MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

ENTREPRENEURIAL ECOSYSTEM SUPPORT, ECOSYSTEM ACCESSIBILITY AND PRODUCTIVITY OF INCUBATEES IN KAMPALA - UGANDA

BY

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PLAN A

NOVEMBER, 2023

DECLARATION

I hereby declare that this dissertation is a direct result of my own original ideas and has never been submitted to any institution of higher learning for any academic award.

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APPROVAL

This is to certify that this dissertation has been submitted with our approval as University supervisors.

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DEDICATION

This work is dedicated to my big brother Polly Tumwine Katahwa and my entire family for the continued support and inspiration for me to achieve this milestone.

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ACRONYMS

BDS	Business Development Services
BIs	Business Incubators
CURAD	Consortium for enhancing University Responsiveness to Agribusiness Development
CVI	Content Validity Index
EA	Ecosystem Accessibility
EE	Entrepreneurial Ecosystem
EES	Entrepreneurial Ecosystem Support
ESOs	Ecosystem Support Organisations
GDP	Gross Domestic Products
ICT	Information Communication Technology
MDAs	Ministries,Deparments And Agencies
MUBS	Makerere University Business School
NASE	National Students Enterprises
NGO	Non Government Organisation
SMEs	Small And Medium Enterprises
UEEI	Uganda Entrepreneurial Ecosystem Initiative

ABSTRACT

The purpose of the study was to establish the relationship between Ecosystem dimensions and productivity of incubatees in Kampala-Uganda. This study focussed on Entrepreneurial ecosystem support and ecosystem accessibility as independent variables. On the other hand, productivity of incubatees was the dependent variable. The study used a cross sectional research design with a sample size of 123 incubatees from 6 business incubators from within Kampala. Findings revealed a significant and positive relationship between entrepreneurial ecosystem support, Ecosystem accessibility and productivity of incubtees. Regression findings revealed that a combination of entrepreneurial ecosystem support and ecosystem accessibility predicated up to 41.9% (adjusted R square = 0.419) of the observed variance in productivity of incubatees. The findings revealed that entrepreneurial ecosystem support enables incubatees to ably identify and develop new markets with ease. Also, Ecosystem accessibility enables incubatees to adopt new technologies in its new product development initiatives. It was recommended that both internal and external incubation support services should be strengthened. Furthermore, the study recommends that the incubation centers should embark on changing the incubatees attitude and mindset towards networking, knowledge about networks and perceived benefits from the network.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The increase of entrepreneurs and new ventures globally has triggered various initiatives, strategies and policies as an attempt to support entrepreneurial growth and productivity (Audretsch & Belitski, 2017; Hunt, 2015). The initiatives to establish conducive environments for new ventures have led to the birth of the concept of entrepreneurial ecosystems which is referred to a set of interconnected elements such as leadership, culture, capital, markets, human skills, and support that holistically foster entrepreneurship development and consequently promote economic growth and social welfare (Isenberg, 2010; Tracy *et al.*, 2018).

An entrepreneurial ecosystem support consists of all the elements that are required to sustain entrepreneurship in a particular territory. Van de Ven (1993) proposes four broad components of an ecosystem (or what he termed an 'infrastructure') for entrepreneurship, including institutional arrangements that legitimate, regulate and incentivize entrepreneurship; public resource endowments of basic scientific knowledge, financing mechanisms and pools of competent labor; market demand of informed consumers for the products and services offered by entrepreneurs.; and proprietary business activities that private entrepreneurs provide through R&D, manufacturing, marketing and distribution functions (Van de Ven, 1993).

Accessibility of the ecosystem support services is still a challenge in Uganda (Innovation Village Report, 2020). The concept of accessibility determines the opportunity to move from the area where beneficiaries are located to areas where ecosystem services are produced which can be enabled by mapping and strengthening the roles of intermediaries, the cost of accessing these services and density of social network between the ecosystems support providers and

entrepreneurs. Ecosystem support organisations exist at large more so in city areas like Kampala. (Uganda Entrepreneurial Ecosystem Initiative, 2018).

Productivity of incubatees can be measured by the number and nature of business startups and the entrepreneurial culture built, new product development, financial performance, market entry and growth (Fritsch, 2013; Tsvetkova, 2015; Autio *et al.*, 2014)

According to Al-Kasasbeh et al,(2017), business incubation plays a critical role of accelerating productivity of incubatees by providing a wide range of services such as office equipment, computer equipment/services, business plan and product development, affordable office space, training facility/coaching and business networking. This has taken shape in Uganda where many private and government incubators have been established to offer incubation services and in fact, they have undoubtedly attracted the attention of budding entrepreneurs thus have joined either a public or private incubator to access and benefit from such services (Abaho & Nkambwe, 2017).

Although these Business Incubators have been designed to provide critical support to vulnerable businesses, there is considerable evidence to suggest that the failure of incubatee startups persists even while on these programmes *(*Ssekiziyivu and Banyenzaki, 2021*)*. There is therefore a need to study the nature and strength of the ecosystem support these incubatees receive, the interlinks and support these incubatees receive from other ecosystem actors as well as how easily they access these services provided.

1.2 Statement of the Problem

Entrepreneurial ecosystems drive local economic vibrancy and national economic growth by building fertile environments for the new business startups to thrive thus enhancing on the productivity of incubatees (Acs *et al.,* 2014; Autio *et al.,* 2015). The government of Uganda has tried to improve on Uganda's ecosystem through Uganda Investment Authority, supporting incubation centers, formalizing businesses through Uganda Registration Service Bureau and strengthening policies supporting small and medium enterprises. This has taken shape in Uganda where many private and government incubators have been established to offer incubation services (Abaho & Nkambwe, 2017). Though these Business Incubators have been designed to provide critical support to vulnerable businesses, there is considerable evidence to suggest that the failure of incubatee startups persists even while on these programmes (Ssekiziyivu & Banyenzaki, 2021). However, there is little empirical evidence on the role of ecosystem support towards the productivity of incubatees in Uganda. The study therefore will focus on understanding the relationship between the entrepreneurial ecosystem support, ecosystem accessibility and productivity of incubatees in Kampala Uganda.

1.3 Purpose of the Study

This study aimed at examining the relationship between entrepreneurial ecosystem support, ecosystem accessibility and productivity of incubatees in Kampala Uganda.

1.4 Objectives of the Study

i.) To examine the relationship between entrepreneurial ecosystem support and productivity of incubatees in Kampala district.

ii.) To examine the relationship between ecosystem accessibility and productivity of incubatees in Kampala district.

iii.) To examine the combined effect of entrepreneurial ecosystem support, Ecosystem accessibility on productivity of incubatees in Kampala district

1.5 Research Questions

i.) What is the relationship between entrepreneurial ecosystem support and productivity of incubatees in Kampala district?

ii.) What the relationship between ecosystem accessibility and productivity of incubatees in Kampala district?

iii.) What is the combined effect of entrepreneurial ecosystem support, Ecosystem accessibility on productivity of incubatees in Kampala district?

1.6. Content Scope

The study examined the relationship between Entrepreneurial ecosystem support, Ecosystem accessibility and Productivity of incubatees in Kampala Uganda, Entrepreneurial ecosystem support, and Ecosystem accessibility was the independent variables and Productivity of incubatees was the dependent variable.

1.6.1 Geographical Scope

This study was conducted among incubatees in Kampala Uganda . This was because Kampala has the most recognized Ecosystem support organizations like NGOs, Government MDAs, financial support centers, Business Development Services, Academic Institutions, Incubation centers etc. Kampala is the business hub in the country.

1.7 Significance of the study

i. The results of this study will be useful to several stakeholders such as entrepreneurs, ecosystem support institutions, policymakers, and academia and development partners.

ii. For entrepreneurs, the findings will be useful in presenting approaches and direction of the ecosystem opportunities that can be seized to generate entrepreneurial benefits such as access to support such as services, technical support, markets and entrepreneurial information most especially the business incubation ecosystem.

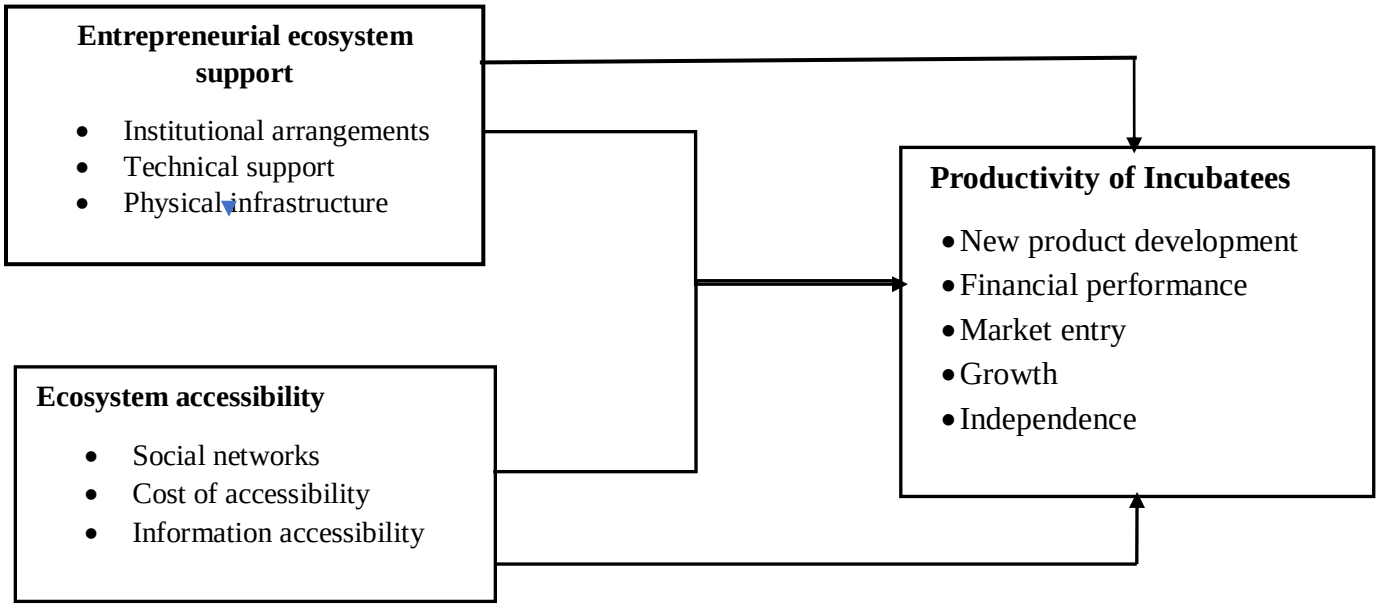
iii. The study also will demonstrate the influence the ecosystem actors have towards improving the business environment for the entrepreneurs

iv. The study will also help to identify the key challenges both the entrepreneurs and the ecosystem actors face with in the ecosystem environment.

v. The study will also inform the ecosystem actors of the missing links they need to address to ensure improvement on their delivery of services.

vi. The study shall also guide on the further research areas to focus on by future reseachers interested in this research area.

1.8 Conceptual Framework



Source: Adopted and modified from Hacket and Dilts (2004), Ssekiziyivu and Banyenzaki (2021).

The framework indicates the relationship between entrepreneurial ecosystem support and ecosystem accessibility as independent variables and productivity of incubatees as the dependent variable. It is conceptualized that entrepreneurial ecosystem support and ecosystem accessibility influence productivity of incubatees. Entrepreneurial ecosystem support was measured by institutional arrangements, technical support and physical infrastructure. Ecosystem accessibility was measured by social networks, information access about ESOs and cost of accessibility, (Spiekermann *et al.*, 2002) while, productivity of incubatees was measured by new product development, financial performance, market entry, growth and Independence (Fritsch, 2013; Tsvetkova, 2015).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the theoretical review in this case the business incubation theory, literature , the concept of business incubation theory , social capital theory, business incubation in Uganda productivity of incubatees, relationship between ecosystem support and productivity of incubatees, ecosystem accessibility and productivity of incubatees and the combined effect of entrepreneurial ecosystem support, Ecosystem accessibility on productivity of incubatees in Kampala district

2.1 Theoretical Review

2.1.1 Business incubation theory

Hackets and Dilts (2004) advanced business incubation theory that looks at measuring performance in terms of incubatee growth and financial performance at the time of incubator exit as being a function of the incubator's ability, developed over time and with the accumulation of innovative venture development capabilities and resources. The theory assumes creation of options through the selection of weak-but-promising transitional potential firms for admission to the incubator, and to exercise those options through monitoring, counseling, and the infusion of various resources.

Grimaldi and Grandi (2005) undertook a similar study where they utilized the business incubation theory by focusing on integration of two models aiming at reducing the start-up costs for incubatees by providing tangible assets, and offer intangible assets, such as finance, accelerating market growth to ensure good performance of the start-ups. The same study utilized the same business incubation theory to stress the importance of alignment of the business

incubation process between the incubator's incentives, nature and objectives of the incubatees in a bid to guarantee productivity of incubatees start-up firms.

2.1.2 Social Capital Theory

The social capital theory holds that social relationships can be resources that contribute to the development and accumulation of human capital (Machalek & Martin, 2015). In addition, social capital can simply be defined as all social relationships and social structures that provide members of a network with resources such as knowledge, human capital, and information. Social capital is also concerned with certain social structures, which facilitate the actions of individuals and like other forms of capital (cultural capital, physical capital, and human capital) makes the achievement of certain ends possible which would be unachievable in its absence (Coleman, 1988). Scholars (Bourdieu, 1986; Claridge, 2004; Coleman, 1988; Machalek & Martin, 2015; Putnam, 1993) have emphasized one important aspect of social capital: its ability to provide resources that benefit a specific group of people who are in a relationship, such as members of a network. The above exposition must be related to an entrepreneurial ecosystem. The ecosystem is made up of elements that correlate to drive entrepreneurship development in a specific area; we can view an entrepreneurial ecosystem as a network whose members depend on each other for survival. In line with the definition of social networks advanced by scholars, entrepreneurial ecosystem components cooperate through relationships (social relationships, which are already a resource) for a productive and mutual benefit; moreover, social capital exists in the relationship between and among actors (Coleman, 1988). In other words, if there is a lack of coordination and cooperation (interconnectedness) among the ecosystem's components, there was no mutual benefit such as the sharing of resources, knowledge, and human capital that aids the overall development of the entrepreneurial ecosystem. Again, social capital exists in the relationships

among the ecosystem elements. Considering this assertion, entrepreneurial ecosystems research can be grounded in social capital theory.

2.2 Business Incubation in Uganda

In Uganda, efforts have been made to set up incubation centres since the post-independence days, (1960's) to provide support to SMEs, research and development, innovation and learning activities, and nurturing start-up businesses. These incubation centres have been set-up in universities and Research institutions to help business start-ups while providing laboratories for students and entrepreneurs in which to experience the real world of business. According to Abaho and Nkambwe (2017), business incubation in Uganda has been well received at different levels providing different services for example institutions of higher learning such as Makerere University, Makerere University Business School and Kyambogo university have established business incubation centres to develop and churn out strong and self-sustaining businesses to drive the economic transformation of Uganda. Abaho and Nkambwe (2017) further report that the Ugandan incubation system is undergoing a number of challenges such as; insufficient business support services, inadequate physical and operational infrastructure, inadequate capabilities to exploit the opportunities in the emerging sectors such as ICT, biotechnology and new materials, low level of private sector participation and insufficient capital funding (Mutambi *et al.,* 2010). Kamugasha, (2015) adds that some of the failures in incubate services to SMEs is that SMEs waste time and money developing already existing and protected products regardless of the advice given by the incubators

Outbox is a hybrid of an incubator, innovation lab and co-working space that specializes in supporting African entrepreneurs interested in using technology to build high-growth businesses with mentorship, training and co-working space. Outbox is built on the principles of

sustainability, solving real problems, collaboration, openness and transparency, commitment and personal excellence.

The Consortium for enhancing University Responsiveness to Agribusiness Development Ltd (CURAD) is an innovative autonomous agribusiness incubator established as a public-private partnership initiative with the aim of supporting farmers, famer organizations, agro entrepreneurs, young men and women students, graduates, skilled and unskilled, start-ups and SMEs to grow and develop their business ideas. It is driven to produce innovative young entrepreneurs and agribusiness leaders that champion productivity and profitability of the agricultural enterprises that can spinoff new enterprises. NASE-AFRICA is a social enterprise and incubation center that focuses on facilitating entrepreneurship and enterprise skills amongst youth and universities in Uganda.

2.3 Productivity of incubatees

Productivity of incubatees refers to any productive entrepreneurial activity that contributes directly or indirectly to the net output of the economy or capacity to produce additional output and ultimately increase total welfare after the incubation process (Acs *et al.,* 2017). Nicotra *et al.* (2018) further added that the total value creation by productivity of incubatees should exceed the sum of the value created by individual entrepreneurs. Targeting and stirring productive entrepreneurship promotes innovation, competition and market efficiency that finally increase people's welfare (Audretsch & Belitski, 2017). Early-stage entrepreneurial activities are comprised of both potential and nascent entrepreneurs; people who are engaged in the process of creating new ventures. To that end, high rates of early-stage entrepreneurial activities, particularly those that are opportunity-driven, entails that the entrepreneurial atmosphere in a

certain economy is dynamic and vibrant (Kansheba & Wald, 2021). and that the formal employment sector is sufficiently strong to provide support services to the young entrepreneurs.

High growth start-ups are normally rare, take time to be formed, technology demanding and therefore few entrepreneurs can sustain their business to that level (Peci *et al.,* 2012). Despite being few, high growth start-ups provide substantial contribution to economic growth and development. Thus, government support and initiatives should not be confined towards emphasizing the establishment of entrepreneurial ventures per se but also towards encouraging innovations that accelerate scale up and high growth of those established ventures (Isenberg, 2010). This boosts the productivity of such entrepreneurial actions in line of product development and easy access to markets.

Entrepreneurs and start-ups are focal and key drivers of the productivity of incubatees (Acs *et al.,* 2018). These are the ones that initiate entrepreneurial decisions about what, where and when to invest, innovate, when to start or expand the venture (Isenberg, 2010). Supports from other Entrepreneurial Ecosystems 'actors such as financial providers, training and education institutions, business incubators and accelerators, community, government need to be strategically directed towards enhancing efficient and effective entrepreneurial participations,

which improves Productivity of incubatees. The idea is that the stronger the Entrepreneurial Ecosystem vibrance (quality) characterized by abundance of actors and their variant supporting activities, easy accessibility, the higher the entrepreneurial attitude and morale by entrepreneurs, and ultimately the higher the birth rate of early-stage and high-growth entrepreneurial activities leads to total productivity of incubatees (Kansheba & Wald, 2021).

2.4 Ecosystem support and productivity of incubatees

While work on entrepreneurial ecosystems is still in its infancy, there are already several empirical studies showing how a rich entrepreneurial ecosystem enables productivity of incubatees and subsequent value creation at the regional level (Fritsch, 2013; Tsvetkova, 2015; Autio *et al.*, 2014). For example, Mack and Mayer (2016) explore how early entrepreneurial successes and productivity in Phoenix, Arizona, has contributed to a persistently strong entrepreneurial ecosystem based on visible success stories, a strong entrepreneurial culture and supportive public policies. Similarly, Spigel's (2017) study of entrepreneurial ecosystems in Waterloo and Calgary, Canada, suggests that while ecosystems can have different structures and origins, their productivity lies in their ability to create a cohesive social and economic system that supports the creation and growth of new ventures. Other work on regions such as Silicon Valley and Route 128 (Saxenian, 1994; Kenney & Von Burg, 1999), Washington DC (Feldman, 2001).

A highly developed physical infrastructure is a key element of the context to enable economic interaction and entrepreneurship (Audretsch *et al.*, 2015). Access to financing preferably provided by investors with entrepreneurial knowledge is crucial for investments in uncertain entrepreneurial projects with a long-term horizon (Kerr & Nanda, 2009). Institutions provide the fundamental preconditions for economic action to take place (Granovetter, 1992) and for resources to be used productively (Acemoglu *et al.*, 2005). Institutions are not only a precondition for economic action to take place, they also affect the way entrepreneurship is pursued and the welfare consequences of entrepreneurship (Baumol, 1990).

Furthermore, business incubators (BIs) are "innovative infrastructures" of the Entrepreneurial Ecosystem providing networking support to entrepreneurs (Fernández *et al.,* 2015, p. 783). BIs provide space, help in writing the business plan, networking, access to angel investors, marketing and advisory services, and mentoring (Madaleno *et al.,* 2018). They enhance technological entrepreneurship, commercialization of technology, the growth of the venture and simultaneously help build local economy hence accelerating productivity of incubatees (McAdam & McAdam, 2008; Phillips, 2002; Thierstein & Willhelm, 2001).

Entrepreneurs rate resources, credible status and networking opportunities as significant facilities of business incubators (McAdam & Marlow, 2007). Peters *et al.*, (2004) propose that in-depth interviews of incubation management and incubatees could reveal which incubator resources lead to venture growth and thus productivity of incubatees. Bollingtoft and Ulhoi (2005) encourage entrepreneurs to undertake networking as a venture critical activity and to evaluate the constituents of their network within the incubator. Hughes *et al.,* (2007) believe that entrepreneurs learn quickly within incubators by exploiting the knowledge they gain through networking. Soetanto and Jack's (2016) empirical study in three developed economies found that the incubators' networking support significantly improves firm performance.

In Uganda, several ecosystem support activities have been built more especially on institutional levels. Several universities in Kampala like Makerere University, MUBS offer training and certificates/degrees in entrepreneurship. Though curricula vary across the schools, they all tend to be highly theoretical and rarely make use of locally relevant business case studies. Likewise, entrepreneurship has also been incorporated into the national secondary school curriculum, though this also largely remains theoretical, lacking clear bridges to practice. (Uganda Entrepreneurial Ecosystem Initiative, 2018).

2.5 Ecosystem accessibility and productivity of incubatees

Accessibility is defined as the usability of a product, service, environment or facility by people with the widest range of capabilities (International Standards Organization, 2001). Accessibility analyses offer an opportunity to identify the gap between the ecosystems' potential to produce services and the actual usage possibilities of such services Potential accessibility is a construct of two functions, the activity function representing the activities or opportunities to be reached and the impedance function representing the effort, time, distance or cost needed to reach them (Spiekermann *et al.*, 2002). Feld (2012), for example, emphasized the interaction between the players in the ecosystem (with high network density, many connecting events and large companies collaborating with local (start-ups) and access to all kinds of relevant resources (talent, services, capital), with an enabling role of government in the background.

However, a supportive culture is not enough to sustain long-term productivity of incubatees. Entrepreneurs need to draw on resources such as risk capital, talented workers, and mentorship from experienced entrepreneurs as they start and scale new ventures. These resources can be termed "social" because they are primarily accessed through social networks. Dense social networks within regions have long been seen as a key criterion of entrepreneurship and innovation because they support the circulation of knowledge about new opportunities, new technologies, and the entrepreneurship process more generally (Hoang & Antoncic, 2003). Strong networks connect entrepreneurs with two key resources necessary for venture growth: investment and employees. Angel investors and venture capitalists use their own social networks to vet and evaluate potential investments (Powell, Koput, Bowie, & Smith-Doerr, 2002), and entrepreneurs use their networks to identify talented workers with the right skills to thrive in a

high-growth start-up (Wapshott & Mallett, 2016). They also allow entrepreneurs to learn from each other, helping them avoid common pitfalls associated with growth (Aldrich & Yang, 2014).

Finally, material attributes are the institutions and organizations rooted in a particular place that support high-growth entrepreneurship. These include physical entities such as research universities and other support organizations (e.g., incubators or accelerators), specialized firms that focus on start-up needs, and a region's physical telecommunications and office infrastructure (Patton & Kenney, 2005). These material attributes include more amorphous factors, such as public policies tied to a place that supports entrepreneurship through direct financing or training activities and the strength of the local market into which entrepreneurs can sell. Material attributes encompass both government-sponsored programs such as incubators and entrepreneurship training centers and more informal institutions such as legal rights and open markets (Bathelt & Glucker, 2011).

2.6 Ecosystem support, Ecosystem Accessibility and Productivity of Incubatees

According to Howells (2006), ecosystems are super imposing structures that play a collaborative part in upgrading the technological and knowledge level of entrepreneurial firms by operating as "informal information disseminators." Trust, norms and efficient institutions are precursors to the development of an EE (Audretsch & Belitski, 2017). Entrepreneurial Ecosystems entities like incubators/accelerators step in to act as "informal information disseminators" in emerging economies and provide entrepreneurs with support, mentoring, advice and networking opportunities (Goswami *et al.,* 2018). Sheriff and Muffatto (2018, p. 618) describe entrepreneurial ecosystem networks as "collaborative relationships" which revolve around the needs of entrepreneurs. Feld (2012), for example, emphasized the interaction between the players in the ecosystem (with high network density, many connecting events and large companies

collaborating with local (start-ups) and access to all kinds of relevant resources (talent, services, capital), with an enabling role of government in the background. Networks of entrepreneurs provide an information flow, enabling an effective distribution of knowledge, labour and capital (Malecki, 2009). Furthermore, Soetanto and Jack's (2016) empirical study in three developed economies found that the incubators' networking support significantly improves firm performance thus improved productivity of incubatees.

Theodoraki *et al*. (2018) advocate the need for qualitative approaches to understand socially complex entrepreneurial ecosystems. There is a need to study how the development of EE networks Contribute to the growth and evolution of EEs (Mason & Brown, 2014). Entrepreneurs seek Advice and knowledge from their social networks and a well-networked person is better placed to identify entrepreneurial opportunities than a poorly networked one (Aldrich & Ruef, 2006).

Some entrepreneurial networks are more complex than others and researchers need to study how Entrepreneurs are socially embedded within the EE (Neumeyer & Santos, 2018). Key EE entities Such as incubators/accelerators impart training, coordinate between entrepreneurs and the Mentors, investors and policy makers and they help build entrepreneurial connections to the). Khanna (2018) posits that emerging economies suffer from a trust deficit that arises out of inadequate institutional support. This lack of "ambient trust" (Khanna, 2018, pp. 1-3) affecting networking outcomes (Kuwabara *et al.,* 2018) affects the entrepreneur's access to resources, hindering the productivity of incubatees amongst ecosystem acotors (Stam *et al.,* 2014). A highly developed physical infrastructure is a key element of the context to enable economic interaction and entrepreneurship in particular (Audretsch *et al.,* 2015).

Therefore, understanding how Ecosystem support production is connected with beneficiaries is recognized as an important issue in the framework of productivity of incubatees that needs further attention. Reliable evaluation of Ecosystem Support requires assessment of the actual needs of human societies in relation to the service supply that is available, as well as an assessment on how people are able to reach the main demand areas through spatial flows. The pathways and processes of service flows from areas of potential supply to those of potential demand.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The chapter covers research design, study population, sample size and sampling procedure, data collection methods, research instruments, measurement of variables, reliability and validity, data analysis, ethical considerations and limitations of the study.

3.1 Research design

A cross sectional design was used since the research was carried out at a particular time and data was collected at that same time to answer the research questions. This was proposed because it is adequate to collect data once at a given time. A quantitative data collection approach was employed, to allow the collection of large amount of data from a sizable population in a highly economical way. It involved use of quantitative analytical techniques to examine the relationship between Entrepreneurial ecosystem support,ecosystem accessibility and productivity of incubatees.

3.2 Study Population

The study population consisted of 173 incubatees from 6 incubators in Kampala. This is because these incubators were found to be actively engaged in incubation activities within in Kampala (Uganda Entrepreneurial Ecosystem Initiative phase II report, 2018).

3.3 Sample size

The study used a sample size of 123 incubatees guided by the Krejce and Morgan (1970) table for selecting samples from a given population.

3.4 Sampling techniques and procedure

The study adopted a simple random sampling to select the targeted sample. All the incubatees identified within the 6 incubation centres formed one sampling frame. This method was preferred because it gives an equal chance to each participant in the population to be selected and the results are more generalizable (Walliman, 2017).

3.4.1 Unit of analysis

The unit of analysis comprised of the incubatees who completed the incubation programs from the 6 incubators. This was because they are considered to be of a large sample frame.

3.4.2 Unit of inquiry

The unit of inquiry comprised of the incubatees. This was preferred because of their position and knowledge about the subject under investigation (McEvily & Marcus, 2005).

3.5 Sources of data

Data was collected from incubatees in the field from the incubation centers in kampala as the primary data source. The reason for selecting this type of data was because Ghauri and Gronhaug (2005) found out that primary data is advantageous because it is collected for the specific purpose it was initially meant for**.**

3.6 Data collection instruments

Data was collected using a self–administered close-ended questionnaire, rated using a 4–point Likert scale. The questionnaire was divided into major sections to address specifically every variable. These included , Background Information.entrepreneurial ecosystem support,ecosystem accessibility and productivity of incubatees A four point rating scale ranging from Strongly Disagree (1), Disagree (2), Agree (3), and Strongly Agree (4) were provided to the experts to

check on language clarity, relevancy, comprehensiveness of content and the length of the instruments. The 4-point Linkert scale was selected because it is regarded as the best tool for obtaining quantitative data (Sekaran, 2003). It is in English language which is easy to understand and has the strength and ability to generate data from a large number of respondents

3.7 Measurement of variables

The study measured variables based on constructs developed from different researchers and academia. The dependent variable (productivity of incubatees) was measured using constructs of new product development, financial performance, Market entry, growth and independence (Fritsch, 2013; Tsvetkova, 2015; Autio *et al.,* 2014). This study developed items based on the understanding of each of the items which was subjected to the 4-Likert scale.

Entrepreneurial ecosystem support was measured using constructs of institutional arrangements, technical support and physical infrastructure (Audretsch *et al.,* 2021).

Ecosystem accessibility was measured by social networks, information access about ESOs and cost of accessibility, (Spiekermann *et al.,* 2002).

A four-point Linkert Scale survey questionnaire was used to obtain the data. The four-point scale is relatively easy for respondents to understand and use, as it offers a limited set of response options (Likert, 1932). The intention was to determine opinions of the incubatees on the different constructs and discover how those aspects influence productivity of incubatees.

3.8 Reliability and validity of the measurement instrument

3.8.1 Validity

Validity of the questionnaire was established using Content validity Index (CVI) to determine the relevance of the questions in measuring the variables (Campbell & Stanley, 1966). In order to

test and improve the validity of the questionnaire, the researcher availed the first draft of the instrument to experienced researchers and experts for constructive criticism and then later to the supervisors. These were requested to look at the items and check on language clarity, relevancy, comprehensiveness of content and the length of the instruments. Thereafter, the researcher made necessary adjustments in respect to the comments raised and with the supervisors' advice. The researcher went ahead to calculate a Content Validity Index (CVI).The questionnaire was given to experts who rated the questions by providing their comments and the researcher used their judgments to change some of the items in the questionnaire.

Table 3.1: Shows Validity results

	CVI	Number of items
Entrepreneurial ecosystem support	0.73	19
Ecosystem accessibility	0.81	19
Entrepreneurial productivity	0.75	21

Source: Primary data

3.8.2 Reliability

Reliability measures the consistence of the instrument in measuring the consistence with which the instrument measures the concepts under study (Sekaran, 2003). In order to establish the reliability of the instrument, the researcher conducted a pilot study. Using the results of the pilot study, the reliability of the instruments was computed using the Cronbach's Alpha Coefficient. (Nunnally, 1978). As a rule of thumb, a Cronbach's alpha score was established. Once the cronbach's alpha statistic for all the variables was above the 0.70, there was relaibility according to Nunnally and Nunnally (1978)

Table 3.2: Shows Reliability results

Variable	Number of items	Cronbach's Alpha
Entrepreneurial ecosystem support	19	0.939
Ecosystem accessibility	19	0.913
Entrepreneurial productivity	21	0.926

3.9 Data processing, analysis and presentation

Data from the field was coded, entered into SPSS, edited and cleaned. The process of cleaning included missing value analysis and testing for outliers. This was followed by testing the parametric assumptions. This was necessary given the nature of the research objectives. Data analysis techniques that was adopted was; Pearson's correlation to test the associations between the study variables and regression analysis to determine the predictive power of the variables. At bivariate level, entrepreneurial ecosystem support and ecosystem accessibility the independent variables was correlated with productivity of incubatees as a dependent variable using Pearson's Correlation Coefficient

3.10 Ethical Considerations

The researcher obtained an introductory letter from the university research coordinator for assuring respondents that information is for academic purposes only. The researcher also sought for permission from the managers of the incubation centers before he started data collection form the respondents. The researcher ensured to appreciate the respondents for their time used while answering the questionnaires.

3.11 Limitations of the study

i. Accessibility of the incubatees who finalised the incubation process was a great challenge.

ii Very tight programs at the incubation centers slowed down data collection from incubatees who still access the centers for post incubation support activities.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter shows data presentation, analysis and interpretation of the findings from the study following study objectives. This chapter starts with response rate, demographic characteristic of respondents, correlation, regression and then findings representing the study objectives.

4.1 Response rate

The researcher distributed 123 questionnaires to the respondents of which only 102 of the respondents returned the questionnaires. This gave a response rate of 82.9% and was very good for analysis (Mugenda & Mugenda, 2003).

4.2 Demographic characteristics of respondents

This section presents characteristics of respondents in terms of Age, Gender, Level of Education and Marital status.

4.2.1 Gender of respondents

The gender of the respondents is indicated in table 4.1 below.

Table 4.1: Showing Gender of the respondents

	Frequency	Percentage
Female	49	48.0
Male	53	52.0
Total	**102**	**100.0**

Source: Study Findings

Majority of the respondents were Male at 52% while 48% were female. This implies a fair distribution of gender inclusion in the study reducing gender bias.

4.2.2 Educational level

The education level of the respondents is indicated in table 4.2 below.

Table 4.2: Showing Educational level of the respondents

	Frequency	Percentage
Certificate	10	9.8
Degree	56	54.9
Diploma	24	23.5
Masters	9	8.8
Secondary	3	2.9
Total	102	100.0

Source: Study Findings

The majority of the respondents being Bachelor holders at 54.9%, these were followed by diploma holders at 24%, certificate holders at 10%, master holders at 9% and secondary were 3%.

4.2.3 Age of respondents

The age bracket of the respondents is indicated in table 4.3 below.

Table 4.3: Showing Age of the respondents

	Frequency	Percentage
18-24	49	48.0
25-29	38	37.3
30-34	7	6.9
35-49	8	7.8
Total	**102**	**100.0**

Source: Study Findings

The age of the respondents was established to determine the maturity of the respondents and the results revealed that the majority of the respondents (48%) were aged between 18-24 years, followed by the 25 – 29 years age group (37.3%), the 35-49 year age group (7.8%), and then lastly the 30-34 year age group (6.9%) This age distribution reveals that the most of the incubatees were in the youthful age.

4.2.4 Marital status

The marital status of the respondents is indicated in table 4.4 below.

Table 4.4: Showing Marital Status of the respondents

	Frequency	Percentage
Married	27	26.5
Single	75	73.5
Total	**102**	**100.0**

Source: Study Findings

The marital status of respondents was established indicated that majority of the respondents were single (73.5%), followed by those who were married (26.5%).

4.3 Findings based on incubatees

4.3.1 How long did you stay in the incubator

The number of years the business has been in operation is shown in table 4.5 below.

Table 4. 5: showing how long an incubatee had stayed in the incubator

	Frequency	Percentage
0-3 months	28	27.5
10-12 months	13	12.7
4-6 months	24	23.5
7-9 months	29	28.4
Above 12 months	8	7.8
Total	**102**	**100.0**

Source: Study Findings

Table 4.5 above shows how long an incubatee had stayed in the incubator .

The majority of the incubatees (28.4%) had worked with the incubator for a period of 7-9 months, followed by those who had spent above 0-3 months at (27.5%) Only 23.5% had been under incubation for a period between 4-6 months. 12.7% of the respondents had spent between 10-12 months under incubation. 7.8% of the respondents had 12 and above months in the incubator. Such results indicate that the respondents had prior knowledge about business

incubation and their views reflected perfectly what transpires in the business incubation space since majority had taken enough periods working with incubators.

4.3.2 Form of business ownership

The form of business ownership is shown in table 4.6 below.

Table 4.6 showing form of business ownership

	Frequency	Percentage
Partnership	35	34.3
Sole proprietorship	67	65.7
Total	**102**	**100.0**

Source: Study Findings

The majority of the incubatees(65.7%) were under sole proprietorship while 34.3% were under partnership as a form of business ownership.

4.3.3 Under which industry does the business belong?

The industry the business belongsis shown in table 4.7 below.

Table 4.7 showing the industry the business belongs

	Frequency	Percentage
Agro-processing	45	44.1
ICT	19	18.6
Manufacturing	12	11.8
Other	8	7.8
Service	18	17.6
Total	**102**	**100.0**

Source: Study Findings

The incubatees under study were operating in different sectors of the economy and the results indicated that majority of the start-ups were involved in the service industry at 33.7%. This was followed by 28.7% start-ups engaged in both Information communication technologies and agro processing. Start-ups in the manufacturing industry comprised of 8.9%. These results indicate

why the government is highly encouraging Ugandans to engage in manufacturing industry and this explains why service industry contributes highly to country's Gross Domestic Product (GDP).

4.4 Correlation analysis

Pearson's Correlation coefficient was used to determine the degree of association between the study variables. Correlation analysis was used to answer two research questions; What is the relationship between entrepreneurial ecosystem support and productivity of incubatees in Kampala district?, What the relationship between ecosystem accessibility and productivity of incubatees in Kampala district? Results of the correlation tests are presented in table 4.7 below.

Table 4.8: Correlation results

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Entrepreneurial Ecosystem Support (1)	1													
Institutional Arrangements (2)	.931**	1												
Physical Infrastructure (3)	.902**	.721**	1											
Technical l hn,Support (4)	.680**	.452**	.669**	1										
Ecosystem Accessibility (5)	.685**	.620**	.611**	.570**	1									
Social Networks (6)	.618**	.615**	.484**	.433**	.817**	1								
Information Accessibility (7)	.595**	.518**	.566**	.513**	.896**	.570**	1							
Cost of Accessibility (8)	.588**	.532**	.533**	.491**	.850**	.526**	.712**	1						
Productivity of Incubatees (9)	**.647****	**.681****	**.504****	**.328****	**.522****	**.534****	**.480****	**.365****	**1**					
New Product Development (10)	.210*	.176	.151	.298**	.300**	.241*	.338**	.180	.572**	1				
Financial Performance (11)	.561**	.622**	.442**	.203*	.440**	.495**	.381**	.297**	.878**	.360**	1			
Growth (12)	.574**	.643**	.437**	.132	.400**	.464**	.354**	.263**	.866**	.307**	.754**	1		
Market Entry (13)	.668**	.631**	.582**	.437**	.539**	.487**	.509**	.411**	.869**	.413**	.723**	.720**	1	
Independence (14)	.567**	.645**	.386**	.228*	.419**	.459**	.340**	.314**	.758**	.130	.638**	.663**	.621**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source; primary data

4.4.1 Entrepreneurial ecosystem support and productivity of incubatees

Table 4.7 above revealed that there is a positive and significant relationship between entrepreneurial ecosystem support and productivity of incubatees ($r=0.647^{**}$ $p\leq.01$). This implies that any positive change in entrepreneurial ecosystem support is associated with a positive change in the productivity of incubatees. This also means that when an incubatee receives technical guidance on improvement of business plans, prototyping and business model development, acquired skills of writing a good business plan and pitching for his/her business idea, he or she is more likely to able to develop new products with ease to suit the changing needs, obtain a greater levels of sales and market share

4.4.2 Ecosystem accessibility and productivity of incubatees

Table 4.7 above indicated that there is a positive and significant relationship between ecosystem accessibility and productivity of incubatees ($r=.0.522^{**}$ $p\leq.01$). This means that any positive change in ecosystem accessibility is associated with a positive change in the productivity of incubatees; the positive relationship implies that the more the incubatees are able to easily access support from other actors like government, financial institution, angel investors through the incubation hub, interact closely with roles models, mentors and business advisors with in the ecosystem, the more they can ably raise finances from different sources before leaving the incubator, able to adopt new technologies in its new product development initiatives.

4.5 Regression analysis

The regression analysis model was used to test the effect of the independent variables on the dependent variable. This was done to determine the extent to which the independent variables (entrepreneurial ecosystem support and ecosystem accessibility) impact on the dependent variable (productivity of incubatees). That is, the percentage change in the dependent variable

accounted for by the changes in the independent variable. Regression findings are presented table 4.8

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	20.809	4.927		4.223	.000
Entrepreneurial Ecosystem Support	.553	.105	.546	5.242	.000
Ecosystem Accessibility	.173	.122	.148	1.422	.158

Model summary

R	R Square	Adjusted R Square	F Change	Sig. F Change
.656	.430	.419	37.414	.000

a. Predictors: (Constant), Entrepreneurial Ecosystem Accessibility, Ecosystem Support

b. Dependent Variable: Productivity of Incubatees

Multiple regression analysis was used to determine the combined effect of predictor variables on the dependent variable. Regression findings in table 4.8 above revealed that a combination of entrepreneurial ecosystem support and ecosystem accessibility predicated up to 41.9% (adjusted R square = 0.419) of the observed variance in productivity of incubatees. Entrepreneurial ecosystem support was also found to be the most significant predictor of productivity of incubatees (Beta = 0.546, Sig = .000). This means that a positive change in entrepreneurial ecosystem support leads to 54.6% change in productivity of incubatees. Ecosystem accessibility was observed to be the least significant predictor of productivity of incubatees (Beta = 0.148, Sig = .158). This means that a positive change in ecosystem accessibility leads to 14.8% change in productivity of incubatees.

The regression model was also found to be well specified (F Statistic=37.414 , p <.01), meaning that at least one of the independent variables captured in the model is a suitable predictor of Productivity of incubatees

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter is comprised of the discussion of findings, conclusion, recommendations, areas for further research and limitations of the study. Research findings are discussed based on the study objectives while drawing comparison between the findings and literature review.

5.1 Discussion of findings

5.1.1 Entrepreneurial ecosystem support and productivity of incubatees

The findings showed a positive and significant relationship between entrepreneurial ecosystem support and productivity of incubates. The results of the regression analysis indicated that entrepreneurial ecosystem support is the most significant predictor of productivity of incubates. This implies that incubatees who receive a strong entrepreneurial ecosystem support are in position to ably identify and develop new markets with ease, undertake all activities associated with bringing a product to a targeted market. This means that incubatees recognise the support provided and also have a level of trust to mention them. They can be utilised to continue providing support to the incubatees. It also means that this kind of support is well networked within the ecosystem.

This finding is consistent with Kansheba and Mukiza (2020) who found out that institutional capital through government entrepreneurial programmes and physical infrastructures have positive and statistically significant influence on productivity of incubates. he further added that knowledge capital through research and development transfer has positive and statistically significant influence on productivity of incubates. According to Audretsch, Belitski and

Cherkas(2021). Institutional arrangements through government entrepreneurial programmes and physical infrastructures have positive and statistically significant influence on productivity of incubates. This is consistent with this study that established knowledge capital has positive and statistically significant influence on growth of incubatees. This is also backed up by the findings of Fernández *et al.(*2015)who revealed that business incubators (BIs) are "innovative infrastructures" of the entrepreneurial ecosystem providing networking support to entrepreneurs, provide space, help in writing the business plan, networking, access to angel investors, marketing and advisory services, and mentoring has a significant influence on the ability of incubatees to innovate and perform in competitive markets.

The results of this study are also supported by business incubation theory. According to Hackets and Dilts (2004), business incubation theory looks at measuring performance in terms of incubatee growth and financial performance at the time of incubator exit as being a function of the incubator's ability, developed over time and with the accumulation of innovative venture development capabilities and resources. The theory assumes creation of options through the selection of weak-but-promising transitional potential individuals for admission to the incubator, and to exercise those options through monitoring, counseling, and the infusion of various resources.

5.1.2 Ecosystem accessibility and productivity of incubatees

The findings revealed a positive and significant association between ecosystem accessibility and productivity of incubatees . The positive relationship implies that the more the incubatees are able to easily access support from other actors like government, financial institution, angel investors through the incubation hub, interact closely with roles models, mentors and business advisors with in the ecosystem, the more they can ably raise finances from different sources

before leaving the incubator, able to adopt new technologies in its new product development initiatives.

This finding is in line with Feld (2012) who emphasized that the interaction between the players in the ecosystem with high network density and access to all kinds of relevant resources (talent, services, capital), with an enabling role of government in the background accelerate the rate at which individuals in the business incubation centers perfom.

The finding also indicates that when individuals identify with other incubatees, a feeling of trust and reciprocity emerges which gives incubatees the self-confidence to face up to the challenge of business, prevents incubatees from engaging in opportunism and allows social abilities, interactions and relationships to be built. These interactions occur at two levels: at an internal level, with other incubatees, and at an external level, with other external business agents (such as other external entrepreneurs, potential clients or suppliers, finance institutions or consultants). Internal relationships can be considered the incubatee's social capital and external relationships the bridging social capital.This is supported by Aldrich & Yang(2014) who concluded that social networks allow entrepreneurs to learn from each other, helping them avoid common pitfalls associated with growth.

According to Schutjens & Stam (2003), the ability to acquire business network resources is important for entrepreneurial ventures and more so to the incubatees in their endeavour to achieve development and growth. This in agreement with this study finding that established that incubatees who gained a significant collaboration with the several support organisations, received financial support and business development services, interacted closely with roles models, mentors and business advisors with in the ecosystem managed to easily scale up their

businesses,developed self esteem and confidence to combat business challenges and easily develop and promote their products.

This finding is also supported by the social capital theory which holds that social relationships can be resources that contribute to the development and accumulation of human capital (Machalek & Martin, 2015). social relationships and social structures provide members of a network with resources such as knowledge, human capital, and information. entrepreneurial ecosystem components cooperate through relationships for a productive and mutual benefit.In other words, if there is a lack of coordination and cooperation (interconnectedness) among the ecosystem's components, there was no mutual benefit such as the sharing of resources, knowledge, and human capital that aids the overall productivity of incubatees in the entrepreneurial ecosystem.

5.1.3 Ecosystem support, Ecosystem Accessibility and Productivity of Incubatees

Accordingly, regression analysis showed that entrepreneurial ecosystem support was found to be the most significant predictor of productivity of incubatees. This means that a positive change in entrepreneurial ecosystem support leads to a positive change in productivity of incubatees. This implies that an incubatee can thrive well incase he or she is positioned in a well facilitated environment receiving support including but not limited to technical guidance on improvement of business plans, prototyping and business model development, business mentoring and coaching sessions, funding in form of venture capital and angel investors.

On the other hand,ecosystem accessibility was observed to be a non predictor of productivity of incubatees .This means that a change in ecosystem accessibility does no influences a change in productivity of incubatees. This is in agreement with Redondo & Camarero (2019) who found out that the closure mechanism of social capital, i.e. bonding ties, contributes less to the

incubatees' productivity. A close network inside the incubator, where everyone is connected, does not provide relevant resources. On the other hand, a relational environment characterized by trust, identity, and reciprocity, per se, does not improve business results, but may facilitate the access to other networks. These results are consistent with Burt (2000) and the structural holes theory, which maintain the social capital, i.e. the access to information and resources through a social structure, is more a function of brokerage than closure within a network.

However, the finding is contrary to Feld (2012) who emphasized the interaction between the players in the ecosystem with high network density and access to all kinds of relevant resources (talent, services, capital), with an enabling role of government in the background to be a key player in productivity of an incubatee. In addition, Malecki (1997) also suggests that networks of entrepreneurs provide an information flow, enabling an effective distribution of knowledge, labour and capital, accelerates incubatees individual productivity.Furthermore, Soetanto and Jack (2016) empirical study in three developed economies found that the incubators' networking support significantly improves incubatees performance.

5.2 Conclusion

Based on the findings of the study, it can be concluded that there is a positive and significant relationship between entrepreneurial ecosystem support and productivity of incubatees. The study also found that there is a positive relationship between ecosystem accessibility and incubate productivity,although this relationship was found to be weaker than the relationship between ecosystem support and incubatee productivity.

These findings suggest that providing a supportive ecosystem for incubates,including access to resources,mentorship and networking opportunities,can positively impact their

productivity.additionally,ensuring that the ecosystem is accessible to all incubates regardless of their background or level of experience can further enhance their productivity.

Overall, the findings clearly show that incubatees become highly productive when they are in a supportive ecosystem environment .

5.3 Recommendations

The study recommends that both internal and external incubation support services should be strengthened.The incubatees should have a strong collaboration strategies with external support systems that gives them an opportunity to leverage on to ensure their productivity at the end of the incubation process.

The study also recommends that incubatees should appreciate the benchmarking and horizontal collaborations from other incubation centers and development partners in the ecosystem,the incubatees should attend different workshops,prototyping sessions and conferences as an avenue to network,sharing of knowledge and exposure as a vehicle to capacity building and knowledge tranfers amongst these incubatees.

5.4 Limitations of the Study

The current study was limited by the research design. The study focused mainly on cross-sectional study, thus generalizing the data of the sample to a bigger population ignoring the importance of longitudinal study which can be useful in investigating productivity of incubatees in Uganda.

The study used a self-administered questionnaire with close ended questions and this limited the amount of data to be collected because it did not give room for the respondents to supplement any information and in case of any misinterpretation, it went unnoticed.

5.5 Areas for further study

The study was largely quantitative in nature and as such there is a lot of information that could have not been captured by the same study such as latent meanings of the opinions expressed by the respondents in the self-administered questionnaire. Therefore a qualitative study on the same subject is recommended to exhaustively find out the missing gaps in the incubation process which may be inhibiting or supporting productivity of incubatees in Uganda.

Future researchers may also add another variable in proposed conceptual framework and study the statistical relationship. The role of incubation management can be adopted as a mediating role in the ecosystem to influence incubatee productivity.

Future researchers may also focus on the role of universities in strengthening the entreoreneurial ecosystems.

REFERENCES

Abaho, E., & Nkambwe, I. (2017). Business Incubation in Uganda, Services, Processes and Incubatee Perceptions- A case study.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. Handbook of economic growth, 1, 385-472.

Acs, Z.J., Stam, E., Audretsch, D.B. & O'Connor, A. (2017). "The lineages of the entrepreneurial ecosystem approach",Small Business Economics, Vol. 49 No. 1, pp. 1-10.

Acs, Z.J., Szerb, L. & Lloyd, A. (2018). Global Entrepreneurship Index, The Global Entrepreneurship and Development Institute, Washington, DC, pp. 1-89.

Aldrich, H. E., & Ruef, M. (2018). Unicorns, gazelles, and other distractions on the way to understanding real entrepreneurship in the United States. Academy of Management Perspectives, 32(4), 458-472.

Aldrich, H. E., & Yang, T. (2014). How do entrepreneurs know what to do? Learning and organizing in new ventures. Journal of Evolutionary Economics, 24(1), 59-82.

Al-Kasasbeh, M. M., Alhalalmeh, M. I., & Lehyeh, S. M. A. (2017). Business Incubators and its effect on success of incubated firms in Jordan. International Business Management, 11(1), 189-193.

Audretsch, D. B., Belitski, M., & Cherkas, N. (2021). Entrepreneurial ecosystems in cities: The role of institutions. PloS one, 16(3), e0247609.

Audretsch, D.B. & Belitski, M. (2017). "Entrepreneurial ecosystems in cities: establishing the framework conditions",Journal of Technology Transfer, Vol. 42 No. 5, pp. 1030-1051.

Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: The importance of context. Research policy, 43(7), 1097-1108.

Bathelt, H., & Glückler, J. (2011). The relational economy: Geographies of knowing and learning. OUP Oxford.

Baumol, W.J. (1990). "Entrepreneurship: productive, unproductive, and destructive",Journal of Political Economy, Vol. 98 No. 5, pp. 893-921.

Bøllingtoft, A., & Ulhøi, J. P. (2005). The networked business incubator—leveraging entrepreneurial agency?. Journal of business venturing, 20(2), 265-290.

Bourdieu, P. (2011). The forms of capital.(1986). Cultural theory: An anthology, 1, 81-93.

Burt, R. S. (2000). The network structure of social capital. Research in organizational behavior, 22, 345-423.

Campbell, D. T. (1986). Relabeling internal and external validity for applied social scientists. New Directions for Program Evaluation, 1986(31), 67-77.

Claridge, T. (2004). Social capital and natural resource management. Unpublished Thesis, University of Queensland, Brisbane, Australia.

Coleman, J. S. (1988). Social capital in the creation of human capital. American journal of sociology, 94, S95-S120.

David B. Audretsch & Maksim Belitski, 2017. "Entrepreneurial ecosystems in cities: establishing the framework conditions," The Journal of Technology Transfer, Springer, vol. 42(5), pages 1030-1051, October.

Feldman, M. P. (2001). The entrepreneurial event revisited: firm formation in a regional context. Industrial and corporate change, 10(4), 861-891.

Fernández Fernández, M. T., Blanco Jiménez, F. J., & Cuadrado Roura, J. R. (2015). Business incubation: innovative services in an entrepreneurship ecosystem. The Service Industries Journal, 35(14), 783-800.

Fritsch, M. (2013). New business formation and regional development: a survey and assessment of the evidence. Foundations and Trends® in Entrepreneurship, 9(3), 249-364.

Goswami, K., Mitchell, J. R., & Bhagavatula, S. (2018). Accelerator expertise: U nderstanding the intermediary role of accelerators in the development of the B angalore entrepreneurial ecosystem. Strategic Entrepreneurship Journal, 12(1), 117-150.

Granovetter, M. (1992). Problems of explanation in economic sociology. Networks and organizations: Structure, form, and action, 25-56.

Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: an assessment of incubating models. Technovation, 25(2), 111-121.

Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: an assessment of incubating models. Technovation, 25(2), 111-121.

Hackett, S. M., & Dilts, D. M. (2004). A real options-driven theory of business incubation. The journal of technology transfer, 29(1), 41-54.

Hackett, S. M., & Dilts, D. M. (2004). A systematic review of business incubation research. The Journal of Technology Transfer, 29(1), 55-82.

Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. Journal of business venturing, 18(2), 165-187.

Howells, J. (2006). Intermediation and the role of intermediaries in innovation. Research policy, 35(5), 715-728.

Hughes, M., Ireland, R. D., & Morgan, R. E. (2007). Stimulating dynamic value: Social capital and business incubation as a pathway to competitive success. Long Range Planning, 40(2), 154-177.

Hunt, R.A. (2015). “Contagion entrepreneurship: institutional support, strategic incoherence, and the social costs of over-entry”,Journal of Small Business Management, Vol. 53 No. S1, pp. 5-29.

Innovation Village Report, 2020

International Standards Organization Report, 2001

Isenberg, D. J. (2010). How to start an entrepreneurial revolution. Harvard business review, 88(6), 40-50.w

Isenberg, D.J. (2010). “The big idea: how to start an entrepreneurial revolution”, Harvard Business Review, Vol. 88 No. 6, pp. 40-50.

Kansheba, J. M. P. (2020). Small business and entrepreneurship in Africa: the nexus of entrepreneurial ecosystems and productive entrepreneurship. Small Enterprise Research, 27(2), 110-124.

Kansheba, J. M., & Wald, A. E. (2021). Entrepreneurial ecosystems quality and productive entrepreneurship: entrepreneurial attitude as a mediator in early-stage and high-growth activities. Journal of Small Business and Enterprise Development

Kansheba, J. M., & Wald, A. E. (2022). Entrepreneurial ecosystems quality and productive entrepreneurship: entrepreneurial attitude as a mediator in early-stage and high-growth activities. Journal of Small Business and Enterprise Development, 29(2), 311-329.

Kenney, M., & Von Burg, U. (1999). Technology, entrepreneurship and path dependence: industrial clustering in Silicon Valley and Route 128. Industrial and corporate change, 8(1), 67-103.

Kerr, W. R., & Nanda, R. (2011). Financing constraints and entrepreneurship. Handbook of Research on Innovation and Entrepreneurship. Cheltenham: Elgar, 88-103.

Khanna, T. (2018). Trust: Creating the foundation for entrepreneurship in developing countries. Berrett-Koehler Publishers.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and psychological measurement, 30(3), 607-610.

Kuwabara, K., Hildebrand, C. A., & Zou, X. (2018). Lay theories of networking: How laypeople's beliefs about networks affect their attitudes toward and engagement in instrumental networking. Academy of Management Review, 43(1), 50-64.

Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 22(140), 55-59.

Machalek, R., & Martin, M. W. (2015). Neo-darwinian evolutionary theory and sociology: throwing new light on an old path. In Handbook on Evolution and Society (pp. 2-30). Routledge.

Mack, E., & Mayer, H. (2016). The evolutionary dynamics of entrepreneurial ecosystems. Urban studies, 53(10), 2118-2133.

Madaleno, M., Nathan, M., Overman, H. G., & Waights, S. (2018). Incubators, accelerators and regional economic development.

Malecki, E. J. (2009). Geographical environments for entrepreneurship. International Journal of Entrepreneurship and Small Business, 7(2), 175-190.

Malecki, E. J. (2018). Entrepreneurship and entrepreneurial ecosystems. Geography compass, 12(3), e12359.

Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth oriented entrepreneurship. *Final report to OECD, Paris, 30*(1), 77-102.

McAdam, M., & Marlow, S. (2007). Building futures or stealing secrets? Entrepreneurial cooperation and conflict within business incubators. International Small Business Journal, 25(4), 361-382.

McAdam, M., & McAdam, R. (2008). High tech start-ups in University Science Park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources. Technovation, 28(5), 277-290.

McEvily, B., & Marcus, A. (2005). Embedded ties and the acquisition of competitive capabilities. Strategic management journal, 26(11), 1033-1055.

Muldoon, J., Bauman, A., & Lucy, C. (2018). "Entrepreneurial ecosystem: do you trust or distrust?", Journal of Enterprising Communities: People and Places in the Global Economy, Vol. 12 No. 2, pp. 158-177. https://doi.org/10.1108/JEC-07-2017-0050

Mutambi, J., Byaruhanga, J. K., Trojer, L., & Buhwed, K. B. (2010). Research on the state of business incubation systems in different countries: lessons for Uganda. African Journal of science, technology, innovation and development, 2(2), 190-214.

Neumeyer, X., & Santos, S. C. (2018). Sustainable business models, venture typologies, and entrepreneurial ecosystems: A social network perspective. Journal of cleaner production, 172, 4565-4579.

Neumeyer, X., & Santos, S. C. (2018). Sustainable business models, venture typologies, and entrepreneurial ecosystems: A social network perspective. Journal of cleaner production, 172, 4565-4579

Nicotra, M., Romano, M., Del Giudice, M., & Schillaci, C. E. (2018). The causal relation between entrepreneurial ecosystem and productive entrepreneurship: A measurement framework. The Journal of Technology Transfer, 43(3), 640-673.

Patton, D., & Kenney, M. (2005). The spatial configuration of the entrepreneurial support network for the semiconductor industry. R&D Management, 35(1), 1-16.

Peci, F., Kutllovci, E., Tmava, Q., & Shala, V. (2012). Small and medium enterprises facing institutional barriers in Kosovo. International Journal of Marketing Studies, 4(1), 95.

Peci, F., Kutllovci, E., Tmava, Q., & Shala, V. (2012). Small and medium enterprises facing institutional barriers in Kosovo. International Journal of Marketing Studies, 4(1), 95.

Peters, L., Rice, M., & Sundararajan, M. (2004). The role of incubators in the entrepreneurial process. The Journal of Technology Transfer, 29(1), 83-91.

Phillips, R. G. (2002). Technology business incubators: how effective as technology transfer mechanisms?. Technology in society, 24(3), 299-316.

Powell, W. W., Koput, K. W., Bowie, J. I., & Smith-Doerr, L. (2002). The spatial clustering of science and capital: Accounting for biotech firm-venture capital relationships. Regional Studies, 36(3), 291-305.

Putnam, R. (1993). The prosperous community: Social capital and public life. The american, 4.c

Saxenian, A. (1994). Regional networks: industrial adaptation in Silicon Valley and route 128.

Saxenian, A. (1999). Comment on Kenney and von Burg,'technology, entrepreneurship and path dependence: industrial clustering in Silicon Valley and Route 128'. Industrial and corporate change, 8(1), 105-110.

Schutjens, V., & Stam, E. (2003). The evolution and nature of young firm networks: A longitudinal perspective. Small business economics, 115-134.

Sheriff, M., & Muffatto, M. (2018). High-tech entrepreneurial ecosystems: Using a complex adaptive systems framework. International Journal of Entrepreneurship and Innovation Management, 22(6), 615-634.

Soetanto, D., & Jack, S. (2016). The impact of university-based incubation support on the innovation strategy of academic spin-offs. Technovation, 50, 25-40.

Spiekermann, K., & Neubauer, J. (2002). European accessibility and peripherality: Concepts, models and indicators. Nordregio

Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. Entrepreneurship theory and practice, 41(1), 49-72.

Ssekiziyivu,B., & Banyenzaki,Y. (2021). Business incubation practices and sustainability of incubatee start-up firms in Uganda, Cogent Business & Management, 8:1, DOI: 10.1080/23311975.2021.1963168

Stam, E., van de Ven, A. Entrepreneurial ecosystem elements. Small Bus Econ 56, 809–832 (2021). https://doi.org/10.1007/s11187-019-00270-6

Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. How to test the validation of a questionnaire/survey in a research (August 10, 2016).

Theodoraki, C., Messeghem, K., & Rice, M. P. (2018). A social capital approach to the development of sustainable entrepreneurial ecosystems: an explorative study. Small Business Economics, 51(1), 153-170.

Thierstein, A., & Willhelm, B. (2001). Incubator, technology, and innovation centres in Switzerland: features and policy implications. Entrepreneurship & Regional Development, 13(4), 315-331.

Tsvetkova, A. (2015). Innovation, entrepreneurship, and metropolitan economic performance: empirical test of recent theoretical propositions. Economic Development Quarterly, 29(4), 299-316.

Uganda Entrepreneurial Ecosystem Initiative phase II report, (2018).

Uganda Entrepreneurial Ecosystem Initiative Report, 2018

Uganda Entrepreneurial Ecosystem Initiative Report, 2018

Van de Ven, H. (1993). The development of an infrastructure for entrepreneurship. Journal of Business venturing, 8(3), 211-230.

Walliman, N. (2017). Qualitative Data Analysis. In Research Methods (pp. 148-166). Routledge.

Wapshott, R., & Mallett, O. (2015). Managing human resources in small and medium-sized enterprises: entrepreneurship and the employment relationship. Routledge.

Wapshott, R., & Mallett, O. (2016). Self-employment. In Encyclopedia of human resource management. Edward Elgar Publishing Limited.

APPENDICES

APPENDIX 1: QUESTIONNAIRE

Dear respondent,

I am a student of MUBS, pursuing a Master of Science Degree in Entrepreneurship. I am undertaking a study about "***Entrepreneurial ecosystem support, Ecosystem accessibility and productivity of incubatees in Kampala-Uganda"*** as partial fulfilment of the requirements for the award of Master of Science Degree in Entrepreneurship. Information provided is for academic purposes only and was treated with utmost confidentiality. Thank you for your time, cooperation and participation. For more information please feel free to contact me on arindaalbert1@gmail.com, +256701579313/0774148725.

SECTION A: GENERAL INFORMATION

Please tick the appropriate box for the questionnaire that follow below:

1. Gender

Gender	Male	Female
Tick		

2. Level of Education

Qualification	Primary	Secondary	Certificate	Diploma	Degree	Masters	Others
Tick							

3. Age group

Years old	18-24 yrs	25-29 yrs	30-34 yrs	35-39 yrs	40+ yrs
Tick					

3. Marital status

Marital status	Single	Married	Divorced
Tick			

4. How long did the incubatee stay in the incubator?

Time	0-3 months	4- 6 months	7- 9 month	10–12 months	Above 12 months
Tick					

5. What is the form of Business ownership?

Form	Sole proprietorship	Partnership	Business
Tick			

6. Under which industry does the business belong?

Industry	ICT	Agro-processing	Manufacturing	Service
Tick				

7. What is the nature of your business?

Nature	For profit	Social Enterprise
Tick		

SECTION A: PRODUCTIVITY OF INCUBATEES

Under this section, you are required to give your opinion on how the following conditions apply to you on the scale based on the following statements- 1-Strongly Disagree (SD), 2-Disagree (D), 3- Agree (A), 4-Strongly Agree (SA).

EP	**Productivity of incubatees**				
NP	**New product development**	**SD**	**D**	**A**	**SA**
NP1	I am able to develop new products with ease to suit the changing needs.	1	2	3	4
NP2	I am able to develop products that respond to competition from other players.	1	2	3	4
NP3	I am able to adopt new technologies in its new product development initiatives.	1	2	3	4
NP4	I find it difficult to develop new products as a young business due to lack of technical expertise and industry experience.	1	2	3	4
NP5	I find it hard to develop new products due to lack of enough finances to facilitate the process.	1	2	3	4
FP	**Financial performance**	**SD**	**D**	**A**	**SA**
FP1	My business financial position is positive and promising	1	2	3	4
FPI	I am able to raise finances from different sources before leaving the incubator	1	2	3	4
FP2	I have expanded revenue streams of my business through increased sales volume	1	2	3	4
FP3	I am able to meet financial obligations independently without having to struggle.	1	2	3	4
G	**Growth**	**SD**	**D**	**A**	**SA**

G1	My business sales volume has tremendously increased despite the other business challenges	1	2	3	4
G2	I have been able to increase the number of staff in my business	1	2	3	4
G3	I have opened up different branches to effectively serve customers with ease.	1	2	3	4
G4	My business has expanded its market share despite being young in the industry.	1	2	3	4
M	**Marketentry**	**SD**	**D**	**A**	**SA**
M1	I am able to enter new markets with ease	1	2	3	4
M2	I am is able to synthesize the needs of the market and respond to them to satisfy customer needs	1	2	3	4
M3	I have the ability to identify and develop new markets with ease	1	2	3	4
M4	I am able to undertake all activities associated with bringing a product to a targeted market	1	2	3	4
ID	**Independence**	**SD**	**D**	**A**	**SA**
ID 1	I have now become financially independent from the initial financiers	1	2	3	4
ID 2	I am now able to take decisions independently without any external influence.	1	2	3	4
1D3	I am now independent from the incubator management and sponsors of the incubator	1	2	3	4
1D4	I am able to put in place any business support structures through its management structures independently.	1	2	3	4

SECTION B: ENTREPRENEURIAL ECOSYSTEM SUPPORT

Under this section, you are required to give your opinion on how the following conditions apply to you on the scale based on the following statements- 1-Strongly Disagree (SD), 2-Disagree (D), 3- Agree (A), 4-Strongly Agree (SA).

EES	**Entrepreneurial Ecosystem Support**				
IA	**Institutional Arrangements**	**SD**	**D**	**A**	**SA**
IA1	I was able to access a number of government entrepreneurship support programs through out my incubation period	1	2	3	4
IA2	I received media support through streaming/airing of my works/ideas through out the incubation process	1	2	3	4
IA3	I can easily apply knowledge received from academic institutions to better his business operations.	1	2	3	4
IA4	I am comfortable with the existing business registration and formalisation processes.	1	2	3	4
IA5	I was helped to recieve managerial support in form of grant management and related financial management skills	1	2	3	4
IA6	I was helped to access sources of funding in form of venture capital and angel investors.	1	2	3	4

IA7	I am able to receive high quality mentoring matches,robust program with sizeable mentor database and systematic training	1	2	3	4
IA8	I was able to access to professional support such as, accountants, lawyers and others that may be necessary for the improvement of the business	1	2	3	4
IA9	I was able to receive entrepreneurship education where I gained knowledge I applied to work on my business idea	1	2	3	4
PH	**Physical Infrastructure**	**SD**	**D**	**A**	**SA**
PH1	I was able to access to enough technology labs and any other required space for product/service development	1	2	3	4
PH2	I was able to receive timely communication about programs and activities of the incubation through existing medium	1	2	3	4
PH3	I was able to access spaces where I could freely interact with other incubatee and develop ideas.	1	2	3	4
PH4	The incubatee accesses computers and internet that enhances research and development of his product/service	1	2	3	4
PH5	I was able to access the product testing and validation and prototyping facilities	1	2	3	4
PH6	I was able to access machines and packaging materials to produce and introduce my product to the market	1	2	3	4
TS	**Technical Support**	**SD**	**D**	**A**	**SA**
TS1	I received technical guidance on improvement of business plans, prototyping and business model development	1	2	3	4
TS2	I attended business mentoring and coaching sessions that helped me to improve on my business idea	1	2	3	4
TS3	I acquired skills of writing a good business plan and pitching for his/her business idea	1	2	3	4
TS4	I was supported to conduct a feasibility study for the business	1	2	3	4

SECTION C: ENTREPRENEURIAL ECOSYSTEM ACCESSIBILITY.

Under this section, you are required to give your opinion on how the following conditions apply to you on the scale based on the following statements- 1-Strongly Disagree (SD), 2-Disagree (D), 3- Agree (A), 4-Strongly Agree (SA).

EEA	Entrepreneurial Ecosystem Accessibility	SD	D	A	SA
SN	**Social Networks**				
SN 1	I easily accessed support from other actors like government, financial institution, angel investors through the incubation hub	1	2	3	4
SN 2	I made a number of successful collaborations with fellow incubatees.	1	2	3	4
SN 3	I was in an isolated entrepreneurial journey and is without support from other ecosystem actors	1	2	3	4
SN 4	I gained a significant collaboration with the several support organisations that helped my business grow	1	2	3	4
SN 5	I interacted closely with roles models, mentors and business advisors with in the ecosystem	1	2	3	4
SN 6	I made significant friends from the workshops,seminars that my incubation center used to participate in or organise	1	2	3	4
SN 7	I utilized the knowledge obtained from other fellow incubatees	1	2	3	4
IA	**Information accessibility**				
IA1	I was easily receiving Information on sources of capital from the incubator.	1	2	3	4
IA2	I was free to utilize opportunities from the incubator's network and contacts from time to time	1	2	3	4
IA3	I had access to adequate intellectual property advice from experts	1	2	3	4
IA 4	The easily got to know the business opportunities available in the ecosystem through his/her networks.	1	2	3	4
IA5	I could easily get to know about other external available opportunities for potential investors both through the incubation administration and other incubatees	1	2	3	4
1A6	I accessed tailored business-related information from the incubator in a way that is easy to understand	1	2	3	4
CA	**Cost of Accessibility**	**SD**	**D**	**A**	**SA**
CA1	I was free to utilize opportunities from the incubator's network and contacts from time to time	1	2	3	4
CA2	I was able to easily access the incubation center and other areas without feeling too much burden of transport.	1	2	3	4
CA3	I used to receive transport facilitation for special events outside the incubation facility	1	2	3	4

CA4	I accessed incubation services without paying fees for such services	1	2	3	4
CA5	I was offered standard tailored flexible agreements to meet their changing business needs by the incubator	1	2	3	4
CA6	Incubatees have free access to adequate intellectual property advice from experts	1	2	3	4

THANK YOU

APPENDIX 2: KREJCIE AND MORGAN'S TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

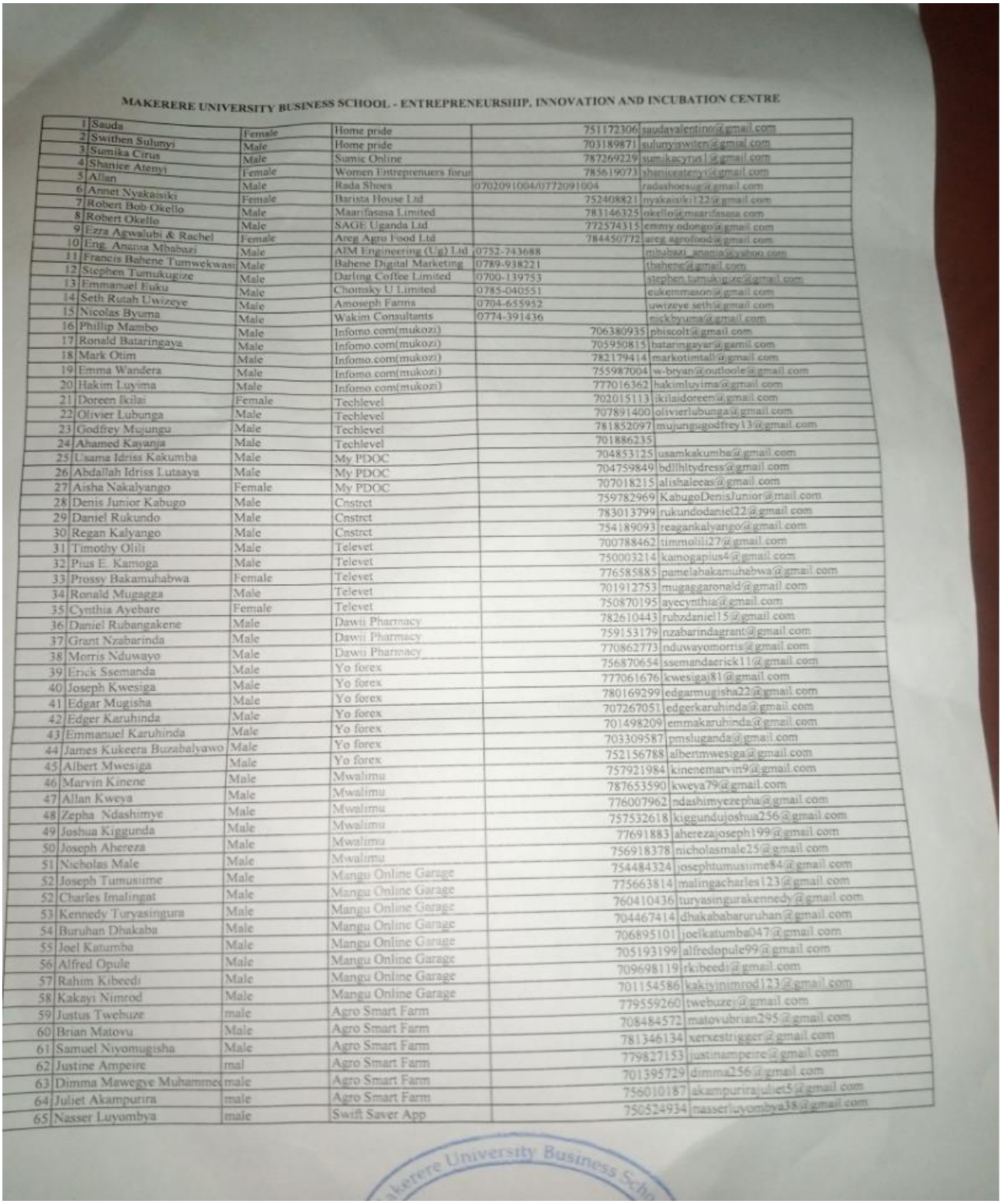
Table 3.1

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

APPENDIX 3: POPULATION



MAKERERE UNIVERSITY BUSINESS SCHOOL - ENTREPRENEURSHIP, INNOVATION AND INCUBATION CENTRE

1	Sauda	Female	Home pride		751172306	saudayalentino@gmail.com
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62	Justine Ampeire	mal	Agro Smart Farm		779827153	justinampeire@gmail.com
63	Dimma Mawegye Muhamme	male	Agro Smart Farm		701395729	dimma256@gmail.com
64	Juliet Akampurira	male	Agro Smart Farm		756010187	akampuriraJuliet5@gmail.com
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73	Mathias Isabirye	male	RestWorld	708563366	mathiasisabirye68@gmail.com
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77	Tracy Nimurungi	Female	Sumic Online	704745268	traceynimurungi07@gmail.com
78	Godwin Merce Bwambale	male	Sumic Online	783988317	bgodwin@gmail.com
79	Osward Nasasira	male	Sumic Online	7013i0900	oswardna@gmail.com
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