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Assessing the efficacy of business incubation in Nairobi County, Kenya: an incubatee's perspective.

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ASSESSING THE EFFICACY OF BUSINESS INCUBATION IN NAIROBI COUNTY, KENYA: AN INCUBATEE'S PERSPECTIVE

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DECLARATION

I declare that this research thesis has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the research thesis contains no material previously published or written by another person except where due reference was made in the thesis itself.

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June 2020

Approval

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ABSTRACT

This study was aimed at determining the efficacy of business incubation on firm success from an incubatee's perspective. The study was conducted on firms in Nairobi County that have experienced business incubation. The general objective was addressed by four specific objectives. The first specific objective was to determine the effect of business incubation resources on incubatee firm success. The second was to examine the influence of entrepreneurial traits and competences on incubatee firm success. The third was to establish the moderating effect of challenges faced by incubatees in the business incubators. The fourth was to propose how business incubation can be improved. This study was underpinned by the human capital development theory, personality trait theory of entrepreneurship and networking theory. Questionnaires were administered to the respondents who were incubatees in incubation programmes in Nairobi County. The incubatees were identified through snowball sampling as well as through the incubator managers. The sample size was 384 incubatees. This sample was arrived at using the Cochran's sample size formula for calculating sample size of unknown populations. Data analysis was done using descriptive and inferential statistics. The findings revealed first, that the greatest efficacy of business incubation can be explained when an entrepreneur is innovative, creative, a risk taker, reliable, and a good identifier and exploiter of new opportunities. Second, that business incubation resources, entrepreneurial traits and competences had a positive significant relationship with incubatee firm success in terms profitability and time at point of exit. Third, that the challenges facing the incubatees included lack of funding, inadequate incubator facilities and infrastructure, inadequate qualified employees at the incubator and weak incubator administration. However, the moderating effect of the challenges was not statistically significant. Fourth, that business incubation can be improved by increasing the availability of funding through government support, improving incubation facilities and services, and evaluating the performance of incubators. Key recommendations to the managers of business incubators and the policy makers is to create policies and enhance existing business incubation programmes to focus primarily on improving incubatee access to business training and skills, business networks, and financial resources. Additionally, incubator managers should improve on administration and staffing to enhance the business incubation experience.

Key words: Business incubation, incubatees, incubatee success, entrepreneurial traits, entrepreneur competences, incubatee challenges

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS AND ACRONYMS

BI	Business Incubator
BIAK	Business Incubation Association of Kenya
IM	Incubator Manager
NBIA	National Business Incubation Association
SMEs	Small and Medium-sized Enterprises

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DEDICATION

Thank you to God, my late dad Thomas, my mum Jane and siblings Eva, Kim and Kevin.

CHAPTER ONE

INTRODUCTION

1.1. Introduction to the Study

Zhang and Sonobe (2011) define incubatees as companies that are starting up and apply to be admitted into incubation after being screened. By virtue of this, these startup companies are entrepreneurs according to Zhang and Sonobe (2011). Torun, Peconick, Sobreiro, Kimura, and Pique (2018) define incubatees as tenant firms under business incubation. According to Arumugam and Ravindran (2014), entrepreneurs or startups come up with ideas and implement these ideas. The startups gain essential services that add value to their businesses while under incubation. Business incubators support incubatees by offering business incubation programs and ensuring their risks are minimized. Kuratko and Hodgetts (2001) define an entrepreneur as a creative who faces challenges and unclear circumstances. They dedicate their time, money, effort and are able to spot opportunities. They strive towards success (Meredith, Nelson and Neck, 1982; Moorman and Halloran, 1993). Schumpeter (1934) described an entrepreneur as one who ventures into creating products and services. Brockhaus (1980) described an entrepreneur as involved in business ownership and management. Hisrich (2004) brings out the aspect of an ever-changing process of creation of wealth.

According to Say (1971) to have success as an entrepreneur, one has to have key qualities such as decision making skills. McClelland, (1961) proposes that an entrepreneur needs achievement. Other entrepreneurial qualities are confidence in oneself, independence (Grachev and Hisrich, 1995), control (Rotter, 1966), being a risk taker, innovative, having decision-making skills, good communication, (Jennings and Cox, 1995), being effective, being able to recognize opportunities, having patience and social skills (Markman and Baron, 2003). Hanson and Kriger (1999) suggest criteria such as honesty and ethics in identifying entrepreneurial qualities.

There are different forms of business incubators. Hackett and Dilts (2004b) describe a business incubator as a shared office amenity that gives critical value-addition services such as business support and evaluation. Types of incubators comprise of manufacturing incubation, mixed use incubation, incubator based on technology, service based incubation and web incubation (Almubaraki & Busler, 2011). Further, Peters, Rice and Sundararajan (2004) list university, profit and non-profit and independent incubators. Noltes, Masurel and Buddingh (2013) refer to green incubators. The role of business incubators is becoming extremely important in the developing world (Stefanovic, Goran and Milan, 2008). Business incubators seek to enhance economic growth by encouraging the generation and development of innovative startups. Business incubation is a great initiative in both developed and developing countries. According to Dai (2014), business incubation is a process in which a business incubator provides its incubatees with a nurturing business environment in terms of services and facilities and this contributes to the efficacy of business incubation. Business incubation has contributed to job creation within small firms (Audretsch & Thurik, 2004; Carree & Thurik, 2005). Business incubation programs offer various resources in terms of place, process and people to assist new firms to grow from ideation to successful graduate firms that contribute positively to job creation and economic growth (Almubaraki and Busler, 2015). Almubaraki, Karaghouli and Busler (2010) indicated that business incubation provides entrepreneurs with expertise, networks and tools that make their firms successful and that they are effective and innovative tools of economic development.

Lose, Tengeh, Maziriri and Madinga (2016) point out that it is vital to improve the survival and growth of start-ups. Business incubators are important in aiding ailing businesses by providing various services and resources such as: training, mentorship, coaching, office equipment, computers, business plans, development of products, affordable office facilities, legal advice and intellectual property and networking (Lose, et al., 2016).

The United States changed a factory into a business incubator in 1976 (Lewis and National Business Incubation Association, 2002). Silicon Valley came about in 1885 in San Francisco and brought about a progressive environment that involved venture capital, academic research and knowledge and development of startups.

In Europe, the first business incubation initiative was established in 1984 and considerable interest in business incubation has grown since then (Grimaldi and Grandi, 2005). The tech-based companies in Silicon Valley motivated the trend of business incubation in Germany and Austria (Thierstein and Wilhelm, 1999). In China, the first business incubator was established in 1987 (Dechang, Qiang and Hongwei, 2010).

Firms in Silicon Valley have cafeterias, recreation facilities and welfare services. This type of care is a requirement of dynamic companies (Lueck and Avery, 2017). Silicon Valley has been driving innovation and disruption. The region is known for capital and idea generation (Deloitte, 2016). In Silicon Valley, workers face challenges (Lueck and Avery, 2017). While startups in Silicon Valley have brought about rapid technology and economic development, they have also led to high turnover, short job tenures, reduced venture capital, non-hierarchical management, high use of temporary labour and clamor for jobs to be unionized (Hyde, 2003).

Despite the fact that business incubators are intended to provide key support to startups, there is substantial evidence that states that incubatee challenges still exist while on these programs (Lose, et al., 2016). There seem to be challenges experienced by incubatees during business incubation (Kibuchi, 2016). Kibuchi (2016) established that incubatees may not always benefit from incubation. Buys and Mbewana (2007) and Lichtenstein, Lyons, and Kutzhanova (2004) found out that gains of business incubation are usually recommended by its proponents and that business incubation does not guarantee success in supporting startups (Bruneel, Ratinho, Clarysse & Groen, 2012). Tilana (2015) points out that some researchers have argued that a venture will be successful in spite of the product, provided it is managed by a competent entrepreneur. These mixed results on previous studies on the success and efficacy of business incubation for incubatee firms were the motivation for this study. This study sought to assess the efficacy of business incubation in Nairobi County, from the perspective of the incubatees. With the challenges in mind, it is important to examine the factors that may be considered to improve business incubation.

1.2. Business incubation in Kenya

In Kenya, incubation started in the mid-1960s. Kenya Industrial Estates (KIE) Limited was established in 1967 as a subsidiary of Industrial and Commercial Development Corporation (ICDC) to promote local entrepreneurship by funding and developing small and medium-sized enterprises (SMEs). Several policy declarations have since arisen on business incubation. These include the Sessional paper No. 2 of 1992 on Jua Kali and the Informal Sector Development, Sessional Paper No. 2 of 1996 on Industrial Transformation by the year 2020 and Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction (Government of Kenya, 1992, 1996, 2005). Consequently, a number of Jua Kali sheds came up in Kenya as informal tech-based business incubators. According to Kibuchi (2016) and the Business Incubation Association of Kenya (BIAK), the membership of business incubators in Kenya stood at twelve as at 2010 comprising; Ministry of Higher Education Science and Technology (MoHEST), Kenya Industrial Research Development Institute (KIRDI), Kenya Polytechnic University College, Kenya Kountry Business Incubator (KeKoBI), Economic Projects Trust Fund (EPTF), Bridgeworks Africa Limited, Moi Institute of Technology, Catholic Diocese of Nakuru, Kisumu Polytechnic, Sang'alo Technical Training College, Kitale Technical Training Institute and Ramogi Institute Advanced Technology. Other incubators in Kenya at the time included; Sacoma Centre For Enterprise, Strathmore Innovation and Technology Transfer (SITT), Genious Executive Centre and The SME Solution Centre (SSC) Business Incubator (Ayodo, 2017). Nairobi's tech space has been growing. The development of Nairobi's tech cluster started with iHub in March 2010 (The World Bank Group, 2016b). Growth of these tech hubs has spread. In Nairobi County, the incubators include Nailab, iHub, Chandaria business innovation and incubation centre, C4DLab, The Mint hub, Magharibi innovation hub, Afrilabs, @iBizAfrica, Kenya Climate Innovation Centre, m:lab East Africa, Sote hub, Swahilibox, Mettā, Kenya Kountry Business Incubators, Seven Seas Technologies Innovation Lab, 88mph, Nairobi Garage, MEST, Ushahidi, eXellerator, and Make-IT in Africa.

The efficacy of business incubation that has brought about the need for this study. The efficacy of business incubation in this study was looked at from an incubatee firm perspective. In Kenya, business incubation provides support for newly formed enterprises.

For successful business incubation, unambiguous strategies are required (Meru and Struwig, 2015). The focus on entrepreneurship and entrepreneurial development is important to economic growth and this has fuelled the interest in research on the success of business incubation on incubatee firms. Another important factor that sparks the interest in the success of business incubation is the need for innovative systems important for policy making (Almubaraki and Busler, 2015). During business incubation, it seems that all is not smooth sailing for the incubatee as there arises challenges (Kibuchi, 2016). These challenges may result in the demise of the incubatee business (Bruneel et al., 2012). Bruneel et al., (2012) claim that proponents of business incubation are mainly the ones that root for the advantages of incubation for incubatees. Buys and Mbewana, (2007) and Lichtenstein et al., (2004) found that business incubation does not always yield success in startups. This study aimed to determine the efficacy of business incubation from the perspective of the incubatee firm. This study also gives recommendations on how to improve business incubation.

1.3. Problem Statement

According to Lewis, Anderson, and Molnar (2011), successful business incubation means helping new businesses with the resources and support in order to for them to become successful. These authors state that business incubation programs are intended to speed up the successful growth of entrepreneurs by offering business assistance while under business incubation and through the incubators' contacts. The main aim of business incubation is to achieve self-sustaining successful businesses. Business incubation offers managerial expertise, technical expertise as well as consultation for the nascent entrepreneurs (Lewis, Anderson and Molnar, 2011). Business incubation resources comprise of business training and skills, financial resources and networks and stakeholder support (Lewis et al., 2011; Ogutu and Kihonge, 2016; The World Bank Group, 2016a).

Buys and Mbewana (2007) and Lichtenstein, Lyons, and Kutzhanova (2004) found that business incubation does not guarantee success in supporting startups and that proponents of business incubation are the ones that mainly prescribe the gains of business incubation (Bruneel, Ratinho, Clarysse and Groen, 2012).

Arumugam and Ravindran (2014) seem to support the argument by Buys and Mbewana, (2007) and Lichtenstein et al., (2004). Arumugam and Ravindran (2014) state that the success of incubatees under business incubation is minimal. Amezcua (2010), on the other hand, contradicts this and postulates that entrepreneurs who began their businesses under incubation generally succeed at a greater rate than their counterparts who are not under incubation. Despite being under business incubation, these businesses tend to have challenges (Lose, et al., 2016). Furthermore, Hytti and Maki (2007) concluded that young companies that have capability of scaling tend to gain more from incubation than older firms. The National Business Incubation Association (NBIA) focuses on business incubation in the United States and found that nine out of ten startups fail but firms surviving after incubation are eighty seven percent (Lewis et al., 2011). Startups need certain kind of support from business incubation. However, business incubation is different depending on the country (Tsaplin and Pozdeeva, 2017). Some incubatees are also unwilling to graduate from the incubation because of low incubation fees and comfortable networks (Ogutu and Kihonge, 2016).

In order to gauge incubation performance, graduation rates of incubatees have been used (Hackett and Dilts, 2004b). Other measures have been sustainable business structures as well as bridging the gaps in terms of resources (Bearse, 1998). However, there have been contradictory findings concerning incubatee success (Scillitoe and Chakrabarti, 2010). Incubatee success research has focused on innovation (Acs and Audretsch, 1992), the generation of new, high quality jobs, and bearing profits (Birch, 1981; Reynolds and White, 1997). Mian (1997) discovered that incubatee firms studied showed sales and employment growth. Colombo and Delmastro (2002) seem to support the argument advanced by Mian (1997). In a study of Italian companies by Colombo and Delmastro (2002), incubated firms showed an increase in jobs created, innovation, uptake of technology and cooperation. On the other hand, Tamasy, (2007), discovered that chances of survival, growth, and innovation of incubatee firms was not much. In addition, there is evidence to suggest that focusing on incubatees (Grimaldi and Grandi, 2005; Hackett and Dilts, 2004a), brings great insight into understanding business incubation (Scillitoe and Chakrabarti, 2010; Tötterman and Sten, 2005).

Vanderstraeten and Matthyssens (2010) highlight that there are various criteria for gauging success of business incubation. For example, Hackett and Dilts (2008) defend that the success of business incubation can be measured by incubatee growth. However, Autio and Parhankangas (1998) and Bergek and Norrman, (2008) argued that incubator success can be measured by the extent to which incubation support objectives are met.

The focus on the incubatee in measuring incubation success has been lacking (Tilana, 2015). In addition, the importance of demographic factors of education, training, and experience of the individual entrepreneur are highly controversial among researchers (Ployhart and Moliterno, 2011). Since there are many fields of study, entrepreneurial success is viewed in different ways (Amit, Glosten and Muller, 1993; Maharati and Nazemi, 2012; Rose, Kumar and Yen, 2006; Solymossy, 2000). Ramana, Aryasri and Nagayya (2008) looked at factors such as economic conditions, markets, competitors and changes in government policies. Deniz, Boz and Ertosun (2011) explored the relationship of the perception of entrepreneurs on success while Duchesneau and Gartner (1990) and Sharir and Lerner (2006) examined factors such as education and experiences on entrepreneur success. Béchard and Grégoire (2007) highlight the evidence of a positive relationship between entrepreneurial education, training and experience and the performance of their enterprises. For the purpose of this study entrepreneurial success determinants were viewed from a managerial perspective using knowledge, experience and education as a standard for entrepreneurial success.

Lose and Tengeh (2015) indicated that research on incubatee challenges is limited. Incubatees are faced with various challenges such as lack of managerial skills, lack of finance, lack of entrepreneurial traits, business failure, unfair competition, among other challenges (Kibuchi, 2016). These problems are compounded by the fact that most incubators are not financially self-sustaining and therefore service delivery to incubatees is limited (Ogutu and Kihonge, 2016). These authors also point out incubator managers and incubatees lack of business skills. At times, there is no link between the needs of the incubatees and the incubator managers.

Due to Kibuchi's (2016) argument that startups seem to have more scalability than established businesses and that small and medium enterprises would be the right step towards economic stability, it is vital to address these challenges that incubatees face. Bearing these challenges in mind, the study also offers recommendations on how to improve business incubation.

From the foregoing review, previous research has been done focusing on incubator managers without consideration of the incubatee (Kelly and Firestone, 2016; The World Bank, 2014; Treisman, 2017). Additionally, incubator success has been determined from the perspective of the incubator managers, rather than the incubatee (Lose & Tengeh, 2015; Tilana, 2015). Therefore, this study was aimed at addressing the gap which is the efficacy of business incubation from the incubatee/startup point of view. The importance of entrepreneur demographic factors as determinants of incubatee success was also examined. This study extends the debate on the success of business incubation by considering factors that contribute to this success. In this study, success is measured by the profitability at point of exit of the incubatee firm as well as the time taken to exit by the incubatee firm.

1.4. Objectives

1.4.1. General Objective

The general objective of the study was to assess the efficacy of business incubation on incubatee firm success in Nairobi County, Kenya, from the perspective of the incubatee.

1.4.2. Specific Objectives

The specific objectives of the study were to:

i. Determine the effect of business incubation resources on incubatee firm success in Nairobi County, Kenya.
ii. Examine the influence of entrepreneurial traits and competences on incubatee firm success in Nairobi County, Kenya.

iii. Establish the moderating effect of challenges on incubatees in the business incubators in Nairobi County, Kenya.
iv. Propose how business incubation can be improved in Nairobi County, Kenya.

1.5. Research Questions

The research was guided by the following research questions:

i. What is the effect of business incubation resources on incubatee firm success in Nairobi County, Kenya?
ii. What is the influence of entrepreneurial traits and competences on incubatee firm success in Nairobi County, Kenya?
iii. What is the moderating effect of challenges on incubatees in the business incubators in Nairobi County, Kenya?
iv. What can be done to improve business incubation in Nairobi County, Kenya?

1.6. Scope of the Study

The study was aimed at determining the efficacy of business incubation on incubatee firm success in Nairobi County, Kenya. The study took a sample of incubatees in Nairobi County, Kenya. The study was limited to the incubatees based in Nairobi County business incubators. It considered various sectors that the incubatees represented and considered businesses that had graduated to a limit of 10 years. Structured questionnaires were distributed to 384 incubatees who were the target for the study.

1.7. Significance of the Study

The study will inform various stakeholders on the efficacy of business incubation which includes the effect of factors affecting business incubation on incubatee firm success. The study will also inform the stakeholders of the challenges of business incubation from an incubatee's perspective.

This study will contribute to the existing information about the success of business incubation from an incubatee's standpoint. This will help decision makers such as incubator managers and incubator staff in crafting strategies that ensure the incubatees are appropriately supported in their ventures in terms of services offered through business incubation. Incubator managers can then give priority to the aspects of business incubation that are most relevant and important to incubatees and that guarantee them maximum satisfaction with business incubation.

The study will help the policy makers in drafting regulations pertaining to business incubatees. These regulations will provide rules and control the activities of business enterprises/incubatees in the Nairobi County and, by extension, Kenya.

Incubatees will benefit from the study by understanding the success factors of business incubation, and the challenges that the incubatees face while under incubation. This will guide their future prospects while shopping for incubators that will grant them the services they desire and offer value for them. The influence of entrepreneurial traits and competences on incubatee firm success will enable the incubatees identify and foster positive attributes in themselves that will lead to positive growth and success for their firms.

The findings of the study will contribute to research that relate to business incubatees. The study will also contribute to the wealth of knowledge in business incubation, incubatees and strategic entrepreneurship. Academia and researchers will gain from understanding business incubation and factors that lead to success for incubatee businesses, key entrepreneurial attributes and skills that can lead to firm success and find ways to mitigate the challenges that encumber incubatees in their quest to succeed in their businesses.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The chapter reviews the theoretical foundations on success of business incubation, the influence of entrepreneurial traits and competences on incubatee firm success, incubatee challenges and how business incubation can be improved. The chapter outlines the theoretical review, empirical review and the conceptual framework.

2.2. Theoretical Review

The research was underpinned by the following theories: human capital development theory, personality trait theory of entrepreneurship and networking theory.

2.2.1. Human Capital Development Theory

The human capital development was first fronted by Adam Smith in 1967 in the Wealth of Nations (Almendarez, 2013). This theory states that persons with higher knowledge and training are more likely to be efficient and productive. This also leads to increased worker remuneration. Human capital may have the same or more impact than financial capital (Jill, 2016).

According to Ployhart and Moliterno, (2011), persons with higher levels of knowledge and expertise tend to achieve greater success than those with low levels. Furthermore, skills such as management and training contribute to entrepreneurial success (Zimmerman and Chu, 2013). In addition, networking with society, managerial expertise, civic ties and adequate documentation are also determinants of successful entrepreneurs (Kara, Chu and Benzing, 2010; Tang and Hull, 2012). Knowledge relates to individual skills and ensures impeccable execution of duties. According to Becker (1964), training will boost the entrepreneurial understanding of the industrial settings, adequate documentation and reporting about the entrepreneur's business and the urge for independence in the interests concerning human capital.

Kara et al. (2010), noted that the use human capital and its outcome results in good company image, ethics, charm, diligence, excellent interactions with customers and giving customers excellent products and services. These are key factors of entrepreneur success. Human capital includes the experiences, skills, decision making, capabilities, intellect, agreements, courage and being wise in terms of the company operations. Staff are key to the business venture according to the human capital development theory (Coleman, 2007; Rauch, Frese, and Utsch, 2005). Martin, McNally and Kay (2013) view human capital as the trained employees and includes entrepreneurs. They point out that for faster world development, more education and training is needed. Thus, entrepreneurial training, education and experience should be vital requirements for running successful ventures (Ladzani and Vuuren, 2002).

The theory proposition to this study is that for incubatees to be successful in their businesses, they need education, training and experience. This theory is linked to the study variable of factors affecting business incubation and in particular to entrepreneur competences.

2.2.2. Personality Trait Theory of Entrepreneurship

The personality trait theory of entrepreneurship can be traced back to the mid-18th Century (Abosede & Onakoya, 2013). This theory states that entrepreneurs possess unique characteristics that predisposes them to succeed in business. These traits include risk taking, creativity and innovation, optimism and the likelihood to endure different difficult situations (Kerr, Kerr, & Xu, 2018).

Entrepreneurs are described as individuals who sacrifice their time, money and reputation in the quest for business. Type One entrepreneurs are not afraid to fail and are distinct from other categories of entrepreneurs (Ness and Seifert, 2016). These entrepreneurs may either succeed or fail and this is not crucial for them. In general, traits of entrepreneurs are quite different (Barrick and Mount, 1991; Ciavarella, Buchholtz, Riordan, Gatewood, and Stokes, 2004; Zhao, Seibert, and Lumpkin, 2010). Entrepreneurs have been perceived in terms of affect and personality (Baron, 2008).

Affect means to appeal to one's intuitions and perceptions while personality is one's charisma and identity. By considering affect and personality, this forms a basis for researchers. When affect and personality are put together, these result in an extra output which is work ethic.

Work ethic is typical for Type One entrepreneurial propensity. This three-dimensional representation can be used to forecast other types of entrepreneurial traits. Baron (2008) also looked at the ability of entrepreneurs to spot opportunities and seek resources. Other scholars, such as Adenuga and Ayodele (2013), studied entrepreneurial behaviors. Casson (2005) identified decision making as key for an entrepreneur. Similarly, Alvarez and Busenitz (2001) contended that entrepreneurs have a unique mind-set of entrepreneurial cognition. Zahra, (1993) described an entrepreneur as a risk taker, proactive and innovative person.

The theory proposition to this study is that the incubatee success is related to the characteristics of the individual, the startup, the environment and the process of venture creation. This theory is relevant to the study variable of factors affecting business incubation in terms of entrepreneurial traits.

2.2.3. Networking Theory

Networking theory is also called social capital theory (Labonte, 1999) and emanated from research done by Marx and Weber, Durkheim and Simmel (Claridge, 2004). This theory relates to networking and social interaction in incubation (Bollingtoft and Ulhøi, 2005). The authors state that the social interaction results in knowledge dissemination. They argue that these social ties may be weak or strong. Weak ties result in idea generation and strong ties result in problem solving. This social interaction, according to the authors, can lead to incubatee success.

Bollingtoft and Ulhøi, (2005) and Scott, (2000) argue that an incubator encourages social networking with fellow entrepreneurs and the community at large. Startups under incubation are the first to be informed of any networking opportunities with other firms (Hansen, Chesbrough, Nohria, and Sull, 2000). In particular, in order to be successful, startups need networked incubation programs (Lee, Kim, and Chun, 1999).

These type of incubation programs include collaborating with educational institutions, tenants collaborating among each other, cooperation with consulting firms and institutions offering funds and links with the society and government (Lee, Kim, and Chun, 1999).

The social capital theory is expounded by Aldrich and Zimmer (1986). They postulate that having groups boosts social ties within the group. This also spreads information and resources. Individual and entrepreneurial opportunities can be identified (Aldrich and Zimmer, 1986).
The social capital theory is also relevant to the interactions between the incubator and local community (Hackett and Dilts, 2004a). As the entrepreneurial network expands, this leads to growth for the enterprise (Peters et al., 2004). In a study by Lee and Osteryoung (2004), incubation can involve networking and coaching. Training is also essential for the incubatees to boost their business success (Lee and Osteryoung, 2004).

This theory is relevant to this study in the sense that business incubation allows entrepreneurs to gain advantages of networking and social interactions with other entrepreneurs, investors, experts in different fields such as business, information technology, innovation and the community. This theory is linked to the study variable of factors affecting business incubation in relation to incubatee access to networks and stakeholder support.

2.3. Empirical Literature

Empirical literature in this study focuses on the effect of business incubation resources on incubatee firm success, the influence of entrepreneurial traits and competences on incubatee firm success and challenges facing incubatees in the business incubators.

2.3.1. Business Incubation Resources and Incubatee Firm Success

Business incubation involves providing services to incubatees such as work space, internet, printing, reception services and meeting rooms. Incubatees under business incubation benefit from services such as intellectual property and legal advice, business planning and get access to market information (The World Bank Group, 2016a).

Incubatees are introduced to angel investors and government grants and benefit from networking with other entrepreneurs, investors and specialists in different fields. Incubators ensure their incubatees build skills in finance, marketing and leadership. Along with the various amenities offered, business incubation supports entrepreneurs through training, mentorship and coaching. (The World Bank Group, 2016a).

Business incubators offer a nurturing environment that is conducive for entrepreneurs to run their businesses (Peters et al., 2004). According to Hausberg and Korreck (2018), incubators may have public or private objectives. Incubators that have a private nature are usually profit making while those that have a public nature usually result in creation of employment and are guided by government policies. The ultimate aim of business incubation is to ensure incubatees graduate and are able to survive in the outside world on their own (Harper-Anderson and Lewis, 2018).

Kirchhoff (1993) argued that there are different opinions in terms of what is considered as business success or failure. Zaid and Rosni (1994) refer to entrepreneur success as profit, sales, and clients in a given year as compared to past years. The financial measures of success include profitability, sales, assets and employees (Maharati, 2010; Rose et al., 2006; Solymossy, 2000; Wang and Ang, 2004).

The non-financial success measurement, on the other hand, focuses on survival, customer value and sustainability (Jo and Lee, 1996; Yang, 1998). Another measure of entrepreneur success is seed capital (Cooper, Woo and Dunkelberg, 1988). In this sense, firms that have more seed capital tend to be more successful according to the authors. The success of business incubation can be viewed in terms of firm survival, growth, job creation or revenue growth (Vanderstraeten and Matthyssens, 2010). According to Vanderstraeten and Matthyssens (2010) the main goal of incubation should be incubatee growth and survival. An absolute measure of firm growth has not yet been discovered with some authors considering asset, cash flow, sales growth and growth in number of employees. The definition of success is also unclear. A study by Hackett and Dilts (2008) depicts success with respect to incubatee growth and incubatee stance financially at the time of departure from incubation. First, the incubatee firm may be having profit growth and surviving.

Second, the incubatee firm may be growing, heading towards profitability and surviving. Third, the incubatee closed down although losses were scaled down. Fourth, the incubatee firm is still operational although it is neither growing nor profitable or is barely profitable. Fifth, the incubatee firm incurred heavy losses and it closed down while under incubation. Initially category 1, 2 and 4 were considered successes and 3 and 5 were failures but later, only 5 was considered a failure. From these studies, the research gap is that there is need for an absolute measure of success for the incubatee firm.

Stephens and Onofrei, (2012) examines the impact of business incubation on incubatees. The research presented enhances on the framework proposed by Jones, Gornall, Thomas, and Voisey, (2006). The study looked at soft and hard measures. Soft measures included improved business skills, professionalism, knowledge, cost savings, confidence, productivity and publicity. Hard measures included independence, the number of clients, sales turnover, profitability and growth (Jones, Gornall, Thomas, and Voisey, 2006). Meru and Struwig (2015) study on business incubation process and business development in Kenya brings an interesting aspect to the success of business incubation. He argues that although entrepreneurs value business incubation, actual services received do not match expectations. His view is that incubation in Kenya is not at par with the developed world (Salem, 2014). He adds on that incubators are driven by the bottom line and neglect offering excellent service to incubatees.

Zuo, You and Liu (2014) study on incubators in developing economies (China in their case) indicated that incubation programmes need the help of governments, universities and research institutions. Marima, (2013) views factors such as developing viable operational processes, evaluating incubatees, hiring qualified incubator managers and developing revenue models as key to the success of business incubation. The main conclusions from this study were that promoting entrepreneurship, creating employment and boosting local and regional development are key objectives of business incubators. In addition, most business incubation programs aim to provide business and management assistance which is important to incubatee firms' growth and success. Kolkman (2011), on the other hand, identifies factors that influence the success of business incubation in Macedonia. These included incubator expertise, funders and stakeholders, selection and graduation.

Factors relating to the process of incubation included tenant network, business network, financial network, coaching and training. Kolkman (2011) discovered that many companies were not growing despite being more than six months old under incubation. This was mainly due to lack of stakeholder support.

A study by Kemp (2013) contradicts the studies by Maia, Roseira, Ramos, Henneberg and Naude (2012) and Scillitoe and Chakrabarti (2010) in which Kemp (2013) suggests that the main motivation for incubatees in business incubation was the cost of rent and not the business support. Maia et al., (2012) and Scillitoe and Chakrabarti (2010), on the other hand, suggest that business support is key for the success of business incubation. Steiner and Solem (1988) also identified other success factors in the context of small manufacturing firms as human capital, skills and expertise in management, possession of identifiable competitive advantages and flexibility in operations. Lee and Osteryoung (2004) expounded more and found four sets of factors critical to success of incubated firms. These are tangible factors (office amenities, premises, assistance for entrepreneurs, administration), services under business incubation (tech based services, venture support, intellectual property support, funding and consultation, training in entrepreneurship), factors under firm operations (firm structures and systems) and networked programs (collaborating with educational institutions, tenants collaborating among each other, cooperation with consulting firms and institutions offering funds and links with the society and government).

Chisenga, (2012) found that formal incubation programmes favour high tech environment while informal business incubation favour low-tech environments. The research gaps based on these studies are to find out the rationale behind incubatee firms not succeeding despite being under incubation, to find out the motivation of incubatees going for incubation and to find out the absolute measure of success for incubatee firms.

2.3.2. Entrepreneurial Traits and Competences, and Incubatee Firm Success

Rauch and Frese (2000) view entrepreneur success as relating to one's personality, objectives and environment. Successful entrepreneurs, according to Cooper et al. (1988) are those who have more seed capital, are founders and have experience and education.

Successful entrepreneurs are those that emanated from large firms and owned previous businesses (Cooper, Woo, and Dunkelberg, 1988). Choo, (2011) stated that successful entrepreneurs' experiences can be built upon by new entrepreneurs to enhance their chances of success. Yusuf (1995) identified similar factors critical for success as Rauch and Frese (2000) such as having skills and good character. Ibrahim and Goodwin (1986) echoed the same perspective by suggesting entrepreneurial behavior and managerial skills as key to business success.

Entrepreneur traits are critical for business and can act as a distinguishing factor for persons keen on succeeding in business (Astebro, Herz, Nanda and Weber, 2014). Kerr, Kerr and Xu (2018) state that studying entrepreneur traits and how they contribute to the success of these new and disruptive ventures has become a popular trend and has elicited curiosity all over the world. These authors also mention that entrepreneurs are receptive to dynamic situations and enjoy taking risks. Ehigie and Umoren (2013) state that entrepreneurs need to have competences aside from other factors that relate to their mental capacity in order to succeed as female business persons. In their study, Cope and Down, (2010), revealed contradictory findings whether entrepreneurs should be more confident than those who are not entrepreneurs in order to guarantee business success. Papzan, Zarafshani, Tavakoli and Papzan (2008) found that there was a significant relationship between need for achievement, innovation, internal locus of control, marketing, and lack of bureaucracy and the success of entrepreneurs.

Studies such as the one for Nasurdin, Ahmad and Lin (2009) found that in the context of Malaysia, there is a relationship between entrepreneurial competences and firm success in Malaysia. Ahmad (2007), Ahmad, Ramayah, Wilson and Kummerow (2010) and Man, Lau and Snape (2008) are also in agreement with this principle. However, Lopa and Bose (2014) and Man and Lau (2005) pose an opposite view that there is no significant relationship between entrepreneurial competences and success of the firm. The research gap based on these studies is to determine the existence and degree of relationship between entrepreneurial competences and the success of firms.

2.3.3. Moderating Effect of Challenges on Incubatees in the Business Incubators

Tengeh and Choto (2017) noted that business incubation programs help entrepreneurs tackle challenges in business. The context of the study was South Africa. According to the study, 55.1% of the startups benefited from incubation while 44.9% did not. This shows that there are challenges incubatees face under incubation. These challenges are also expounded by Lose, et al., (2016). The study sought to determine the key factors that hinder the growth of incubatees in South Africa.
The main challenges identified were lack of seed capital, lack of access to finances, competitors, inaccessibility to markets and inadequate business expertise. Both incubators and incubatees are in business and solving these challenges would be a win for both parties.

Mireftekhari, (2017) study showed a different set of challenges. The study was about how business incubators support new firms and how they help their incubatees handle the liability of newness and smallness. The findings showed that the incubated ventures studied suffer from both the liability of newness and smallness. Liability of newness is defined as startups perceived less favorably than firms that have been in business longer. Liability of smallness is defined as smaller firms having less resources and experience in comparison to the competition (Staber, 1986). Liability of newness (LoN) can be external or internal. External LoN challenges involve convincing external stakeholders about the potential of the new venture. Internal LoN challenges are lack of formal structures within the firm. The external liability of newness seems more serious than internal and incubators should concentrate more on this (Mireftekhari, 2017).
In exploration of a study by Gobble, (2018) on Silicon Valley startups, various challenges seem to face them. Depression in Silicon Valley is rampant among founders under continual pressure to deliver. This pressure has led to unethical behavior, including fraud which has resulted in high profile scandals such as Theranos, Lending Club, WrkRiot and Hyperloop One. There are also diversity problems where women and minorities find it difficult to have a place in the ecosystem.

2.3.4. How Business Incubation can be Improved

Lin, Wood, and Lu (2012) study revealed that for business incubation to improve and to perform effectively, there is need for the incubator to search for its own resources and networks.

If the incubator relies on government and other stakeholder support, it will see no need for working for its own resources and networks as these will already be provided by government and other stakeholders. Freel, (2003) and Tse, (2002) also agree with networking as a key factor to improving business incubation.

Additionally, Edvardsson and Olsson (1996) and Hu, Horng, and Sun (2009) believe that resources derived internally are the first step to improving business incubation. Pompa (2013) emphasizes the need for entrepreneurial education, training, access to capital and mentorship as key factors to improving business incubation. Another factor that she highlights as important is being able to measure the impact of business incubation on the startups' performance in order to assess the performance of business incubation.

Buys and Mbewana (2007) provide a more comprehensive list of factors that are crucial to improving business incubation which support the studies by Freel (2003) Lin, Wood, and Lu (2012) and Tse (2002) as well as Pompa (2013). These include strict entrepreneur selection criteria, availability of amenities and competences, government support, networking, competent incubator management and the incubator being able to survive in the long term.

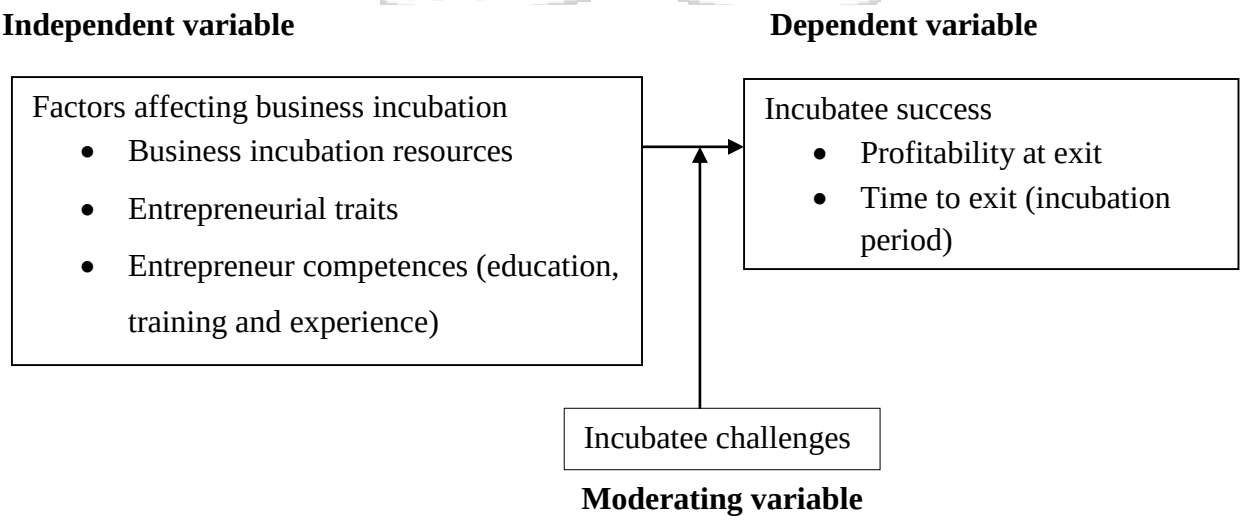
2.4. Gaps in Research

Charry, Pérez, and Barahona, (2014) emphasize the need to treat the incubatee, network and community as levels of analysis apart from that of the business incubator. This study, therefore, addressed the incubatee (the enterprise) as the level of analysis. In addition, research focusing on the incubatee in relation to business incubation has been recommended by several authors (Kelly & Firestone, 2016; The World Bank, 2014; Treisman, 2017). This study was aimed at addressing these gaps. These gaps are assessing the efficacy of business incubation from the incubatee's perspective (the enterprise), the influence of entrepreneurial traits and competences on incubatee firm success, the challenges facing the incubatees, as well as the incubatee's perspective on how business incubation can be improved. The scope was Nairobi County, Kenya.

2.5. Conceptual Framework

Figure 2.1 depicts the conceptual framework which shows the relationship between the independent and dependent variables. The independent variable was factors affecting business incubation. These included business incubation resources, entrepreneurial traits and entrepreneur competences (education, training and experience). Business incubation resources was conceptualized as involving access to business training and skills, financial resources, networks and stakeholder support. Entrepreneurial traits were measured by a list of factors that influence incubatee success. Entrepreneur competences were measured by levels of incubatee training, education and experience. The dependent variable was incubatee success. Successful business incubation has been defined as helping new business owners access the resources and assistance they need to grow into successful firms (Lewis et al., 2011). Incubatee success has been defined in financial (Hackett & Dilts, 2008; Maharati, 2010; Rose et al., 2006; Solymossy, 2000; Wang & Ang, 2004) and non-financial terms (Jo & Lee, 1996; Lee & Osteryoung, 2004; Maharati, 2010; Voisey, Gornall, Jones, & Thomas, 2005; Yang, 1998). In this study, incubatee success was measured using financial metrics of profitability at the point of incubatee exit from incubation and length of time the incubatee had spent under incubation up to the point of exit. The challenges were the moderating variable, since they impacted on how successful the incubation was.

Figure 2.1: Conceptual Framework



Source: Researcher (2020)

2.6. Operationalization of Variables

Table 2.1 outlines the operationalization of variables and how they were measured.

Table 2.1: Operationalization of Variables

Variable	Construct	Operational Construct	Measurement	Supporting Literature
Independent variable Factors affecting business incubation	Incubatee access to business training and skills	Level of agreement	A 5-point Likert scale of level of agreement was used	(Voisey, Gornall, Jones, and Thomas, 2005)
	Incubatee access to financial resources	Level of agreement	A 5-point Likert scale of level of agreement was used	(Buys and Mbewana, 2007; Obaji, Cross, and Olaolu, 2018; Theodorakopoulos, Kakabadse, and McGowan, 2014)
	Incubatee access to networks and stakeholder support	Level of agreement	A 5-point Likert scale of level of agreement was used	(Buys & Mbewana, 2007; Theodorakopoulos et al., 2014)
	Entrepreneurial traits	Level of agreement	A 5-point Likert scale of level of agreement was used	(Hisrich, 2004; Meredith et al., 1982; Moorman & Halloran, 1993)
	Entrepreneur competences (Education, training and experience)	Level of agreement	A 5-point Likert scale of level of agreement was used	(Ladzani & Vuuren, 2002)

Dependent variable Incubatee firm success	Time at point of exit	Length of time the incubatee has spent under incubation at the point of exit	A closed-ended question on duration	(Ayatse, Kwahar, and Iyortsuun, 2017; Schwartz, 2008; Stephens and Onofrei, 2012)
	Profitability at point of exit	Amount of annual profit the incubatee has earned at the point of exit from incubation	A closed-ended question on profitability	(Stephens & Onofrei, 2012)
Moderating variable Incubatee challenges	• Availability of funding • Newness and smallness • Lack of incubator facilities and infrastructure • Lack of proper incubator administration • Lack of business skills support from incubator • Competition • Lack of incubatee business documentation • Lack of access to technology • Lack of access to networks	Level of agreement	A 5-point Likert scale of level of agreement was used	(Lose, Tengeh, et al., 2016) (Tengeh and Asoba, 2016) (Mireftekhari, 2017); (Meru & Struwig, 2015); (Diedericks, 2015; Lose, Maziriri, and Madinga, 2016); (Buys & Mbewana, 2007; Tengeh & Choto, 2017); (Justino and Tengeh, 2016; Kanchana, Divya, and Beegom, 2013); (Lose, Tengeh, et al., 2016); (Pretorius and Shaw, 2004); (Okpara, 2011); (Njau, Wachira, & Mwenda, 2019)

Source: Researcher (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines the method in which the study was conducted. It includes the research philosophy, research design, target population and sampling, data collection, research quality, data analysis and ethical considerations.

3.2. Research Philosophy

The philosophy that was adopted in this research is positivism. Positivism involves using a reality that can be observed to produce generalizations (Saunders, Lewis, Thornhill, and Bristow, 2015). It produces clear and certain knowledge. The research explored correlations in the data in order to generalize (Gill and Johnson, 2010). In this research, the correlations between the factors affecting business incubation resources on incubatee firm success were explored. This helped to explain behavior and events in the incubatee firms. This philosophy ensures the researcher remains unbiased and detached from this research and data in order to avoid altering the findings (Crotty, 1998). This entails being external to the data collection process. The research used structured methodology (Gill & Johnson, 2010). This is evidenced by the use of a questionnaire to address the research objectives. Furthermore, the emphasis was on quantifiable observations and generalizability.

3.3. Research Design

The research design was cross-sectional as opposed to longitudinal since the research data was collected at a single point in time. Descriptive design was used to determine the existence and degree of the relationship between business incubation resources and incubatee firm success. Descriptive design was also used to determine the influence of entrepreneurial traits and entrepreneur competences on incubatee firm success. Quantitative data from the questionnaires was collected, arranged and collated in order to answer the study objectives.

The quantitative data comprised of profitability at incubatee firm point of exit from incubation and the time at point of exit from incubation for the incubatee firm.

3.4. Target Population and Sampling

The population of the study comprised of incubatees who had exited or graduated from incubation in Nairobi County. Snowballing was used since the total number of the study's population was unknown (Naderifar, Goli, & Ghaljaei, 2017). Through snowballing, the first contacted incubatee identified further members of the population, who then identified further members. In addition, information on incubatees such as their contacts was sought from incubator managers in Nairobi County. The population of study was unknown since different incubatees join incubation and exit at different times. Since the population of the study was unknown, the research used the Cochran's Formula (Cochran, 1977) as follows:

Cochran equation

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where;

n_0 is the sample size;

Z^2 is the abscissa of the normal curve that cuts off an area α at the tails;

$(1-\alpha)$ equals the desired confidence level, e.g. 95%;

e is the desired level of precision;

p is the estimated proportion of an attribute that is present in the population, and q is 1-p;

The value for Z is found in statistical tables which contain the area under the normal curve, e.g. Z =1.96 for 95% level of confidence.

To get the sample size $n_0 = ((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 384$.

The sample size for the study was 384 incubatees.

3.5. Data Collection

Primary data was used in this study. Primary data comprised of data from the incubatees. Data was obtained from the incubatees using structured questionnaires. The questionnaires used a five-point Likert scale to determine the levels of agreement. The questionnaires were constructed in English and comprised of closed-ended questions. The closed-ended questions were standardized for ease of analysis. The questionnaire was aimed at collecting data that addressed the research questions.

Letters were written to the incubator managers informing them of the study and to gain authority to solicit information from the incubatees. Although the incubatees targeted for the study had graduated from the incubation centres, the managers still had their contact information, so it was possible to use the managers to help identify the respondents. The letters to the incubator managers informed them of the purpose, benefits of the study and were accompanied by the questionnaire to be administered to the incubatees. The researcher requested the incubator managers, identified through snowballing, for the contacts of the incubatees which consisted of email addresses and phone numbers. Through snowballing, the researcher also obtained contacts of an initial incubatee who then gave further contacts for other incubatees. Snowballing was used since different incubatees join incubation and exit at different times. The questionnaires were then distributed by the researcher to the respondents. Subsequent visits to the incubators were done to collect the questionnaires from the incubatees. Phone calls were also made to increase the response rate. Follow up visits and phone calls were made to collect the questionnaires.

3.6. Research Quality

To control quality, the researcher aimed to attain reliability coefficients which should range between 0.4 and 1 (Stevens, 1992) in order to ascertain that the questionnaire items were internally consistent. To measure construct validity, factor analysis was used (Taherdoost, 2016). Factor analysis was conducted using principal component analysis (Nam and Koh, 2005; Quazi and Wee, 2005). Items loaded above 0.40 (Stevens, 1992), which is the minimum recommended value in research, were considered for further analysis.

Sample adequacy tests involving the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Barlett's test of sphericity were used to establish if the datasets were suitable for factor analysis. Factor analysis based on principal component analysis (PCA) with varimax rotation method was conducted. The results of the tests were revealed in Tables 3.1 to 3.9.

In Table 3.1 on factors of business incubation resources contributing to incubatee success, the KMO value of the dataset was 0.875>0.5 and the Barlett's test of sphericity's Chi-Square value was 2985.302 >150 and significant since the p-value of the dataset was 0.000<0.05. Hence, the dataset was enough and suitable for factor analysis.

Table 3.1: Business Incubation Resources Contributing to Incubatee Success KMO Sampling Adequacy and Barlett's Sphericity Tests

Kaiser-Meyer-Olkin measure of sampling adequacy		0.875
Barlett's test of sphericity	Approx. Chi-Square	2985.302
	Df	110
	Sig.	0.000

Source: Researcher (2020)

Table 3.2: Factors of Business Incubation Resources Contributing to Incubatee Success Rotated Component Matrix

Rotated Component Matrix[a]				
		Component		
		1	2	3
1.	I have the requisite skills in running my business.	0.161	**0.746**	0.204
2.	I am able to solve problems and delegate efficiently.	0.157	**0.657**	0.081
3.	I am able to communicate effectively.	0.125	**0.804**	0.184
4.	I am able to find customers for my business.	0.306	**0.561**	0.267
5.	I have excellent financial management skills.	0.012	**0.775**	0.031
6.	I have adequate financial resources for my business.	**0.598**	0.167	0.226
7.	I am able to meet my short-term business obligations.	**0.648**	0.317	0.310
8.	I am able to meet my long-term obligations.	**0.700**	0.226	0.294
9.	I have adequate working capital.	**0.711**	0.237	0.115
10.	I have access to networks for my business.	0.334	0.125	**0.591**
11.	I have established new business with investors, business partners, customers and suppliers.	0.279	0.219	**0.781**
12.	I have obtained referrals from investors, business partners, customers and suppliers.	0.140	-0.101	**0.642**
13.	I have nurtured and maintained strategic relationships with my networks.	0.125	0.080	**0.767**
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser normalization.				
a. Rotation converged in 11 iterations.				

Source: Researcher (2020)

Based on the findings in Table 3.2, since all the questionnaire items in the dataset posted factor loadings of more than 0.4, it meant that the items measured the constructs intended to be measured. Hence, they were all retained for descriptive analysis. Factor 1 (component 1) contained all the questionnaire items measuring incubatee financial resources. Factor 2 (component 2) comprised of all the questionnaire items measuring incubatee business training and skills. Factor 3 (component 3) included all the questionnaire items measuring incubatee networks and stakeholder support. Consequently, questionnaire items were retained for descriptive analysis. Moreover, the three factors were used as one compressed independent variable representing the business incubation resources factor that was used in the regression analysis.

In order to establish the construct validity of entrepreneur traits' items in the questionnaire on the success of the incubatee firm, factor analysis was conducted. The findings of the sample adequacy tests were presented in Table 3.3.

Table 3.3: The Influence of Entrepreneurial Traits Dataset on the Success of the Incubatee Firm Dataset KMO Sampling Adequacy and Bartlett's Sphericity Tests

Kaiser-Meyer-Olkin measure of sampling adequacy		0.869
Bartlett's test of sphericity	Approx. Chi-Square	2978.542
	Df	108
	Sig.	0.000

Source: Researcher (2020)

Table 3.4: The Influence of Entrepreneurial Traits on the Success of the Incubatee Firm Dataset Rotated Component Matrix

Rotated Component Matrix[a]			
	Component		
	1(Incubatee Success Factor 1)	2 (Incubatee Success Factor 2)	3 (Incubatee Success Factor 3)
I am reliable.	0.181	**0.754**	0.170
I am creative.	**0.890**	0.173	0.155
I love new opportunities.	**0.879**	0.240	0.047
I am a risk taker.	**0.806**	0.291	0.122
I am innovative.	**0.758**	0.331	0.101
I am visionary.	0.315	**0.769**	0.204
I am motivated.	0.232	**0.825**	0.218
I am strong willed.	0.204	**0.871**	0.073
I communicate well.	0.186	**0.887**	0.192
I have good leadership qualities.	0.201	0.151	**0.853**
I have entrepreneurial experience.	0.332	0.368	**0.564**
I make sacrifices for my business.	0.216	0.154	**0.800**
I am well informed.	0.183	0.042	**0.884**
I have political and social networks.	**0.875**	0.362	0.113
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser normalization.			
a. Rotation converged in 5 iterations.			

Source: Researcher (2020)

In Table 3.4, the entire incubatee success questionnaire items posted factor loadings that were greater than 0.4 as marked in bold. Hence all the items were retained for further analysis (descriptive and regression analysis). The first component was labeled Incubatee Success Factor 1. Based on the items loaded in the factor; success was understood in terms of an entrepreneur being creative, loving new opportunities, being a risk taker, having political and social networks and being innovative. In regard to Incubatee Success Factor 2, success was understood as an entrepreneur being reliable, visionary, motivated, strong willed and with good communication skills. Finally, with reference to Incubatee Success Factor 3, a successful entrepreneur was understood to possess good leadership qualities, entrepreneurial experience, makes sacrifices for his/her businesses and as well informed.

In order to establish the construct validity of the questionnaire items assessing the challenges facing incubatees in the business incubators, factor analysis was conducted. In Table 3.5 on incubatee challenges, the KMO value of the data set was 0.905>0.5 and the Barlett's test of sphericity's Chi-Square value was 2995.578>150 and significant because the *p*-value of the dataset was 0.000<0.05. This revealed that the dataset was enough and suitable for factor analysis.

Table 3.5: Incubatee Challenges' Dataset KMO Sampling Adequacy and Barlett's Sphericity Tests

Kaiser-Meyer-Olkin measure of sampling adequacy		0.905
Barlett's test of sphericity	Approx. Chi-Square	2995.578
	Df	112
	Sig.	0.000

Source: Researcher (2020)

Table 3.6: Rotated Component Matrix for Incubatee Challenges' Dataset

Component Matrix[a]		
		Component
		1
1.	Lack of knowledge and business skills.	**0.745**
2.	Lack of funding.	**0.820**
3.	Lack of business networks.	**0.811**
4.	Lack of incubator facilities and infrastructure.	**0.789**
5.	Lack of proper incubator administration.	**0.762**
6.	Competition from other incubatees or startups.	**0.801**
7.	Lack of incubatee business documentation.	**0.853**
8.	Lack of qualified employees.	**0.716**
9.	Difficulty in getting a good business location.	**0.764**
10.	Difficulty in getting market for my products/services.	**0.719**
11.	Difficulty in obtaining supplies/inputs.	**0.685**
12.	Difficulty in getting a business license.	**0.619**
13.	Difficulty in getting Electronic Tax Register (ETR) machines.	**0.790**
14.	Difficulty in managing my business finances.	**0.714**
15.	High operational costs (water, electricity, telephone and rental charges).	**0.698**
16.	High costs of being housed in the incubator.	**0.743**
Extraction Method: Principal Component Analysis.		
a. 1 component extracted.		

Source: Researcher (2020)

In Table 3.6, the entire questionnaire items linked to incubatee challenges posted factor loadings that were greater than 0.4 as marked in bold and were only loaded into one component (factor 1). This meant that all the questionnaire items measured the construct of the incubatee challenges. This meant that the construct validity of the scale was consistent. Hence all the items were retained for further analysis (descriptive analysis).

In Table 3.7 on incubatees' insights on improvement of business incubation, the KMO value of the data set was 0.687>0.5 and the Barlett's test of sphericity's Chi-Square value was 559.778>150 and significant because the *p*-value of the dataset was 0.000<0.05. This revealed that the dataset was enough and suitable for factor analysis.

Table 3.7: Incubatees' Insights on Improvement of Business Incubation Dataset KMO Sampling Adequacy and Barlett's Sphericity Tests

Kaiser-Meyer-Olkin measure of sampling adequacy		0.687
Barlett's test of sphericity	Approx. Chi-Square	559.778
	Df	40
	Sig.	0.000

Source: Researcher (2020)

Table 3.8: Rotated Component Matrix for Incubatees' Insights on Improvement of Business Incubation Data Set

Component Matrix[a]		
		Component 1
1.	Improving business knowledge, skills and expertise of incubatees.	**0.645**
2.	Increasing availability of funding for incubatees.	**0.710**
3.	Involving the Kenyan government in incubatee support.	**0.589**
4.	Involving other stakeholders in incubatee support and providing networking opportunities.	**0.766**
5.	Improving incubation facilities and services.	**0.704**
6.	Monitoring and evaluation of performance of incubatees.	**0.869**
Extraction Method: Principal Component Analysis.		
a. 1 component extracted.		

Source: Researcher (2020)

In Table 3.8 the findings revealed that the entire questionnaire items linked to incubatees' insights on improvement of business incubation posted factor loadings that were higher than 0.4 as marked in bold and were only loaded into one component (factor 1). This meant that all the questionnaire items measured the construct (insights on improvement of business incubation) intended to be measured. Therefore, the construct validity of the scale was consistent. Hence all the items were retained for descriptive analysis.

3.6.1. Reliability Test for Internal Consistency

To assess the reliability of the questionnaire items, a pilot study was conducted on a sample of 30 respondents before the main data collection exercises. The respondents were randomly selected and were not included in the main data collection exercise. Cronbach's Alpha was used to measure internal consistency. It is considered to be a measure of scale reliability. Cronbach's Alpha is a coefficient of reliability (or consistency). A Cronbach's Alpha of 0.70 and above is good (Cronbach, 1951). The Cronbach's Alpha analysis was used to test the reliability of the questionnaires issued to the incubatees. The study used Cronbach (1951) rule of thumb that in order for questionnaire items to be considered to be internally consistent, the Cronbach's Alpha value should be 0.70 and above (Cronbach, 1951). The findings were displayed in Table 3.9.

Table 3.9: Reliability Test Results

Scale	Cronbach's Alpha	Number of Items
Business incubation resource factors affecting business incubation and their effect on incubatee success	0.821	13
Factors representing entrepreneurial traits and competences that influence incubatee success	0.789	17
Incubatee challenges	0.745	16
Factors to be considered to improve business incubation	0.767	6

Source: Researcher (2020)

The Cronbach's Alpha values of the business incubation resources factors' scale, entrepreneur traits factors' scale, the incubatee challenges' scale and factors to be considered to improve business incubation scale were more than 0.7. This showed that all questionnaire items in the study's survey instrument were internally consistent and assessed the same constructs. Thus, the questionnaire was suitable for the main data collection exercise. Additionally, after the main data collection exercise the Cronbach's Alpha analysis was used to test the reliability of the questionnaires issued to the incubatees. This was to establish if the questionnaire items consistently measured the same construct so that the descriptive and the regression results of the study could be relied on.

3.6.2. Multicollinearity Tests

Multicollinearity Test on the Influence of Business Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Incubatee Firm Success (Profitability at Point of Exit)

In order to establish if there was a strong relationship between the independent variables, diagnostic tests were carried out and the findings were presented in Table 3.10. Based on the rule of thumb of Pallant (2007), there are no serious cases of multicollinearity when the tolerance value is greater 0.1 and the variance inflation factor (VIF) value is more than 1 but less than 10. In line with the findings of the tests, there were no serious cases of multicollinearity since all the variables posted tolerance values that were greater than 0.1 and the VIF values were more than 1 but less than 10.

Table 3.10: Collinearity Statistics on Influence of Business Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Incubatee Firm Success (Profitability at Point of Exit)

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Business Incubation Resources	0.501	2.134
	Entrepreneurial Traits	0.359	3.009
	Entrepreneur Competences	0.464	2.678
a. Dependent Variable: Incubatee success (Profitability at point of exit)			

Source: Researcher (2020)

Thus, the results indicated that the independent variables assessed were independent from each other. Hence, their relationship with the dependent variable could be relied on.

Multicollinearity Test on the Influence of Business Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Incubatee Firm Success (Time at Point of Exit)

In order to establish if there was a strong relationship between the independent variables, diagnostic tests were carried out and the findings were presented in Table 3.11. Based on the rule of thumb of Pallant (2007), there will be no serious cases of multicollinearity when the tolerance value is greater 0.1 and the variance inflation factor (VIF) value is more than 1 but less than 10. In line with the findings of the tests, there were no serious cases of multicollinearity since all the variables posted tolerance values that were greater than 0.1 and the VIF values were more than 1 but less than 10.

Table 3.11: Collinearity Statistics on the Influence of Business Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Incubatee Firm Success (Time at Point of Exit)

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Business Incubation Resources	0.535	1.998
	Entrepreneurial Traits	0.483	2.169
	Entrepreneur Competences	0.580	1.811
a. Dependent Variable: Incubatee success (Time at point of exit)			

Source: Researcher (2020)

Thus, the results indicated that the independent variables assessed were independent from each other. Hence their relationship with the dependent variable could be relied on.

3.7. Data Analysis and Presentation

Descriptive statistics was used to analyze the effect of incubatee access to business training and skills, incubatee access to financial resources and incubatee access to networks and stakeholder support on incubatee success. These descriptive analyses included mean and standard deviation.

The demographic data, firm specific data and entrepreneur personality and traits was analyzed using mean, standard deviation and percentages. To establish the relationship between business incubation resources, entrepreneurial traits, entrepreneur competences and incubatee success in Nairobi County, Kenya, regression analysis was used (Uyanık and Güler, 2013).

Two multiple regression analysis equations were used as shown below:

$y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \ldots\ldots\ldots + \beta_n X_n + \varepsilon$

$y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \ldots\ldots\ldots + \beta_n X_n + \varepsilon$

where, (y) was incubatee success as the dependent variable. This was depicted by incubatee profitability at point of exit (y_1) and time at point of incubatee exit (y_2). The independent variables were business incubation resources (X_1), entrepreneurial traits (X_2) and entrepreneur competences (X_3). β_0 is the constant and ε is the error term (Büyüköztürk, 2002).

A further two multiple regression analysis equations were used to illustrate the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits, entrepreneur competences and incubatee firm success. In terms of profitability at point of exit, the first equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z + \varepsilon$$

where; Y = Incubatee firm success in terms of profitability at point of exit; X_1 = Business Incubation Resources; X_2 = Entrepreneurial Traits; X_3 = Entrepreneur Competences; X_4 = Business Challenges, X_1Z = Interaction term between business incubation resources and business challenges; X_2Z = Interaction term between entrepreneurial traits and business challenges. X_3Z = Interaction term between entrepreneur competences and business challenges.

In terms of time at point of exit, the second equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z + \varepsilon$$

where; Y = Incubatee firm success in terms of time at point of exit; X_1 = Business Incubation Resources; X_2 = Entrepreneurial Traits; X_3 = Entrepreneur Competences; X_4 = Business Challenges, X_1Z = Interaction term between business incubation resources and business challenges; X_2Z = Interaction term between entrepreneurial traits and business challenges. X_3Z = Interaction term between entrepreneur competences and business challenges.

The statistical analysis was done by utilizing the Statistical Package for Social Sciences (SPSS) software.

3.8. Ethical Considerations

Prior to conducting the research, an ethical clearance was obtained from Strathmore University. A copy of the ethical approval letter may be found in Appendix 1. A research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI). A copy of the research permit may be found in Appendix 2. The researcher provided the respondents with information on the purpose of the study, the study procedures, expected duration of participation, benefits to the respondents and extent of privacy and confidentiality. Permission was sought from the respondents before soliciting information. The information given was not passed on to third parties. All the respondents in this study remained anonymous and information concerning the respondents was kept confidential. The information in this study was adequately referenced and cited. The researcher endeavored to ensure no respondent encountered physical harm for the duration of the study.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1. Introduction

This chapter presents data analysis results and their interpretation to address the objectives of the study. Descriptive statistics was employed on the demographic information of the respondents and the business incubators. It was used to establish the challenges facing incubatees in the business incubators and to propose how business incubation can be improved. Additionally, regression analysis was employed to determine the influence of business incubation resources, entrepreneurial traits and competences on incubatee firm success and to establish the moderating effect of challenges on incubatees.

4.2. Response Rate

Of the 384 questionnaires distributed, 288 were completed and returned. This represented a response rate of 75% that was considered adequate for analysis. This is because it accounted for more than 50% of the targeted sample size. A good response rate is 60% according to Fincham, (2008). According to Gordon, Davidoff and Tarnow (2002), 60% is considered moderate, 70% is reasonable, 80% is considered good while 90% is excellent.

4.3. Demographic Information

The study sought to analyse the demographic characteristics of the incubatee respondents (the entrepreneurs). The demographic data retrieved comprised of the age, gender, education qualification, years of business experience, current status of incubatee's business and whether the respondent had exited or graduated from the incubator. The findings of the demographic information were presented in Table 4.1.

Table 4.1: Demographic Information of Incubatee Respondents

Demographic information of incubatee respondents		Frequency	Percentage (%)
Age	18-25 years	54	18.75%
	26-35 years	110	38.19%
	36-45 years	95	32.99%
	46-55 years	20	6.94%
	56 years and above	9	3.13%
Gender	Male	169	58.68%
	Female	119	41.32%
Education qualification	Certificate	72	25%
	Diploma	61	21.18%
	Graduate	105	36.46%
	Post Graduate	50	17.36%
Years of business experience	Less than a year	20	6.94%
	1-3 years	67	23.26%
	4-6 years	108	37.5%
	7-9 years	74	25.69%
	More than 9 years	19	6.6%
Current status of incubatee's business (In terms of financial performance and sustainability)	Start-up stages	22	7.64%
	Doing poorly	60	20.83%
	Doing well	125	43.40%
	Doing very well	70	24.31%
	Winding up	11	3.82%
Exited or graduated from the incubator	Yes	288	100%
	No	-	-
	Was evicted	-	-

Source: Researcher (2020)

In regards to age, most of the respondents 56.94%, were 35 years and below. This suggests that most of the Kenyans in Nairobi who are interested in business incubation comprise of the youth. Moreover, 75% of the respondents had at least a diploma education, suggesting that level of education may be important in gaining access to business incubation. It is also interesting to note that 41.32% of the incubatees were female-owned enterprises which means that women in Kenya just like men are aware of the significance of business incubation. Finally, the majority of the incubatees (67.71%) indicated that their businesses were doing well in terms of financial performance and sustainability thus indicating that business incubation plays an important role in boosting the profitability and growth of business put under incubation.

4.4. Firm Profile

The study examined the firm profile of the incubatees. The description of the incubatee firms' characteristics were summarized in Table 4.2 and the results interpreted.

Table 4.2: Firm Profile

Firm profile		Frequency	Percentage (%)
Current annual revenue	Kshs. 0-10,000	-	-
	Kshs. 10,001-50,000	-	-
	Kshs. 50,001-100,000	-	-
	Kshs. 100,001-500,000	90	31.25%
	Kshs 500,001-1,000,000	100	34.72%
	Kshs. 1,000,001-5,000,000	91	31.60%
	Over Kshs. 5,000,000	7	2.43%
Current annual profit	Kshs. 0-10,000	-	-
	Kshs. 10,001-50,000	-	-
	Kshs. 50,001-100,000	41	14.24%
	Kshs. 100,001-500,000	73	25.35%
	Kshs. 500,001-1,000,000	90	31.25%
	Kshs. 1,000,001-5,000,000	81	28.13%
	Over Kshs. 5,000,000	3	1.04%
Whether the business is registered or not	Yes	240	83.3%
	No	48	16.7%
Number of years the business was under incubation before graduation/exit	Less than 1 year	26	9.03%
	1 year	45	15.63%
	2 years	40	13.89%
	3 years	68	23.61%
	4 years	50	17.36%
	5 years	35	12.15%
	More than 5 years	24	8.33%
Annual revenue at the point of graduation/exit from incubation	Kshs. 0-10,000	-	-
	Kshs. 10,001-50,000	-	-
	Kshs. 50,001-100,000	-	-
	Kshs. 100,001-500,000	30	10.42%
	Kshs. 500,001-1,000,000	123	42.71%
	Kshs. 1,000,001-5,000,000	131	45.49%
	Over Kshs. 5,000,000	4	1.39%
Annual profit at the point of graduation/exit from incubation	Kshs. 0-10,000	-	-
	Kshs. 10,001-50,000	-	-
	Kshs. 50,001-100,000	21	7.29%
	Kshs. 100,001-500,000	26	9.03%
	Kshs. 500,001-1,000,000	121	42.01%
	Kshs. 1,000,001-5,000,000	118	40.97%
	Over Kshs. 5,000,000	2	0.69%

Source: Researcher (2020)

From the findings in Table 4.2, it is interesting to note that the annual revenue of most firms at the point of graduation from incubation (89.59%), was over 500,000 Kenyan shillings. However, this percentage had dropped to 68.75% at the time of the study, suggesting that some enterprises had struggled to continue growing their revenues after leaving the incubator. This suggests that business incubation plays an important role in boosting the revenues of the incubatees' businesses. In addition, most of the incubatees (61.45%), had placed their businesses under incubation for 3 years or more before exiting or graduation. This, in a nutshell, portrays that in order for an incubatee to attain the benefits of business incubation then his or her business has to be under incubation for a relatively long period of time (that is, at least three years). Finally, the majority of the businesses, 83.3%, that had been under incubation had already been registered. This meant that most of the businesses which were under business incubation were formalized, which may also be considered a measure of success.

4.5. Business Incubation Resources and Incubatee Firm Success

In order to examine business incubation resources, descriptive statistical analysis comprising of mean and standard deviation was applied.

Table 4.3, presents the descriptive analysis of the business incubation resource factors affecting incubatee firm success. The findings were displayed using mean and standard deviation.

Table 4.3: Business Incubation Resource Factors Affecting Incubatee Firm Success

		Mean	Standard deviation
Incubatee business training and skills			
1.	I am able to communicate effectively.	4.634	1.342
2.	I am able to find customers for my business.	4.623	1.135
3.	I have excellent financial management skills.	4.541	1.194
4.	I have the requisite skills in running my business.	4.451	1.098
5.	I am able to solve problems and delegate efficiently.	4.321	1.101
Overall score		**4.514**	**1.174**
Incubatee financial resources			
6.	I am able to meet my short-term business obligations.	4.524	1.098
7.	I have adequate financial resources for my business.	4.132	1.125
8.	I am able to meet my long-term obligations.	4.024	1.112
9.	I have adequate working capital.	4.010	1.321
Overall score		**4.173**	**1.164**
Incubatee networks and stakeholder support			
10.	I have access to networks for my business.	4.500	1.132
11.	I have established new business with investors, business partners, customers and suppliers.	4.301	1.051
12.	I have nurtured and maintained strategic relationships with my networks.	4.065	0.981
13.	I have obtained referrals from investors, business partners, customers and suppliers.	4.001	0.867
		4.217	**1.008**

Source: Researcher (2020)

Based on the findings presented in Table 4.3, with regard to incubatee business training and skills; the respondents strongly agreed that they are able to communicate effectively, they are able to find customers for their business, they have excellent financial management skills, they have the requisite skills in running their business and they are able to solve problems and delegate efficiently.

Moreover, in regard to incubatee financial resources; the respondents strongly agreed that they are able to meet their short-term business obligations and they have adequate financial resources for their business. They also agreed that they are able to meet their long-term obligations and have adequate working capital.

With respect to incubatee networks and stakeholder support, the respondents strongly agreed that they have access to networks for their business and that they established new business with investors, business partners, customers and suppliers. They also agreed that they have nurtured and maintained strategic relationships with their networks and that have obtained referrals from investors, business partners, customers and suppliers.

4.6. Entrepreneurial Traits and Entrepreneur Competences and Incubatee Firm Success

In order to establish the entrepreneurial traits and entrepreneur competences that contribute to business incubation, descriptive statistical analysis comprising of mean and standard deviation was employed.

Table 4.4: Entrepreneurial Traits Contributing to Incubatee Firm Success

Entrepreneurial traits		**Mean**	**Standard deviation**
1.	I am innovative.	4.672	1.156
2.	I am creative.	4.512	1.183
3.	I am a risk taker.	4.234	1.109
4.	I love new opportunities.	4.209	1.215
5.	I am reliable.	4.208	1.237
6.	I am visionary.	4.201	1.439
7.	I am strong willed	4.182	1.321
8.	I have good leadership qualities.	4.177	1.375
9.	I am motivated.	4.151	1.345
10.	I communicate well.	4.123	1.139
11.	I have entrepreneurial experience.	4.105	1.301
12.	I make sacrifices for my business.	4.100	1.001
13.	I have political and social networks.	4.091	1.209
14.	I am well informed.	3.987	1.144
Overall mean score		**4.211**	**1.227**

Source: Researcher (2020)

In Table 4.4, the respondents strongly agreed that being innovative, creative, a risk taker, loving new opportunities and being reliable are vital factors that determine a successful entrepreneur/incubatee. Moreover, the respondents agreed that being visionary, strong willed and having good leadership qualities determines a successful entrepreneur/incubatee. They also agreed that being motivated, communicating well, having entrepreneurial experience, making sacrifices for business and having political and social networks determines a successful entrepreneur/incubatee.

Table 4.5: Entrepreneur Competences Contributing to Incubatee Firm Success

Entrepreneur competences		**Mean**	**Standard deviation**
1.	I am highly trained	4.370	1.588
2.	I have a lot of business experience.	4.220	1.516
3.	I am highly educated	4.160	1.637
Overall mean score		**4.250**	**1.580**

Source: Researcher (2020)

In Table 4.5, the respondents strongly agreed that the more an incubatee is trained, educated and experienced the more likely they will succeed in their businesses.

4.7. Challenges Facing Incubatees in the Business Incubators

In order to establish the challenges facing incubatees in business incubators, descriptive statistical analysis comprising of mean and standard deviation was applied.

Table 4.6: Incubatee Challenges

Incubatee challenges		Mean	Standard deviation
1.	Lack of funding.	4.001	0.948
2.	Lack of incubator facilities and infrastructure.	3.618	1.134
3.	Lack of qualified employees.	3.591	1.034
4.	Lack of proper incubator administration.	3.476	1.333
5.	Lack of business networks.	3.254	1.210
6.	High operational costs (water, electricity, telephone and rental charges).	3.112	0.978
7.	Lack of knowledge and business skills.	3.017	1.101
8.	Competition from other incubatees or startups.	3.000	1.172
9.	High costs of being housed in the incubator.	2.959	0.876
10.	Lack of incubatee business documentation.	2.789	1.109
11.	Difficulty in getting market for my products/services.	2.412	1.264
12.	Difficulty in getting Electronic Tax Register (ETR) machines.	2.359	1.348
13.	Difficulty in managing my business finances.	2.170	1.289
14.	Difficulty in getting a business license.	2.104	1.122
15.	Difficulty in obtaining supplies/inputs.	1.781	1.329
16.	Difficulty in getting a good business location.	1.098	1.158
Overall mean score		**2.796**	**1.150**

Source: Researcher (2020)

In Table 4.6, the respondents indicated that the business challenges that were very serious comprised of lack of funding, lack of incubator facilities and infrastructure, lack of qualified employees and lack of proper incubator administration. Moreover, the business challenges that the respondents perceived to be moderately serious included; lack of business networks, high operational costs, lack of knowledge and business skills, competition from other incubatees or startups and high costs of being housed in the incubator. The business challenges that the respondents perceived to be slightly serious comprised of lack of incubatee business documentation, difficulty in getting market for products/services, difficulty in getting ETR machines, difficulty in managing business finances and difficulty in getting a business license. Finally, the business challenges that the respondents indicated as not serious included difficulty in obtaining supplies/inputs and difficulty in getting a good business location.

4.8. Insights on How to Improve Business Incubation

In order to establish the incubatees' insights on improving business incubation, descriptive statistical analysis comprising of mean and standard deviation was applied.

Table 4.7: Incubatees' Insights on Improving Business Incubation

Improving business incubation		**Mean**	**Standard deviation**
1.	Increasing availability of funding for incubatees.	4.721	1.239
2.	Involving the Kenyan government in incubatee support.	4.599	1.176
3.	Improving incubation facilities and services.	4.464	1.211
4.	Monitoring and evaluation of performance of incubatees.	4.389	1.001
5.	Involving other stakeholders in incubatee support and providing networking opportunities.	4.213	1.204
6.	Improving business knowledge, skills and expertise of incubatees.	4.038	1.098
Overall mean score		**4.404**	**1.155**

Source: Researcher (2020)

In Table 4.7, the respondents strongly agreed that business incubation can be improved by increasing availability of funding for incubatees, involving the Kenyan Government in incubatee support, improving incubation facilities and services and monitoring and evaluation of performance of incubatees. Moreover, the respondents agreed that business incubation can be enhanced by involving other stakeholders in incubatee support, providing networking opportunities, improving business knowledge, training and skills and expertise of incubatees.

4.9. Regression Analysis

Multiple linear regression analysis was conducted to determine the influence of business incubation resources, entrepreneurial traits and entrepreneur competences on incubatee firm success in regard to profitability at point of exit and time at point of exit. The results were presented and discussed in the subsequent subsections.

4.9.1. Influence of Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Profitability at Exit

Regression Coefficients

The regression coefficients in Table 4.8 show how each factor (business incubation resources, entrepreneurial traits and entrepreneur competences) influenced incubatee firm success in terms of profitability at point of exit and if it was significant.

Table 4.8: Regression Coefficients for Factors Affecting Business Incubation (Profitability at Point of Exit)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.545	0.200		2.835	0.029
	Business Incubation Resources	0.599	0.052	0.467	9.641	0.000
	Entrepreneurial Traits	0.436	0.071	0.358	6.112	0.003
	Entrepreneur Competences	0.300	0.082	0.244	4.555	0.016
a. Dependent Variable: Incubatee success (Profitability at point of exit)						

Source: Researcher (2020)

In Table 4.8, the study produced and proposed the following regression equation based on the regression coefficients retrieved from the regression model shown below.

$$Y = 1.545 + 0.599X_1 + 0.436X_2 + 0.300X_3$$

Whereby;

Y= Incubatee firm success (Profitability at point of exit)

X_1= Business incubation resources (Incubatee access to training and skills, financial resources and networks and stakeholder support)

X_2= Entrepreneurial traits

X_3= Entrepreneur competences

The constant value of 1.545 meant that in the absence of business incubation resources, entrepreneurial traits and entrepreneur competences, then the level of the incubatee firm profitability would be at 1.545, which is a significantly (p-value = 0.029<0.05) low value. Thus, indicating that the incubatee firm success in terms of profitability would be extremely low if, during the period of incubation before exit, the incubatee failed to access business training and skills, financial resources and networks, entrepreneurial traits and had did not have competences. In regard to the business incubation resources factor, its unit increase would consequently lead to the rise of incubatee firm success in terms of profitability at point of exit by 59.9% (β=0.599) which would be significant (p-value = 0.000<0.05). The results indicated that if an incubatee gains access to training and skills, financial resources and networks then the profitability of the incubatee firm will consequently be boosted at the point of exit.

Moreover, a unit rise of entrepreneurial trait would consequently lead to the increase of incubatee firm success in terms of profitability at point of exit by 43.6% (β=0.436) which would be significant (p-value = 0.003<0.05). This actually means that the entrepreneurial traits such as being innovative, creative, reliable and being a risk taker gained by the incubatee will play an important role in boosting the financial performance of his/her firm at the point of exit from the incubation. On the other hand, the more competences an entrepreneur has before business incubation this would consequently lead to the escalation of incubatee firm success in terms of profitability at point of exit by 30% (β=0.300) which would be significant (p-value = 0.016<0.05). This denoted that for an incubatee who has education, training and experience in conducting business during the incubation period, these key competences would help his or her firm to significantly achieve high profits at the point of exit from incubation.

4.9.2. Influence of Incubation Resources, Entrepreneurial Traits and Entrepreneur Competences on Time to Exit

Regression Coefficients

The regression coefficients in Table 4.9 showed how each factor (business incubation resources, entrepreneurial traits and entrepreneur competences) influenced incubatee firm success in terms of time at point of exit and if it was significant.

Table 4.9: Regression Coefficients for Factors Affecting Business Incubation (Time at Point of Exit)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.488	0.202		2.875	0.028
	Business incubation resources	0.601	0.058	0.499	9.704	0.000
	Entrepreneurial traits	0.479	0.061	0.397	6.442	0.001
	Entrepreneur competences	0.312	0.075	0.253	4.561	0.014
a. Dependent Variable: Incubatee firm success (Time at point of exit)						

Source: Researcher (2020)

In Table 4.9, the study produced and proposed the following regression equation based on the regression coefficients retrieved from the regression model as shown below.

$Y= 1.488 + 0.601X_1 + 0.479X_2 + 0.312X_3$

Whereby;

Y= Incubatee firm success (Time at point of exit)

X_1= Business incubation resources (Incubatee access to training and skills, financial resources and networks)

X_2= Entrepreneurial traits

X_3= Entrepreneur competences

The constant value of 1.488 meant that if the incubatee did not have access to financial resources, networks, training and skills, entrepreneurial traits and competences, the firm would be in the business incubation for only 1.488 years (1 to 2 years) before exiting. In regard to the business incubation resources factor, its unit increase would consequently lead to the rise of incubatee firm success in terms of time at point of exit by 60.1% (β=0.601) which would be significant (*p*-value = 0.000<0.05). The results indicated that an incubatee can successfully gain training and skills, financial resources and networks only if his/her firm has been under business incubation for a significantly long period of time before exiting.

Moreover, a unit rise of entrepreneurial trait would consequently lead to the increase of incubatee firm success in terms of time at point of exit by 47.9% (β=0.479) which would be significant (*p*-value = 0.001<0.05). This means that an incubatee can successfully gain entrepreneurial traits such as being innovative, creative, reliable and being a risk taker only after his/her firm has been under business incubation for a relatively long period of time before exiting. Furthermore, a unit increase of entrepreneur competences gained before incubation would consequently lead to the escalation of incubatee firm success in terms of time at point of exit by 31.2% (β=0.312) which would be significant (*p*-value = 0.014<0.05). This denoted that education, training and experience that the incubatee has, can contribute to greater success when the business is under business incubation for a moderately long period of time before exiting.

The overall finding is that the more support the incubatee firm gets from business incubation, the longer it stays in incubation (to continue to enjoy that support).

4.9.3. Moderating Effect of Incubatees' Business Challenges

Moderating effect of business challenges on Profitability at Exit

To establish if incubatees' business challenges has a moderating effect on the relationship between business incubation resources, entrepreneurial traits and competences and incubatee firm success in terms of profitability at point of exit, a multiple linear regression analysis was conducted. The moderating variable was interacted with each independent variable abovementioned to determine if it had a moderating effect on the aforementioned relationship. The findings are presented and discussed below.

Table 4.10 presents the regression coefficients depicting the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits, entrepreneurial competences and incubatee firm success in terms of profitability at point of exit.

Table 4.10: Regression Coefficients for Moderating Effect of Challenges (Profitability at Point of Exit)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.545	0.200		2.835	0.029
	Business Incubation Resources	0.599	0.052	0.467	9.641	0.000
	Entrepreneurial Traits	0.436	0.071	0.358	6.112	0.003
	Entrepreneur Competences	0.300	0.082	0.244	4.555	0.016
2	(Constant)	1.054	0.321		1.985	0.034
	Business Incubation Resources	0.407	0.058	0.388	5.988	0.003
	Entrepreneurial Traits	0.303	0.089	0.278	4.002	0.025
	Entrepreneur Competences	0.213	0.101	0.190	2.701	0.031
	Business Challenges	0.094	0.207	0.086	0.700	0.090
	Interaction term between business incubation resources and business challenges	0.019	0.028	0.010	0.400	0.829
	Interaction term between Entrepreneurial traits and business challenges	0.008	0.044	0.017	0.255	0.801
	Interaction term between Entrepreneur competences and business challenges	0.017	0.025	0.013	0.320	0.823
a. Dependent Variable: Incubatee firm success (Profitability at point of exit)						

Source: Researcher (2020)

The study developed and proposed the regression equation presented in the following page based on the findings in Table 4.10. The equation was based on the regression coefficients' results to illustrate the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits, entrepreneur competences and incubatee firm success in terms of profitability at point of exit.

$$Y = 1.054 + 0.407X_1 + 0.303X_2 + 0.213X_3 + 0.094X_4 + 0.019X_1Z + 0.008X_2Z + 0.017X_3Z$$

Whereby; Y = Incubatee firm success in terms of time at point of exit; X_1 = Business Incubation Resources; X_2 = Entrepreneurial Traits; X_3 = Entrepreneur Competences; X_4 = Business Challenges, X_1Z = Interaction term between business incubation resources and business challenges; X_2Z = Interaction term between entrepreneurial traits and business challenges. X_3Z = Interaction term between entrepreneur competences and business challenges.

In Table 4.10, business challenges have an insignificant impact on incubatee firm success in terms of profitability at point of exit, since its unstandardized beta co-efficient was 0.094 and its *p*-value was 0.090 which was more than the benchmark value of 0.05. This meant that business challenges did not significantly affect the financial performance of the incubatee firms at the point of exit. Besides, business challenges had no significant moderating effect on the relationship between business incubation resources and incubatee firm success in terms of profitability at point of exit since the unstandardized beta co-efficient of the interaction term between business incubation resources and business challenges was 0.019 and its *p*-value of 0.829 was greater than the benchmark value of 0.05. The results indicated that lack of funding, limited qualified employees and incubator facilities would not inhibit the incubatee to successfully gain training and skills, financial resources and networks which would consequently boost the incubatee firm's financial performance at the point of exit.

Additionally, the findings also established that business challenges had no significant moderating effect on the relationship between entrepreneurial traits and incubatee firm success in terms of profitability at point of exit. This is because the unstandardized beta co-efficient of the interaction term between entrepreneurial traits and business challenges was 0.008 and its *p*-value of 0.801 was greater than the benchmark value of 0.05. The findings meant that an incubatee can still successfully gain entrepreneurial traits such as being innovative, creative, reliable and being a risk taker, which would play an important positive role on the incubatee firm's financial performance at the point of exit despite business challenges such as lack of funding, lack of facilities and lack of qualified employees.

Finally, the findings also established that business challenges had no significant moderating effect on the relationship between entrepreneur competences and incubatee firm success in terms of profitability at point of exit since the unstandardized beta co-efficient of the interaction term between entrepreneur competences and business challenges was 0.017 and its *p*-value of 0.823 was greater than the benchmark value of 0.05. This meant that when an incubatee has adequate business experience and a high level of education then the business challenges would not hinder his or her business from achieving a high level of financial performance at the point of exit.

Moderating effect of Business Challenges on Time to Exit

To establish if incubatees' business challenges has a moderating effect on the relationship between business incubation resources, entrepreneurial traits and competences and incubatee firm success in terms of time at point of exit, the study conducted a multiple linear regression analysis. The moderating variable was interacted with each independent variable abovementioned to determine if it had a moderating effect on the aforementioned relationship. The findings are presented and discussed below.

Regression Coefficients

Table 4.11 presents the regression coefficients depicting the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits, entrepreneur competences and incubatee firm success in terms of time at point of exit.

Table 4.11: Regression Coefficients for Moderating Effect of Challenges (Time at Point of Exit)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.488	0.202		2.875	0.028
	Business Incubation Resources	0.601	0.058	0.499	9.704	0.000
	Entrepreneurial Traits	0.479	0.061	0.397	6.442	0.001
	Entrepreneur Competences	0.312	0.075	0.253	4.561	0.014
2	(Constant)	0.989	0.347		1.962	0.032
	Business Incubation Resources	0.532	0.060	0.483	8.007	0.000
	Entrepreneurial Traits	0.309	0.080	0.299	5.345	0.002
	Entrepreneur Competences	0.257	0.091	0.203	3.668	0.019
	Business Challenges	0.099	0.201	0.082	0.765	0.086
	Interaction term between business incubation resources and business challenges	0.008	0.045	0.016	0.255	0.802
	Interaction term between Entrepreneurial traits and business challenges	0.010	0.030	0.013	0.230	0.814
	Interaction term between Entrepreneur competences and business challenges	0.009	0.038	0.015	0.233	0.816
a. Dependent Variable: Incubatee firm success (Time at point of exit)						

Source: Researcher (2020)

The study developed and proposed a regression equation based on the findings in Table 4.11. The equation is based on the regression coefficients' results to illustrate the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits, entrepreneur competences and incubatee firm success in terms of time at point of exit.

$Y = 0.989 + 0.532X_1 + 0.309X_2 + 0.257X_3 + 0.099X_4 + 0.008X_1Z + 0.008X_2Z + 0.009X_3Z$

Whereby; Y = Incubatee firm success in terms of time at point of exit; X_1 = Business Incubation Resources; X_2 = Entrepreneurial Traits; X_3 = Entrepreneur Competences; X_4 = Business Challenges

X_1Z = Interaction term between business incubation resources and business challenges; X_2Z = Interaction term between entrepreneurial traits and business challenges. X_3Z = Interaction term between entrepreneur competences and business challenges.

In Table 4.11, business challenges have an insignificant impact on incubatee firm success in terms of time at point of exit, since its unstandardized beta co-efficient was 0.099 and its *p*-value was 0.086 which was more than the benchmark value of 0.05. This meant that the incubatees did not experience any serious business challenges during the time of business incubation before exiting. Besides, business challenges had no significant moderating effect on the relationship between business incubation resources and incubatee firm success in terms of time at point of exit. This is because the unstandardized beta co-efficient of the interaction term between business incubation resources and business challenges was 0.008 and its *p*-value of 0.802 was greater than the benchmark value of 0.05. The results indicated that there is no major lack of funding, limited qualified employees and incubator facilities that would significantly inhibit the incubatee to successfully gain training and skills, financial resources and networks by the time he or she would be exiting from incubation.

Additionally, the findings also established that business challenges had no significant moderating effect on the relationship between entrepreneurial traits and incubatee firm success in terms of time at point of exit. This is because the unstandardized beta co-efficient of the interaction term between entrepreneurial traits and business challenges was 0.010 and its *p*-value of 0.814 was greater than the benchmark value of 0.05. The findings meant that an incubatee can still successfully gain entrepreneurial traits such as being innovative, creative, reliable and being a risk taker before exiting even if he or she experiences business challenges such as lack of funding, lack of facilities and lack of qualified employees.

Finally, the findings also established that business challenges had no significant moderating effect on the relationship between entrepreneur competences and incubatee firm success in terms of time at point of exit. This is because the unstandardized beta co-efficient of the interaction term between entrepreneur competences and business challenges was 0.009 and its *p*-value of 0.816 was greater than the benchmark value of 0.05.

This meant that when an incubatee has adequate business experience and a high level of education then the business challenges would not hinder him or her from successfully exiting the business incubation after gaining sufficient business training during incubation.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents discussions of the data analysis in line with the objectives of the research study. It also presents the conclusions made based on the research findings, recommendations to policy makers and contribution to knowledge. It concludes with limitations of the study and suggestions for future research.

5.2. Discussion of the Research Findings

This section discusses the data analysis in line with each specific objective.

5.2.1. Business Incubation Resources and Incubatee Firm Success

The descriptive analysis results revealed that business incubation in Nairobi County, Kenya has helped the incubatees to have business skills that include effective communication, being able to attract customers and having financial management skills. Moreover, it was also noted that business incubation has helped incubatees to effectively and efficiently manage their financial resources by being able to meet long-term and short-term obligations and having adequate financial resources. Furthermore, business incubation has helped the incubatees to have access to networks for their businesses. Kara, Chu and Benzing (2010) and Tang and Hull (2012) argued that social networks is a great determinant of a successful entrepreneur.

Moreover, business incubation has also helped incubatees establish new business with investors, customers and business partners. Additionally, business incubation has enabled the incubatees to nurture and maintain strategic relationships with their networks and stakeholders. Amezcua, (2010) posited that incubatee firms under business incubation generally succeed at a greater rate than firms that are not incubated.

In general, business incubation has assisted incubatees to have strong business skills, adequate financial resources, and great business networks and stakeholder support. The findings of this study conflicted with Arumugam and Ravindran (2014) who posited that the success of incubatees under business incubation is minimal.

Access to business training and skills was established to bring about the highest level of success and efficacy of business incubation followed by access to business networks and stakeholder support and access to adequate financial resources respectively. This is probably because when one has the appropriate set of business training and skills, these can assist him or her to offer services that increase the performance of the business and expand his or her business networks which will play an important role in promoting his/her business and hence lead to adequate financial resources.

The regression analysis revealed that incubatee access to business incubation resources had a positive significant influence on incubatee firm success in terms of time at point of exit and profitability. The findings meant that an incubatee can successfully gain training and skills, financial resources and networks only if his or her firm has been under business incubation for a significantly long period of time before exiting. Moreover, the findings also meant that if an incubatee gains access to training and skills, financial resources and networks and stakeholder support, then the profitability of the incubatee firm will consequently be boosted at the point of exit. In addition, the findings upheld the proposition of the networking theory that access to business incubation resources allows entrepreneurs to gain the advantages of networking through social interactions with other entrepreneurs and investors. Moreover, access to business incubation resources allows entrepreneurs to gain business training, skills and finances that subsequently lead to their business success. Thus, the findings concurred with Harper-Anderson and Lewis (2018) who contended that the ultimate aim of business incubation is to ensure incubatees graduate and ensure that their businesses are able to achieve sustainability and growth.

The findings of the study disagreed with Buys and Mbewara (2007) and Lichtenstein, Lyons and Kutzhanova (2004) who observed that business incubation does not guarantee success in supporting start-ups. However, the findings of the study agreed with Mian (1997) that incubatee firms experience high level of sales growth.

The findings also agreed with Amezcua (2010) who observed that entrepreneurs who begin their businesses under incubation generally succeed at a greater rate than their counter parts who are not under incubation. This is because business incubation provides entrepreneurs with the necessary expertise, networks and tools that makes their firms to be successful (Almubaraki, Karaghouli & Busler, 2010). Besides, incubatee access to business incubation resources includes offering the incubatees a nurturing business environment in terms of services and facilities (Dai, 2014) that equips them with the necessary skills, expertise, business networks and finances that lead to the positive financial performance and growth of their firms.

5.2.2. Entrepreneurial Traits and Entrepreneur Competences, and Incubatee Firm Success

The descriptive analysis revealed that the greatest levels of success and efficacy of business incubation in Nairobi County in Kenya can be explained when an entrepreneur is innovative, creative, a risk taker, reliable, a good identifier and exploiter of new opportunities. Furthermore, the efficacy and success of business incubation can be explained when an entrepreneur is strong willed, has good leadership qualities, is positively motivated, has political and social network and has sufficient entrepreneurial experience.

Furthermore, the findings of the study on the aspect of entrepreneurial experience and political and social network agreed with Zimmerman and Chu (2013) who contended that the primary success of an entrepreneur emanates from having sufficient business experience and being involved in political networks. Additionally, the findings in regard to experience agreed with Cooper et al. (1988) who stated that successful entrepreneurs are those who have education and relevant experiences in conducting business.

The regression analysis established that entrepreneurial traits have a positive significant influence on incubatee firm success in terms of time at point of exit and profitability at point of exit. Additionally, the findings denoted that entrepreneurial traits such as being innovative, creative, reliable, possessing communication skills and being a risk taker as an incubatee will play an important role in boosting the financial performance of the firm at the point of exit from the incubation.

Thus, the findings of the study upheld the proposition of the personality trait theory of entrepreneurship that the incubatee's startup success is linked to the characteristics of the individual. Say (1971) argued that for an entrepreneur to achieve business success, he or she must possess key qualities such as decision making skills. Moreover, Rotter (1966) and Grachev and Hisrich (1995) posited that being a risk taker, innovative, having good decision-making skills and excellent communication skills play an important role in the success of the entrepreneur's business.

Besides, the regression analysis also revealed that entrepreneur competences have a positive significant influence on incubatee firm success in terms of time at point of exit and profitability at point of exit. The research findings denoted that education, training and experience in conducting businesses is essential during incubation. Moreover, the findings also meant that if an incubatee has gained business training, skills, education and experience, then these key competences would help his or her firm to significantly achieve high profits at the point of exit from incubation.

The findings of the study upheld the proposition of the human capital development theory that in order for incubatees to be successful in their businesses, their education, training and experience are important contributors. This is because entrepreneurial training, education and experience are the key necessities for running successful businesses (Ladzani & Vuuren, 2002). The findings of this study concurred with Béchard and Grégoire (2007) who established that entrepreneurial education, training and experience have positive impact on firm performance. The findings also agreed with Stephens and Onofrei (2012) that business incubation leads to enhanced business skills, professionalism and knowledge that consequently boosts the incubatee firm's sales turnover, profitability and growth.

5.2.3. Moderating Effect of Challenges Facing Incubatees in Business Incubators

The descriptive analysis results revealed that the challenges facing the incubatees comprised of lack of funding, lack of incubator facilities and infrastructure, lack of qualified employees and lack of proper incubator administration. The findings of the study concurred with Lose, et al., (2016) who established that lack of access to finances is a great problem that is hindering the growth of incubatees in South Africa.

The results of the study showed that the moderating effect of business challenges on the relationship between business incubation resources, entrepreneurial traits and entrepreneur competences and incubatee firm success is statistically insignificant both in terms of profitability at point of exit and time at point of exit. This means that incubatee firms are not hindered towards success of their business even though these challenges exist.

5.2.4. How Business Incubation can be Improved

The descriptive analysis findings of the study revealed that most of these challenges can be addressed by increasing the availability of funding. The challenges can also be addressed by involvement of the Kenyan Government in incubatee support probably in terms of provision of credit financing, although, some scholars such as Freel (2003) and Tse (2002) state that networking is a key factor to improving business incubation instead of relying on government and other stakeholder support that might end up disappointing the entrepreneurs.

Buys and Mbewana (2007) revealed that both government support and networking are key factors that can improve business incubation and address its challenges. Moreover, the findings revealed that the challenges facing the incubatee firms can be addressed through improvement of incubation facilities and services and evaluation of performance of incubators. The findings of the study concurred with Pompa (2013) who revealed that it is important to measure the impact of business incubation on the startups' performance in order to know if it would benefit the incubatee firm and in order to know the possible areas to be addressed if the business incubation failed to benefit the incubatees.

This study contributes to the existing literature of strategic entrepreneurship and business incubation. It adds new knowledge by understanding the efficacy of business incubation on incubatee firms, the influence of entrepreneurial traits and entrepreneur competences on incubatee success and how business incubation challenges moderate the relationship.

5.3. Conclusions

In conclusion, the efficacy (or worthwhileness) of business incubation appears to be high as shown by the important role it plays in enhancing the incubatee's business skills, financial resources, and business networks and stakeholder support which consequently enhances the success of incubatee businesses. Business incubation resources are important for the incubatee firms. For the incubatees to gain these resources, there is need for support from government, institutions, and the communities. Additionally, the entrepreneurial traits enhanced during the incubation process such as being innovative, creative, reliable, possessing communication skills and being a risk taker plays an important role in boosting the success of incubatee firms at the point of exit from incubation and in terms of profitability.

Key entrepreneur competences that the entrepreneur already has before incubation such as business education, training and experience, help the incubatee firms to significantly achieve high profits at the point of exit from incubation. The challenges faced by business incubators include lack of funding, lack of incubator facilities and infrastructure, lack of qualified employees and lack of proper incubator administration. The challenges faced by incubatees are not so significant and hence the incubatee businesses are still able to succeed in spite of them. Finally, the challenges of business incubation can be addressed by increasing funds to incubatee businesses and improving incubation facilities and services.

5.4. Recommendations

The possible recommendations to the management of business incubators and the policy makers is to create policies and enhance existing business incubation programmes to primarily focus on improving incubatee access to business training and skills, incubatee access to business networks and stakeholder support, incubatee access to financial resources, enhancing incubatee entrepreneurial traits and competences.

Furthermore, incubator managers and policy makers should assist to avail more funding for the incubatees' businesses by calling for government support. Moreover, incubator managers should also ensure that they have qualified staff and proper administration activities that will improve the success of business incubation.

They should also improve the existing incubation facilities and services and monitor and evaluate the performance of the incubatees in order to achieve the skills set and resources needed for incubatee business success.

5.5. Limitations of the Study

The major limitation of the study was the restricted use of questionnaires. Hence in-depth discussions on how the variables interact with each other could not be determined. For example, the revenues and profitability of the businesses seemed to have declined between the time they left the incubator and the time of the study. It is not clear why. Other limitations included not being able to access all the respondents, incomplete questionnaires and inconsistent feedback in questionnaire data. Additionally, the study area was limited to Nairobi County, hence, it did not give representative insights of incubatees based on other regions of Kenya. For example, it is conceivable that infrastructure related challenges, business registration, access to inputs, and so on would vary across Kenya, and may impact the businesses differently.

5.6. Suggestions for Future Research

Future studies should consider using interview guides to collect qualitative information to get in-depth and contextual information that informs the study variables. Future studies could focus on other counties of Kenya, or offer cross-county comparisons. Contextual information on how different categories of entrepreneurs are impacted by business incubation may also be included.
Other areas of research can focus on the various units of analysis such as the community and network in the incubation ecosystem and find out how these affect the efficacy and success of business incubation.

Further assessment is required to keep track of firms that have left incubation. This would involve measuring their progress and milestones or determine their status over periods of time, and therefore more accurately measure the impact of business incubation. There is also need to assess the businesses that did not survive after incubation and find out the factors that contributed to their lack of survival as well as what could be done to boost their survival rates.

REFERENCES

Abosede, A. J., & Onakoya, A. B. (2013). Intellectual Entrepreneurship: Theories, Purpose and Challenges. *International Journal of Business Administration*, *4*(5), 30–37. doi: 10.5430/ijba.v4n5p30

Acs, Z. J., & Audretsch, D. (1992). The social and economic impact of entrepreneurship. In D. L. Sexton & J. D. Kasarda (Eds.), *The State of the Art of Entrepreneurship* (pp. 45–68).

Adenuga, R., & Ayodele, K. (2013). Adolescents' entrepreneurial behavior: the predictive effect of the Big Five factors-pdf. *European Journal of Business and Social Sciences*, *1*(12), 48–58.

Ahmad, N. (2007). *A Cross Cultural Study of Entrepreneurial Competencies and Entrepreneurial Success in SMEs in Australia and Malaysia* (PhD Thesis). University of Adelaide, Australia.

Ahmad, N., Ramayah, T., Wilson, C., & Kummerow, L. (2010). Is entrepreneurial competency and business success relationship contingent upon business environment?: A study of Malaysian SMEs. *International Journal of Entrepreneurial Behavior & Research*, *16*(3), 182–203. doi: 10.1108/13552551011042780

Aldrich, H., & Zimmer, C. (1986). Entrepreneurship Through Social Networks. *Carlifornia Management Review*, *33*, 3–23.

Almendarez, L. (2013). Human Capital Theory: Implications for Educational Development in Belize and the Caribbean. *Caribbean Quarterly*, *59*(3–4), 21–33. doi: 10.1080/00086495.2013.11672495

Almubaraki, H., & Busler, M. (2011). Critical Activity of Successful Business Incubation. *International Journal of Emerging Sciences*, *1*(3), 455–464.

Almubaraki, H., & Busler, M. (2015). (PDF) The importance of business incubation in developing countries: Case study approach. *International Journal of Foresight and Innovation Policy*, *10*(1), 17. doi: 10.1504/IJFIP.2015.070054

Almubaraki, H., Karaghouli, W., & Busler, M. (2010). *The Creation of Business Incubators in Supporting Economic Developments*. Presented at the European, Mediterranean & Middle Eastern Conference on Information Systems 2010 (EMCIS2010), Abu Dhabi, UAE.

Alvarez, S., & Busenitz, L. W. (2001). *The Entrepreneurship of Resource-Based Theory* (SSRN Scholarly Paper No. ID 1506318).

Amezcua, A. S. (2010). *Boon or Boondoggle? Business Incubation as Entrepreneurship Policy A Report from the National Census of Business Incubators and their Tenants* (PhD Dissertation). Syracuse University, United States.

Amit, R., Glosten, L., & Muller, E. (1993). Challenges to Theory Development in Entrepreneurship Research*. *Journal of Management Studies*, *30*(5), 815–834. doi: 10.1111/j.1467-6486.1993.tb00327.x

Arumugam, R., & Ravindran, S. (2014). Success factors of incubatee startups and the incubation environment influencers. *International Journal of Applied Business and Economic Research*, *12*(4), 1179–1193.

Astebro, T., Herz, H., Nanda, R., & Weber, R. (2014). Seeking the Roots of Entrepreneurship: Insights from Behavioral Economics. *Journal of Economic Perspectives*, *28*(3), 49–70. doi: 10.1257/jep.28.3.49

Audretsch, D., & Thurik, R. (2004). (PDF) A model of the entrepreneurial economy. *International Journal of Entrepreneurship Education*, *2*(2), 143–166.

Autio, E., & Parhankangas, A. (1998). Employment Generation Potential of New, Technology-Based Firms During a Recessionary Period: The Case of Finland. *Small Business Economics*, *11*(2), 113–123. doi: 10.1023/A:1007941801303

Ayatse, F. A., Kwahar, N., & Iyortsuun, A. S. (2017). Business incubation process and firm performance: an empirical review. *Journal of Global Entrepreneurship Research*, *7*(1), 2. doi: 10.1186/s40497-016-0059-6

Ayodo, E. M. A. (2017). Empirical Analysis of Factors Affecting Growth of Technology Based Business Incubators in Kenya: The Case of Kenya Industrial Research & Development Institute (KIRDI). *European Journal of Business and Management*, *9*(18), 118–130.

Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, *33*(2), 328–340.

Barrick, M. R., & Mount, M. K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, *44*(1), 1–26. doi: 10.1111/j.1744-6570.1991.tb00688.x

Bearse, P. (1998). A Question of Evaluation: NBIA's Impact Assessment of Business Incubators. *Economic Development Quarterly*, *12*(4), 322–333. doi: 10.1177/089124249801200404

Béchard, J.-P., & Grégoire, D. (2007). Archetypes of Pedagogical Innovation for Entrepreneurship in Higher Education: Model and Illustrations. In *Chapters* (Vol. 1, pp. 213–261).

Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (SSRN Scholarly Paper No. ID 1496221).

Bergek, A., & Norrman, C. (2008). Incubator best practice: A framework | Request PDF. *ResearchGate*, *28*(1–2), 20–28. doi: 10.1016/j.technovation.2007.07.008

Birch, D. L. (1981). Who creates jobs? *The Public Interest*, *65*, 3–15.

Bollingtoft, A., & Ulhøi, J. (2005). The networked business incubator--leveraging entrepreneurial agency? *Journal of Business Venturing*, *20*(2), 265–290.

Brockhaus, R. (1980). Risk Taking Propensity of Entrepreneurs. *The Academy of Management Journal*, *23*(3), 509–520. doi: 10.2307/255515

Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. J. (2012). The evolution of business incubators: comparing demand and supply of business incubation services across different incubator generations. *Technovation*, *32*(2), 110–121. doi: 10.1016/j.technovation.2011.11.003

Buys, A. J., & Mbewana, P. N. (2007). Key success factors for business incubation in South Africa: the Godisa case study. *South African Journal of Science*, *103*(9–10), 356–358.

Büyüköztürk, Ş. (2002). *Sosyal bilimler için veri analizi el kitabı: istatistik, araştırma deseni, SPSS uygulamaları ve yorum*. Turkey: Pegem A Yayıncılık.

Carree, M., & Thurik, R. (2005). *Understanding the role of entrepreneurship for economic growth* (No. 2005–10).

Casson, M. (2005). Entrepreneurship and the theory of the firm. *Journal of Economic Behavior & Organization*, *58*(2), 327–348. doi: 10.1016/j.jebo.2004.05.007

Charry, G., Pérez, J., & Barahona, N. (2014). Business incubator research: a review and future directions. *Thought & Management, 37*, 41-65.

Chisenga, D. C. (2012). *Clustering and incubation in Africa's small business development: some experiences and lessons* (Master's Thesis, University of Western Cape).

Choo, S. (2011). *Entrepreneurial Management*. Prahran, Vic.: Tilde University Press.

Ciavarella, M. A., Buchholtz, A. K., Riordan, C. M., Gatewood, R. D., & Stokes, G. S. (2004). The Big Five and venture survival: Is there a linkage? *Journal of Business Venturing*, *19*(4), 465–483. doi: 10.1016/j.jbusvent.2003.03.001

Claridge, T. (2004). *Social Capital and Natural Resource Management*. University of Queensland, Australia.

Cochran, W. G. (1977). *Sampling Techniques (3th Edition) William G. Cochran*.

Coleman, S. (2007). The Role of Human and Financial Capital in the Profitability and Growth of Women- Owned Small Firms. *Journal of Small Business Management*, *45*(3), 303–319.

Colombo, M., & Delmastro, M. (2002). *How Effective are Technology Incubators? Evidence from Italy* (SSRN Scholarly Paper No. ID 1350194).

Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, *3*(2), 97–108. doi: 10.1016/0883-9026(88)90020-1

Cope, J., & Down, S. (2010). *Entrepreneurial cognition, learning and knowing in practice*. Presented at the University of Strathclyde. University of Strathclyde: University of Strathclyde.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. doi: 10.1007/BF02310555

Crotty, M. (1998). *The foundations of social research: meaning and perspective in the research process*. London; Thousand Oaks, Calif.: Sage Publications.

Dai, Z. (2014). Causality of Incubatee Financial Performance. *Journal of Competitiveness Studies*, *22*(1/2), 43A.

Dechang, L., Qiang, L., & Hongwei, W. (2010). *Service innovation based on operational model: A case of business incubator - IEEE Conference Publication*. Presented at the 7th International Conference on Service Systems and Service Management, Tokyo, japan. doi: 10.1109/ICSSSM.2010.5530084

Deloitte. (2016). *How to innovate the Silicon Valley way | Source Global Research*.

Deniz, N., Boz, İ. T., & Ertosun, Ö. G. (2011). The Relationship between Entrepreneur's Level of Perceived Business-Related Fear and Business Performance. *Procedia - Social and Behavioral Sciences*, *24*, 579–600. doi: 10.1016/j.sbspro.2011.09.038

Diedericks, R. (2015). *Incubator services that small service organisations require from a university business incubator* (PhD Thesis). North-West University, Vanderbijlpark, South Africa.

Duchesneau, D. A., & Gartner, W. B. (1990). A profile of new venture success and failure in an emerging industry. *Journal of Business Venturing*, *5*(5), 297–312. doi: 10.1016/0883-9026(90)90007-G

Edvardsson, B., & Olsson, J. (1996). Key Concepts for New Service Development. *The Service Industries Journal*, *16*(2), 140–164. doi: 10.1080/02642069600000019

Ehigie, B., & Umoren, U. (2013). Psychological Factors Influencing Perceived Entrepreneurial Success Among Nigerian Women in Small-Scale Businesses. *Journal of International Women's Studies*, *5*(1), 78–95.

Fincham, J. E. (2008). Response Rates and Responsiveness for Surveys, Standards, and the Journal. *American Journal of Pharmaceutical Education*, *72*(2), 1–3.

Freel, M. S. (2003). Sectoral patterns of small firm innovation, networking and proximity. *Research Policy*, *32*(5), 751–770. doi: 10.1016/S0048-7333(02)00084-7

Gill, J., & Johnson, P. (2010). *Research Methods for Managers* (Fourth edition). Los Angeles: SAGE Publications Ltd.

Gobble, M. (2018). Rethinking the Silicon Valley Myth. *Research Technology Management*, *61*(1), 64–67.

Gordon, N., Davidoff, F., & Tarnow, E. (2002). A Question of Response Rate. *Science Editor*, *25*(1), 25–26.

Government of Kenya. *Sessional paper no. 2 of 1992 on small enterprise and jua kali development in Kenya /.* , (1992).

Government of Kenya. *Sessional paper no. 2 of 1996 on industrial transformation to the year 2020.* ,(1996).

Government of Kenya. *Sessional paper no. 2 of 2005 on development of micro and small enterprises for wealth and employment creation for poverty reduction /.* , (2005).

Grachev, M. V., & Hisrich, R. D. (1995). The Russian entrepreneur: characteristics and prescriptions for success. *Journal of Managerial Psychology*, *10*(2), 3–9. doi: 10.1108/02683949510075506

Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: an assessment of incubating models - ScienceDirect. *Technovation*, *25*(2), 111–121. doi: 10.1016/S0166-4972(03)00076-2

Hackett, S. M., & Dilts, D. M. (2004a). A Real Options-Driven Theory of Business Incubation. *The Journal of Technology Transfer*, *29*(1), 41–54. doi: 10.1023/B:JOTT.0000011180.19370.36

Hackett, S. M., & Dilts, D. M. (2004b). (PDF) A Systematic Review of Business Incubation Research. *Journal of Technology Transfer*, *29*(1), 55–82.

Hackett, S. M., & Dilts, D. M. (2008). Inside the black box of business incubation: Study B - Scale assessment, model refinement, and incubation outcomes | Request PDF. *The Journal of Technology Transfer*, *33*(5), 439–471. doi: 10.1007/s10961-007-9056-9

Hansen, M., Chesbrough, H., Nohria, N., & Sull, D. (2000). Networked Incubators: Hothouses of the New Economy. *Harvard Business Review*, *78*(5), 74–84.

Hanson, B. J., & Kriger, M. P. (1999). A value- based paradigm for creating truly healthy organizations. *Journal of Organizational Change Management*, *12*(4), 302–317. doi: 10.1108/09534819910282144

Harper-Anderson, E., & Lewis, D. A. (2018). What Makes Business Incubation Work? Measuring the Influence of Incubator Quality and Regional Capacity on Incubator Outcomes. *Economic Development Quarterly*, *32*(1), 60–77. doi: 10.1177/0891242417741961

Hausberg, J. P., & Korreck, S. (2018). Business incubators and accelerators: a co-citation analysis-based, systematic literature review. *The Journal of Technology Transfer*. doi: 10.1007/s10961-018-9651-y

Hisrich, R. (2004). *Small Business Solutions : How to Fix and Prevent the 13 Biggest Problems That Derail Business* (1 edition). New York: McGraw-Hill Education.

Hu, M.-L., Horng, J.-S., & Sun, Y.-H. (2009). Hospitality teams: Knowledge sharing and service innovation performance. *Tourism Management*, *30*(1), 41–50. doi: 10.1016/j.tourman.2008.04.009

Hyde, A. (2003). *Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market*. London, United Kingdom: M E Sharpe Inc.

Hytti, U., & Maki, K. (2007). Which firms benefit most from the incubators? *International Journal of Entrepreneurship and Innovation Management*, *7*(6), 506–523. doi: 10.1504/IJEIM.2007.014594

Ibrahim, A. B., & Goodwin, J. R. (1986). Perceived Causes of Success in Small Business. *American Journal of Small Business*, *11*(2), 41–50. doi: 10.1177/104225878601100204

Jennings, R., & Cox, C. (1995). The foundations of success: the development and characteristics of British entrepreneurs and intrapreneurs. *Leadership & Organization Development Journal*, *16*(7), 4–9. doi: 10.1108/01437739510100892

Jill, J. (2016). *Human Capital as a development theory and the state of education in Malawi A systematic review ofthe theory and literature in the context of Malawi*.

Jo, H., & Lee, J. (1996). The Relationship between an Entrepreneur's Background and Performance in a New Venture. *Technovation*, *16*(4), 161–171.

Jones, P., Gornall, L., Thomas, B., & Voisey, P. (2006). The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development*, *13*(3), 454–468. doi: 10.1108/14626000610680307

Justino, M., & Tengeh, R. (2016). Role of external environmental factors in the failure of small enterprises in Angola. *Environmental Economics*, *7*(2), 86–96. doi: 10.21511/ee.07(2).2016.9

Kanchana, R. S., Divya, J. V., & Beegom, A. A. (2013). Challenges faced by new entrepreneurs. *International Journal of Current Research and Academic Review*, *1*(3), 2347–3215.

Kara, O., Chu, H. M., & Benzing, C. (2010). Determinants of Entrepreneur's Success in a Developing Country. *Journal of Business and Entrepreneurship, 22*(2), 1.

Kelly, T. J. C., & Firestone, R. S. (2016). *How tech hubs are helping to drive economic growth in Africa* (No. 102957; pp. 1–15).

Kemp, P. (2013). *The influence of business incubation in developing new enterprises in Australia* (Master's Thesis). Edith Cowan University, Australia.

Kerr, S., Kerr, W., & Xu, T. (2018). Personality Traits of Entrepreneurs: A Review of Recent Literature. *Foundations and Trends® in Entrepreneurship, 14*(3), 279–356. doi: 10.1561/0300000080

Kirchhoff, B. (1993). *Entrepreneurship and Dynamic Capitalism: The Economics of Business Firm Formation and Growth*. Westport, United States: Praeger Publications.

Kibuchi, J. (2016). *Business Incubation Services Offered to Startup Businesses in Kenya. A Case Study of Ihub Program* (Master's Thesis, University of Nairobi).

Kolkman, L. (2011). *A study on the factors of business incubation* (Master's Thesis). University of Twente, The Netherlands.

Kuratko, D. F., & Hodgetts, R. M. (2001). *Entrepreneurship : a contemporary approach* (5th ed). Australia: South-Western Thomson Learning.

Labonte, R. (1999). Social capital and community development: Practitioner emptor. *Australian and New Zealand Journal of Public Health, 23*(4), 430–433. doi: 10.1111/j.1467-842X.1999.tb01289.x

Ladzani, W. M., & Vuuren, J. J. V. (2002). Entrepreneurship Training for Emerging SMEs in South Africa. *Journal of Small Business Management, 40*(2), 154–161. doi: 10.1111/1540-627X.00047

Lee, J., Kim, J., & Chun, H. (1999). A study on the Management and Financial Independence of University Technology Business Incubators (UTBIs) in Information and Telecommunication Industry. *Korean Small Business Review*, *21*(2), 185–206.

Lee, S. S., & Osteryoung, J. S. (2004). A Comparison of Critical Success Factors for Effective Operations of University Business Incubators in the United States and Korea. *Journal of Small Business Management*, *42*(4), 418.

Lewis, D. A., & National Business Incubation Association. (2002). *Does technology incubation work?: a critical review of the evidence*. Athens, Ohio: NBIA Publications.

Lewis, D., Anderson, E., & Molnar, L. (2011). *Incubating success. Incubation best practices that lead to successful new ventures* (pp. 1–144). USA: University of Michigan.

Lichtenstein, G., Lyons, T., & Kutzhanova, N. (2004). Building Entrepreneurial Communities: The Appropriate Role of Enterprise Development Activities. *Journal of the Community Development Society*, *35*(1), 5–24. doi: 10.1080/15575330409490119

Lin, D., Wood, L. C., & Lu, Q. (2012). Improving business incubator service performance in China: the role of networking resources and capabilities. *The Service Industries Journal*, *32*(13), 2091–2114. doi: 10.1080/02642069.2011.582498

Lopa, N., & Bose, T. (2014). *Relationship between Entrepreneurial Competencies of SME Owners/Managers and Firm Performance: A Study on Manufacturing SMEs in Khulna City*. *3*(3), 12.

Lose, T., Maziriri, E., & Madinga, W. (2016). Assessing the impact of incubation programme to small and medium enterprises development in the Western Cape province of South Africa. *International Journal of Small Business and Entrepreneurship Research*, *4*(4), 16–29.

Lose, T., & Tengeh, R. K. (2015). (PDF) The Sustainability and Challenges of Business Incubators in the Western Cape Province, South Africa. *Sustainability 2015*, *7*(10), 14344–14357. doi: 10.3390/su71014344

Lose, T., Tengeh, R. K., Maziriri, E., & Madinga, N. (2016). (PDF) Exploring the critical factors that hinder the growth of incubatees in South Africa. *Problems and Perspectives in Management*, *14*(3–3), 698–704. doi: 10.21511/ppm.14(3-3).2016.13

Lueck, J., & Avery, M. (2017). Intensifying Work and Chasing Innovation: Incorporating Care in Silicon Valley. *Anthropology of Work Review*, *38*(1), 40–49. doi: 10.1111/awr.12111

Maharati, Y. (2010). *Relationship Between Personal Qualities, Organisational Functions, Environmental Fctors, and Success of Entrepreneurs In Iranians Small Manufacturing Firms* (Master's Thesis, Universiti Pertanian).

Maharati, Y., & Nazemi, S. (2012). Entrepreneurial drives, organizational function, and success of Iranian entrepreneurs. *Advances in Management and Applied Economics*, *2*(2), 1–7. Retrieved from https://ideas.repec.org/a/spt/admaec/v2y2012i2f2_2_7.html

Maia, F., Roseira, C., Ramos, C., Henneberg, S., & Naude, P. (2012). *Understanding Incubator Value - A Business Network Approach to University Incubators*. Presented at the Annual IMP Conference 2012, Rome, Italy.

Man, T., & Lau, T. (2005). *The context of entrepreneurship in Hong Kong : an investigation through the patterns of entrepreneurial competencies in contrasting industrial environments*. *12*(4), 464–481. doi: 10.1108/14626000510628162

Man, T., Lau, T., & Snape, E. (2008). Entrepreneurial Competencies and the Performance of Small and Medium Enterprises: An Investigation through a Framework of Competitiveness. *Journal of Small Business & Entrepreneurship*, *21*(3), 257–276. doi: 10.1080/08276331.2008.10593424

Marima, P. (2013). *Critical Success Factors for the Business Incubation Process in Kenya* (Master's Thesis, United States International University - Africa).

Markman, G. D., & Baron, R. A. (2003). Person–entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human Resource Management Review*, *13*(2), 281–301. doi: 10.1016/S1053-4822(03)00018-4

Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing*, *28*(2), 211–224. doi: 10.1016/j.jbusvent.2012.03.002

McClelland, D. C. (1961). *The Achieving Society* (SSRN Scholarly Paper No. ID 1496181). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=1496181

Meredith, G., Nelson, R., & Neck, P. (1982). *The Practice of Entrepreneurship*. Geneva: International Labour Office.

Meru, A. K., & Struwig, M. (2015). Business-Incubation Process and Business Development in Kenya: Challenges and Recommendations. *Journal of Entrepreneurship and Innovation in Emerging Economies*, *1*(1), 1–17. doi: 10.1177/2393957514554982

Mian, S. (1997). Assessing and managing the university technology business incubator: An integrative framework. *Journal of Business Venturing*, *12*(4), 251–285. doi: 10.1016/S0883-9026(96)00063-8

Mireftekhari, S. P. (2017). *Business incubator, a solution for startup's challenges* (Master's Thesis). University of Oslo, Norway.

Moorman, J. W., & Halloran, J. W. (1993). *Entrepreneurship*. Retrieved from https://trove.nla.gov.au/version/12743319

Naderifar, M., Goli, H., & Ghaljaei, F. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education, In Press*. doi: 10.5812/sdme.67670

Nam, K., & Koh, C. E. (2005). Business use of the internet: A longitudinal study from a value chain perspective. *Industrial Management & Data Systems*, *105*(1), 82–95. doi: 10.1108/02635570510575207

Nasurdin, A., Ahmad, N., & Lin, C. E. (2009). *Examining a model of entrepreneurial intention among Malaysians using SEM procedure*. *33*(2), 365–373.

Ness, R. K. V., & Seifert, C. F. (2016). A Theoretical Analysis of the Role of Characteristics in Entrepreneurial Propensity. *Strategic Entrepreneurship Journal*, *10*(1), 89–96. doi: 10.1002/sej.1205

Njau, J. M., Wachira, D. A. W., & Mwenda, D. L. K. M. (2019). Effect of access to networks provided by business incubators on technology based new venture creation in Kenya. *International Journal of Entrepreneurship and Project Management*, *4*(1), 33–50.

Noltes, G., Masurel, E., & Buddingh, T. (2013). *Knowledge Commercialization and Valorization in Regional Economic Development*.

Obaji, N. O., Cross, D. O., & Olaolu, D. (2018). An Integrated Framework for the Critical Success Factors and Incubator Performance in Nigeria. *Academy of Entrepreneurship Journal*, *24*(1), 1–9.

Ogutu, V., & Kihonge, E. (2016). Impact of Business Incubators on Economic Growth and Entrepreneurship Development. *International Journal of Science and Research (IJSR)*, *5*(5), 231–241.

Okpara, J. O. (2011). Factors constraining the growth and survival of SMEs in Nigeria: Implications for poverty alleviation. *Management Research Review*, *34*(2), 156–171. doi: 10.1108/01409171111102786

Pallant, J. (2007). *SPSS survival manual a step by step guide to data analysis using SPSS for Windows* (3rd ed).

Papzan, A., Zarafshani, K., Tavakoli, M., & Papzan, M. (2008). Determining factors influencing rural entrepreneurs' success: A case study of Mahidasht township in Kermanshah province of Iran. *African Journal of Agricultural Research*, *3*(9), 597–600.

Perdomo, G., Pérez, J., & Lozada, N. (2014). Business incubator research: a review and future directions. *Revista Científica Pensamiento y Gestión*, *37*, 41–65. doi: 10.14482/pege.37.7020

Peters, L., Rice, M., & Sundararajan, M. (2004). The Role of Incubators in the Entrepreneurial Process. *The Journal of Technology Transfer*, *29*(1), 83–91. doi: 10.1023/B:JOTT.0000011182.82350.df

Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the Human Capital Resource: A Multilevel Model. *Academy of Management Review*, *36*(1), 127–150. doi: 10.5465/amr.2009.0318

Pompa, C. (2013). *Literature Review on the Impact of Business Incubation, Mentoring, Investment and Training on Start-up Companies* (p. 17). United Kingdom: Overseas Development Institute.

Pretorius, M., & Shaw, G. (2004). Business plans in bank decision-making when financing new ventures in South Africa. *South African Journal of Economic and Management Sciences*, *7*(2), 221–241. doi: 10.4102/sajems.v7i2.1377

Quazi, H. A., & Wee, Y. (2005). Development and validation of critical factors of environmental management. *Industrial Management & Data Systems*, *105*(1), 96–114. doi: 10.1108/02635570510575216

Ramana, C. V., Aryasri, A. R., & Nagayya, D. (2008). Entrepreneurial Success in SMEs Based on Financial and Non-Financial Parameters. *University Journal of Entrepreneurship Development*, *2*, 32–48. Retrieved from https://repository.uantwerpen.be/desktop/irua

Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success : A general model and an overview of findings. In I. T. Robertson & C. L. Cooper (Eds.), *International Review of Industrial and Organisational Psychology* (pp. 101–142). Chichester: Wiley.

Rauch, A., Frese, M., & Utsch, A. (2005). Effects of Human Capital and Long-Term Human Resources Development and Utilization on Employment Growth of Small-Scale Businesses: A Causal Analysis (1). *Entrepreneurship: Theory and Practice*, *29*(6), 681. Retrieved from https://www.questia.com/library/journal/1G1-138313766/effects-of-human-capital-and-long-term-human-resources

Reynolds, P., & White, S. (1997). *The Entrepreneurial Process: Economic Growth, Men, Women, and Minorities*. Westport, Conn: Praeger.

Rose, R. C., Kumar, N., & Yen, L. L. (2006). *The dynamics of entrepreneurs' success factors in influencing venture growth*. (3), 19.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1–28. doi: 10.1037/h0092976

Salem, M. (2014). (PDF) The Role Of Business Incubators In The Economic Development Of Saudi Arabia. *International Business & Economics Research Journal (IBER)*, *13*(4), 853–860. doi: 10.19030/iber.v13i4.8694

Saunders, M. N. K., Lewis, P., Thornhill, A., & Bristow, A. (2015). Understanding research philosophy and approaches to theory development. In M. N. K. Saunders, P. Lewis, & A. Thornhill (Eds.), *Research Methods for Business Students* (pp. 122–161).

Say, J.-B. (1971). *A treatise on political economy, or The production, distribution and consumption of wealth*. New York: A.M. Kelley.

Schumpeter, J. (1934). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle.* (Vol. 3). Cambridge: Havard University Press.

Schwartz, M. (2008). *Incubator Age and Incubation Time: Determinants of Firm Survival after Graduation?* (IWH Discussion Paper No. 14/2008).

Scillitoe, J. L., & Chakrabarti, A. K. (2010). The role of incubator interactions in assisting new ventures. *Technovation*, *30*(3), 155–167. doi: 10.1016/j.technovation.2009.12.002

Scott, J. (2000). *Social Network Analysis: A Handbook*. Newbury Park: SAGE Publications.

Sharir, M., & Lerner, M. (2006). Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of World Business*, *41*(1), 6–20. doi: 10.1016/j.jwb.2005.09.004

Solymossy, E. (2000). Entrepreneurial Dimensions: The Relationship of Individual, Venture, and Environmental Factors to Success. *Entrepreneurship Theory and Practice*, *24*(4), 79–80. doi: 10.1177/104225870002400406

Staber, U. (1986). Liabilities of newness and smallness: a pilot study of job stability in small firms. *Journal of Small Business & Entrepreneurship*, *4*(2), 42–47.

Stefanovic, M., Goran, D., & Milan, E. (2008). Incubators in developing countries: Development perspectives. *Cqm.Rs*. Presented at the Quality Festival 2008. 2nd International Quality Conference., Kragujevac, Serbia.

Steiner, M., & Solem, O. (1988). Factors for Success in Small Manufacturing Firms. *Journal of Small Business Management*, *26*(1), 51.

Stephens, S., & Onofrei, G. (2012). Measuring Business Incubation Outcomes: An Irish Case Study. *The International Journal of Entrepreneurship and Innovation*, *13*(4), 277–285. doi: 10.5367/ijei.2012.0094

Stevens, J. (1992). *Applied multivariate statistics for the social sciences, 2nd ed*. Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.

Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *SSRN Electronic Journal*, *5*(3), 28-36.

Tamasy, C. (2007). *Rethinking Technology-Oriented Business Incubators: Developing a Robust Policy Instrument for Entrepreneurship, Innovation, and Regional Development?* (SSRN Scholarly Paper No. ID 1061868).

Tang, Z., & Hull, C. (2012). An Investigation of Entrepreneurial Orientation, Perceived Environmental Hostility, and Strategy Application among Chinese SMEs. *Journal of Small Business Management*, *50*(1), 132–158. doi: 10.1111/j.1540-627X.2011.00347.x

Tengeh, R., & Asoba, S. (2016). Challenges to the growth of African immigrant-owned businesses in selected craft markets in Cape Town, South Africa. *Investment Management and Financial Innovations*, *13*(3), 410–418. doi: 10.21511/imfi.13(3-2).2016.14

Tengeh, R. K., & Choto, P. (2017). The relevance and challenges of business incubators that support survivalist entrepreneurs. *Investment Management and Financial Innovations*, *12*(2–1), 150–161.

The World Bank. (2014). *The business models of mLabs and mHubs : An evaluation of infoDev's mobile innovation support pilots* (No. 90132; pp. 1–138).

The World Bank Group. (2016a). *Business incubation definitions and principles*.

The World Bank Group. (2016b). *World Development Report 2016: Digital Dividends*. World Bank Publications.

Theodorakopoulos, N., Kakabadse, N., & McGowan, C. (2014). What matters in business incubation? : a literature review and a suggestion for situated theorising. *Journal of Small Business and Enterprise Development*, *21*(4), 602–622.

Thierstein, A., & Wilhelm, B. (1999). Incubator, technology, and innovation centers in Switzerland: features and policy implications. *39th Congress of the European Regional Science Association*, 15. Dublin, Ireland.

Tilana, L. (2015). *The impact of business incubation in shaping the entrepreneurial mindset among incubatees* (Master's Thesis, University of the Witwatersrand).

Torun, M., Peconick, L., Sobreiro, V., Kimura, H., & Pique, J. (2018). Assessing business incubation: A review on benchmarking - ScienceDirect. *International Journal of Innovation Studies*, *2*(3), 91–100. doi: https://doi.org/10.1016/j.ijis.2018.08.002

Tötterman, H., & Sten, J. (2005). Start-ups: Business Incubation and Social Capital. *International Small Business Journal*, *23*(5), 487–511. doi: 10.1177/0266242605055909

Treisman, L. (2017). *Capturing Learning From Tech Innovation Hubs Across Africa*. Technology.

Tsaplin, E., & Pozdeeva, Y. (2017). *International Strategies of Business Incubation: The USA, Germany and Russia* (SSRN Scholarly Paper No. ID 2994138).

Tse, E. (2002). Grabber–holder dynamics and network effects in technology innovation. *Journal of Economic Dynamics and Control*, *26*(9), 1721–1738. doi: 10.1016/S0165-1889(01)00092-6

Uyanık, G. K., & Güler, N. (2013). A Study on Multiple Linear Regression Analysis. *Procedia - Social and Behavioral Sciences*, *106*, 234–240. doi: 10.1016/j.sbspro.2013.12.027

Vanderstraeten, J., & Matthyssens, P. (2010). *Measuring the performance of business incubators: A critical analysis of effectiveness approaches and performance measurement systems*. Presented at the ICSB Conference, Cincinnati, US.

Voisey, P., Gornall, L., Jones, P., & Thomas, B. (2005). The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development*, *13*(3), 454–468.

Wang, C. K., & Ang, B. (2004). Determinants of Venture Performance in Singapore. *Journal of Small Business Management*, *42*(4), 347–363. doi: 10.1111/j.1540-627X.2004.00116.x

Yang, J. (1998). Key success factors of multinational firms in China. *Thunderbird International Business Review*, *40*(6), 633–668. doi: 10.1002/(SICI)1520-6874(199811/12)40:6<633::AID-TIE7>3.0.CO;2-D

Yusuf, A. (1995). Critical Success Factors for Small Business: Perceptions of South Pacific Entrepreneurs. *Journal of Small Business Management*, *33*(2), 68.

Zahra, S. A. (1993). Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of Business Venturing*, *8*(4), 319–340. doi: 10.1016/0883-9026(93)90003-N

Zaid, A., & Rosni, J. (1994). *Factors Associated With The Level Of Entrepreneurial Performance Of Graduate Entrepreneurs* (Master's Thesis, Universiti Pertanian).

Zhang, H., & Sonobe, T. (2011). *Business Incubators in China: An Inquiry into the Variables Associated with Incubatee Success* (SSRN Scholarly Paper No. ID 1972791).

Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management, 36*(2), 381–404. doi: 10.1177/0149206309335187

Zimmerman, M., & Chu, H. (2013). Motivation, Success, and Problems of Entrepreneurs in Venezuela. *Journal of Management, 14*(2), 76–90.

Zuo, L., You, J., & Liu, S. (2014, June 14). *Research on Incubation of Characteristic Industry in Nationalities University*. Presented at the 2014 International Conference on Management Science and Management Innovation (MSMI 2014), Changsha, China. doi: 10.2991/msmi-14.2014.24

APPENDICES

APPENDIX 1: ETHICAL CLEARANCE LETTER

Strathmore UNIVERSITY

18th July 2019

Ms Tiren, Diana,
P.O.Box 182-00517
Nairobi.
dtiren@gmail.com

Dear Ms Tiren,

RE: ASSESSING THE SUCCESS OF BUSINESS INCUBATION IN NAIROBI COUNTY, KENYA: AN INCUBATEE'S PERSPECTIVE

This is to inform you that SU-IERC has reviewed and **approved** your above research proposal. Your application approval number is **SU-IERC0465/19**. The approval period is **18th July, 2019 to 17th July, 2020.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

FOR: Prof Florence Oloo
Secretary; SU-IERC

Cc: Prof Fred Were
Chairperson; SU-IERC

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APPENDIX 2: RESEARCH PERMIT FROM THE NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION (NACOSTI)

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Ref No. **NACOSTI/P/19/20974/30687** Date: **7th June, 2019.**

Diana Chepchirchir Tiren
Strathmore University
P.O. Box 59857 00200
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessing the success of business incubation in Nairobi County Kenya: An incubatee's perspective."*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **7th June, 2020.**

You are advised to report to **the County Commissioner, and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

APPENDIX 3: CONSENT FORM

CONSENT FORM

I confirm that I have read the information presented to me thoroughly and I understand its contents. I have had the opportunity to ask questions and have been given sufficient time to consider whether or not to participate. I also understand that taking part in this study is voluntary and that I may withdraw at any time.

Declaration by participant:
I hereby consent to take part in this study.

Participant's name: _____

Signature: _____ Date: _____

Consent form administered and explained by:

Administrator's name: _____

Signature: _____ Date: _____

APPENDIX 4: LETTER OF INTRODUCTION

Strathmore UNIVERSITY

09 May 2019

TO WHOM IT MAY CONCERN

Facilitation of Research for Tiren Diana Student No. 014577

Ms Tiren Diana is a postgraduate student in our Master of Commerce (MCom) programme. In partial fulfilment of the MCom degree, students are required to carry out a research project and write a thesis on a contemporary subject within their field of specialisation. Among other activities, the project involves data collection and analysis.

Diana is requesting to gather information to be used in her research. The information she will obtain from your organization will be used for this academic purpose only and will be kept confidential. The results of the survey will be in summary form and will not disclose any individual, company name or company information in any way.

Our MCom seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share the findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

The research study is entitled **"Assessing the success of business incubation in Nairobi county, Kenya: An incubatee's perspective."**

We appreciate your support and shall be willing to provide any further information if required.

Yours faithfully,

Quindos Karanja
Strathmore University Business School
Email: qkaranja@strathmore.edu

APPENDIX 5: QUESTIONNAIRE TO INCUBATEES

The aim of this questionnaire is to assess the efficacy of business incubation on incubatee firm success in Nairobi County, Kenya. Kindly give your responses as accurately as possible. All responses will be treated with utmost confidentiality and anonymity.

(Please tick √ inside the box ☐ where applicable)

SECTION A: DEMOGRAPHIC DATA

1. Age: 18-25 years ☐ 26-35 years ☐ 36-45 years ☐ 46-55years ☐
   56 years and above ☐
2. Gender: Male ☐ Female ☐
3. Name the incubator you are in ……
4. How long have you been in the incubator/incubation programme?

Less than a year ☐ 1 year ☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years ☐
More than 5 years ☐

5. What are your educational qualifications?
   Certificate ☐ Diploma ☐ Graduate ☐ Post Graduate ☐

SECTION B: FIRM SPECIFIC DATA

6. How long has your firm been in business? ……years……. months
7. How many staff does your firm have (not including yourself)?.....
8. What is your annual revenue?
   Ksh.0-Ksh.10,000 ☐ Ksh.10,001-Ksh.50,000 ☐ Ksh.50,001-Ksh.100,000 ☐
   Ksh.100,001-Ksh.500,000 ☐ Ksh.500,001-Ksh.1,000,000 ☐
   Ksh.1,000,001-Ksh.5,000,000 ☐ Over Ksh.5,000,000 ☐
9. What is your annual profit?
   Ksh.0-Ksh.10,000 ☐ Ksh.10,001-Ksh.50,000 ☐ Ksh.50,001-Ksh.100,000 ☐
   Ksh.100,001-Ksh.500,000 ☐ Ksh.500,001-Ksh.1,000,000 ☐
   Ksh.1,000,001-Ksh.5,000,000 ☐ Over Ksh.5,000,000 ☐

10. My business is registered. Yes ☐ No ☐

11. What would you say is the current stage of your business?

Startup/Seed and development ☐

Growth ☐

Establishment ☐

Expansion ☐

Maturity and exit ☐

12. What would you say is the current status of your business?

The business is in its startup stages ☐

The business has been doing poorly ☐

The business is doing well ☐

The business is doing very well ☐

The business is winding down ☐

13. Have you exited/graduated from the incubator? Yes ☐ No ☐ Was evicted ☐

14. If you have graduated from the incubation programme, how long was your business under incubation?

Less than a year ☐ 1 year ☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years ☐

More than 5 years ☐

15. If you have graduated from the incubation programme, what was your annual revenue at the point of graduation/exit from incubation?

Ksh.0-Ksh.10,000 ☐ Ksh.10,001-Ksh.50,000 ☐ Ksh.50,001-Ksh.100,000 ☐

Ksh.100,001-Ksh.500,000 ☐ Ksh.500,001-Ksh.1,000,000 ☐

Ksh.1,000,001-Ksh.5,000,000 ☐ Over Ksh.5,000,000 ☐

16. If you have graduated from the incubation programme, what was your annual profit at the point of graduation/exit from incubation?

Ksh.0-Ksh.10,000 ☐ Ksh.10,001-Ksh.50,000 ☐ Ksh.50,001-Ksh.100,000 ☐

Ksh.100,001-Ksh.500,000 ☐ Ksh.500,001-Ksh.1,000,000 ☐

Ksh.1,000,001-Ksh.5,000,000 ☐ Over Ksh.5,000,000 ☐

17. **SECTION C: ENTREPRENEURIAL TRAITS INFLUENCING INCUBATEE SUCCESS**

Kindly respond to the extent to which you agree with the entrepreneurial traits that influence incubatee success (Tick √ where appropriate: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5).

ENTREPRENEUR TRAIT	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
I am reliable.					
I am creative.					
I love new opportunities.					
I am a risk taker.					
I am innovative.					
I am visionary.					
I am motivated.					
I am strong willed.					
I communicate well.					
I have good leadership qualities.					
I have entrepreneurial experience.					
I make sacrifices for my business.					
I am well informed.					
I have political and social networks.					

18. **SECTION D: ENTREPRENEUR COMPETENCES INFLUENCING INCUBATEE SUCCESS**

Kindly respond to the extent to which you agree with the entrepreneur competences that influence incubatee success (Tick √ where appropriate: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5).

ENTREPRENEUR COMPETENCE	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
I am highly trained					
I have a lot of business experience.					
I am highly educated					

19. **SECTION E: BUSINESS INCUBATION RESOURCE FACTORS CONTRIBUTING TO THE INCUBATEE FIRM SUCCESS IN NAIROBI COUNTY, KENYA**

Kindly respond to the extent to which you agree with the business incubation resource factors that contribute to your firm success as an incubatee in the incubator in which you have been offered incubation services. (Tick √ where appropriate: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5).

No.		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
(1)	**INCUBATEE ACCESS TO BUSINESS TRAINING AND SKILLS**					
	I have the requisite skills in running my business.					
	I am able to solve problems and delegate efficiently.					
	I am able to communicate effectively.					
	I am able to find customers for my business.					
	I have excellent financial management skills.					
(2)	**INCUBATEE ACCESS TO FINANCIAL RESOURCES**					
	I have adequate financial resources for my business.					
	I am able to meet my short-term business obligations.					
	I am able to meet my long-term obligations.					
	I have adequate working capital.					
(3)	**INCUBATEE ACCESS TO NETWORKS AND STAKEHOLDER SUPPORT**					
	I have access to networks for my business.					
	I have established new business with investors, business partners, customers and suppliers.					
	I have obtained referrals from investors, business partners, customers and suppliers.					
	I have nurtured and maintained strategic relationships with my networks.					

SECTION F: INCUBATEE CHALLENGES

20. Kindly rate the challenges you face as an incubatee, using the scale below. Tick √ where appropriate: Not serious = 1; Slightly serious = 2; Moderately serious = 3; Very serious = 4; Extremely serious = 5.

	Not serious	**Slightly serious**	**Moderately serious**	**Very serious**	**Extremely serious**
Lack of knowledge and business skills.					
Lack of funding.					
Lack of business networks.					
Lack of incubator facilities and infrastructure.					
Lack of proper incubator administration.					
Competition from other incubatees or startups.					
Lack of incubatee business documentation.					
Lack of qualified employees.					
Difficulty in getting a good business location.					
Difficulty in getting market for my products/services.					
Difficulty in obtaining supplies/inputs.					
Difficulty in getting a business license.					
Difficulty in getting Electronic Tax Register (ETR) machines.					
Difficulty in managing my business finances.					
High operational costs (water, electricity, telephone and rental charges).					
High costs of being housed in the incubator.					

21. Kindly respond to the extent to which you agree with what can be done to improve business incubation in the incubator in which you have been offered incubation services. (Tick √ where appropriate: Strongly Disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5).

	Strongly Disagree	**Disagree**	**Not Sure**	**Agree**	**Strongly Agree**
Improving business knowledge, skills and expertise of incubatees.					
Increasing availability of funding for incubatees.					
Involving the Kenyan government in incubatee support.					
Involving other stakeholders in incubatee support and providing networking opportunities.					
Improving incubation facilities and services.					
Monitoring and evaluation of performance of incubatees.					

THANK YOU FOR YOUR TIME AND COOPERATION IN FILLING THIS QUESTIONNAIRE!