship which can be linked to their challenges and success factors.

Further, the accessibility and neutrality of digital platforms is expected to encourage and expedite entrepreneurship (Manson et al. 2011). Notwithstanding, this does not hold true for the socially marginalized. Irrespective of the significance of the digital economy for entrepreneurship, the ways via which individuals use digital technologies entrepreneurially to build digital business ecosystems is still underexplored, and hence an emergent area of digital entrepreneurship scholarship (Autio, Nambisan, Thomas, & Wright, 2018; Elia, Margherita, & Passiante, 2020; Giones & Brem, 2017; Sussan & Acs, 2017). Additionally, there has been a high level of industry and policy focus on the future of the digital economy worldwide (Feldman, Kenney, & Lissoni, 2015). In Ghana for instance, the current government has focused attention on building the digital landscape of Ghana. Yet, there is still a lack of knowledge regarding the background, activities, and experiences of digital entrepreneurs (Kraus et al. 2019). Kraus et al. (2019) and Zhao and Collier (2016) therefore call for studies that explore the digital entrepreneurship ecosystems in different contexts. The authors further state that research to identify drivers, possible restraints, and strategies to reduce limitations of digital entrepreneurship are needed.

On the basis of the foregoing discussion, this study seeks to fill the above identified research gaps in academic discourse on the subject of digital entrepreneurship. The study hence seeks to explore the constituents of the digital entrepreneurship ecosystem of Ghana and the challenges, and success factors of digital entrepreneurship in the Ghanaian context.

`1.3 Research Purpose

The primary purpose of this study is to explore what constitutes the digital entrepreneurship ecosystems in Ghana and how this system influences the growth and success of digital enterprises.

1.4 Research Objectives

This long essay is to provide in-depth understanding into the research phenomenon of digital entrepreneurship ecosystems from the perspective of an emerging economy, specifically with insights from Ghana. Precisely, the study seeks to achieve the following research objectives:

1. To identify the actors in the digital entrepreneurship ecosystem.
2. To explore the success factors of digital entrepreneurship in Ghana.

3. To discover the challenges digital entrepreneurs in Ghana face.

1.5 Research Questions

The research seeks to answer the following research questions:

1. Which actors form the digital entrepreneurship ecosystem?
2. How does the digital entrepreneurship ecosystem create opportunities for digital venture creation?
3. How does the digital entrepreneurship ecosystem enable digital venture success?
4. What challenges do digital entrepreneurs face?
5. How could the challenges digital entrepreneurs be mitigated?

1.6 Significance of the Study

This study contributes knowledge to filling the research gap of digital entrepreneurship ecosystems from the angle of a developing country like Ghana. The study provides useful insights about the participants in the digital entrepreneurship ecosystem, how they interact and its resulting effect on digital entrepreneurship. The challenges and success factors of the digital enterprises in Ghana are also brought to the fore. This revelation is relevant for policy formulation that promotes digital entrepreneurship in Ghana. It turns the attention of policy makers on the need for integrative policies that do not relegate the needed success factors for digital enterprises to thrive in a developing context such as Ghana. Lastly, this study highlights to digital entrepreneurs the resources in the ecosystem that they can leverage on, as well as the challenges and success factors of their ventures. The study proposes some strategies that could mitigate some of the challenges identified.

1.7 Chapter Disposition

This study constitutes five main chapters and are labeled chapters one, two, three, four, and five. Chapter one is the introductory chapter of the long essay. It covers the introductory issues of the research phenomenon, specifically, the introduction of the study, background of the study, research problem, research objectives and questions, significance of the study, and a chapter disposition. Chapter two follows and focuses on a review of extant literature that is relevant in aiding find answers to the research questions of the study. Literature is reviewed on understanding entrepreneurship, theorizing digital entrepreneurship, digital entrepreneurship process, digital ecosystem, challenges of digital entrepreneurs, and success factors of digital entrepreneurship. The next chapter is chapter three which discusses the methodology and methods that the study applied to achieve its research objectives. Chapter four focuses on analyzing the primary data that were collected from respondents. Under the chapter, the study discusses the research findings in view of existing literature. The last chapter of the study is chapter five. It summarizes and concludes the study, as well as offer recommendations for stakeholders of the study and future researchers.

1.8 Chapter Summary

This chapter covered the issue of interest of the study. It set the pace for the study and made a case for undertaking a research titled “Examining Digital Entrepreneurship Ecosystem in a Developing Economy: Evidence from Ghana”. The chapter covered the background of the study, the research problem, the research objectives and questions, significance of the study, and the chapter disposition of the study. The chapter also identified that in academic discourse, a gap exists in the examination of digital entrepreneurship ecosystems since it is a unique form of entrepreneurship. A study is hence needed to fill the research gap.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews extant literature on the broad issues around digital entrepreneurship. The purpose of the review is to gain an understanding of the research issues and recognizing the knowledge in literature about the topic. Literature is reviewed in accordance with themes that are relevant to aid find answers to the research questions. Specifically, literature is reviewed on understanding entrepreneurship, theorizing digital entrepreneurship, digital entrepreneurship process, digital ecosystem, challenges of digital entrepreneurship, and success factors of digital entrepreneurship.

2.1 Understanding Entrepreneurship

The maturity of the field of entrepreneurship was questioned three decades ago by Sexton (1988). A decade later, the same concern was raised by Gartner (1990) when the author probed if entrepreneurship was just a buzzword or had special features that could be identified and studied. Even till date, these concerns raised are still relevant since over the years, literature does not have a single unanimously accepted definition for the entrepreneurship concept (Adomako, Danso & Ampadu, 2015; Bula, 2012; Holzl, 2010). The lack of a unanimous definition for entrepreneurship can be attributed to the multi-disciplinary nature of the field. Entrepreneurship has been examined in various fields such as economics, sociology, psychology, and business, where different philosophical assumptions are applied to create meaning for the field (Audretsch, Boente & Tamvada, 2007; Penedar, 2009; Shane & Venkataraman, 2000).

In academic discourse, the meaning given to entrepreneurship are varied as indicated by Orhan and Scott (2001). Some of the definitions proposed by authors are examined subsequently. These definitions are classified into three themes; sheer creation of business, opportunity recognition, and innovation.

In the year 1982, Vesper, defined entrepreneurship as the formulation of new autonomous businesses. Carton, Hofer and Meeks (1998) posits that entrepreneurship is the process by which new organizations are birthed, and this comes with job and wealth creation. The views of Carton et al. (1998) is similar to that of Vesper. In the year 2000, Zacharis et al., in the Global Entrepreneurship Monitor, conceptualized entrepreneurship as the endeavour by individuals or established businesses to create a new enterprise or enlarge an existing one. These authors add a new perspective to the definitions by averring that the act of entrepreneurship can be pursued either by an individual, a group, or an establishment. Huggins and Thomson (2014) also adds a societal viewpoint to the concept of entrepreneurship. To them, entrepreneurship is the formation of new businesses which takes place as a context-dependent, economic and social process. This viewpoint suggests that entrepreneurship transcends wealth creation to social development.

A second cohort of definitions for entrepreneurship has opportunity recognition as an integral activity of entrepreneurship. Reynolds (2005) conjectures that entrepreneurship involves the detection of opportunities and the resulting pursuance of new economic activity via new organizations. Similarly, Onuoha (2007) visualizes entrepreneurship to be the act of starting novel organizations or reviving mature ones, usually in response to identified opportunities. Van Aardt, Hewitt, Bendeman, Bezuidenhout and Van Rensburg (2011) refer to entrepreneurship as the practice of creating and expanding an organization, forming an entrepreneurial team, and mobilizing other resources in order to exploit an identified opportunity in the marketplace for long-term benefit. This is a broader perspective of entrepreneurship that embeds the idea of opportunity recognition.

Another group of definitions for entrepreneurship border on innovation. Scholars who subscribe to this view perceive entrepreneurship to be one's ability to create something novel. One of the earliest scholars to attach innovation to entrepreneurship is Joseph Schumpeter in 1934. As such, most of the ideologies of entrepreneurship that are tied to innovation are termed the "Schumpeterian school of thought". Basing on his teachings, Morris and Sexton (1996) propose three fundamental scopes of entrepreneurship. They are innovativeness, pro-activeness, and calculated risk taking. The authors believe these are the characteristics of entrepreneurship. Hisrich (2004) stresses the aforementioned definitions by describing entrepreneurship as the steps involved in the creation of something unique with value by dedicating the necessary time and effort, handling the associated financial, social, and psychological risks, and benefiting from the resulting rewards which could be monetary and personal satisfaction. The thoughts of Hirsich (2004) is not so different from that of Hindle (2010) who expresses that entrepreneurship is the procedure of assessing, constraining to, and realizing the creation of new value from novel knowledge for the advantage of distinct stakeholders, under contextual restrictions. The definition of Hindle (2010) draws attention to the issue that there are some limitations that entrepreneurship could face, and this could be because of the context in which is it being undertaken.

The definition of entrepreneurship by Richter et al. (2017, p. 300) seems to be a more encompassing definition that presents the various themes found in the definitions of entrepreneurship espoused above. According to them "entrepreneurship […] is […] defined as occupying niches, monetizing business opportunities, as well as being innovative, radical and risk-taking".

From the forgoing discussion, it is clinched that entrepreneurship has diverse perspectives. However, the underlining or core idea behind any theme or definition of entrepreneurship is "the creation of new businesses". Weather the person involved in the entrepreneurial act is pursuing a discovered opportunity or not or bringing an innovative good or service in the marketplace, there should be the creation of a business at the end.

2.2 Theorizing Digital Entrepreneurship

Over the years, entrepreneurship has become vital in the economic landscape of various countries and digitalization has transformed the way business creation is done (Dutot & Van Horne, 2015). The concept of digital entrepreneurship has been expounded by different authors from different theoretical lenses. However, the ideas seem to be rooted in the digital technologies. A systematic review of these definitions are examined. The earliest definitions included in this study dates back at 2007. This is justifiable by the fact that the concept of digital entrepreneurship is relatively new.

According to Hull et al. (2007) digital entrepreneurship is a subset of entrepreneurship in which some aspects or all of what would have constituted a traditional organization is digitalized. Consequently, some authors consider digital entrepreneurship as a way of undertaking traditional entrepreneurship in a digital form (Le Dinh Vu & Ayayi, 2018). Davidson and Vaast (2010) conceptualizes digital entrepreneurship as the pursuance of novel business opportunities emanating from advancements in internet technologies and media. Hair et al. (2012), give a as Hull et al. (2007) by averring that "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" (p. 2). The authors further state that products, workplace, or distribution could assume digital forms in an entrepreneurial firm. Guthrie (2014) explains that digital entrepreneurship is the conception of a business that delivers and makes revenue from digital products using electronic networks. Sussan and Acs (2017) present a broader view of digital entrepreneurship by emphasizing that "digital entrepreneurship […] includes any agent that is engaged in any sort of venture be it commercial, social, government, or corporate that uses digital technologies. […] In other words, they are performing activities that need digital engagement but may not in themselves be digital, for example, an Uber taxi driver" (p. 66). This preceding definition also embed the user dimension of digital entrepreneurship. Giones and Brem (2017) further add a technology-centred viewpoint by maintaining that digital entrepreneurship entails the operation of firms where new internet-based products are produced and services run only in the cloud through big data or artificial intelligence. In the theorization of digital entrepreneurship, Le Dinh et al. (2018) propagate that digital entrepreneurship is the reconciliation of traditional entrepreneurship with an innovative way of forming and undertaking business in the digital age. This study finds the definition of digital entrepreneurship by Hair et al. (2012) as appropriate for its purpose and therefore adopts it as its underpinning definition for digital entrepreneurship.

Digital entrepreneurship has been enabled by the digital economy. For this, Hafezieh, Akhavan and Eshraghian (2011) posit that the digital economy is a sector where the need for new business models is apparent. To better understand digital entrepreneurship, certain factors must be considered (Dutot & Van Horne, 2015). From the perspective of

Sambamurthy, Bharadwaj and Grover (2003) four factors explain the participation of people in the digital entrepreneurship space. These are entrepreneurial action, agility, digital options, and entrepreneurial alertness.

To begin with, entrepreneurial action relates to the recognition and exploitation of market opportunities by people. This opportunity and market exploitation are done to explore novel resources, markets, customers or a combination of these (Smith & DeGregorio, 2001). It could also be explained as the act of discovering and exploiting market opportunities by creating new products, customers, and channels of distribution that end in profit making (Shane & Venkatraman, 2000).

Also, agility as the second factor in venturing into the digital entrepreneurial landscape represents how appropriate the business' strategy is with its structures and capabilities (Banja & Mukhopadhyay, 2000; Wheeler, 2002). Following Sambamurthy et al. (2003), some authors argue that agility can be classified into three; agility with customers, partnering, and operational agility (Errajaa, Partouche & Dutot, 2013). Agility with customers is the situation where a firm co-operates with customers so as to reconnoitre unique sources of opportunities or establish relationships with customers via virtual technologies. The second classification of agility, which is partnering is the ability of the firm to leverage on the assets or knowledge of partners and exploit innovative opportunities. Operational agility as the third group of agility reflects the ability of the firm to achieve "speed, accuracy, and cost economy in the exploitation of innovation opportunities" (Sambamurthy et al., 2003, p.246).

Again, digital options describe the collection of information technology (IT) related competences presented in the work processes and knowledge systems of digital enterprises.

Evans and Wurster (2000) define digital options as the amalgamation of process and knowledge capital on the tangents of richness and reach.

Lastly, entrepreneurial alertness is the ability of a firm to explore its markets and define market opportunities for action (Sambamurthy et al., 2003). Sambamurthy et al. (2003) mention that entrepreneurial alertness consists of two capabilities; systematic insight and strategic foresight. Here, whereas systematic insight refers to the "the ability to visualize connections between digital options, agility capabilities, and emerging market opportunities in architecting competitive actions" (p.250), strategic foresight relates to "the ability to anticipate discontinuities in the business environment, marketplace, or the information technology space, the threats and opportunities in the extended enterprise chain, and the impending disruptive moves by competitors" (p.250).

2.3 Digital Entrepreneurship Process

The concept of entrepreneurial process had been fairly discussed in the academic environment, specifically, in journals. Entrepreneurial process has been conceptualized as the phases which an entrepreneur goes through to get an enterprise established. It spans from the period of idea generation to the period where the entrepreneur makes gains from the entrepreneurial venture. Authors such as Le Dinh et al. (2018) describe the entrepreneurial process in the digital field in three broad stages which contain sub-stages. The three broad stages are idea generation, start-up phase, and the entrepreneurial business management. The idea generation phase entails the entrepreneur reflecting on the benefits, costs, application and feasibility of pursuing a specific business idea. In the start-up phase, which follows the idea generation, business planning and the creation of a team who would share responsibilities and share knowledge and experiences occur. At this stage, product testing is also carried out. When the business is registered and intellectual property issues protected, then the digital enterprise rolls unto the entrepreneurial business management stage. At the entrepreneurial business management stage, the digital entrepreneur thinks of ways to improve the digital good or service. Also, at this stage, innovation and the regulation of the activities of the digital firm nurtured by the entrepreneur. Thus, the digital business development can be viewed as a cycle with numerous phases happening recurrently across the business' life cycle (Ebel et al., 2016).

Dutot and Van Horne (2015) recommend a process model for digital business model development. The authors tested the proposed model via interviews done with Emeriti and French start-ups. The authors reported that digital technologies are employed by entrepreneurs for networking with different stakeholders. They are then able to learn about the demands of customers through the networks created. Digital technology is also used in storing and acquiring useful information from the business processes. Information gathering on digital platforms aside typical form of networking enhances innovativeness. Digital technologies have facilitated business development processes, but vary in appearances. For example, digital platforms heavily depend on self-generated community exchanges and hence, generally follow a process of self-generation. As such, entrepreneurial activities and results witness a significant level of uncertainty. In a digital business, innovation and product development go hand in hand. That is, the ability to innovate is reinforced by the development and processing of information and communication technology. The use of a specific platform or digital technology and the improvement of that technology shapes the ability of a digital entrepreneur to innovate further. Therefore, the uncertainty in digital business models are caused by network issues and the vagueness of further development (Nambisan, 2017).

A topic of importance in the discourse on digital entrepreneurship is the entrepreneurial process as the development of digital entrepreneurship. Business models for digital enterprises are substantially dynamic as compared to that of traditional enterprises. The formulation of digital enterprises follow the steps of redefinition over and over again.

The digital entrepreneur, coupled with the founding team are integral part of the digital enterprise in its early stages. It is therefore necessary that the entrepreneur selects people with the right attitude as team members. The tenacity to effect changes and staying alert through the business development process, which is usually characterized by trial-and-error, is also vital. Networking and building treasured social capital is also crucial at the early stages of the digital enterprise for success (Spiegel et al., 2016). A noteworthy effect of digitalization is expressed in the time frames of the entrepreneurial process (Ojala, 2016). However, the availability of digital technologies allows the creation, modification, and repetition of product development phases faster. The experimentation and implementation processes of the digital entrepreneurial process are fast-tracked in modern-day digital economies. Again, the beginning points and endpoints of the process are intertwined in digital platforms (Nambisan, 2017). It is clear that in contemporary times, digital entrepreneurs do not adhere to predefined blueprint to the entrepreneurial process nor stick to a stringent business plan. Instead, the decisions and behaviour of the digital entrepreneur is molded throughout the entire process of entrepreneurial activity. Therefore, the persistent evolution of technology and the constant relations with the digital economy starts, creates, and alters the digital entrepreneurial process severally. Therefore, the digital entrepreneur comes across progressively dynamic paths, determined by the different activities with undefined time frames (Nambisan, 2017).

2.4 Digital Ecosystem

In the digital age, understanding entrepreneurship is supported by grasping the concept of ecosystems (Mathews & Brueggemann, 2015; Sussan & Acs, 2017). Digital entrepreneurship thrive on the availability and advancement of digital ecosystem (Kraus & Palmer, 2018). Digital ecosystems have become a vital research itinerary for scholars and practitioners alike (Dini, Iqani & Mansell, 2011; Li Badr & Biennier, 2012). With the speedy improvement of digitalization and the impact of digitalization, the idea of digital ecosystems has been subjected to different perspectives, that is economic, ecological, and technological (Li et al. 2012). The concept of digital ecosystems have also a topic for multi- and interdisciplinary discourses (Dini et al. 2011).

The term digital ecosystem emerged in the early 2000s (Sussan & Acs, 2017). The term is thus a relatively new concept. According to Li et al. (2012, p. 119), digital ecosystem is "…a self-organizing, scalable and sustainable system composed of heterogeneous digital entities and their interrelations focusing on interactions among entities to increase system utility, gain benefits, and promote information sharing, inner and inter cooperation and system innovation". Smith, Smith and Shaw (2017) theorize digital ecosystem as exchanges that present the entrepreneurs with access to resources to be employed for the accomplishment of anticipated outcomes. The consumers and contributors of a digital ecosystem constitute the people that are privileged to have access to connected digital devices like tablets, mobile phones, and computers. The World Wide Web, enables an open space that gives access to data, information, and knowledge (Balocco, Cavallo, Ghezzi & Berbegal-Mirabent, 2018).

Subsequently, digital ecosystems are able to assume a self-generative nature based on a service-oriented logic. By this, the users of the digital platforms are at the same time providers. Digital ecosystems therefore provide vast opportunities for entrepreneurs (Sussan & Acs, 2017).

Building digital ecosystems does not happen in a vacuum. It is a complex process that involves several internal and external stakeholders (Hu et al., 2016). Studies have thus examined manifold key factors that aid in the successful creation of digital ecosystems. These key factors cover institutional entrepreneurship, digital technology, transactional costs, and social capital in the online setting. Institutional entrepreneurship has been noted by Hu et al. (2016) as the principal component in the formation of digital ecosystems. Hu et al. (2016) scrutinize the conversion from traditional to digitally assisted firms, and attempted presenting practical implications. The authors highlight the relevance for further studies to reveal how firms realize organizational transformation with institutional entrepreneurship. According to Sussan and Acs (2017), vastly connecting different groups of customers with each other at decreasing transactional costs is a core competence of successful modern day ventures. The authors then present a framework of digital entrepreneurship ecosystems. The framework conceptualizes digital user citizenship, digital infrastructure governance, digital marketplace, and digital entrepreneurship as the building blocks of digital entrepreneurship ecosystem. Within the framework, Sussan and Acs (2017) connect entrepreneurship ecosystem and digital ecosystem and then assimilate the mediators and users to form the digital entrepreneurship ecosystem. Three evolving business models which bring the sharing and voluntary contribution of users in online platforms to the fore were also proposed by Sussan and Acs (2017). They are user-intensive business model, the sharing of unused tangible assets, and user-intensive business model. User-intensive business models relates to the multisided platforms business models in which the users are the providers of free content on multisided platforms as witnessed on platforms like Instagram and Facebook. Sharing of unused tangible assets as a business model involves the distribution of unused tangible assets. This falls under the sharing economy. Examples of these sharing business models are Uber and AirBnB. User-intensive business models integrate paid and unpaid customers. Here, the business models depend on the network externalities of their customers. Online dating sites are examples of this business model.

The business models discussed above hold the potential for entrepreneurs to explore digital innovation and contribute to digital solutions through a collective setting (Hsieh & Wu, 2018). Over the years, businesses that have adopted the above discussed business models have with no doubt, provided their users with some value. However, they have faced some criticisms. For instance, Facebook was criticized for the inappropriate use of user personal data. With that, policy makers in several European countries introduced new laws to protect the personal data of users of the said digital platform and other multisided platforms. Again, AirBnB and Facebook were criticized for tax elusion. If these issues are not resolved, then the sustainability of such businesses is threatened, even in the light of intense interest in digital entrepreneurship (Balocco et al. 2018).

2.5 Challenges of Digital Entrepreneurship

Nearly all entrepreneurs face some challenges in the entrepreneurship journey. Despite the usual challenges of being entrepreneurial or self-employed, digital entrepreneurs have to deal with precise impediments (Balocco et al., 2018). In comparison with traditional businesses, digital ones have high levels of uncertainty. The uncertainty does not only characterize advancement of digital technologies but also the risk related to tax regulations or legal issues upon the establishment of the business (ibid). Country-specific risks or challenges cannot be overemphasized in digital entrepreneurship since most digital enterprises transcend their home markets to global ones. Technological advancement in itself occurs with high uncertainty owing to the fact that new technologies could fail or tow unplanned directions (Brundin & Gustafsson, 2013). This makes the digital enterprise development process to be characterized by high uncertainty. Unceasing feedback from the marketplace, services, hasty development of products, and infrastructure are some ways of mitigating high uncertainty (Ojala, 2016). The presence of high uncertainty in the digital entrepreneurship space makes it a herculean task for digital entrepreneurs to gain investors (Balocco et al., 2018). Srinivasan and Venkatraman (2018) propose that building tight relationships with high-profile persons and getting their support can enable a digital entrepreneur create legitimacy for the venture and facilitate the business' ability to attract investors.

Moreover, innovation is imperative in the digital entrepreneurship arena and this must be done on an ongoing basis. As such, digital entrepreneurs must learn to differentiate their offerings from that of competitors. The possibility of this is dependent on the technological possibilities that the digital platform offers (Srinivasan & Venkatraman, 2018). This is a challenge that confronts digital entrepreneurs. It is also problematic for digital entrepreneurs to keep pace with the increasing technological advancement (ibid). The ability to build trust with and among market participants is a challenge to digital entrepreneurs. Even in offline business, trust is a prevalent issue. However, in the light of depersonalization of digital ventures, trust has become a more important issue in the discussions of e-commerce. In the account of Nzembayie (2017), the absence of body language and "functional familiarity" are likely causes of misconstructions. By this, trust is a useful condition for a business transaction. Customer feedback is one tool that can be used to build trust between prospective customers as well as business partners and the digital business (Hair et al., 2012). Although some scholars argue that the entry barriers to the digital environment are high, Dy, Marlow and Martin (2017), postulate that social hierarchies or social inequalities is a bane to one becoming a digital entrepreneur.

2.6 Success Factors of Digital Entrepreneurship

Within the digital entrepreneurship landscape, there are some factors that act as success factors which are peculiar to entrepreneurship in the digital space. To begin with, one factor that facilitates the thriving of a digital business is the positioning of the platform on which venture is built (Balocco et al., 2018). The success of a digital business transcends the business itself to the architectural and technology decisions the business takes. The lack of a good positioning and reputation of the platform on which the business is built affects the success of the business (Srinivasan & Venkatraman, 2018). Also, relationship building, in other words, relationship capital is critical to the success of a digital business. These relationships are useful for digital entrepreneurs to create legitimacy for their ventures and gather the needed resources for business operation (Srinivasan & Venkatraman, 2018). Additionally, Hair et al. (2012) contend that market orientation is one of the most essential matters in a start-up. Electronic communities thus present the opportunities for digital enterprises to identity consumer demands and whether the strategy adopted by the digital entrepreneur will permit innovation and business development.

Some scholars examine the success factors of digital entrepreneurship from the point of view of the personal factors of the employees. Zaheer et al. (2018) in an interview involving twelve digital entrepreneurs, highlighted that the purpose, educational levels, values, vision, focus and timing of the entrepreneur were directly linked to the success of the digital firms.

Other factors like personal commitment, knowledge, motivation, industry related personal skills, and family history were also found to be critical to entrepreneurial success in digital entrepreneurship (Balocco et al., 2018). Again, the extent to which the founder of the digital venture is flexible and adaptable was found instrumental in the venture's success. When the owners are flexible enough to encourage participative working structures, it eventually promotes innovation and enhances the market response. When success is measured by the internalization of the digital ventures, then the international exposure of the digital entrepreneur supports the success of the venture. Digital entrepreneurs with some level of experience in foreign lands tend to promptly make use of international potentials (Ziyae Sajadi & Mobaraki, 2014).

2.7 Chapter Summary

This chapter reviewed extant literature relating to the issue of digital entrepreneurship. Literature were reviewed along the themes of understanding entrepreneurship, theorizing digital entrepreneurship, digital entrepreneurship process, digital ecosystem, challenges of digital entrepreneurship, and success factors of digital entrepreneurship. Literature on these themes are useful to finding answers to the research questions posed by the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter is devoted to discussing the research methodology of the study. It espouses the research methods adopted by the study to find answers to the research questions posed. In the chapter, the research design, research approach, data collection methods, sources and types of data, population of the study, the sample size used, the sampling technique applied to select the study respondents, data analysis process, and the ethical considerations applied by the study are highlighted alongside the justification for the choices.

3.1 Research Design

Research design is imperative in the research process. A research design highlights the techniques adopted in the collecting, analysing, interpreting and reporting of data (Creswell & Plano-Clark, 2007). It practically displays the steps that the researcher involved in a study follows in the research process (Cresswell, 2012). The purpose of a research design is to structure a study in a way that allows it to find accurate explanations to research phenomena (McGivern, 2006). Scholars such as Creswell (2003) refer to research design as "research strategy". In research, several research designs abound for variant research approaches (that is quantitative, qualitative, and mixed methods. Surveys and experiments are the dominant research designs in quantitative researches. However, in qualitative researches, dominant or common research designs include case study, phenomenological research, grounded theory, and narratives (Creswell, 2003). This study adopts the case study design to explore the research phenomenon of digital entrepreneurship ecosystems in the Ghanaian context. The study sets the boundary of the study to be the digital entrepreneurial space in Ghana.

3.2 Research Approach

Research approaches give direction to a study and determine how the study would be conducted. In choosing a research approach for a study, the preference and intuition of the researcher should not be the determining factor but issues such as the objective of the research should supersede (Babbie, 2004; Fossey, Harvey, McDermott & Davidson, 2002). Vanderstoep and Johnston (2009) propose that two main approaches to research exists; qualitative and quantitative. The application of each requires different procedures in terms of gathering data and analysing the data (Saunders et al., 2007). Bell and Bryman (2007) distinguishes the two approaches by explaining that while quantitative study is deductive in its observation and the connexion between research and theory, qualitative approach is inductive.

3.2.1 Qualitative Approach

The aim of qualitative research is making meaning of phenomena through description and translation of thoughts rather than quantifying of frequencies (Maanen, 1983). Qualitative research approach enables the researcher to gain in-depth understanding of the key reasons and impetuses for a specific issue of interest (Malhotra & Dash, 2013). The use of the qualitative approach allows an understanding of complex issues that can be answered through answering the humanistic "why" and "how" research questions (Fossey, et al, 2002). The thoughts, feelings, and experiences of people can be unearthed through qualitative studies, which would have otherwise not been uncovered if the focus was on establishing relationships (Rubin & Rubin, 1995). The qualitative research approach is thus the best methodology to use in the quest to understand the socio-cultural context people find themselves. In the qualitative studies, the focus is on the depth of data than frequencies, hence, relatively small sample sizes are used (Malhotra & Dash, 2013). Qualitative studies are also generally unstructured. They start by considering a broader research problem and base on amorphous data collection instruments such as interviews and observations (Boateng, 2014).

3.2.1 Quantitative Approach

The quantitative research approach is generally used for studies that aim at testing the relationship between two or more identified variables (Creswell, 2014). The objective of quantitative studies are to test already determined hypothesis and provide results that can be generalized across the population. Quantitative studies draw on relatively large sample sizes and that makes it possible for the generalizations of study results. To find answers to the mechanistic "what" questions, the quantitative research approach is suitable (Fossey et al., 2002). Quantification and statistics are applied in the data collection process and analysis of quantitative studies (Saunders et al., 2009). Boateng (2014) posits that quantitative research approach establishes the degree to which a problem subsists or the relationship between two or more issues. Studies conducted using quantitative approaches goes through data testing in order to confirm or disconfirm an advocated relationship between or among variables. Hence, hypothesis development is the starting point of quantitative works (Boateng, 2014). A strength of quantitative research approach is the possibility of results generalization. But the approach has a weakness of its results not often being applicable (Yin, 2009; Wisker, 2007). They therefore lack the ability to provide in-depth understanding on a research issue.

3.2.3 Selected Research Approach

The aim of this research is to explore the digital entrepreneurship ecosystem in Ghana to identify the constituents of the ecosystem as well as recognize the challenges and success factors of digital enterprises in Ghana. Since the study objective is to gain deeper insights into the research issue, and not to test for relationships, the qualitative research approach is deemed appropriate in view of its aims and advantages discussed in previous sections. Also, the issue of interest has been underexplored, especially in the Ghanaian context, necessitating the need for insights to be unearthed. The qualitative research approach allowed the participants of the study to express themselves in their own environment, where socio-cultural issues could be captured.

3.3 Sources and Types of Data

Literature denotes that two main sources of data prevail. These are primary sources, and secondary sources (Saunders et al., 2009; Yin, 2009). Based on the sources of data, scholars maintain that there are two types of data. That is primary data, and secondary data. On one hand, data collected for an identified purpose is termed as primary data (Yin, 2009). They are collected to help a researcher address a specific problem or issue (Malhotra & Birks, 2007). Primary data are collected to fit the purpose of the research (Ghauri & Gronhaug, 2005). Primary data can be gathered through experiments, interviews, surveys, and observations from a sample of population. Using primary data in research keeps the research in focus. On the other hand, secondary data is collected form extant sources. This type of data are often gathered for a different purpose than that of the research (Malholtra, 2008; Malhotra & Birks, 2007). Secondary data can be found in publications, population census, personal records, and the likes (Hair, Anderson, Basin & Black, 2010). The advantage of relying on secondary data for research is that it is less time consuming to collect them than primary data. Secondary data are also easily accessible.

The data that is needed to provide answers to the research questions this study poses cannot be found in already existing sources. Therefore, primary data will be required for this research. The primary data, for the purpose of this study, was obtained through qualitative online survey.

3.4 Data Collection Instrument

This study uses a semi-structured questionnaire for a qualitative online survey. The choice of a qualitative online survey as the data collection method of this study is based in the fact that this study was conducted in a period where the world faced the coronavirus pandemic. Restrictions could not permit face-to-face interviews to be conducted since social distancing was recommended and at the period, there was a lockdown of the capital city, Accra. Neville et al. (2016) state that the use of the internet in collecting qualitative data provide other useful means of gathering collective data than the traditional data collection methods.

The qualitative online survey consisted of standardised questions for the respondents to provide textual data in answering them. So there was no further interaction between the participants and the researcher. The asking of standardised questions also reduced the chance of bias. In time past, surveys like this had traditionally been administered on paper (hard copy), or on templates which were then circulated to respondents through email for completion and return (Braun & Clarke, 2013). The advancement in technology and the increased access to internet in contemporary times means that surveys can now be hosted on platforms that are accessible to potential participants. The online survey conducted used free-form boxes that allowed respondents to write their responses as qualitative data (Neville et al., 2016). The survey tool used for this study was the Google survey. The survey used a sample size of six who were gained through snowballing. Two online questionnaires were designed; one for the digital entrepreneurs and the other for government officials. The questions differed slightly (see appendix I and II).

3.5 Study Population

The population of a research refers to the group of people that the research targets. It is the group of people or elements from which the sample or participants of the study are eventually drawn from (Biggie, 2008). Kumekpor (2002) presents similar view by stating that the population of a study is the entire number of units of the research issue. The population of this study is thence all digital entrepreneurs in Ghana. Since data were collected online, location was not a barrier to this study and the study sought to include views of digital entrepreneurs who are located in any region of the country. This was advantageous to the study since varied views were gathered.

3.6 Sample Size

In some researches, including all the elements of the population in the study is impractical. In such instances, the selection of a sample is necessary. According to Vernoy and Kyle (2002), a sample is a fairly small group of elements drawn from the population of the study that represent the entire population. In qualitative studies, small samples are used to give meaning to the research phenomena (Denzin & Lincoln, 2005). The focus of qualitative studies is on the competence of the sample than its size (Bowen, 2008; Marshall, 1996). More so, the extent to which a sample size in a qualitative work is sufficient is warranted by the depth of the data (Morse, Barrett, Mayan, Olson & Spiers, 2002). The sample size of this study was six; four of which were digital entrepreneurs and two were government officials who were involved in the digital Ghana project.

3.7 Sampling Technique

A sampling technique was used in drawing the sample from the population. From the varied sampling techniques available, the study used the snowballing sampling technique to draw respondents from the digital entrepreneurs and the government officials that work on the E-transform Ghana project. The choice of this technique was not based on the feelings of the researcher but the purpose and the time given for the study (Marshall, 1996). Snowballing sampling technique is where selected respondents are asked to lead the researcher to a potential respondent (Bailey, 2019). The initial respondents were gained from the Accra Digital Centre. Snowballing technique was used because the digital entrepreneurship space in Ghana is emerging and small. Therefore, finding the digital entrepreneurs can be easily facilitated by the people in the space, likewise in the case of the government officials engaged in the E-transform Ghana project. Also, because digital entrepreneurs do not engage in the physical distribution of goods and services, it is difficult knowing the personalities or entrepreneurs behind the ventures. It was thus prudent to use the snowballing technique.

3.8 Data Collection Procedure

Data were collected through qualitative online survey. Using Google survey, a hyperlink was created and sent to selected participants to answer. The researcher gathered the email addresses or contact numbers of the participants. The link to the survey was then sent to them to answer. Once they answered, the researcher had it stored. The researcher allowed of a period of two weeks for the system to accept responses from potential participants. At the end of the two weeks, all the potential participants that the link was sent to had responded to the survey. At the beginning, the link was sent to four respondents. Afterwards, the researcher tested to see if data had reached a saturation at that point. An additional two respondents were sought and the link to the survey sent to them. It was noted that, the views of the two additional respondents did not differ from the previous. Similar themes which emerged from the four gathered surveys recurred in the two. It was then clear that data had reached a saturation as per Glaser and Strauss (1967), and the probability of gaining newer insights from more respondents was low. Data were collected in April 2020.

3.9 Data Analysis

Raw data do not make any meaning unless they are analysed. The analysis of qualitative data follows data preparation and organization through transcripts, data reduction into thematic areas, and data presentation through analysis and discussion (Cresweel, 2012). The responses of the participants needed no transcription since they were textual. After gathering the texts from the respondents to form the transcripts, open coding was carried out. The coding allowed the study identify significant points made by the participants (Boeije, 2005). At that stage of the study, the emphasis of the research was on the capability of the researcher to cross-examine the meaning of some phrases or words and dutifully ponder on their meaning (Corbin & Strauss, 2008). The researcher was open-minded about the research process and allowed the themes to arise from the study rather than being predetermined. This act ensured that important themes were not be missed. The codes were marked with varied colours for easy noticing to accelerate the data analysis process. The thematic textual analysis (TTA) was the analytical method of the study based on the endorsement of Corbin and Strauss (2008). The use of TTA was guided by Braun and Clarke (2006). TTA refers to a "research strategy for identifying and reporting patterns (themes) within a data set or text corpus" (Mushfiqur et al., 2018, p. 875). Investigator triangulation was applied after the emerged themes were grouped. (Polit & Beck, 2004). Codes (DE1 – DE4) were created for the respondents (digital entrepreneurs) and used in the presentation of their responses. GO1 and GO2 were also used as codes for the government officials involved in the study.

3.10 Data Reliability and Validity

Data reliability was ensured by contacting three of the respondents to verify if the transcripts which were obtained from the text they typed on the qualitative online survey, reflected their thoughts and nothing had changed. All three agreed they were their words. Also, the right qualitative research protocols were duly followed. This enhanced the reliability and validity of the data gathered. Even though data were collected via online means, the researcher ensured that the tenets of qualitative research approach were adhered. Again, all the themes and views presented in the study were from the participants and not the researcher's own thinking. To demonstrate this, some of the views of the respondents are quoted verbatim to support the discussions.

3.11 Ethical Considerations

To ensure issues of ethics of research were considered, the researcher did the following. First, the respondents remained anonymous. Codes were developed to replace the original names of the respondents. By that, the confidentiality that the respondents wished for was fulfilled. Also, the aim of the study was communicated to the participants and their consent to be added to the study sought. They were again foretold that any participant who at any point in time wished to withdraw was at liberty to do so. None of the respondents from the sample drawn withdrew.

3.12 Chapter Summary

In this chapter, the methods that are appropriate for this study were discussed with justifications given. The chapter outlined the research design, the research approaches, sample size and technique, data ansysis, data reliability and validity, as well as data ethical considerations among other relevant issues.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter is dedicated to the analysis of the primary data collected for the study. The chapter is mainly divided into two. The first part analyses the data and the second part discusses the findings of the study in relation to existing literature. The data were analyzed in accordance with the themes that emerged from the data. The emerged themes are:

1. Understanding digital entrepreneurship ecosystem
2. Constituents of the digital entrepreneurship ecosystem
3. Ghanaian culture and digital entrepreneurship
4. Enabling policies that foster digital entrepreneurship
5. Institutional and infrastructural support to digital entrepreneurs
6. Success factors of digital enterprises
7. Challenges of digital entrepreneurship

4.1 Data Analysis

This section focuses on the analysis of the data collected for this study. Data were collected from six respondents, consisting of four digital entrepreneurs and two government officials in Ghana.

4.1.1 Profile of Respondents

The profile of the respondents were of interest of the study as it provides of understanding the issues of discussion. The profile information captured by the study include age of the respondent, gender, marital status, number of years being a digital entrepreneurs/digital Ghana government official, employment status, sector of business, industry of business, among others. The information would be presented and discussed in two sub-sections; first for the digital entrepreneurs and second for the government officials.

4.1.1.1 Profile of Digital Entrepreneurs

This section analyses the profile of the digital entrepreneurs included in the study.

Table 4. 1: Profile of Digital Entrepreneurs

Profile	Measurement	Percentage (%)
Age of respondent	21 - 30	25
	31 - 40	25
	41 - 50	25
	51 - 60	25
Gender of respondent	Male	75
	Female	25
Marital status	Unmarried	25
	Married	50
	Divorced	25
Age of business	5 - 9	25
	10 - 14	75
Engagement in paid employment	Yes	25
	No	75
Industry of Business	Information Technology	50
	Communication Technology	25
	Financial Technology	25
Number of paid employees	1 – 5	25
	6 – 10	25
	11 – 15	25
	26 – 30	25

Source: Field Data, April 2020

The age of the digital entrepreneurs are dispersed. No concentration of age around an age group was detected. This suggests that the field of digital entrepreneurship is open to people of all ages. One would think that since digital entrepreneurship thrive on technology, the older generation would be cut out of digital entrepreneurship. But one of the respondents is within the age bracket of fifty-one to sixty. One respondent is a female whilst the rest (3) are males. This allowed the study to include perspectives from different genders. Half of the respondents are married, a quarter is unmarried, and a quarter is divorced. The marital background of respondents is relevant since spousal support has been found to have an impact on enterprise performance. 75% of the respondents operate digital enterprises which are between ten years to thirty years. 25% of the respondents operate an enterprise that is five years. This means that the least enterprise in terms of age added in the study is five years. Almost all the respondents (75%) except one (25%) of the respondents operate the digital enterprises on full time basis. That one respondent has another paid job. The businesses included in the study operated in three main industries; information technology (50%), communication technology (25%), and financial technology (25%). Basing on this, it can be argued that the study captured insights from digital enterprises in different industries, aiding it present a broader perspective. All digital enterprises have paid employees. The digital enterprises have a minimum and maximum employees of two and thirty respectively. The employee strength of these businesses communicates the significant contribution of digital entrepreneurship to providing employment. All digital entrepreneurs operate in the formal sector of Ghana. No business was found to be operational in the informal sector. This study is hence presented from the point of view of the formal sector. It can also be deduced that the digital entrepreneurship space is dominated by formal businesses. Although located in Ghana, the market of all the enterprises captured transcend the Ghanaian shores. It can thus be said that digitalization of enterprises aids enterprises to be ubiquitous or penetrate international markets using minimal resources.

4.1.1.2 Profile of Government Officials

The profile of the government officials added to this study are presented in this section. Both government officials are males. They fall with the age brackets of thirty-one to forty, and fifty to sixty. They occupy the positions of business development officer, and Monitoring and Evaluation Officer. The former position has been occupied for a year and the latter for five years. They are therefore deemed to possess useful information and experiences for the study. One of the government official is married and the other is unmarried.

4.1.2 Understanding Digital Entrepreneurship Ecosystems

In the process of data collection, the study found it pertinent to ascertain if the respondents had an understanding of what digital entrepreneurship ecosystems meant. All the respondents showed an understanding of the digital entrepreneurship ecosystem. The general consensus was that digital entrepreneurship ecosystem entails all the actors in the context within which a digital enterprise exists that directly or indirectly have an impact on the venture. For instance, DE4 states that digital entrepreneurship ecosystem refers to *"The entire community of players that make a living from digital solutions"*. Similarly, DE3 implores that *"I am not familiar with the concept of digital entrepreneurship ecosystem, but I'm assuming that it's basically a cycle of life in which digital enterprises are born and grow"*. The government officials that were captured in the study exhibited a strong understanding of digital entrepreneurship eco-system. This is demonstrated in the opinion of GO1 that:

> *"Digital entrepreneurship includes everything that is new and different about entrepreneurship in a digital world, including using digital tools to execute various operational activities such as finding and retaining customers, designing and offering products & services, revenue generation and cost cutting in order to exploit commercial opportunities around the world. In Ghana, the viable digital economy*

created by easy access to digital platforms enhanced internet access, increased investments, sustained government intervention and a growing market for technology products & services has stimulated growth of the digital entrepreneurship ecosystem."

GO2 buttressed the above point by averring that:

"It is the range of actors/stakeholders/communities involved in the use of digital technologies to enable the creation of business ventures and the development of existing ones and manifested in various forms such as digital products and services, digital platforms, digital tools or infrastructure or internet- enabled innovations."

It is clear that the study included persons who understand the underlying concept of the study, and were therefore able to give useful insights into the research phenomenon.

4.1.3 Constituents of the Digital Entrepreneurship Ecosystem

In fulfilment of the overarching study objectives of the study, the constituents of the digital entrepreneurship ecosystem was ascertained. In Ghana, several actors participate to ensure the survival and growth of digital enterprises. They cover government, platform providers, content developers (digital entrepreneurs), media and investors (e.g banks), mentors, and human resources (academia).

To begin with, government acts in the digital entrepreneurship ecosystem in Ghana as providers of policy direction, financial as well as skills support. In efforts to aid build sustainable enterprise in the digital entrepreneurial space in Ghana, the government of Ghana is making efforts at equipping people who wish to be digital entrepreneurs with the requisite skills. A hub for nurturing start-ups in the digital space has been instituted by the government that is the Accra Digital Centre is under the corporate entity, Ghana Digital Centres Limited, registered as a limited liability company 100% owned by the Government of Ghana under the Ministry of Communications. . In every context, government policies can mare or make businesses in certain sectors. In Ghana, policies have been made to make the business environment favorable for digital enterprises to thrive. These efforts directed at digital entrepreneurship are part of government's determination to fulfil the aims and goals of the E-transform Ghana Project. These views are reflective in the statement of GO2 that *"Government is a key constituent of the digital entrepreneurship eco-system. In that the presence or absence of government policies have a great impact on the survival and growth of digital enterprises"*. Similarly, DE2 opines *"The digital entrepreneurship of Ghana consist of [...] and government who ensure that, the environment is conducive enough for digital enterprises to grow. Even in Ghana, government is offering an incubation hub to empower people, especially young ones, to explore businesses in the business space"*.

Another constituent of the digital entrepreneurship ecosystem in Ghana is platform providers. Although these platform providers generally live outside the boundaries of Ghana, they are a key part of the entrepreneurship ecosystem. This implies that an entrepreneurship ecosystem of a certain context could include actors that are geographically not situated in that jurisdiction. The ubiquitous nature of the internet and its accompanying platforms makes the described phenomenon possible. The platforms that most digital entrepreneurs rely on include iOS, Android, Facebook, Instagram, Twitter, Trello, Slack, Google, and Adobe Suite. In discussing the platform providers as elements of the digital entrepreneurship ecosystem, DE4 indicates *"The providers of the platforms we rely on to create our apps and others are a key part of the ecosystem. Without those platforms, we might not have been able to create what we do"*. In same vein, DE2 states *"A digital platform like iOS is useful in my enterprise.*

My business is centered on it. If anything negative happens to them today, the growth and survival of my business will be threatened".

Content providers, that is, the digital entrepreneurs themselves, have been identified as components of the digital entrepreneurship ecosystem. The digital entrepreneurs are those that create content using digital platforms. They make the digital entrepreneurship space active through the formation of enterprises. The ideas that they nurse are translated into viable economic activities through venture creation. The skills, knowledge, and experiences of these digital entrepreneurs are instrumental in building sustainable businesses in the digital space. Generally, the growth and success of digital enterprises is to a large extent linked to the skills, knowledge, and experiences of the owners. To buttress this point, DE1 mentions that *"I consider myself to be part of the digital entrepreneurship ecosystem. In that, it is my skill that even created the digital entrepreneurship space in the first place"*. DE2 presents a similar notion by saying that *"As digital entrepreneurs, we are the first component of the digital entrepreneurship ecosystem. I feel without us, this interview would not even be taking place. We create the businesses and that has given a topic to be discussed"*. DE4 also believes that *"The success and growth of our enterprises depend more on us than any other thing. So, we form part of the digital entrepreneurship ecosystem"*.

Again, the media and investors are identified as components of the digital entrepreneurship ecosystem in Ghana. Over the years, the media have been instrumental in promoting the ventures of digital entrepreneurs, especially start-ups. Mostly, the ventures of digital entrepreneurs are not known until the media gives it a certain level of hype. The media in this case cover formalized media houses, bloggers, and more recently, social media influencers. In support of this, DE2 espouses that *"The media are also supportive of digital* *enterprises. They spread the good work we do and others get to know about us".* GO1 reiterates this notion by stating that *"...From media houses, to social media influencers, and even bloggers, digital entrepreneurs benefit from their activities. Especially when the digital enterprise is innovative, some of these media houses and others I mentioned spread the 'good news' for free".* An interesting link between media and investors was given. The explanation is that the attention that media give some digital entrepreneurs makes it easier for the digital entrepreneurs to obtain funding or draw investors. To this, DE1 avers *"The hype that the media gives digital entrepreneurs becomes a bridge to easily gain funding from investors. Because, when you are already known in the social space, people tend to trust your business when you approach them for funds".*

Investors are also constituents of the digital entrepreneurship ecosystem by themselves. Some digital entrepreneurs approach them to fund their ventures. Their role in the digital entrepreneurship ecosystem cannot be overemphasized. Without their investment, several digital entrepreneurs might not have been able to start-up or grow since finance is critical to every business. Is support of the foregoing discourse, DE3 states that *"The availability of investors is key to the survival and growth of digital enterprises. The monies they invest in our businesses cushion us and help prevent business failure".* GO2 echoes the views of DE3 by indicating that *"Had it not been for investors, some of us would have been out of business. And by investors I mean private individuals and organizations like the banks. So, they are key to the digital entrepreneurship ecosystem".*

Further, the presence of digital entrepreneurship mentors enhances the digital entrepreneurship ecosystem. Digital entrepreneurship mentors are a bedrock on which several digital entrepreneurs spring-up. They provide advice and other mentorship activities that aid digital entrepreneurs nurture their businesses. Some digital entrepreneurs are motivated into the digital entrepreneurial space by mentors who have excelled in the digital entrepreneurial space or other sectors. In line with this, DE 4 says *"The presence of mentors have been instrumental in my entrepreneurial journey and the success of my business. I undertook an internship in a digital firm and that equipped me with some relevant skills to start this. Also, I admired the boss I worked under, that is, the owner of the business. I have also gained advice from other mentors who are themselves entrepreneurs but not necessarily in the sector I operate in"*.

Lastly, academia is part of the digital entrepreneurship ecosystem. Most digital entrepreneurs undertook some formal education linked to computer science, computer engineering, or business, and others which has shaped their entrepreneurial intentions. In some universities, students with entrepreneurial ideas are given guidance as well as entrepreneurial courses taught across different disciplines. These are varying ways via which academia plays a role in the digital entrepreneurship ecosystem. In view of this discussion, DE3 states *"My going through formal education at the university has been helpful in my setting up this business. My interest in Information Communication Technology and the course I undertook, I can say, brought me this far"*. Aside the courses offered by universities or academia, the researches undertaken that examine the entrepreneurial space or digital entrepreneurship arena, as well as general business issues, contribute to the growth and survival of digital enterprises. Through these researches, digital entrepreneurs are able to take proactive measures rather than act reactively. To buttress the preceding point, GO1 mentions that *"Academia plays significant role in the ecosystem. In that, they train people in various field where some form ideas to start-up digital ventures, and they also conduct researches that provide roadmap to operating ventures"*.

From the foregoing discussion, it can be deduced that the digital entrepreneurship ecosystem in Ghana consists of varied components; from direct actors to indirect ones. These all work together to create a favorable environment where digital enterprises can thrive and become sustainable.

4.1.4 Ghanaian Culture and Digital Entrepreneurship

Once entrepreneurship occurs in a culturally bounded space, the study enquired the influence or impact of the Ghanaian culture on the progress of digital entrepreneurship. Generally, there are divergent views. As 50% of the respondents agreed that Ghanaian culture was conducive for operating digital enterprises, the remaining 50% felt the Ghanaian culture was somewhat conducive. No respondent felt the culture was retrogressing to digital entrepreneurship.

On one hand, the culture of pursuing higher education was found key in enhancing digital entrepreneurship in Ghana. For instance, DE2 indicates that *"It is highly conducive considering the projected high rate of literacy"*. When a group of people within a particular culture are literate, it helps understand and accept digital enterprises. DE1 also agrees to the conduciveness of the Ghanaian culture to digital entrepreneurship by reiterating *"Very conducive"*. DO2 however goes further to indicate some aspects of culture that are necessary to facilitating digital entrepreneurship in Ghana like collectivism and team spirit. He says *"The culture of group work, brainstorming together, learning by doing and easily forging relationships with other members of society serves as a catalyst for the development of digital entrepreneurship in Ghana"*. This suggests that the collectivist culture as witnessed in Ghana is helpful for the progression of digital entrepreneurship although research shows collectivism is a bane to entrepreneurship.

On the other hand, the Ghanaian culture was found to be somewhat supportive of digital entrepreneurship in Ghana. Proponents of this view believe that over the years, the Ghanaian culture has been one that has been slow to adopt change due to high levels of uncertainty avoidance. As a result, digital literacy is on the low and not encouraging for digital entrepreneurship. In answering how the Ghanaian culture was conducive for digital entrepreneurship, DE4 simply says *"50%"*. Again, DE3 opines *"I think Ghanaian culture and society poses some difficulties to digital literacy. I think there is high potential because of the high percentage of youth in the country, but digital entrepreneurship requires an increased investment in human capital that is significantly lacking"*. As a government official with an agency or desk responsible for driving digital entrepreneurship in Ghana, GO1 avers *"The Ghanaian culture has not fully accepted the disruption associated with digital innovation"*.

These views suggest that the Ghanaian culture needs a change to fully support the growth and survival of digital enterprises in Ghana. Since all respondents did not state the full support of the Ghanaian culture to digital entrepreneurship, a change is important. Probably, the Innovation module of the E-transform Ghana project is a step in the right direction to cause a cultural change and full acceptance and support of digital entrepreneurship.

4.1.5 Enabling Policies that Foster Digital Entrepreneurship

The success or failure of enterprises are highly dependent on the existence of enabling government policies. In the study context, enabling government policies that foster digital entrepreneurship are present although on the low in the views of the respondents. There was a general consensus that government policies exist to support the activities of digital entrepreneurs. The respondents indicate that government policies cover the instituting of support programs that give entrepreneurs or digital entrepreneurs specifically, some form of training that is if useful in business operation. For instance, GO2 orates that:

> *"Availability of enabling policies is high. There is a policy to strengthen digital entrepreneurship through the provision of grants to carefully selected Grants Managers to enable them support entrepreneurship development among the youth. Sub-grants are provided for proof of concept, incubation and acceleration programmes at the Innovation Hubs supported under the Ministry of Communications".*

DE1 also indicates similar view by stating that *"The environment is currently very amiable to digital solutions. The adoption by the state is very encouraging"*. However, despite the governmental policies currently in place, some respondents add that there is the need for more efforts by the government. They lament that several of the governmental policies are not focused on digital entrepreneurs specifically but applicable to the general entrepreneurship landscape. To reinforce this, GO1 declares *"Existing policies don't focus directly on digital entrepreneurship thus growth of the ecosystem is stunted"*. DE3 adds that *"I think more can be done. The government has been implementing more Cybersecurity and tech measures, but tangible policy is necessary to* *institutionalize digital literacy"*. The slow nature of the policies that supports digital entrepreneurship in Ghana is explicitly noted by DE4 who laments that *"The pace of policy reviews and implementations is growing albeit slow. The policy makers could do with integrating more with the actual ecosystem players i.e. entrepreneurs"*.

It can be deduced form the above that despite the efforts made by government with respect to policies that promote digital entrepreneurship in Ghana, more focused policies are needed in the digital entrepreneurship space.

4.1.6 Institutional and Infrastructural Support to Digital Entrepreneurs

Institutional and infrastructural support are needed for digital enterprises to thrive. The study therefore explores the presence of institutional and infrastructural support in the digital entrepreneurship arena. It is clear and agreed by all respondents that institutional and infrastructural support is not lacking. These are evident in the development of centres and the provision of infrastructure that support the training of digital entrepreneurs. To indicate the level of institutional and infrastructural support to digital entrepreneurship in Ghana, DE1 replies *"It's very good"*. The responses of the other respondents that highlight the availability of instructional and infrastructural support for digital entrepreneurs are presented below:

> *"The support has been deliberate and dedicated with institutions such as the Ghana Digital Centres Limited (GDCL) tasked with providing affordable physical and digital infrastructure to enable the operations of entrepreneurs in the digital innovation ecosystem."* – GO1

"As part of policy, the Ministry of Communications has dedicated two out of the twelve buildings at the Accra Digital Centre for the deepening of digital entrepreneurship in Ghana. The establishment of the Accra Digital Centre Company to provide institutional support for the Innovation Hubs is noteworthy." – GO2

"Spaces like the Accra Digital Centre work well as hubs for digital creation, but more spaces need to be created for tech innovators." – DE3

However, the availability of these institutional and infrastructural support is one thing, and the awareness of it is another. This is expressed in the opinion of DE4 as he highlights that *"I'd rate it at 60%. The pervasiveness of the support seems to be for those privileged to get their hands on the information of the support"*. This gives the impression that although the support by an institution like the Accra Digital Centre is much talked about, it is possible that its popularity is within certain jurisdictions or regions. There is therefore the need for a widespread communication about extant institutional and infrastructural support given to digital entrepreneurs. Regardless of this, the presence of institutional and infrastructural support that enhance digital entrepreneurship in Ghana is deemed fair.

4.1.7 Success Factors of Digital Enterprises

In every ecosystem, the factors that enable units or organisms to thrive are necessary to identify. Hence, the study explores the success factors of digital entrepreneurs in the Ghanaian entrepreneurship ecosystem. From the study, it is identified that creativity, collaborations, and funding, hereby termed CCF are the main factors that trigger entrepreneurial success in the digital entrepreneurship space. These responses are tabulated with their respective frequencies. The frequencies are tallied against the general sample size of six (100) since some respondents identify more than one factor. The responses are presented in Table 4.1.7.1 below.

Table 4. 2: Success factors of digital enterprises

Factor	**Percentage (%)**
Creativity	66.6
Collaboration	50
Funding	50

Source: Field Data, April 2020

To begin with, a little over 66% of the respondents hold that one factor that is critical to the success of digital enterprises in Ghana is creativity. It is the foundation on which all digital enterprises emerge. After the emergence of such firms, creativity need not end but continue considering that the market is competitive. Most digital entrepreneurs who fail to continually apply creativity end up losing their ventures to failure. Continuous creativity spread innovation that allows the digital enterprise to stay in business, grow and be profitable. In line with this, DE2 states that *"Creativity is key to the success of our businesses. You need to constantly be creative if you don't want to fade out"*. DE4 iterates this view by saying that:

> *"Technology, which digital enterprises hinge on keeps changing. You therefore have to be creative to flow with it, create content out of it and make money. You may have an innovation today, but tomorrow, that would not be an innovation again and people will not pay attention to your work. So, you need to be creative".*

To crown these views, GO1 mentions that "*Creative is the catalyst to the success of digital firms*".

Another identified success factor of digital enterprises by 50% of the participants is collaboration. Digital entrepreneurship does not thrive in silos. It is a system of interconnected actors as demonstrated under the discussion of the constituents of the digital entrepreneurship ecosystem. For instance, digital enterprises rely on platforms to operate, need funding from investors to fund their operations, and need business guidance from other institutions, individuals, or consultants. Digital entrepreneurs need to collaborate with others to run sustainable and successful businesses. In support of the forgoing discussion, GO2 states *"The industry is such that collaborating with others aids in business success. You can't isolate yourself as that reduces your chances of succeeding"*. Likewise, DE3 opines that *"We operate like an interconnected thing. You need the platforms of others, you need someone's money, and even ideas form your own colleagues"*. The issue that platform creators are needed for collaboration suggests that collaboration could go beyond the boundaries of a digital entrepreneur's context to international. It could also go beyond physical or personal interaction to agreeing to the terms and conditions of other collaborators like platform providers.

Last but not the least, 50% of the respondents indicated that the ability to gain funding is critical to the success of digital enterprises. Finance or funding has been identified as the lifeblood of businesses. Without adequate funding, most digital enterprises cannot finance their operations, pay employees, acquire both softwares and hardwares needed to run the business, and pay rent for business premises, among several others. In short, finance moves a business. A brilliant business idea without the finances to kick start end up being of no use. To this, DE1 mentions *"Funding is the success factor of digital businesses. This is because if you do not have the necessary funds available to fund your business, even the good ideas you have cannot manifest"*. DE4 also says *"Money is also a critical success factor. Most of the things businesses do need money"*.

The study further probes the most critical success factor, which a little majority of the respondents (50%) mentioned creativity. The general explanation is that even with the disposal of funding, without creativity to drive constant innovation in the enterprise, that funding cannot yield appreciable returns. The digital world today drives on innovation and it takes creativity to keep the innovation ongoing. Going a little outside the confines of this study to cite Facebook, Facebook has over the years demonstrated creativity to keep it at the top. After the advent of Facebook, other social media platforms have been created, but due to ongoing creativity, no social media platform has been able to overtake Facebook. In sharp contrast, the failures of social media platforms such as "Viber", "Telegram", and "ToGo" can be cited as examples of how lack of constant creativity caused digital enterprise failure.

4.1.8 Challenges of Digital Entrepreneurship

The study found it necessary to examine the challenges that characterize the digital entrepreneurship space since the business models adopted in that context are different from other entrepreneurial ventures. The challenges recognized are poor Internet connectivity, insufficient funding, slow acceptance of digital products, and inadequate physical infrastructure. Just as done in the previous section, the responses of the study participants have been tabulated with the corresponding frequencies. It must be noted that some participants named more than a single challenge, thus, the frequencies are against the entire sample size of six (100%). This information is presented in Table 4.1.8.1 below.

Table 4. 3: Challenges Facing Digital Entrepreneurs

Challenge	**Percentage (%)**
Poor internet connectivity	83.3
Insufficient funding	66.6
Slow acceptance of digital products	50
Inadequate physical infrastructure	33.3

Source: Field Data, April 2020

A key challenge that digital entrepreneurs face is internet connectivity. This is identified by a little over 83.3% of the respondents. To them, Ghana as a country has poor internet connectivity. The poor internet connectivity has presented several operational challenges to digital entrepreneurs. Aside the digital entrepreneurs having issues with poor connectivity, their customers, or consumers of digital products are also affected by the poor internet connectivity, frustrating their efforts to use digital products. This goes back to affect digital entrepreneurs since it translates into low patronage and lack of interest. To express this view, DE1 indicates that *"Poor internet connectivity is a challenge. Sometimes, our operations get interrupted due to poor internet connectivity and that slows our activities"*. GO2 adds that *"Internet connection is an issue. If a digital entrepreneur has a very good digital product, without fast internet connection, consumers could become frustrated using it"*.

Again, insufficient funding is a challenge thwarting the efforts of digital entrepreneurs as specified by 66.6% of the respondents. As a general problem in the entrepreneurial space in Ghana, most digital entrepreneurs are unable to raise sufficient funds for their businesses, be it equity funding or debt funding. With respect to equity funding, it is not easy for digital entrepreneurs to convince investors to provide funding for the business and become part owners. This can chiefly be attributed to the lack of widespread use and acceptance of digital products in Ghana which makes investors have doubt about how the digital enterprise can make profits so that investments can be recouped. On the side of debt funding, digital entrepreneurs find it difficult obtaining debt funds from institutions with the aim of paying back. This affects mainly those who have poor credit score, lack collateral, and are not able to convince the lending institutions that the business is a viable one through written business plans. To portray this GO1 mentions that *"Just as with other entrepreneurs, gaining funding is a challenge to digital entrepreneurs and government cannot provide this funding to each and every one of them"*. DE4 augments this view by saying that *"To gain funding from investors is not easy"*. DE3 presents an extensive view by revealing that:

> *"In fact, funding has been a challenge. In this country, it is difficult gaining funds for your business. If you are seeking investors, they may not be interested in your kind of business because the question will always remain 'how do I get my investment back?' Going for a loan too is another problem on its own. Not all of us start big or have collateral. And unless you are going in for a small amount of money which can't even do much for your business, you will need collateral."*

Moreover, 50% of the respondents state that there is a slow acceptance of digital products which is a challenge to digital entrepreneurs. The respondents indicate that most people in Ghana are slow at accepting the digital products that are rolled onto the market. Although people belonging to generation Z and Y are accommodating of digital products, the challenges usually is with older generations who are reluctant to adopt to new technologies. In line with this discourse, DE2 mentions that *"I see it that most people in Ghana are slow at accepting what we do. They are not quick to adopt to it"*. DE1 says likewise: *"Majority of* *people in this country, especially the older generation and middle aged people, find it difficult to accept innovations".*

Nonetheless, 33.3% of the study participants note that there is inadequate physical infrastructure to support digital entrepreneurs, which presents a challenge. Although there has been some level of infrastructural support for digital entrepreneurs, it appears limited. The proponents of this view hold that the infrastructure instituted to support digital entrepreneurs should be spread across different regions of the country than just the capital. The spread of the infrastructure will be beneficial to digital entrepreneurs in different regions of the Ghana. Some responses from the respondents are presented below.

> *"There are limited infrastructure to support us and most of these are centred in Accra."* DE1
>
> *"I think another challenge is limited infrastructural support."* – DE2

From the foregoing discussion, it can be deduced that the challenges that face digital entrepreneurs are more of external to the digital enterprise than internal or personal factors.

4.2. Discussion of Findings

This section presents a discussion of the findings of the study whilst comparing them with extant literature.

4.2.1 Digital Entrepreneurship Ecosystem in Ghana Consists of Varied Components within and Outside Ghana

The Ghanaian digital entrepreneurship ecosystem consists of actors that play both direct and indirect roles in the ecosystem. The components of the digital entrepreneurship ecosystem are government, platform providers, content developers (digital entrepreneurs), media and investors (e.g banks), mentors, and human resources (academia). Each of these have different roles to play and have different influences in the ecosystem. They also provide different resources for digital entrepreneurs (Smith et al., 2017). These elements of the ecosystem could be found within the jurisdiction within which the digital entrepreneur resides or outside. Consequently, digital entrepreneurship ecosystem is found to involve several internal and external stakeholders. This corroborates the findings of Hu et al. (2016) who state that digital entrepreneurship ecosystem is a complex process that involves several internal and external stakeholders. One element of the digital entrepreneurship ecosystem that has been dominant in literature but missing in this study are consumers of the digital products, in other words, customers (Balocco et al., 2018). Without the consumers, the enterprises of digital entrepreneurs cannot thrive. It can therefore be said that within the Ghanaian setting, consumers are not recognized to form part of the digital entrepreneurship ecosystem. This study presents new perspectives that academia and mentors form a critical part of the digital entrepreneurship ecosystem. These have been silent in literature.

4.2.2 Ghanaian Culture Not Fully Supportive of Digital Entrepreneurship

Since digital entrepreneurship does not occur in a vacuum, there is the likelihood that the norms, values, and others of the people in the surroundings where it occurs could have an impact on it. From the study, the Ghanaian culture was partially supportive of digital entrepreneurship. On one hand, the collectivist culture of Ghana, allows digital entrepreneurs to interact and collaborate with others, which is later on found to be instrumental to the success of the business. Although literature denotes that collectivism is a bane to entrepreneurship (Hayton, George & Zahra, 2002) and individualism triggers innovation (Barnett, 1953), this study finds otherwise and echoes the findings of Pinillos and Reyes (2011). Also, the adopted culture where formal education is encouraged by all and sundry is a breeding ground for digital entrepreneurship to thrive since a more educated population means that more people will be comfortable patronizing the businesses of digital entrepreneurs. On the other hand, the culture of uncertainty avoidance where individuals are afraid to take risks negatively affects the adoption and acceptance of digital products. The impact of culture on digital entrepreneurship in Ghana can therefore be said to be like a two-edged sword (playing two roles).

4.2.3 Policy, Institutional and Infrastructural Support for Digital Entrepreneurs Need Improvement

From the study, the efforts of government and other stakeholders in enhancing the digital entrepreneurship arena cannot be overemphasized. Institutions such as the Accra Digital Centre, the E-transform Kumasi Hub and others have been set up to support digital entrepreneurs in terms of skills training and guidance. Also, some physical infrastructure have been dedicated to the cause of digital entrepreneurship. Mention can be made of the dedication of some parts of the Accra digital centre for skills training and innovation hubs. Although these have been well recognized, there is a quest by digital entrepreneurs for more to be done and also a widespread of such facilities or infrastructure if digital entrepreneurship is to thrive.

Again, government has a number of policies that seek to support entrepreneurship as a whole in Ghana. It was found that more specific and focused policies on digital entrepreneurship are needed. The dominant generic policies do not cater for the needs of digital entrepreneurs since the business models they adopt are different from other types of entrepreneurs.

4.2.4 The Success Factors of Digital Entrepreneurship Relate more to Personal Characteristics than External Factors

Insights from the study suggests that creativity, collaborations, and availability of funding are the factors that trigger the success of digital enterprises. The ability of the digital entrepreneur to be creative and continuously show creativity throughout the life span of the enterprise is instrumental in the success of the business. This reverberates the findings of Srinivasan and Venkatraman (2018) who indicate that innovation and creativity are imperative in the digital entrepreneurship arena and must be done on an ongoing basis. Again, the ability of the digital entrepreneur to collaborate or build mutually beneficial relationships with others in critical in the success of the digital enterprise. This finding reiterates that of Srinivasan and Venkatraman (2018) who aver that relationship building or relationship capital is critical to the success of a digital business. These relationships are useful for digital entrepreneurs to create legitimacy for their ventures and gather the needed resources for business operation. The ability of the digital entrepreneur to gain funding for the business is a determinant of the success of the enterprise. In that, finance is usually what keeps a business operational. The lack of it or the inadequacy of it leads to challenges that could cause business failure.

The ideology of the skill of gaining funding for the digital enterprise as success factors of digital enterprises is emergent. A review of literature did not highlight this success factor.

4.2.5 Challenges of Digital Entrepreneurship are External Factors

From the study, it can be deduced that the challenges that face digital entrepreneurs are more of external to the digital enterprise than internal or personal. The key challenges identified in the study are internet connectivity, insufficient funding, slow acceptance of digital products, and inadequate physical infrastructure. First, the Ghanaian problem of poor internet connectivity has negative ramifications for digital entrepreneurship. It frustrates both digital entrepreneurs and consumers. Second, the lack of funds has critical implications on businesses. As such gaining funds is of utmost importance to most owners of digital enterprises. However, it is difficult to gain funds in the digital entrepreneurship space. As noted by Balocco et al. (2018), the presence of high uncertainty in the digital entrepreneurial space makes it a herculean task for digital entrepreneurs to gain investors. Third, in the context of a developing country such as Ghana, the adoption and acceptance of digital products is slow. It could be due to the high uncertain nature of the culture or the difficulty of most people to easily use such technology. Last, inadequate physical infrastructure to support digital entrepreneurship is a challenge to digital entrepreneurs in Ghana. This does not communicate a lack of it but the limitation of it. So, although some physical infrastructure has been provided by government, they are inadequate to benefit the booming number of digital entrepreneurs.

4.3 Chapter Summary

This chapter analysed the data gathered in accordance with emerged themes. The textual thematic data analysis method was used. The chapter is dived into two main sections: that is the data analysis section and the discussion of findings. Quotes from the respondents were presented in the data analysis to support the discourse.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSISON & RECOMMENDATIONS

5.0 Introduction

This chapter is the final chapter of the study and summarizes the research. It presents a summary of the research findings, provides a conclusions for the study, makes recommendations to digital entrepreneurs and other stakeholders, and proposes future research directions on the topic or related studies.

5.1 Summary of the Study

The study explored the digital entrepreneurship ecosystem of Ghana, focusing on its constituents, the cultural, institutional, and infrastructural support, as well as the success factors and challenges that digital entrepreneurs face. In literature, there is a paucity of studies that examine entrepreneurship ecosystem in the digital space, especially in the sub-Saharan African region. Over the years, Africa has witnessed an academic marginalization with respect to research on this phenomenon. This necessitated a study such as this to be conducted, focusing on Ghana. The study sought to achieve three main objectives. These were: to identify the actors in the digital entrepreneurship ecosystem; to explore the drivers and success factors of digital entrepreneurship in Ghana; and to discover the challenges digital entrepreneurs in Ghana face. It relied on the qualitative research approach in its enquiry. A sample size of six (6) were drawn from the population of digital entrepreneurs in Ghana and government officials that work on the E-Transform Ghana project. The snowballing sampling technique was adopted in drawing the respondents for the study considering the nature of the sector. Data were collected through qualitative online survey using Google survey. A thematic textual analysis was then applied in analysing the data. To aid unearth the issues surrounding this topic, literature were reviewed along thematic areas such understanding entrepreneurship, theorizing digital entrepreneurship, digital entrepreneurship process, digital ecosystem, challenges of digital entrepreneurship, and success factors of digital entrepreneurship.

The study presents some worthwhile findings which are useful to different stakeholders. To start with, the study finds that, the digital entrepreneurship ecosystem in Ghana consists of actors such as government, platform providers, content developers (digital entrepreneurs), media and investors (e.g banks), mentors, and human resources (academia). These play either direct or indirect roles and are not bounded by the territories that define Ghana. Also, the study reveals that the Ghanaian culture is not fully supportive of digital entrepreneurship in Ghana. Firstly, the culture of collectivism and the pursuance of higher education was found to foster digital entrepreneurship through collaborations and acceptance of digital products respectively. However, the Ghanaian culture of risk avoidance influences the early adoption of innovation negatively. Thus, generally, Ghanaians are slow in the adoption of digital products provided by digital entrepreneurs. Hence, on a whole, the Ghanaian culture is not a 100% supportive of digital entrepreneurship. Again, the study indicates that although there are a number of policies that promote digital entrepreneurship in Ghana, they are generic polices for entrepreneurship in general and less focused on digital entrepreneurship. Another findings of the study is that institutional and infrastructural support for digital entrepreneurs exist, but alas, they are not widely known by digital entrepreneurs, especially those living outside the national capital. On the success factors of digital entrepreneurship in Ghana, it was found that creativity, collaboration, and funding (CCF) are key to entrepreneurial success in the digital space, with creativity being the most eminent. Internet connectivity, insufficient funding, slow acceptance of digital products, and inadequate physical infrastructure are the challenges that digital entrepreneurs in Ghana face. It was then deduced that the challenges of digital entrepreneurs in Ghana are external to their organizations than internal.

5.2 Conclusion of the Study

Based on the findings of the study, some conclusions are drawn. The study concludes that the digital entrepreneurship ecosystem in Ghana is conducive for digital enterprises to thrive although there is more room for improvement. The Ghanaian culture is still evolving to a point of full support for digital entrepreneurship. Again, the presence of institutional and infrastructural support for digital entrepreneurs is an area that deserves improvement and decentralization as the concentration of most of these support services are centralized the capital. The study also concludes that creativity is a critical element to the growth, survival, and success of digital entrepreneurship in Ghana. Lastly, whereas as a success factor like creativity and collaboration are personal attributes of the digital entrepreneurs that spur success, all the identified challenges are external to the entrepreneur and the enterprise. The lesson form this is that digital entrepreneurs are more likely to attribute the success of their enterprises to themselves, and the failure to society.

5.3 Recommendations

In view of the insights gained from the study, the study makes some recommendations. To policy makers, it is relevant that a dedicated fund be set aside to sustain business activities of digital entrepreneurs. There is also the need for the construction of physical infrastructure to stimulate operational expansion of digital enterprises. Again, there should be a collaboration between government and internet service providers to offer stable and affordable internet connections all through the day and night. There is yet the need for stakeholders in the position to do so to provide market linkages to digital entrepreneurs. Moreover, training digital entrepreneurs in digital marketing will equip them to appropriately market their enterprises. By so doing, the digital entrepreneurs will be able to pursue market penetration, market development, alternative marketing channels and product development to stay or beat competition. Further, policy makers and institutions set up to support digital entrepreneurs could offer a mass training across all regions of Ghana for young entrepreneurs interested in the digital space. A replicate of the model being pursued at the Ghana Innovation Hub and Ghana Tech Lab at the Accra Digital Centre is recommended.

To the digital entrepreneurs, the study recommends that they take steps to seek information on available government and donor agency programmes that are vital to them. If useful information are not well disseminated, then they should be deliberately sought.

5.3 Limitation of the Study

This study is limited in scope. It considers only digital entrepreneurs and government officials who occupy positions to support the implementation of the E-Transform Ghana project, which covers digital entrepreneurship, without adding the views of other stakeholders such as people in academia who are in the domain of entrepreneurship or computer studies that relate to digitalization.

5.5 Future Research Directions

This study suggests that future studies on the topic of digital entrepreneurship can pursue a trans-disciplinary study where more stakeholders like academia, consumers, and others can be added to the study. Also, gender dynamics could be included in future studies to ascertain if the gender of the digital enterprise owner plays a role in the challenges and success factors of the digital enterprise. Last but not the least, a quantitative research approach could be adopted to test the extent to which some of the factors of success, and challenges affect the operations of digital enterprises in Ghana.

5.5 Chapter Summary

The chapter summarized the study. It rehashed the overarching aim of the study, and described how the study was conducted. The findings of the study were also summarized. The study made conclusions based on its findings. Recommendations were then made for policy makers and digital entrepreneurs. The limitations of the study were highlighted and future research directions to researchers who wish to undertake studies on the research topic were made accordingly.

References:

Autio, E., Nambisan, S., Thomas, L. D., & Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, *12*(1), 72-95.

Autio, E., Szerb, L., Komlosi, E., & Tiszberger, M. (2018). The European Index of Digital Entrepreneurship Systems. *DOI*, *10*, 39256.

Bailey, M. (2019). Snowball Sampling in Business Oral History: Accessing and Analyzing Professional Networks in the Australian Property Industry. *Enterprise & Society*, *20*(1), 74-88.

Barnett, H. G. (1953). 1953Innovation: the basis of cultural change. *New York: McGraw-HillBarnettInnovation: The Basis of Cultural Change1953*.

Bogdanowicz, M. (2015). *Digital Entrepreneurship Barriers and Drivers-The need for a specific measurement framework* (No. JRC96465). Joint Research Centre (Seville site).

Bosma, N., & Kelley, D. (2019). Global Entrepreneurship Monitor 2018/2019 Global Report. *Global Entrepreneurship Research Association (GERA)*.

Chapman, E., & Smith, J. A. (2002). Interpretative phenomenological analysis and the new genetics. *Journal of health psychology*, *7*(2), 125-130.

Christian, A. (2018). Ghana launches ICT innovation project to promote digital entrepreneurship. Retried from https://weetracker.com/2018/08/23/ghana-launches-ict-innovation-project-to-promote-digital-entrepreneurship/.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Dini, P., Iqani, M., & Mansell, R. (2011). The (im) possibility of interdisciplinarity: lessons from constructing a theoretical framework for digital ecosystems. *Culture, theory and critique*, *52*(1), 3-27.

Dy, A. M., Marlow, S., & Martin, L. (2017). A Web of opportunity or the same old story? Women digital entrepreneurs and intersectionality theory. *Human Relations*, *70*(3), 286-311.

Edoho, F. M., Sheriff, M., & Muffatto, M. (2015). The present state of entrepreneurship ecosystems in selected countries in Africa. *African Journal of Economic and Management Studies*, 6 (1), 17-54.

Elia, G., Margherita, A., & Passiante, G. (2020). Digital entrepreneurship ecosystem: How digital technologies and collective intelligence are reshaping the entrepreneurial process. *Technological Forecasting and Social Change*, *150*, 119791.

Errajaa, K., Partouche, J., & Dutot, V. (2013). The co-creation process in the development of nostalgic new products. *European Journal of Innovation Management*, *16*(4), 440-458.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1-4.

Feldman, M., Kenney, M., & Lissoni, F. (2015). The new data frontier: Special issue of research policy. *Research Policy*, *44*(9), 1629-1632.

Giones, F., & Brem, A. (2017). Digital technology entrepreneurship: A definition and research agenda. *Technology Innovation Management Review*, *7*(5).

Guthrie, C. (2014). The digital factory: A hands-on learning project in digital entrepreneurship. *Journal of Entrepreneurship Education*, *17*(1), 115.

Hafezieh, N., Akhavan, P., & Eshraghian, F. (2011). Exploration of process and competitive factors of entrepreneurship in digital space. *Education, Business and Society: Contemporary Middle Eastern Issues*.

Hair, N., Wetsch, L. R., Hull, C. E., Perotti, V., & Hung, Y. T. C. (2012). Market orientation in digital entrepreneurship: advantages and challenges in a Web 2.0 networked world. *International Journal of Innovation and Technology Management*, *9*(06), 1-17.

Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship theory and practice*, *26*(4), 33-52.

Hu, H., Huang, T., Zeng, Q. and Zhang, S. (2016). The role of institutional entrepreneurship in building digital ecosystem: a case study of Red Collar Group (RCG). *International Journal of Information Management*, 36(3), 496-499.

Hull, C. E., Caisy Hung, Y. T., Hair, N., Perotti, V., & DeMartino, R. (2007). Taking advantage of digital opportunities: a typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, *4*(3), 290-303.

Isenberg, D. (2011). The entrepreneurship ecosystem strategy as a new paradigm for economy policy: principles for cultivating entrepreneurship. *Babson Entrepreneurship Ecosystem Project, Babson College, Babson Park: MA*.

Kraus, S., Palmer, C., Kailer, N., Kallinger, F. L., & Spitzer, J. (2019). Digital entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*.

Le Dinh, T., Vu, M. C., & Ayayi, A. (2018). Towards a living lab for promoting the digital entrepreneurship process. *International Journal of Entrepreneurship*, 22 (1), ISSN: 1939-4675.

Lehmann, J., & Rosenkranz, C. (2017). The Trajectories of Digital Entrepreneurship: Disentangling the Digital.

Li, W., Badr, Y., & Biennier, F. (2012). Digital ecosystems: challenges and prospects. In proceedings of the international conference on management of Emergent Digital EcoSystems (pp. 117–122). ACM.

Manson, S., Shannon, J., Eria, S., Kne, L., Dyke, K., Nelson, S., ... & Matson, L. (2014). Resource needs and pedagogical value of web mapping for spatial thinking. *Journal of Geography*, *113*(3), 107-117.

Martinez Dy, A., Martin, L., & Marlow, S. (2018). Emancipation through digital entrepreneurship? A critical realist analysis. *Organization*, *25*(5), 585-608.

Nadgrodkiewicz, A. (2013). Building entrepreneurship ecosystems. *Economic Reform Features Services*. In Creating the Environment for Entrepreneurial Success. Center for International Private Enterprise. 18-21.

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, *41*(6), 1029-1055.

Nambisan, S., & Baron, R. A. (2019). On the costs of digital entrepreneurship: Role conflict, stress, and venture performance in digital platform-based ecosystems. *Journal of Business Research*.

Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. *Research Policy,* 48 (8), 103773.

Neville, S., Adams, J., & Cook, C. (2016). Using internet-based approaches to collect qualitative data from vulnerable groups: reflections from the field. *Contemporary Nurse*, *52*(6), 657-668.

Nzembayie, K. F., Buckley, A. P., & Cooney, T. (2019). Researching Pure Digital Entrepreneurship–A Multimethod Insider Action Research approach. *Journal of Business Venturing Insights*, *11*, e00103.

Pinillos, M. J., & Reyes, L. (2011). Relationship between individualist–collectivist culture and entrepreneurial activity: evidence from Global Entrepreneurship Monitor data. *Small Business Economics*, *37*(1), 23-37.

Recker, J., & von Briel, F. (2019). The Future of Digital Entrepreneurship Research: Existing and Emerging Opportunities.

Sambamurthy, V., Bharadwaj, A., & Grover, V. (2003). Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms. *MIS quarterly*, 237-263.

Schulte-Althoff, M., Schewina, K., Fürstenau, D., & Lee, G. M. (2020, January). On the Heterogeneity of Digital Infrastructure in Entrepreneurial Ecosystems. In *Proceedings of the 53rd Hawaii International Conference on System Sciences*.

Smith, C., Smith, J. B., & Shaw, E. (2017). Embracing digital networks: Entrepreneurs' social capital online. *Journal of Business Venturing*, *32*(1), 18-34.

Steininger, D. M. (2019). Linking information systems and entrepreneurship: A review and agenda for IT‐associated and digital entrepreneurship research. *Information Systems Journal*, *29*(2), 363-407.

Sussan, F., & Acs, Z. J. (2017). The digital entrepreneurial ecosystem. *Small Business Economics*, *49*(1), 55-73.

Sussan, F., & Acs, Z. J. (2017). The digital entrepreneurial ecosystem. *Small Business Economics*, *49*(1), 55-73.

Symon, G., & Cassell, C. (Eds.). (2012). *Qualitative organizational research: core methods and current challenges*. Sage.

United Nations Conference on Trade and Development – UNCTAD. (2019). The digital economy. Retrieved from https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2466.

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, *15*(3), 398-405.

World Bank. (2019). World Bank supports digital entrepreneurship and skills agenda. Retrieved from https://goldstreetbusiness.com/business/world-bank-supports-digital-entrepreneurship-and-skills-agenda/.

Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.

Zaheer, H., Breyer, Y., Dumay, J., & Enjeti, M. (2019). Straight from the horse's mouth: Founders' perspectives on achieving 'traction'in digital start-ups. *Computers in Human Behavior*, *95*, 262-274.

Zhao, F., & Collier, A. (2016). Digital entrepreneurship: Research and practice. In *9th Annual conference of the EuroMed academy of business* (pp. 2173-2182).

Ziyae, B., Sajadi, S. M., & Mobaraki, M. H. (2014). The deployment and internationalization speed of e-business in the digital entrepreneurship era. *Journal of Global Entrepreneurship Research*, *4*(1), 15.

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APPENDIX I: INTERVIEW GUIDE FOR DIGITAL ENTREPRENEURS

UNIVERSITY OF GHANA BUSINESS SCHOOL

MASTER OF ARTS IN MARKETING STRATEGY

INTERVIEW GUIDE:

Dear Respondent,

This interview guide is designed to assist the researcher undertake a study titled "Examining Digital Entrepreneurship Ecosystem from a Developing Economy: Evidence from Ghana" This is therefore an academic exercise which is part of the requirements for the award of a Master of Arts Degree in Marketing Strategy. Your response is of utmost importance and your contributions would be treated with the maximum confidentiality.

This Online Qualitative Survey is only for digital entrepreneurs.

PRELIMINARY QUESTION:

1. Are you a digital Entrepreneur?
   Yes [ ] No [ ]

SECTION A: PROFILE OF RESPONDENTS

2. Age of respondent

   20 and Below [ ] 21 -30 [ ] 31 – 40 [ ] 41 – 50 [ ] 50 – 60 [ ] 61 and above [ ]

3. Gender of respondent

   Female [ ] Male [ ] Prefer not to say [ ]

4. Marital Status

   Married [ ] Unmarried [ ] Divorced [ ] Widowed [ ]

5. For how many years have you operated as a digital entrepreneur?

6. Do you have a paid job aside being a digital entrepreneur?

   Yes [ ] No [ ]

7. Which sector does your digital enterprise operate in?
8. Which digital platforms does your enterprise operate on?
9. 8. Does your business operate in ....

   Formal Sector [ ] Informal Sector

10. Do you have paid employees?

    Yes [ ] No [ ]

11. If yes, how many employees?
12. Does your target market transcend Ghana?

SECTION B: THE DIGITAL ECOSYSTEM IN GHANA

13. What is your understanding of digital entrepreneurship ecosystem?
14. What factors or actors constitute the digital entrepreneurship ecosystem in Ghana?
15. How conducive is the Ghanaian culture for digital entrepreneurship?
16. How would you describe the availability of enabling policies that foster digital entrepreneurship in Ghana?
17. How would you describe the institutional and infrastructural support digital entrepreneurs in Ghana get?

SECTION C: SUCCESS FACTORS OF DIGITAL ENTERPRISES

18. What factors drive the success of your digital enterprise?
19. Which of the factors mentioned is the most critical?

SECTION D: CHALLENGES OF DIGITAL ENTREPRENEURS

20. What are the challenges you face as a digital entrepreneur?
21. In your view, how can those challenges be mitigated?

APPENDIX II: INTERVIEW GUIDE FOR GOVERNMENT OFFICIALS

UNIVERSITY OF GHANA BUSINESS SCHOOL

MASTER OF ARTS IN MARKETING STRATEGY

INTERVIEW GUIDE:

Dear Respondent,

This interview guide is designed to assist the researcher undertake a study titled "Examining Digital Entrepreneurship Ecosystem from a Developing Economy: Evidence from Ghana" This is therefore an academic exercise which is part of the requirements for the award of a Master of Arts Degree in Marketing Strategy. Your response is of utmost importance and your contributions would be treated with the maximum confidentiality.

This Online Qualitative Survey is only for government officials that are involved in government's "E-transform" project.

PRELIMINARY QUESTIONS:

1. Are you a government official with an agency or desk responsible for driving Digital Entrepreneurship in Ghana?

   Yes [ ] No [ ]
2. What position do you occupy?
3. How long have you occupied that position?

SECTION A: PROFILE OF RESPONDENTS

4. Age of respondent

   20 and Below [ ] 21 -30 [ ] 31 – 40 [ ] 41 – 50 [ ] 50 – 60 [ ] 61 and above [ ]

5. Gender of respondent

   Female [ ] Male [ ] Prefer not to say [ ]

6. Marital Status

   Married [ ] Unmarried [ ] Divorced [ ] Widowed [ ]

SECTION B: THE DIGITAL ECOSYSTEM IN GHANA

7. What is your understanding of digital entrepreneurship ecosystem?
8. What factors or actors constitute the digital entrepreneurship ecosystem in Ghana?
9. How conducive is the Ghanaian culture for digital entrepreneurship?
10. How would you describe the availability of enabling policies that foster digital entrepreneurship in Ghana?
11. How would you describe the institutional and infrastructural support digital entrepreneurs in Ghana get?

SECTION C: SUCCESS FACTORS OF DIGITAL ENTERPRISES

12. What factors drive the success of your digital enterprise?
13. Which of the factors mentioned is the most critical?

SECTION D: CHALLENGES OF DIGITAL ENTREPRENEURS

14. What are the challenges digital entrepreneurs face?
15. In your view, how can those challenges be mitigated?