The Entrepreneurship Ecosystem and its supports in Nairobi

A qualitative study of their relationships

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Abstract

Title	The Entrepreneurship Ecosystem and its supports in Nairobi - A Qualitative study of their relationships
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Background	Kenya is facing social and economic problems related to the high unemployment rate the country has suffered since independence. The Kenyan government are placing a lot, if not all, eggs in one basket and betting on entrepreneurship to solve these problem. For entrepreneurship to thrive there needs to be an ecosystem facilitating it and inherent in this ecosystem are support organisations.
Purpose	The purpose of this thesis is to explore the domains of the entrepreneurship ecosystem in Nairobi and to find out how it effects or how it is being effected by the startup support organisations in the area. By highlighting these interconnections, actors may take appropriate steps in further facilitating the establishment and growth of ventures on the scene in Nairobi.
Delimitations	• First and foremost, the Entrepreneurship Ecosystem in this thesis is limited geographically to Nairobi and the barriers of the ecosystem are discussed in the theoretical framework. • Interviewees are limited to management or higher ranking employees of the startup support organisations, their closest associates and startups.

Method

This thesis is based on qualitative interviews with people active on the startup scene. The results of the interviews will be complemented by a literature review and analysed using a theoretical framework.

Conclusions

The ICT-sector enjoys a far more developed ecosystem than the rest of the sectors. This points to the fact that the ecosystem started to gain foothold in ICT and has expanded to include other sectors which now are evolving. But some generalities were found that applies to all sectors, that there are three more critical domains. Those are;

- Finance
- Human capital
- Policy

These connections were found between the ecosystem and the support organisations.

The EE's effect on the SSOs:

- **Policy** – Existing governmental policies limits the SSOs opportunities to markets in Kenya and to the world outside.
- **Finance** – When the SSO loose financing they tend to move their value proposition further away from the young startups which need the SSOs services the most.
- **Culture** – The culture creates a demand for SSOs and enables their business.
- **Human Capital** – The existing knowledge is poor which gives the SSOs a hole to fill and is definitely altering

The SSO's effect on the EE:

- **Policy** – The SSO has today little or no ability to affect governmental policy making.
- **Finance** – The SSOs has as an intermediary opportunity to reduce the gap between startups and investors but has yet not succeeded.
- **Culture** – The SSOs empower entrepreneurs and are making entrepreneurship socially accepted towards markets and the society at large.

- **Human Capital** – SSOs can further educate entrepreneurs and are making the EE more customer centric.
- **Markets** – Through networking SSOs can facilitate early adopters and let entrepreneurs reach global market through international companies established in Nairobi.

Keywords *Entrepreneurship Ecosystem, Incubator, Accelerator, Coworking Spaces, Nairobi, Kenya*

Sammanfattning

Titel	Det Entreprenöriella ekosystemet och dess stödorganisationer i Nairobi – en kvalitativ studie av deras samband
Författare	Gustaf Ankarcrona, Maskinteknik 2016, LTH; Knut Holm, Industriell ekonomi 2016, LTH
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Bakgrund	Kenya står inför både sociala och ekonomiska problem relaterade till hög arbetslöshet, problem som landet har lidit av sedan självständigheten 1963. Den kenyanska staten försöker lösa många av dessa problem genom att utöka och utveckla entreprenörskap. För att entreprenörskap ska utvecklas krävs det ett ekosystem som underlättar dess tillväxt och inneboende i detta ekosystem är stödorganisationer.
Syfte	Syftet med denna uppsats är att utforska det entreprenöriella ekosystemet i Nairobi. Genom att utforska ekosystemet kan samband mellan ekosystemet och de inneboende stödorganisationerna belysas och förklaras. Förhoppningen är att aktörer på marknaden kan ta steg till att ytterligare stödja etableringen och tillväxten av företag på scenen i Nairobi.
Avgränsningar	• Först och främst är det ekosystemet i Nairobi som denna uppsats avser undersöka. Hur detta ekosystem definieras och begränsas diskuteras i det teoretiska ramverket. • Intervjuobjekten är begränsade till management och/eller högre rankade anställda på stödorganisationerna och organisationer som är aktiva i anslutning till dessa.

Metod

Den här uppsatsen är baserad på kvalitativa intervjuer med människor aktiva på startup-scenen i Nairobi. Resultaten av dessa intervjuer kommer att kompletteras med en litteratur studie och analyseras med hjälp av ett teoretiskt ramverk.

Slutsatser

ICT-sektorn åtnjuter ett mycket mer utvecklat ekosystem i jämförelse med andra sektorer. Detta tyder på att ekosystem etablerades inom just ICT och har sedan dess expanderat och inkluderar nu andra sektorer som nu står under utveckling. Det finns dock generaliseringar som gäller för alla sektorer – att det är tre domän som är mer kritiska än andra. Där kritiska domäner är domäner med större påverkan på interrelationen mellan ekosystemet och stödorganisationer. De är

- Finance
- Human capital
- Policy

Dessa kopplingar mellan ekosystem och stödorganisationer hittades.

Exosystemets påverkan på stödorganisationerna:

- **Policy** – Existerande policys limiterar organisationerna möjlighet att verka på vissa marknader i Kenya och i resten av världen.
- **Finance** – När stödorganisationer tappar finansiering tenderar de att ändra sin value proposition bort från deras kärnverksamhet - att stödja startups.
- **Culture** – Kulturen skapar ett behov av stödorganisationer och möjliggör deras existens.
- **Human capital** – Det nuvarande humana kapitalet är undermåligt vilket skapar ett hål som stödorganisationerna måste fylla.

Stödorganisationernas påverkan på ekosystemet:

- **Policy** – Stödorganisationerna har idag liten till ingen möjlighet att påverka statens arbete med policy.
- **Finance** – Stödorganisationerna har möjlighet att påverka domänen genom att verka som intermediärer mellan startups och investerare.

- **Culture** – Stödorganisationer gör entreprenörskap socialt accepterat i marknader och samhället i stort.
- **Human capital** – Stödorganisationerna utvecklar entreprenörernas kunskap och påverkar hela ekosystemet genom att göra det mer kundfokuserat.
- **Markets** – Genom nätverkande faciliterar stödorganisationer för early customers och låter entreprenörer i Nairobi nå global marknader, oftast genom de internationella företagen etablerade i Nairobi

Nyckelord *Entreprenöriella ekosystemet, Affärsinkubator, Accelerator, Coworking utrymmen, Nairobi, Kenya*

Abbreviations

ANDE	Aspen Network of Development Entrepreneurs
EAC	East African Community
EE	Entrepreneurship Ecosystem
GDP	Gross Domestic Product
NGO	Non-governmental Organisation
NIS	National Innovation System
SME	Small and Medium-sized Enterprises
SSA	Sub-Saharan Africa
SSO	Startup Support Organisation

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Gustaf Ankarcrona Knut Holm

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1. Introduction

The following chapter will let the reader contextualise the problem in the background and familiarize itself with the setting in Kenya. It also contains the main purpose of the thesis along with the research questions and the chapter will finally conclude with the delimitations and the general outline of the thesis.

1.1 Problem background

Establishing new ventures is problematic to say the least, irrespective of which country one should start it in. This fact is even more present on the African scene where the number of unknowns is even greater and the environment surrounding the ventures might not be as developed (Iarossi, 2009). In these settings it is important to understand the setup of the support system found in the environment and how it is evolving. Especially in a country as such Kenya where a lot of money and effort are being placed on entrepreneurship to solve both social and economic problems (BBC, 2013).

Kenya is the forerunner in East Africa and affects the region as a whole both regarding economy and transport. A region which is both plagued by poverty and despair as well as some of the world's fastest growing economies and hope for the future. Between years 2011 and 2015 seven of the world's fastest growing economies were in the Sub-Saharan Africa (SSA), with Tanzania and Ethiopia being neighbours to Kenya (The Economist, 2011). Kenya may be the shining star in the region but still struggles with problems descendent from its colonial heritage (Fahnbulleh, 2015). For example in Kenya alone a big portion of the able population are unemployed in regards to the formal sector and the numbers are even higher for the youth. The unemployment amongst the youth is a consequence of fast demographic shifts and the economic growth has not led to decent jobs for all. The overall employment rate for the youth is double the rate of the rest of the population and this in combination with a high population growth rate of the past makes the problem even more potent (Undp, 2013). Following is the 43, 4 % of the population living below the poverty line, which is declining but at a very slow pace (The Central Intelligence Agency, 2016).

The problem with aid is that it does not create any resources and furthermore it is not an enabler of any sort which restricts the space of opportunity (Acemoglu & Robinson, 2014). Though one cannot underplay the importance of aid in a humanitarian sense, the economic challenges must be met in a different way, a way in which people are enabled to direct a change. Or as the World Bank's former lead economist in Nairobi said:

> *In Kenya as in other emerging economies it is high time to rethink the old aid model, where the North channels money to the South to finance discrete development projects (…) Donors should not seek to build their own successes but instead to identify local success stories and help amplify them.*(Fengler, 2011)

And the Kenyan government has recognised that entrepreneur's natural course of action in the founding of small businesses is undoubtedly one, if not the greatest source of job creation and eventually a way out of aid enslavement (Nallari, Griffith, Wang, Soamiely Andriamananjara, & Bhattacharya, 2011)(EY, 2015).

The government has, sometimes in cooperation with different non-governmental organisations (NGO) and companies, tried to remove or lower barriers regarding the establishment and development of new ventures. These efforts has led Kenya to become a centre for innovation and entrepreneurship and that a wave of foreign investments has engulfed the country (World Bank, 2015). Following is the establishment of an entrepreneurship ecosystem (EE) and inherent with that is support organisations in different forms performing different functions.

The EE itself consists of many different actors, the interrelationship between these actors and the rules the play by. This summed makes up a complicated system which contains extraordinary possibilities. These intrinsic possibilities in combination with the Kenyan people´s aptitude, ambition and inclination to adopt innovations and relative strong economy makes the Kenyan case a platform for change. The authors solemnly believe that entrepreneurship is one of many keys in moving away from being a developing country.

This is where the thesis fits in and where the authors' interest began. Around the year 2010 there were a boom in the establishment of startup support organisations (SSO) in Nairobi, an integral part of the EE. These organisations are working directly against startups and are trying to facilitate a strong development amongst them. The authors believe that since the boom they are now evolving and trying to find their own position or function to thrive in. They are trying to do this in an ever-changing ecosystem. This development is interesting for a number of stakeholders, including the entrepreneurs and companies or organisations who are thinking about tapping in to the great potential of this market. With this thesis we want to explore the characteristics of the EE and how this might affect the SSOs and vice-versa.

1.2 Main purpose

The purpose of this thesis is to explore the entrepreneurship ecosystem in Nairobi and to find out how it effects or how it is being effected by the startup support organisations in the area. By highlighting these interconnections, actors may take appropriate steps in further facilitating the establishment and growth of ventures on the Nairobian scene.

1.3 Research questions

There are two questions the authors are trying to answer with this thesis:

- What are the characteristics of the entrepreneurship ecosystem in Nairobi?

- What types of startup support organisations are found in Nairobi and how are they working?

1.4 Delimitations

- First and foremost the EE in this thesis is limited geographically to Nairobi and the barriers of the ecosystem is discussed in the theoretical framework.

- Interviewees are limited to management or higher ranking employees of the SSOs, their closest associates and startups.

1.5 Target audience

Whereas many may find this thesis interesting the intention is to appeal to student and researchers alike, incubators, incubator affiliations and entrepreneurs active in the entrepreneurial ecosystem in Nairobi.

- Students and researchers
- Startup support organisations
- Incubator affiliations
- Entrepreneurs

For students and researchers this thesis may encourage additional research because the thesis is exploratory and will hopefully indicate multiple directions of interest. This thesis may be a valuable source of information for already established incubators as they try to find their own niche or for new ones trying to establish, when the thesis highlights the most critical domains. For the companies affiliated with incubators this thesis can provide insight into what services and support the incubators might need in the future and how to best accommodate them. Last but not least entrepreneurs ought to better understand the environment surrounding their businesses' by reading this thesis.

1.6 Outline of thesis

Chapter one gives the reader context and introduce the subject. It also contains the purpose of the thesis and who the potential beneficiaries are.

Chapter two explains in detail the different methodological approaches chosen in order to make the thesis replicable. Described first is the overall research approach and why this approach was chosen. Following is a discussion on which type of study this thesis is. Thirdly is a description of the method chosen, explaining how the study was conducted. The chapter is concluded with a description on the strategy and on the overall credibility of the thesis.

Chapter three defines different actors connected to the study and specifies the theoretical framework used. The framework is used to analyse and discuss the findings of the study. Main theories are the notion of the EE and the evolvement of business incubators. The chapter concludes by putting the different theories into a framework.

Chapter four gives a short history of Kenya and summary of the state of the nation as of today. This chapter intends to give the reader further understanding to the nature of the problem and also establish a ground for contextualisation in the latter parts of the thesis.

Chapter five contains the result of the literature review, which is divided into the six domains of the entrepreneurial ecosystem and a short review of the SSOs active on the scene.

Chapter six presents the findings from the minor field study, the results are presented in a similar fashion as chapter five.

Chapter seven analysis presents the outcome of both studies compared to each other and highlighted by the theoretical framework.

Chapter eight contains the discussion of the analysis, the possible future for SSOs in Nairobi and the effects beyond Nairobi. Also included are thoughts on the methodology of the research and areas of interest for further research.

Chapter nine presents the authors' conclusions and final remarks.

2. Methodology

The main purpose of this chapter is to facilitate reproducibility. The chapter contains descriptions of the chosen approaches and methodologies used during this study and at the same time justifies them. Concluding the chapter is a discussion and evaluation regarding credibility, which is made up from three components; validity, reliability and objectivity.

2.1 Research approach

In any scientific research it is important to declare which approach is used for the study. The choice of approach depends on the researcher's view of the problem and goal of the research. For a business study Arbnor and Bjälke states that there are roughly three general approaches: analytical approach, systems approach and actors approach. (Arbnor & Bjerke, 1994). Figure 1 – Research Approach shows the correlation between these approaches and their knowledge output.

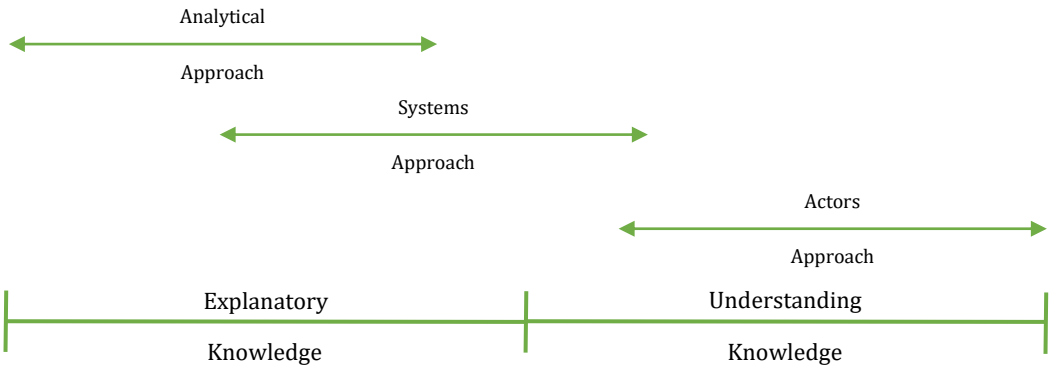


Figure 1 – Research Approach (Arbnor & Bjerke, 1994)

2.1.1 Analytical approach

The analytical approach is the historical scientific approach and is still the dominant approach in western scientific studies, it is derived from the classical analytical philosophy. The approach is of a summative character, the whole is the sum of its parts. In order to analyse the total picture, you first research the different parts and then unite the individual pictures. It is a pragmatic approach which is independent of any subjective experiences (Arbnor & Bjerke, 1994).

2.1.2 Systems Approach

The Systems approach was first introduced in the 1950s and has now become a wide known way of studying things and its applications is increasing. As opposed to the analytical approach the systems approach supposes that reality is arranged in such a

way that the whole differs from the sum of the parts. When researching with the systems approach the relationship between these parts becomes interesting since it is considered to affect the whole. The systems approach explains or understands the parts by the characteristics of the whole(Arbnor & Bjerke, 1994).

2.1.3 Actors Approach

The actors approach, which is the newest of the three, started being applied in the late 1960s. Unlike the analytical and systems approach the actors approach has no explanatory interest, instead it is used to understand the social entireties by looking to the individual actors. The approach emphasizes the meaning of key-actors actions in a social context. The observer in the actors approach is considered to be a constituent to reality, hence the observer do affect the system it is observing (Arbnor & Bjerke, 1994).

2.1.4 This thesis

This thesis concerns the entrepreneurship ecosystem of Nairobi and startup support organisations and how these two affect each other. Since the startup support organisations is a part of entrepreneurship ecosystem a systems approach was chosen for this study. Moreover, the relations between the domains of the EE are of great importance when trying to understand the EE which might suggest that the actors approach could be of interest, but as this thesis is a first step in filling the knowledge gap the systems approach were found to be more suitable. Further research extending from this thesis could shed a different light on the scene with an actors approach.

2.2 Research Method

The research method describes how the study is conducted, from the ways and means of collecting data to the structuring and analysing of it.

2.2.1 Study Classification

According to Björklund and Paulsson (2003) there are four different ways of classifying a study depending on the purpose and the existing knowledge within the research field. When there are limited or no existing knowledge of a problem a suitable classification is the exploratory study. Here the purpose is to state the basic knowledge of the problem; its what, when, where, its context, variables and limitations. If the exploratory knowledge exists, the next step is to conduct what is classified as a descriptive study. The descriptive study gathers the characteristics of the research objects and finds the values of the problems variables. The other two classifications stated by Björklund and Paulsson (2003) is the explanatory and normative study. The explanatory study analyses the cause and effect of the problem. This classification aims to find out why it has occurred and what it has led to. The normative study suggests courses of action to solve or diminish the problem. It should also discuss what consequences these actions might have to all related parties (Björklund & Paulsson, 2003).

2.2.2 This Thesis

The purpose of this thesis is to explore the domains of the entrepreneurship ecosystem in Nairobi and to find out how it affect or how it is being affected by the SSOs in the area. With this in mind and considering the authors modest knowledge of the Kenyan business environment, not to mention the lack of studies on the EE in Nairobi, the natural selection was to conduct the thesis as an exploratory study.

2.2.3 Research logic

The approach to the research logic can be divided into inductive approach, deductive approach or a mix of them referred to as an abductive approach. An inductive research is when the researcher starts its theoretical analysis after the data is gathered. And from this empirical material tries to draw general and theoretical conclusions. It is important when conducting an inductive research that it is made without preconditions, therefore the method is common when doing exploratory studies. A deductive research is like the inductive but performed backwards. Here the researcher starts with a theoretical research which will lead him or her to one or more hypothesis. A hypothesis is a theoretical statement which extends beyond former known knowledge. These hypotheses are then confirmed or rejected by the data which is ideally collected through numerous experiments, where the affecting factors are systematically changed. An abductive research is a way of finding out why an event has occurred or what has preceded an observation. Thus, its aim is to combine the two described approaches (Arbnor & Bjerke, 1994)(Björklund & Paulsson, 2003).

2.2.4 This Thesis

The existing studies in the field of research, namely the SSOs and the entrepreneurial context in Nairobi, is rather limited. Hence making predictions based on theory is not suitable for this study. Neither would it be appropriate for this study to start in the empirical world, since the authors' previous knowledge of the topic is limited. Instead a theoretical framework was initially developed on which empirical studies later were based on. Since the abductive approach uses empirical data and theory interchangeably, this was deemed to be the most appropriate procedure for this study.

2.2.5 Quantitative or Qualitative

When gathering data there are generally two categories of methods to choose from, namely quantitative or qualitative methods. These two can be used for different purposes and can if needed be combined. The quantitative methods give a broad picture of a large selection of survey units. Moreover the quantitative methods are systematic often done through surveys with fixed answering alternatives. The results are numerical and can be statistically analysed. The qualitative methods on the other hand gives deeper understanding of fewer subjects. These can be seen as more of unstructured and unsystematic observations. Consequently, the analysis of a qualitative

study is often more difficult and time demanding than the one of a quantitative study (Holme, Solvang, & Nilsson, 1997).

2.2.6 This thesis

For this thesis qualitative methods were chosen. When the purpose is to explore and understand the trends of the SSOs and how they relate to the EE, qualitative methods are more natural. Furthermore this study is focused on the perspective of the rather small amount of SSOs which also makes qualitative methods a better choice.

2.3 Strategy of the thesis

The strategy this thesis has been of a linear format which can be seen in *Figure 2 - Strategy of this thesis*. The strategy was set early in order to make sure that no field of interest would be lost and to meet the objectives of the thesis. The process was broken down into five basic parts that were made sequentially. As explained in 2.2.4 some iterating between interviews and research was however necessary due to knowledge gaps. In order to get the sought after perspective, interviews were made with experienced personnel of SSOs. The collected data was then sorted, displayed and analysed in order to reach conclusions.

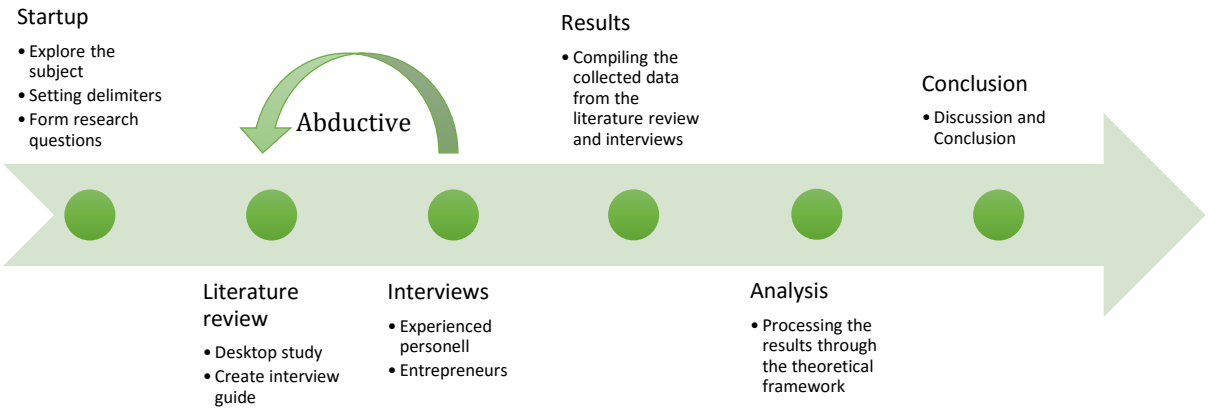


Figure 2 - Strategy of this thesis

2.3.1 Methods of data collection

This section describes how the data was collected and which methods that were used. There are many ways to collect data in a qualitative and exploratory study, such as: interviews, observations, document analysis or focus groups. This study used two different methods of data collection; a literature study and in-depth interviews.

2.3.1.1 Literature study

When conducting a qualitative study the literature review aims to illustrate a couple of areas, first and foremost to give an overview of previous collected knowledge in the field. This overview will indicate possible knowledge gaps related to the field as well as strengthen the importance of the study itself. Furthermore, a literature review will enable a more precise framing of research questions. The majority of the literature was therefore studied before the interviews were held, but all along the research process literature was studied when there was a need for it in accordance with the abductive and exploratory approach (Backman, 2016).

Considering the limited information there was on the subject in connection to Kenya and Nairobi, the chosen literature is based on access as well as relevance in relation to the purpose. Online sources such as LUBsearch, which is Lund University's collected online resources, and Google scholar was primarily used to find available literature. Through the references of the articles found useful, more interesting leads were discovered. Online databases such as the World Bank, CIA and Kenya's Central Bank was also found useful.

Only information written in English or Swedish was studied due to the authors' limited language knowledge.

2.3.1.2 Interviews

When it comes to qualitative studies the easiest way to retrieve information is to interview people, this allows the researchers to gather the most in depth answers (Wallén, 1996).

Interviews can be any kind of dialog conducted face to face or through technical means such as telephone or email. There are many different forms of interviews. All questions can be decided beforehand and asked in a certain order, these types of interviews are called structured interviews. For semi-structured interviews, only the subjects of discussion decided beforehand and brought up when the interviewer considers it appropriate. During this kind of interviews, the respondent's answers are taken into account before the interviewer decides on the next question. The third general form of interviews are the unstructured interviews which can be described as a conversation with nearly no preparation (Björklund & Paulsson, 2003).

For the best result, given the exploratory and qualitative approach of this study, semi-structured face to face interviews were chosen. For the ability to go deeper in areas where the interviewee seemed to have more information and maintain flexibility towards every interviewee, semi-structured interviews were the better choice. Face-to-face interviews were the method of choice since it is important to take into account the interviewed persons nuances and expressions to get a better understanding of what the interviewee tries to express.

2.4 Research sample

The first research question of this thesis aims at finding the characteristics of the EE. Since startups are the main actor of the EE it is their perspective on the characteristics that the authors found most important. The ones with the most experience from this view are the SSOs. Hence, they meet the domains of the EEs on a daily basis from the entrepreneur's perspective. The SSOs work actively together with entrepreneurs and receives through this a great insight to the EEs enablers and disablers. Since SSOs also work with various startups from different segments and sectors are they reliable to give a balanced picture of the EE and can with good reference compare the domains to each other. The second research question of this thesis seeks to find out how the SSOs are adapting. The authors found that the best way to find the answers to these questions was to focus their sample of interviewees to people who work in direct contact with the startups at the SSOs.

2.5 Credibility of the research

Credibility is key when making a convincing study. Credibility is what makes the results useful for future research. Björklund and Paulsson measures the credibility of a study in three categories; validity, reliability and objectivity (Björklund & Paulsson, 2003).

The validity of a study explains to what extent a study measures what it intends to measure. A way to increase the validity of a study is to use triangulation. Triangulation is when more than one method is used to study the same phenomenon, this in order to get multiple perspectives. The reliability of a study measures the capability of the chosen method or methods. A study is reliable when if repeated the same results would appear. Triangulation is also a good method to ensure the reliability of the study. The objectivity of a study tells to what extent preconceptions affects the study. By clearly declaring and motivating the decisions made throughout the study increases the objectivity. Hence, with this information the reader can from his or her perspective evaluate the information (Björklund & Paulsson, 2003).

2.5.1 This thesis

In order for the results to be credible, all the interviewed persons are enclosed in References R1. Furthermore, the interview guide is also enclosed in appendix A1. To strengthen the validity and reliability of the study three forms of triangulation were used: data triangulation, mixed methods and investigator triangulation. Data was taken from several sources and gathered in different ways. Secondary data was found in the literature and primary data was obtained in the field. The data was then analysed by the two authors, thus two points of view were considered and consequently investigator triangulation was used.

3. Theory

Following is the introduction of the theoretical framework used in this thesis. The theoretical framework is twofold covering both the innovation system found in a region and the different types of SSOs that can be found in an innovation system. The theory concerning the innovation system begins with a short history of prior research that leads up to the most recent and generally accepted research which is the notion of the entrepreneurial ecosystem and Isenberg's model. Isenberg's model contains six domains or areas of interest which will be presented in detail which concludes the theory regarding the innovation system.

Subsequent is the theory on the SSOs which begins with a brief history on the evolution of the incubator. Following is the definition of the three types of SSO found on the scene today – the incubator, the accelerator and the coworking space. The two theories will then be united in a framework which will enable the analysis.

3.1 The Entrepreneurship ecosystem

This section will contain the history of the innovation system and the evolution of the approach. Focus lies on the six domains of the ecosystem.

3.1.1 History

A country's innovation system (NIS) is defined as the set of factors that influence the development, diffusion and use of innovation. These factors can include social, economic, political and organizational, in other words the determinants of innovations. Edquist reflects that a system consists of two kinds of entities, the components and the relation between these components, and that it must be possible to distinguish the boundaries of the system from the surrounding world. To distinguish the system can be a complex task and therefore the following description is a simplification or rather an abstraction (Edquist, 2001).

First of all organisations and institutions are the back bone of the NIS. Where organizations are formal constructions with the purpose of supporting the system established at the beginning. Included in the term are suppliers, universities, venture capital organisations and public innovation policy agencies. The institutions are the rules of the game in a sense, compromised of common habits, rules or laws that regulate the interaction between organisations, like for example patent laws. Though there are a general agreement on the main framework of the NIS the components may differ greatly between countries. In Japan for example research institutes and R&D in companies are imperative while the same functions are being performed by universities in the US. Regarding the operation of NIS the relationship between the components are a critical factor. One could say that organisations are embedded in an environment moulded by the institutions, but at the same time organisations shape institutions from the inside.

Organisations can create standards and institutions can create organisations, when new organisations establish because of new institutions (Edquist, 2001).

As described above in broad terms the NIS is the set of factors that influence innovation and should be seen as the main function. But to be more specific it is activities that focuses on influencing the development, diffusion and use of innovation. These activities can be divided into five functions, here presented below.

- To create 'new' knowledge
- To guide the direction of the search process
- To supply resources, namely capital, competence and other resources
- To facilitate the creation of positive external economies
- To facilitate the formation of markets

With regards to new technology based firms Rickne has provided and extended list of functions, and as an indicator on how well an NIS is working one could measure the effects of each function (Rickne, 2000).

1. To create human capital
2. To create and diffuse technological opportunities
3. To create and diffuse products
4. To incubate in order to provide facilities, equipment and administrative support
5. To facilitate regulation for technologies, materials and products that may enlarge the market and enhance market access
6. To legitimise technology and firms
7. To create markets and diffuse market knowledge
8. To enhance networking
9. To direct technology, market and partner research
10. To facilitate financing
11. To create a labour market that technology based firms can utilise

3.1.2 The Entrepreneurship Ecosystem

As stated in the beginning of the chapter the most used and widespread way of speaking about the area of a state and innovation is the notion of the EE. The ecosystem approach is in many ways a more holistic take on the support for entrepreneurship. Instead of focusing on specific companies and how to intervene accordingly, the approach is focusing on developing networks and building new institutional capabilities. The correlation between the NIS and the EE is strong, especially in the way institutions are looked upon and the relationship between them. The geographical clustering of economic activity is a novel and key part on the EE take on things with a distinctive perspective. A combination of the various definitions of the EE takes this form:

> *A set off interconnected entrepreneurial actors, entrepreneurial organisations, institutions and entrepreneurial processes which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment* (Mason,Colin; Brown, 2014)

Where the organisations refers to firms, venture capitalist, business angels and banks, and the institutions are comprised of universities, public sector agencies and financial bodies, and lastly the processes are the business birth-rate, numbers of high growth firms, number of serial entrepreneurs and levels of entrepreneurial ambition.

The EE has been modelled numerous ways, but one has become more influential than others, namely the model developed by Daniel Isenberg. The model is seen as a base for other models or referred to in the majority of related works and Isenberg believes that the approach is a basis for the development of things such as innovation systems or knowledge economies in countries. Isenberg evolves his thoughts about the EE with importance of context, in the aspect that all ecosystems evolves under distinctive circumstances. And furthermore that the EE can be industry specific or evolve from a single industry or sector to include several. In a geographical sense they are restricted but not in to a particular scale. They can be confined to a campus or a region or anything in between and the size of the city is often irrelevant (Mason,Colin; Brown, 2014).

Isenberg evolves his thoughts about the EE by saying that every ecosystems evolves under a set of conditions and circumstances not found anywhere else and they can be industry specific. Furthermore, they are often are limited in a geographical sense and this is a well-known fact that any economic activity has a tendency to cluster giving superior economic performance. Though they are not tied to a specific geographical scale, like a city or a region (Edquist, 2001). Nor is the size of the city relatable. But for a system to be able to gain foothold the location needs to have place-specific properties, which could be in the vicinity of a university or governmental laboratories. In other words, that the location has an established and broad base of knowledge, especially in the when it comes to the availability of scientists and engineers (Mason,Colin; Brown, 2014).

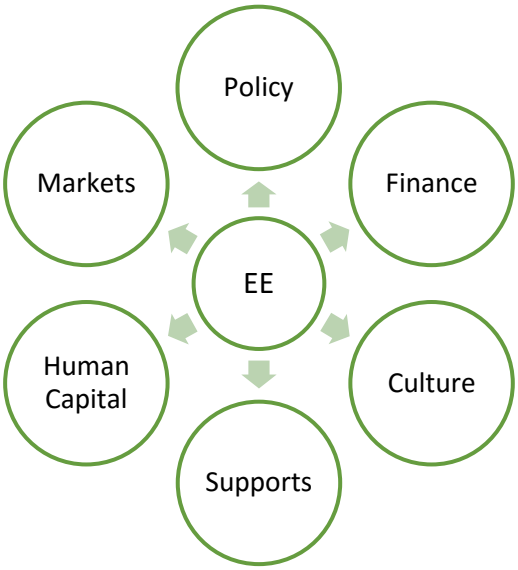


Figure 3 – The six domains of the EE

In recent years the notion of *spillovers* has become an important part in talking about the why of EEs. Where the inherent likelihood that a successful entrepreneur will create more entrepreneurship, in forms of becoming business angels, venture capitalist or board members. And during this period creating human capital and building a base of venture-friendly customers. Other spillovers are in terms of quality of life and philanthropy, successful entrepreneurs tend to give back to society at large (Isenberg, 2011).

The centre of an ecosystem typically consists of one or more companies that affects many parts of the EE. They often have large management functions and well evolved R&D which spills over in different forms into the EE. As for failed entrepreneurs' other companies often absorb them, welcoming them as advisors. As the entrepreneurial ecosystem are information rich, and the culture of sharing is inherent, individuals can access information quickly and fairly easy. Of course the geographical proximity enhances this and so does the "bridging assets". These assets are individuals or organisations who are well-connected and experienced in business working in different roles in the ecosystem. They can have a formal role as a deal-makers or informal in a role such as fiduciary.

Within the EE Isenberg has recognised six domains and each of these domain contains components interacting both within the domain and with the other domains as well. The combinations of components and how they interact are always unique, but in order to get a self-sustaining ecosystem there must be these domains, that are presented in no particular order:

- Enabling policies and leadership
- Conducive culture
- Availability of appropriate finance

- Quality human capital
- Venture friendly markets for products
- Institutional supports

3.1.2.1 Policy

The policy domain consists of leadership and government and the essence is that entrepreneurship needs different policies and institutional home than for example small and medium-sized enterprises (SME). Leadership relates to a social legitimacy and unequivocal support towards entrepreneurship, and that policy strategy should have entrepreneurship at heart. The government part includes institutions, financial support, regulatory framework, research institutes and venture-friendly legislation. Financial support could be a governmental jump start fund, and property rights and contract enforcement are examples of venture-friendly legislation (Isenberg, 2011).

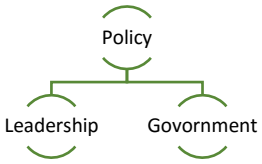


Figure 4 – The policy domain

3.1.2.2 Finance

One of the most critical features in any ecosystem is the availability of financing, it must reach a critical mass. Lack of finance means lack of a key driver, and will thus prevent the creation, growth and survival of new ventures. And research in the area identifies a clear finance gap in many locations (World bank & OECD, 2013).

Both regarding seed and startup investors as business angels as well as business accelerators. The critical mass can be achieved thru so called global pipelines in an early stage before this is obtained locally, where markets, resources and knowledge can be accessed via wider global linkages. In really early stages friends and family may provide a useful source. In later stages, in other words the expansion phase, needed amounts are normally only available through initial public offerings on stock exchanges (Mason,Colin; Brown, 2014).

The domain consists of actors like venture capital funds, zero-stage venture capital, angel investors and family and friends but also the availability of micro-loans, private equity options and ways to use debt as financing (Isenberg, 2011).

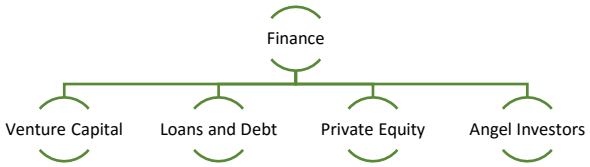


Figure 5 – The finance domain

3.1.2.3 Culture

The culture is also a vital feature of an ecosystem. The ecosystem generally have an air of inclusiveness, the feeling that sharing is vital and the overall consensus that failure is nothing shameful. The societal norms are, except for the tolerance of risk and failure, that the social status of the entrepreneur is high and that entrepreneurship have the connotations of wealth creation and hunger. The companies in the centre of the ecosystem affects the cultural state of the ecosystem whereas they are seen as success stories. They create visible successes inside the ecosystem which gives a mark of excellence and earns the ecosystem an international reputation (Isenberg, 2011).

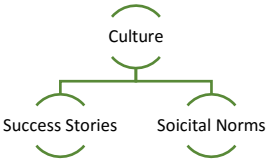


Figure 6 - The culture domain

3.1.2.4 Supports

There are three types of supports – infrastructure, support professions and non-government institutions. Infrastructure is the form of things as in telecommunications, transportations, logistical capabilities and energy as well as in the meaning of zones, incubation centres and clusters. It is at the incubation centres where future entrepreneurs acquires technical skills, market knowledge and other tools that helps them identify and exploit opportunities (Isenberg, 2011).

The non-government institutions are the organisations that arranges conferences on entrepreneurship and relating areas or hosts competitions like business plan contests. They are entrepreneur friendly and help promote entrepreneurship in a non-profitable way (Isenberg, 2011).

Finally regarding supports are the different service providers. These could be lawyers, accountants, recruitment agencies and business consultants. These providers keeps new firms from common mistakes and mostly expects a long term business relationship will emerge whilst providing these services free of charge. These services are often non-core activities so the entrepreneurs can focus on the important parts of doing business (Isenberg, 2011).

Figure 7- The supports domain

3.1.2.5 Human capital

Human capital is the skill the labour force possesses and this domain relates to this but with the addition that the skills are applicable in the entrepreneurial sphere. Labour is both skilled and unskilled where serial entrepreneurs have a positive impact on the general capacity of the labour force. The domain also includes the educational institutions found in the EE. Also looked at are the general degrees and if there is any specific entrepreneurship training. The entrepreneurial training may take many forms and can be taught at different levels of the educational system with diverse effects (Isenberg, 2011).

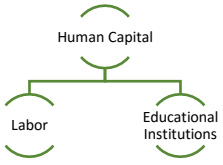


Figure 8 - The human capital domain

3.1.2.6 Markets

There are two sides of this domain, there are the networks and the early customers. The networks are on three different levels, first there are the entrepreneur's networks which are linked directly to the entrepreneur and his surroundings. Secondly there are the diaspora networks which are more intangible but equally important and finally the networks that multinational corporations makes accessible due to their presence on the scene.

The early customers refers to a bundle of groups. Included are the early adopters that can stand for proof of concept or the reference customers that can spread the success. But also included are the distribution channels enabling companies to reach all the critical early customers(Isenberg, 2011).

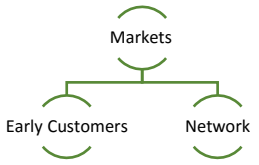


Figure 9 - The markets domain

3.2 Startup support organisations

We have chosen to define business incubators, business accelerators and coworking spaces as SSOs in this thesis. These organisations all work to somehow to support startups and most of their business models are sprung from the original business incubator.

There are a number of similar definitions of the Business Incubator, Hackett and Dilt sums it up in their thorough review of the research made on the subject the from 2004. They state that:

> *A business incubator is a shared office space facility that seeks to provide its incubatees (i.e. "portfolio-" or "client-" or "tenant-companies") with a strategic, value-adding intervention system (i.e. business incubation) of monitoring and business assistance.*

3.2.1 The Business incubator history

In 1959 a large corporation moved its offices and left a 8500 square meter building vacant in Batavia, New York. When a local real estate developer who acquired the building had trouble finding a tenant who could lease the entire facility, he decided to sublet subdivided partitions of the building to different tenants. Some of these tenants also requested business advice and/or assistance with raising capital which was provided. The facility was named Batavia Industrial Centre and is generally accepted to be the first business incubator (Hackett & Dilts, 2015).

3.2.1.1 First generation

The enlargement of the Business Incubator concept was slow in the 60s and 70s, it was first in the 80s that it became widespread and the number of Incubators escalated. These fall into the category of first generation incubators which mainly offered the

advantage of economies of scale with shared resources between the tenants, such as office space and other practical things as, receptionist, parking space, telephone lines and meeting rooms (Hackett & Dilts, 2015) (Bruneel, Ratinho, Clarysse, & Groen, 2012).

3.2.1.2 Second Generation

In the late 80s it became clear that innovation and technology were becoming cornerstones of the economic growth and that new strategies were necessary to revitalize economics. Business incubators became a popular tool to promote the creation of new technology-intensive companies. Such companies need additional specific services beyond just affordable office space and shared resources. This new awareness lead to the second generation of business incubators which started to also offer coaching and training to the entrepreneurs (Bruneel et al., 2012).

3.2.1.3 Third Generation

The third generation of business incubators emerged during the 90s with an emphasis on providing access to services via external networks. Network exploitation by business incubators provides tenants with preferential access to potential customer suppliers, technology partners and investors. Institutionalized networks established and managed by business incubators ensure that networking is no longer dependent on individual personal networks or contacts (Bruneel et al., 2012).

3.2.2 Startup support organisations

Grimaldi, Grandi (2005) argue in their study of incubating models that the model of business incubators is ever changing. As the EE is developing, the needs for startups is changing, thus must the incubators adapt. In their conclusion they emphasize the importance of a range of incubators, offering different services to satisfy different needs. They continue by saying that incubators need to pay attention to their strategic positioning. This by realizing the key importance of specialising in the services that they offer and of matching the variety of demands and expectations coming from new ventures (Grimaldi & Grandi, 2005).

In Kenya there are mainly three types of SSOs which all in some way derives from the historical incubator. These are - the incubator, the accelerator and the coworking space – displayed in *figure 10*.

Figure 10 - Startup support organisation

3.2.2.1 The business incubator

An incubators value proposition can vary depending on the incubators specialisation and focus. The general incubator however offers the whole range from the first to third generation stated above. They provide practicalities such as office space, meeting rooms, internet connection and printers combined with intense training and mentoring. And last but not least the tenants are given a shortcut to meetings and seminars with well-connected people within their sector of interest. The exit policy for incubators which refers to the time they allow a tenant to stay also vary (Bruneel et al., 2012). To regain the optimal turnover of tenants they should not stay longer in the incubator then three years according to Rothaermel and Thursby study from 2005 (Rothaermel & Thursby, 2005) Business incubators thus often incrementally increase rental rates to induce tenant graduation (Bruneel et al., 2012).

3.2.2.2 The business accelerator

The accelerator model is a new generation incubation and is a type of seed accelerator program. These organisations aim to accelerate successful venture creation by providing specific incubation services, focused on education and mentoring, during an intensive program of limited duration (Pauwels, Clarysse, Wright, & Van Hove, 2016). Although the accelerator model has many similarities with the incubator model, it has a number of other specific features that sets them apart.

Firstly, they are not primarily designed to provide physical resources or office support services over a long period of time. Secondly, they typically offer pre-seed investment, usually in exchange for equity. Thirdly, they are generally less focused on venture capitalists as a next step of finance, but are more closely connected to business angels and small-scale individual investors. Fourthly, the accelerator model places emphasis on business development and aims to develop startups into investment ready businesses by offering intensive mentoring sessions and networking opportunities, alongside a supportive peer-to-peer environment and entrepreneurial culture. Fifthly, the accelerator model concerns time limited support (on average 3–6 months), focused on intense interaction, monitoring and education to enable rapid progress, although some provide continued networking support beyond the program as well (Pauwels et al., 2016).

3.2.2.3 The coworking space

Independent coworking spaces host mobile workers such as freelancers, startup entrepreneurs, small business owners and employees who work for companies without a local office. The contracting commitment of independent coworking spaces is typically membership based, flexible or short. These memberships might even be on a daily basis, therefore users can change from one day to the next. These coworking offices are often transparent, open and playful spaces which makes them flexible, creative and interactive. The main things being to reduce costs as well as environmental impact (Kojo & Nenonen, 2014).

3.3 Explaining the framework

The area of interest for this study has touched four levels which all have various effects on each other. The lowest of these four levels is the individual startups which success to a high degree depends on the circumstances of the remaining three levels. The second level is the SSO level, they are working to improve and refine the domains of the EE. One could say that the SSO is functioning as a bridge between the startup and the EE. The EE is the third level. The fourth and highest level consists of the macro factors such as the justice system, educational system and the social aspects of Kenya.

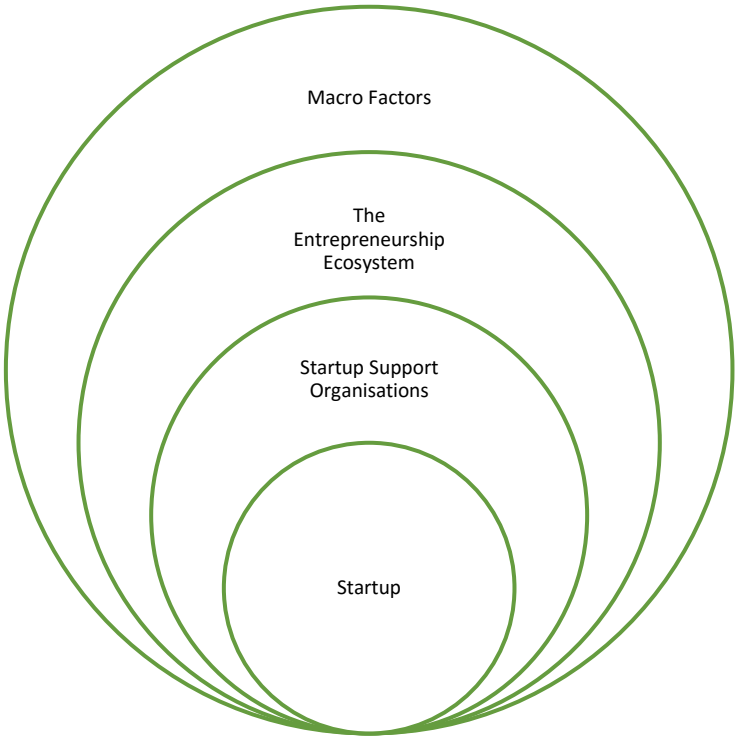


Figure 11 - the four levels of the EE environment

This study focuses on the middle two levels, the EE and the SSOs. The interest lies in how well the SSOs lower the barriers to the EE and how these two levels affect each other. To research this, the two theories of the EE and the SSO which are explained earlier in this chapter, was used as a theoretical framework and as a tool for the

analysis. The data found in the literature review and the field study was looked at through these theories. The EE was divided into Isenberg's six domains and the SSOs were categorised into the three SSO models. The divided EE and SSOs enabled the analysis to find out how these different domains affect the different models of SSO in order to see if any conclusions could be drawn from these correlations.

4. The country of Kenya

The region in which todays Kenya lies was under German protectorate until 1890 when the Imperial British East African Company arrived with intentions to build a railroad. It took until 1920 before Kenya became a colony under the British Empire which lasted until 1963 when Kenya got its independence. The colonial period had profound impact on future of the Kenyan state and its people. The road since independence has been rough where writers and researchers alike point to two factors affecting the development and industrialization of post-colonies. Namely the structural constraints and the inherent policies pursued. The structural constraints includes low level of human capital, weak infrastructure and a lack of indigenous entrepreneurs willing to enter the industrial sector. In the early nineteen sixties the Kenyan government prioritised infrastructure, but neglected the role and need for the state to take part in sectors with productivity. Later understanding the need the government shifted focus and the industrial strategy became all about facilitating private expansion in the sector in combination with an act that promoted foreign investment. Several other acts were created during this period in different efforts to enhance the industrial sector (Fahnbulleh, 2015).

One of the biggest problems facing Kenya today is the unemployment rate. Rooting back to the colonial period this problem became worse due to the population growth of 3 % during the recent period, the highest rates in Africa as well as the world. Of the nearly 46 million people living in Kenya 18 million are part of the labour force and of those part of the labour force 40 % are without a work in the 2013 estimation. A number which dropped down from 50 % in the late nineties to 40 % in 2001, but has been steady ever since. Though it should be noted that many people are not entirely without a job, they are working in the informal sector which accounts for nearly 18 % of Kenya's gross domestic product (GDP) and comprised 90 % of all businesses in 2005 (ILO, 2005).

As for the region of East Africa or the East African Community (EAC) for which the partnering states are Kenya, Tanzania, Uganda, Burundi, Rwanda and South Sudan, the Kenyan economy is the powerhouse and the anchor. This is due to the Kenyan economy being the largest and most dynamic of the economies in the region. Some point to the market friendly policies and political stability, which of course is relative but still better than the surroundings, as drivers. The community as a whole has a market of around 146 million people and in terms of GDP the Kenyan economy accounts for 40 % of the total for the region. And the driver of the GDP in Kenya is the private sector that since 2007 been the largest contributor to growth and in that sector technology has been a big part (Kimenyi & Kibe, 2014). This has made Kenya not only the economical hub but also the technological hub in EAC and due to the geographical location and well established port in Mombasa it also serves as the transportation hub (The Central Intelligence Agency, 2016).

Picture 1 - Map of Kenya

Country facts

Capital	Nairobi	***Origin of GDP, by sector***	
Population	45.9 million	- Agriculture	29.9 %
Unemployment rate	40 % (2013 est.)	- Industry	19.5 %
People living below the poverty line	43.4 % (2012 est.)	- Services	50.6 %
GDP per capita	$3.300	***Employment by sector***	
GDP real growth rate	6.5%	- Agriculture	75 %
		- Industry and services	25 %

Table 1 - Kenya facts (The Central Intelligence Agency, 2016)

Although the private and technology sector may be thriving, the economy of Kenya still is not for all. The GDP growth of 5, 3 % and the gross national income per capita of $1029 tells a story not seen in the 43, 4 % of the population living below the poverty line. This is validated by the low score on the Human Development Index, particularly in regards to inequality (UNDP, 2015). The gross domestic income per capita is the highest in the region and classifies Kenya as a lower-middle-income economy (World Bank, 2015) and according to the World Bank's latest Kenya Economic Update report the GDP growth is expected to increase to 5,9% 2016 and 6% during 2017 (Kiringai, Jane Wangui Sanchez Puerta, 2016). And as far as employment goes 75 % of the labour are working in the agricultural sector in one way or another. A sector that stands for 29, 9 % of the GDP and a large portion of the exports, with two of the biggest commodities being tea and coffee (The Central Intelligence Agency, 2016).

The Kenyan government are trying to correct these problems in a number of ways and the most recent plan "The economic recovery strategy for wealth and employment creation" in combination with the Kenya vision 2030 are strategies for just that. The vision is to become a middle-income country by 2030 by sustaining and improving three pillars; the economic pillar, the social pillar and the political pillar. The flagship of the Vision being the Konza Techno city, project that aims to sustain 260 000 people and become a world-class technology hub and economic driver for the nation (Konza Techno City Kenya, 2016).

Arguably the centre for all these efforts and the hub within the hub is the capital Nairobi. There are 3,915 million people living in Nairobi making it the biggest city in Africa between Cairo in Egypt and Johannesburg in South Africa (The Central Intelligence Agency, 2016). Activities in and around the city accounts for 50 % of Kenya's GDP and is listed as one of the fastest growing urban economies in the world (The Brookings Institution, 2013). Due to Nairobi's excellent geographical location and relatively good infrastructure and ports, many NGOs have their headquarters for East Africa there and the same applies for companies active on the East African scene.

5. Literature study

Included in this chapter is the literature study. The study is divided into the six domains of the EE presented in the theory chapter and a summary of the different SSOs are displayed on a map of Nairobi. Also included in the map are the different universities who are in some way active on the startup-scene.

5.1 Policy

The first thing that should be discussed in terms of policy is the capabilities and weaknesses of the government that are generating and trying to apply them (Klapper, Amit, & Guillén, 2010). In the case of the Kenyan government progress has been made in a lot of areas relating to policymaking, but at the same time a lot of work needs to be done. According to the Mo Ibrahim Foundation, Kenya ranked 14th out of the 54 countries assed in the 2015 Index of African Governance, which is a substantial improvement from the 26th place in 2010. Noted should be that Kenya with a score of 58, 8 is still a considerable way from the top ranking countries like Botswana displayed in *table* 2. The improvement can be linked to factors like infrastructure, rule of law, participation and the overall business environment which has risen considerably. Meanwhile factors like personal safety and national security lags as opposed to the neighbouring countries with the exception of and due to Somalia (Mo Ibrahim Foundation, 2016).

For policy makers worldwide a good measurement of their efforts is where they stand in the aggregate ranking on the ease of doing business which is an indicator about the general business environment. And how a country is doing in relation to its neighbouring countries or similar economies is also a useful indicator. The regional average of the SSA is slightly below 50 in rating, whereas Kenya stands a little above 58 which puts them 108th in the world for 2016. Which is a step in the right direction from their 129th place the previous year. This compares to Botswana at 72th place and Tanzania at 139th place (World Bank, 2016). One of the ten topics included in the ease of doing business rating is how easy it is to start a business, a vital part due to the strong correlation between number of businesses started and how easy it is, the so called entry rate (Klapper & Quesada Delgado, 2007). In this subcategory Kenya ranks 151 which is the worst in the region by a good margin and a small decrease from 2015. On the bright side the ranking in subcategory Getting credit Kenya went from being ranked the 188th country in 2015 to 28 in 2016. The substantial improvement can be linked to new policy directives and that the differences in score between the country at place 100 and 20 are small. This subcategory indicates how and if the law is favourable to borrowers and lenders and if lenders have credit information on entrepreneurs seeking credit (World Bank, 2016).

Country	Measurement	Place	Score out of 100
Kenya	Index of African Governance	14	58,8
	Ease of doing business	108	58
Botswana	Index of African Governance	3	74,2
	Ease of doing business	72	64,9
Tanzania	Index of African Governance	18	56,7
	Ease of doing business	139	50,9

Table 2 - African govornance and Ease of doing business (World Bank, 2016)

Kenya scored low on the Transparency International index of corruption and has scored low a number of years in a row. They came first at 139th place in the 2015 score with a score of 25 out of a scale of 100 where 100 is highly clean (Transparency International, 2015).

After 1963 and independence the Kenyan government has introduced a couple of policy packages trying to promote enterprises and entrepreneurs. It began with "Kenyanization" policies which partially meant the replacement of foreigners by Kenyans in the economy and at the same time trying to engage Kenyans in entrepreneurship. In 1972 the government recognised the micro and small enterprise sector and in 1986 the first policy aimed at promoting this sector was introduced (Ronge & Nyangito, 2000). Following in suite were a bundle of other packages, with the most ambitious being Kenya Vision 2030, which is a long-term national development policy that aims to transform Kenya into a middle-income country by 2030 (The National Economic and Social Council of Kenya, 2015). A sample of the mentioned policies are presented in the table 3 and their framework can be outlined as follows:

- Macroeconomic policies
- Infrastructural development policies
- Human resources development policies
- Institutional development policies
- Industrial policies that target particular industries

Regarding the policy work in Kenya there are some criticism stated in many different papers. First of all the government does it all by itself, in picking which policies to promote and when. This means that the private sector has practically no say and many writers' list things that could be a joint effort. First of all the coordination and purpose of the private sector and furthermore the vision of the economic future. Also lacking is the development of agriculture and industry at the same time.

Some writers extend this view by saying that all stakeholders should be involved, from entrepreneurs and business community to NGOs and development partners. This could be coordinated through ongoing dialog (Stevenson & St-onge, 2006).

There seems to be some confusion to which institution should do what. This leads to inefficiency and the possibility of duplication as two agencies might work on in the same

area without anybody knowing it (Stevenson & St-onge, 2006). And one report clearly stated that besides poor policy design and inappropriate policies there must be some sort of coordination that specifies the responsibilities of different agencies (Gitonga, 2008). And last bit of criticism is concerning that most of the policies are targeting SMEs and not entrepreneurship, when the need might be elsewhere.

Policy Objectives	Statements	Strategies
Macroeconomic	A successful industrialization strategy driven by the private sector will require a stable environment	• Reduce budget deficit • Lower interest rates • Price stability
Access to finance	To overcome the reluctance of the banking sector in order to mobilize savings and offer intermediation services	• Raise banking sector efficiency • Increase the capacity of local capital markets • Increase the participation of small savers and investors in the financial system
Technology development policy	To facilitate local research and development	• Offer incentives to the private sector to increase its funding and support for R&D activities • Increase the proportion of total public research expenditure allocations • Evolve a technology culture by encouraging technical training. • Increase the links between public sector research institutions and the private sector
Entrepreneurship education	To facilitate nationwide entrepreneurship education and training	• Introduce higher diplomas • Introduce Master's degree • Pre-start up training at technical institutes
Enterprise transition	To develop the capacity of trainers to work with the MSE sector to enhance the transition of micro and small-scale enterprises into medium size enterprises.	• The introduction of a Voucher Training Program to provide 90 % subsidy to MSE for the purchase of training and business

Table 3 – Policies (Ronge & Nyangito, 2000)

5.2 Finance

For any government, established business or startup the access to financial capital is crucial. For an economy to thrive there is a need for capital in the market for the ability to buy products, as a demand side and on the supply side for investments going into a company. A lack of capital on the consumer market means a lack of buying power, which leads to less business opportunity and slower economic growth. On the supply side businesses cannot exploit opportunities that arise and therefore innovation and employment will be hampered and once again growth will be subdued (Kubr, Ilar, Marchesi, & Bengtsson, 2005).

As many other developing countries Kenya has experienced a high influx of capital. The capital comes in many different forms - as of aid, loans and debt forgiveness. During 2014 Kenya received $2,665 billion in net official development assistance and official aid, which places Kenya on the top ten list of countries receiving the most (World Bank, 2015). Another source of capital is foreign direct investments (FDI), Kenya's net inflow of FDI 2014 was $944 million. Kenya's net inflow of FDI from 2008 to 2014 is presented in chart 1 below. As the diagram shows has it been a substantial increase since 2012. The conventional understanding of FDIs is that it is primarily a benefit to a country in the short run, because ownership and the right to the profit is retained abroad. FDIs however increase a country's productivity by externalities and productivity spillovers which can produce a endogenous long term growth (De Mello, 1997). Unfortunately, there are no reliable numbers on these areas for 2015 yet. A third source of capital is remittances which provide an important cash injection on the consumer side. A remittance is a transfer of money by a foreign worker to an individual in his or hers home country. During 2015 $1, 55 billion was transferred through remittances into Kenya (Central Bank of Kenya, 2016).

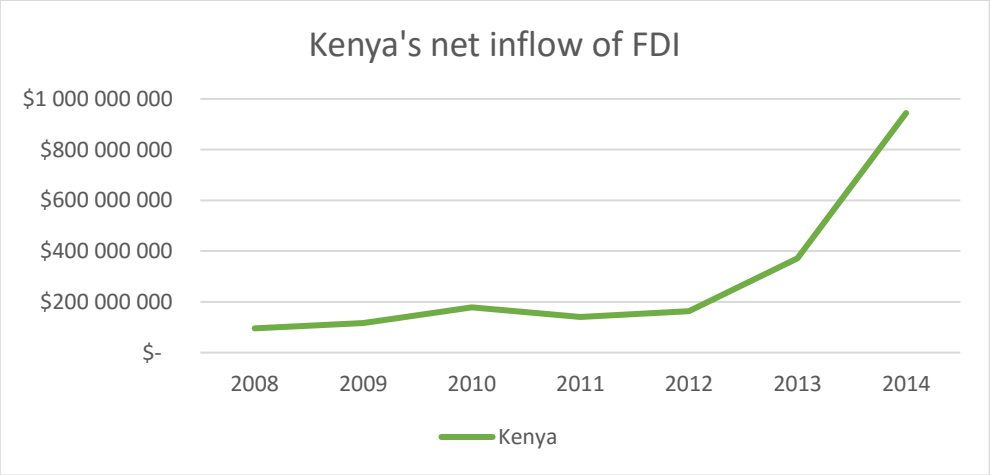


Chart 1- Kenyas FDI (World Bank, 2015)

5.2.1 Alternatives for finding capital

The outlooks of finding capital for entrepreneurs are good in Kenya, below are a few alternatives.

5.2.1.1 Micro Finance

Micro loans have been a great success in developing countries during the last three decades. There are numerous private micro-banks and financing institutions in Kenya who offers microloans. These private organisations are generally expensive, interest rates over 20% is not uncommon. Some of these are Rafiki MicroFinance Bank , Faulu Kenya and Uwezo Microfinance.

5.2.1.2 Angel investors

Individual investors who buy equity in small private firms or startups are called angel investors. It is not uncommon that these investors are friends or acquaintances of the entrepreneur. Because their capital investment is often large relative to the amount of capital already in place at the firm, they typically receive a sizable equity share in the business in return for their investment. As a result, these investors may have substantial influence on the business decisions of the firm. Angels may also bring expertise to the firm that the entrepreneur lacks (Berk & DeMarzo, 2011). There are networks active in Kenya which connects entrepreneurs and angel investors to each other, two of these are AngelList and Investeq.

5.2.1.3 Bootstrapping

Bootstrapping is where most startups gets going. Bootstrapping involves getting the startup growth capital with assistance of people in the vicinity of the entrepreneur.

5.2.1.4 Venture Capital funds

Different venture capital firms specialise in funding startups at different stages. Example of such firms available to Kenyan entrepreneurs include Savannah Fund include Novastar. Venture Capital funds far surpass most of what you can acquire via debt capital or other financing venues but there also keen on equity and a substantial return on investment.

5.2.1.5 Banks and financial institutions

There are many banks and financial institutions that offer packages to support startups and entrepreneurs. These packages may consist of bank accounts, loans and credit cards. But as with all bank loans you need collateral in order to get a loan. Some of these banks are African Banking Corporation Ltd, Bank of Africa Kenya Ltd and Bank of Baroda.

5.2.1.6 Foundations

Foundations are another financing source that entrepreneurs can look to for funding viable business ideas. Most foundations gives funding in the form of grants and loans, which are paid back without interest over a longer. The limitation of this source of financing is that the amount of grant or loan given is normally small compared to other sources such as the Venture Capital Firms. In Kenya the two examples of foundations that have been drivers of entrepreneurship are Coca Cola Fund and Safaricom Foundation.

5.3 Culture

The entrepreneurial culture has certainly changed during the last ten years, one could say that it all started with M-Pesa. In 2007 Safaricom, Kenya's largest mobile-network operator (Communications Authority of Kenya, 2016) launched M-Pesa (M for mobile and Pesa translated from Swahili means money). M-Pesa is one of the world's leading mobile-money system and is now used by more than 19 million Kenyans transferring $750 million during the last quarter of 2015 (Communications Authority of Kenya, 2016). M-Pesa is a local innovation that has changed a whole country's way of looking at money transfers.

Shortly after the arrival of M-Pesa, political events would inspire the creation of Africa's first globally recognised app Ushahadi. The app was developed to map reports of violence in Kenya after the post-election violence in 2008 (Ushahidi, 2016). As Kenya shifted back to stability, requests came in from around the globe to adapt Ushahidi for other purposes. By the end of 2008, the app had become internationally recognised tech company, which now has multiple applications in more than 20 countries (Bright & Hruby, 2015).

In 2010 one of the people behind Ushahidi started Nairobi's first and now well-known innovation centre iHub. Since 2010 152 companies have formed out of iHub. It has 15,000 members and on any day, numerous young Kenyans can work in its labs, take part in workshops and discuss ideas with expert mentors. Conveniently during the same year the new underwater fiber optic cable landed in Mombasa which significantly increased broadband in East Africa. iHub gave rise to Africa's innovation centre movement, inspiring the upsurge in tech hubs across the continent (Bright & Hruby, 2015).

Another major success story is M-KOPA. M-KOPA delivers solar panel system to homes in Uganda, Tanzania and Kenya. For $35 the customer get to take the system home and then pay $0,5 a day through M-Pesa for a year to owe the solar system. M-KOPA started in 2011 and has since received numerous global awards and has now connected 330 000 homes, a number which is increasing by 500 every day. They employ 757 full time staff and 1,251 field agents (M-Kopa, 2016).

All of the above has certainly helped put Nairobi on the map as a business option for investors and has lead journalist to call Nairobi the Silicon Savannah.

In the majority of the SSA countries, ethnic cultures play a more dominant role in moulding the values and perceptions of its citizens than national cultures (Mungai & Ogot, 2012). Kenya is rich on different cultures with over 40 different tribes**.** Esther N. Mugnai has made a study which compares 4 ethnic groups - Luo, Kikuyu, Kalenjin and Kamba in terms of gender and entrepreneurship. The study shows that the differences between the genders were not significant put the group's different attitudes towards

entrepreneurship is. This tells us that it is difficult to generalise about Kenyans and that there probably is some ethnic groups better suited for entrepreneurship than others (Mungai & Ogot, 2012).

5.4 Supports

This section is the findings of the support domain excluding the findings concerning SSOs which is presented in 5.7.

5.4.1 Infrastructure

Significant infrastructure development is evident in Kenya, with a strong government commitment to economic transformation through infrastructure. The country has been plagued with high transport costs for many years because of insufficient, overused, and rundown infrastructure. Significant improvements have already been made to facilitate more efficient trade. Despite efforts to improve infrastructure, however, there are major impediments that still exist in terms of administrative delays and instances of corruption along these routes. Average transit times have been improving, and a concerted effort has been made on the part of the government to eradicate these issues (PR Newswire, 2015).

Despite having made significant progress in infrastructure development in recent years, the country's infrastructure indicators remain below the levels found in Africa's lower-middle-income economies, like Nigeria.

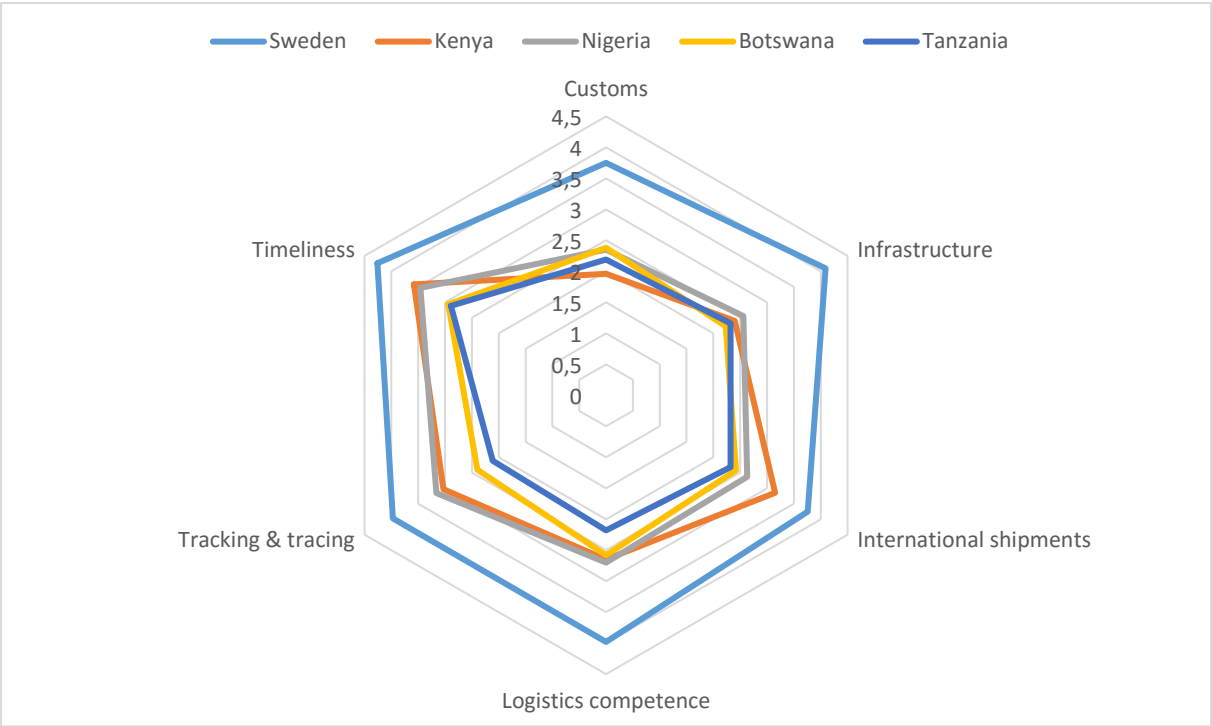


Chart 2 - LPI comparison (World Bank, 2015)

Customs	The efficiency of customs and border management clearance.
Infrastructure	The quality of trade and transport infrastructure.
International shipments	The ease of arranging competitively priced shipments.
Logistics competence	The competence and quality of logistics services—trucking, forwarding, and customs brokerage.
Tracking & tracing	The ability to track and trace consignments.
Timeliness	The frequency with which shipments reach consignees within scheduled or expected delivery times.

Table 4 - Explanasion to chart 2 (World Bank, 2015)

The spider diagram above shows Kenya's rating in the World Banks Logistics performance index in relation to other countries in east Africa, other lower-middle-income countries in Africa and Sweden. Their average of the six categories and their world rank is presented below.

Country	Logistics performance index	World rank
Sweden	3,96	6
Kenya	2,81	74
Nigeria	2,81	75
Botswana	2,49	120
Tanzania	2,33	138

Table 5 - LPI Rank (World Bank, 2015)

5.4.2 Digital infrastructure

Kenya's technical infrastructure has developed rapidly over the last ten years. Kenya has had satellite access since 1970, but in 2006 private telecom companies, notably Safaricom, opened a satellite earth station in Nairobi. This laid the foundation for initial build-out of the 3g networks. The next step in capacity came with the landing of four underwater cables in Mombasa starting in 2009. Capacity increased by several orders of magnitude to over 8 Terabits per second (GSMA Mobile for Development, 2014). As of November 2015 is Kenya the country in Africa with the highest internet penetration (internet users per population) according to estimates by Internet World Stats (Internet World Stats, 2016).

- Prices for a basic phone is less than $15*
- Prices for a smartphone is less than $100*
- 60% of Kenyans living on less than $2,50 per day have mobile phones*
- 82,6% of Kenyans have access to internet**
- 35,5 million of Kenyans use internet**
- 7,2 million has broadband subscriptions**

* (GSMA Mobile for Development, 2014)
** (Communications Authority of Kenya, 2016)

5.4.3 Non-Government Institutions

There is a plethora of different NGOs active on the Kenyan scene filling different functions. There are NGOs like Aspen Network of Development Entrepreneurs (ANDE) that is a global network of organisations that promotes entrepreneurship in emerging markets through education, workshops and the diffusion of information. These are the NGOs that involve the local actors to solve common problems with a broad scope and no particular sector in mind. Then there are the NGOs like YEF Africa or DOT Kenya that tries to empower the youth in the entrepreneurial sector to be the leader of change or Dalberg Global Development Advisors that targets female-led ventures.

Many of them are active in a networking fashion or as touch points between stakeholders. These activities takes forms such as conferences, workshops or weekly meet-ups. More prominent events has taken place in Kenya in the recent years, with the 6th Global Entrepreneurship Summit in 2015 as a shining example.

5.5 Human Capital

This domain is not only a critical part of the EE but a critical part of the success of a country. There is a direct linkage between the quantity of human capital and economic development, and an economy without people with skills and knowledge, physical capital will remain underutilized. Today's economies and wealth creation also tend to be less dependent on factories, lands, tools and machinery, and more dependent on knowledge, skill and resourcefulness. As a side effect, economic equality decreases when understanding of a country's natural resources, production techniques, existing market conditions and opportunities flourishes amongst the population, all of which increases with education (Nick Clark, 2015).

In Kenya children of both sexes can expect 11 years of schooling if they are enrolled (The Central Intelligence Agency, 2016), starting at the age of 7, with the overall enrolment ratio for both sexes being 83, 5% in 2012 which is a great leap from the 63, 0% in 1999. A large part of the difference can be derived from the fact that free primary school was introduced in 2003. Secondary education in Kenya begins at the age of fourteen and usually lasts four years, though big regional differences may occur, especially in rural areas. The enrolment ratio for secondary school took a natural bump from 43 % in 2003 to 67 % in 2012 following the introduction of cost-free primary school (The Central Intelligence Agency, 2016). After secondary school pupils can enlist to 48 different universities in Kenya of which 22 are public and 26 private. A huge expansion has been seen in this sector of the education system as well, most notably the fact that only five public universities were running in 2005 The impact of the admission free primary school has now reached the universities with a doubling of the enrolling in university studies between 2012 and 2014 (Nick Clark, 2015). Of these universities, five of the public ones and 15 of the private ones were located in Nairobi. Studies have

shown great inequalities in respect to education and the government are looking to extend the education more deeply in the country, but these plans are not yet realised in any way (ICEF, 2015).

Notwithstanding, a million eligible children were not in school in Kenya in 2010, which was the ninth highest country in the world. University funding was cut by 6 % in the national budget of 2015, which means a mismatch between funds and enrolment growth that most probably puts a heavier burden on students in the form of tuition. And the total expenditure on education as % of gross national income has stayed the same since 2010 at 5, 9 % which is the lowest level since 2003 (Index Mundi, 2015). Furthermore issues relating to educational quality is still to be resolved, for example has illiteracy rates amongst students in primary school increased and over a quarter of the youth have less than lower secondary school. And one in ten do not complete primary school, with fewer girls than boys able to finish (Glennerster, Kremer, Mbiti, & Takavarasha, 2011).

In relation to its neighbouring countries Kenya is at a fair level, with most indicators such as enrolment being slightly above the average of the region and in fact the average of the SSA. And in terms of funding, Kenya stands out as committed to spending in the educational sector. But as for most of the countries in the SSA and Kenya being no exception, young people from disadvantaged groups are least likely to have skills for decent work (Unesco, 2012).

In 1990 the Ministry of Research, Technical Training and Technology made one of the first efforts to provide students with entrepreneurial education. They initiated a project that led to a policy requiring all technical students to complete a course in entrepreneurship education. This had a profound effect on the institutions providing the courses with new organizational units, curriculum development and teacher training. And became the start of not only a new trend amongst universities but also start of a new way of thinking about entrepreneurship. The ministry wanted to establish enterprise culture and help the youth (Nelson & Johnson, 1997).

In regards to entrepreneurship education today, the scene in Kenya seems well developed and generally accepted in the public sector. The skills delivered must facilitate the students in the founding of their own company and also in the initial phase of growth and this is implemented in the form of the Integrated Entrepreneurship Education. The teaching of entrepreneurship is compulsory and often integrated in other subjects often related to the studies of business and trade and is a part of the secondary schooling. Entrepreneurship education on a higher level, like colleges and universities, is not mainstreamed and part of all curriculums yet. Nearly all instances offers business studies programmes within the school but some have started specific programmes in entrepreneurship. And eight of the universities has established centres

of entrepreneurship, which are excellent examples of institutional commitment, but the overall level is still relatively low (Kaijage & Wheeler, 2013).

Kenya has a more systematic approach to entrepreneurship than the rest of East Africa and this is shown in the level of activity in different layers of the educational system. This is aligned with Kenya's vision to become a middle income country by 2030 in which one tool is to have globally competitive base of human resources that can adapt to a changing economy, but the whole system is not fully functional and more can be made.

5.6 Markets

When writing about the domain markets in Kenya it is hard to generalize for two reasons. The first being that all sectors vary greatly in the sense of early adopters, reference customers and networks for entrepreneurs, and the second being that there is not much written on the subject with Kenya in focus except for the ICT sector. Nonetheless how a country diffuses innovation and at what rate effects the economy as a whole in general and entrepreneurship especially with disruptive innovations which are as mentioned before the hope of many companies and countries alike in Africa (Rogers, 2003).

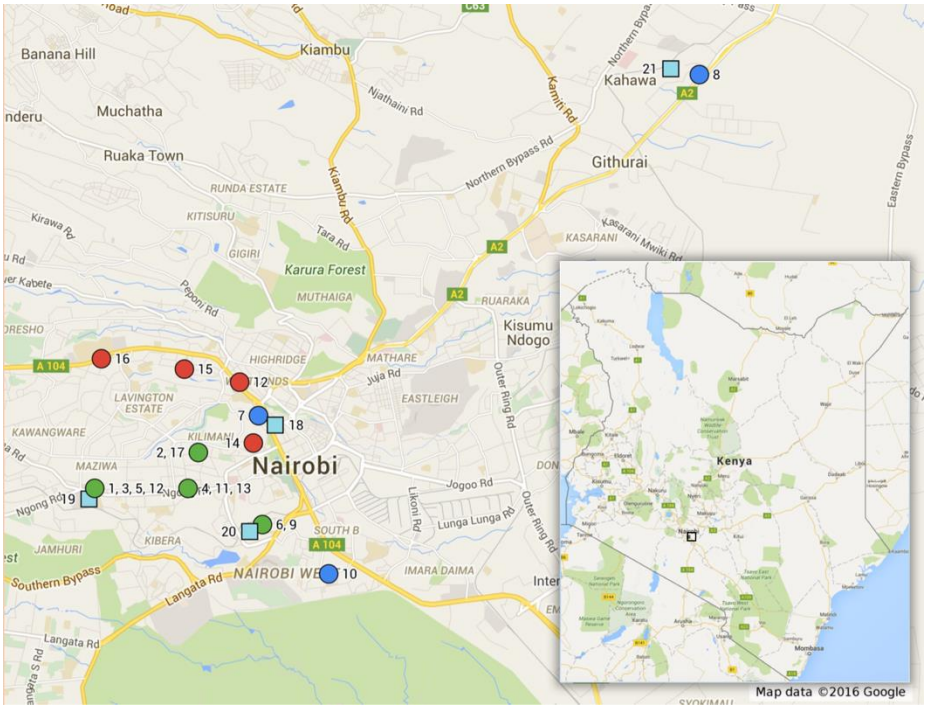
As ICT has been the sector of focus and where it all began there are a couple of examples that illustrates the potential of the Kenyan markets. The most striking example always being M-Pesa, which itself being dependent on early customers but even before that a willingness to adapt to mobile phones ICT. This willingness is not only shown in the general public in their adaption to mobile payments (Ngugi, Pelowski, & Ogembo, 2010) but also shown in the private sector, where Kenyan firms are in the forefront in Africa in the usage of machine to machine communication (Daily nation - National Reporter, 2014)(Lourie, 2015). The public sector also seems eager to adapt and be part of the movement, which is shown through the Kenya Open Data Portal. The portal makes government datasets accessible to the public in an effort to include the public in solving problems and building solutions but also to increase civic participation. The project is supported by the ICT Authority of Kenya and are currently displaying data from four sectors – agriculture, education, energy and environment (Kenya Open Data, 2016).

There is no lack of multinational corporations active in Kenya, like Google investing in renewable energy and setting up shop in Nairobi (Harvey, 2015) or IBM setting up a research facility in Nairobi for the whole of Africa called ThinkLab. The often choose Kenya and Nairobi as their base for operations in East Africa which creates opportunities for a variety of local businesses. The opportunities can range from a supporting role in and around the companies or to engage in more direct business. A positive effect being that entrepreneurs in the community getting access to corporations with knowledge, global reach and vast networks. Regarding diaspora networks in the Kenyan EE it seems like they have an impact in regards to financial

inflows as for Africa as a continent, but these networks maybe have a bigger non-economic benefits through the transfer of skill and making information available (Kshetri, 2014).

5.7 Startup support organisations

Finding information on existing SSOs in Nairobi turned out to be a challenge. The most successful method turned out to be searching the web, using Googles search engine, for articles and homepages. Below is the ones found, displayed on a map of Nairobi (Picture 2) and also outlined in table 5.



Picture 2 - Map of Nairobi

NR		SSO	Type	Sector
1	🟢	88Mph	Accelerator	ICT
2	🟢	Growth Africa	Accelerator	All
3	🟢	Merck	Accelerator	Health
4	🟢	Nailab	Accelerator	ICT
5	🟢	Nest	Accelerator	Smart Cities, the Internet of Things, Fintech and Healthcare Technology
6	🟢	@IbizAfrica	Incubator	All
7	🔵	C4d	Incubator	ICT
8	🔵	Chandaria Business Innovation and Incubation Centre	Incubator	All
9	🟢	Kcic	Incubator	Water management, renewable energy, agriculture
10	🟢	Kirdi	incubator	ICT, Food, Chemical
11	🟢	M:lab	Incubator	ICT
12	🔴🟢	Nairobi Garage	Coworking space	All

13		Ihub community	Coworking space	All
14		Pawa254	Coworking space	Art
15		The Foundry	Coworking space	All
16		The Hub East Africa	Coworking space	All
17		Ande	Policy shop, NGO	All
18		University of Nairobi	University	All
19		University of Nairobi Kenya Science Campus	University	All
20		Strathmore University	University	All
21		Kenyatta University	University	All

Table 6 - SSOs of Nairobi

6. Field study results

This chapter contains the results of the field study conducted in Nairobi from the 17th of March to the 10th of May 2016. But before the results are presented a short description of the survey population is given and summarized in table 7. The results are divided into the six domains introduced in chapter three, theoretical framework, with the addition of one category which compiles the different trends amongst the SSOs and can therefore be seen as an extension of the support domain of the EE. The questions asked during the interviews can be found in Appendix A1- interview guide.

6.1 Survey population

The organisations selected to be part of the field study were chosen to give a broad and comprehensive picture of the SSOs. The sample include a couple of other organisations who were included to refine the questionnaire and highlight areas of interest.

Startup Support Organisation	Type	Start	Size	Financing	Program	Partners	Sector
Nest	Accelerator	2015	5-10 companies	Hong Kong investment funds	12 weeks	Nest Global	All
Nailab	Accelerator	2010	10-15 companies	Kenyan state	6 months	1%club, Microsoft	All
Nairobi Garage	Coworking space	2011	230 companies/ 400 seats	Members / partners	Networking and events	88 mph	Online services
@IbizAfrica	Pre Incubation, Incubator, Acceleration	2012	25 companies / 100 seats	Tennent rents and Strathmore University	Accelerator 3 month, incubator 3-12 month	Strathmore University	Specialized in ICT but takes on other as well
Ihub Research	Research support	2011		Consulting / Ihub	-	Ihub	ICT
KCIC	Incubator/ research support	2012	25 seats	Consortium of banks, UKaid, InfoDev	3 months	Strathmore University, GVEP international	Water management, renewable energy, agriculture
ANDE	Policy shop, NGO - development agency	2012		N/A	Events	Aspen institute	all
Ihub	Coworking space	2010	70 seats	Self-sustaining / partners	Networking and events	Oracle, Intel, Google	Specialized in ICT but takes on other as well
Merck	Accelerator	2016	4 companies (expanding)	Merck group	4 month	Merck Group, Nairobi Garage	Healthcare, life Science, Performance materials.
C4DLab	Pre-incubation, incubator	2014	10 companies	University of Nairobi	6 months	ICT Authority, School of Computing	ICT
The Foundry	Coworking space	2014	10 Companies / 25 persons	Self-sustaining - tenants rent	networking and events		All

Table 7 - Study SSO

6.2 Areas of interest/ the six domains

In this section the answers on the EE characteristics will be presented.

6.2.1 Policy

There were two general agreements amongst the interviewees in regards to the policy domain. However there were discrepancies in regards to how the government should tackle this domain and the take on the policies regarding the public sector. The overall review from the interviews were a mixed bag, ranging from mostly negative to somewhat positive.

The first and perhaps most important general agreement was that the government has realized the importance of policy work and have or are starting to try to address this domain. This is where the discrepancies began. One thing mentioned was that the government's policy work was incoherent. That some policies had a profound positive impact on one sector or one type of actor in that sector, but could have an almost equal impact on another sector or actor but in a negative way. Like a policy affecting solar panels, where an initiative lowered the value added tax for imported solar panels. But the value added tax stayed the same for the different parts imported separately which made local production dependant on import unable to compete. Or that new policies contradicted older ones which left companies perplexed and even facing reprimands because they didn't follow the set rules. Another mentioned thing was that not all sectors was counted for in the policies rolled out by the government. For example, many argued that the ICT sector got the most attention and has a solid ground policy-wise.

The second agreement was that it is easier than ever to start a company in Kenya. Mostly because regulations regarding the establishment of companies had lightened. The renewal of the companies act introduced in 2015 meant that many bottlenecks disappeared which also contributed. The last thing mentioned that had a positive effect on the ease of starting a business was that many processes had been automated and digitalised. One interviewee said that the effect of this may be bigger in a country like Kenya with its at least said complex bureaucracy and limited access to institutions.

As mentioned one of the more debated policy areas was the public sector. Although not asked directly during the interviews nearly all interviewees touched this area in one way or the other. There was some ambiguity in the answers, as they praised the government in a couple of areas but was critical in others. One thing was that the government should open up more and become more transparent to enable the public and ventures to take part. Especially interesting would be areas like education and healthcare and the way procurement is done. At the same time the some mentioned that the government is going digital and are more and more interested in how startups can affect the public sector and how the government might reach out via policies and

regulations. A common thought was that there need to be more support functions and policy directives in regards to the public sector.

Granting that this study is focused on the EE thriving in Nairobi the survey showed not only differences in regards to which sector a company was making business but also where. A couple of SSO and entrepreneurs mentioned the fact that there are big differences if you are trying to start a new venture in Nairobi or almost any other place in Kenya. Many, if not all, institutions related to starting or making business are in Nairobi and Nairobi only which puts rural areas aside.

As for affecting policy makers in their decisions, the companies included in the EE are often too small to make a difference. One thing that came up during the survey was that big companies from the outside or native ones can place themselves as policy actuators, maybe not towards entrepreneurship in particular, but towards business. Bigger companies can have a bigger impact and are more likely to get the governments attention.

In general one could say that coworking spaces and SSO niched to other sectors than ICT was more negative in their reflections concerning the policy domain and thought that the government's efforts were misguided. ICT related organisations on the other hand thought that the government made progress but progress could still be made in regards to the overall direction. This was more evident in organisations related to

6.2.2 Finance

All interviewees mention access to capital as a crucial part in the early stages for most startups. There is no doubt that the last few years hype around Kenya's ICT sector has put Nairobi on the map for venture capitalists and companies around the world. Every year there is more money flowing in earmarked for promising ventures. But is it enough, does it end up in the right hands and does it promote the local ecosystem? Well, the answers to these questions are in general quite similar but the interviewees highlight a few issues with the financial support system.

The general opinion is that money exists, there is capital to be found but access to it is more difficult. There seems to be a gap between the expectations of the investors and the entrepreneurs. There are a many investors looking for opportunities with return possibilities similar to investments in developed countries. The fact is though that these kind of investments are very scarce in Kenya due to the country's economic situation. While as entrepreneurs believe the investor expectations to be lower and that they therefore can meet them.

Many interviewees also discuss the size of the ticket, which refers to the amount of money invested. The concern is that many investors are offering too big ticket sizes. There is a great demand for smaller seed investments. $10,000 in ticket size is often

more than enough for an early stage Kenyan startup. When asking why there is a shortage of investments of these smaller ticket sizes the administrative costs are stated as one of the reasons. The costs for an investment is the same regardless of the amount invested. Hence investors tend to invest a greater amount in few companies rather than smaller amounts in a many companies. As a result, many promising ventures do not have the means to continue developing their business idea.

Another way for startups to access capital is through grants and competitions. This kind of capital should motivate and keep entrepreneurs with viable business plans and ideas going. An opinion amongst some of the interviewees was that there has been an overflow of capital distributed through these channels during recent years. And moreover that this has had a negative effect on entrepreneurial development. According to them entrepreneurs have focused more on getting grants and winning competitions instead of actually developing their startup. These entrepreneurs have been given the name celebrity entrepreneurs. Some of the interviewees who mentioned this phenomenon does however see a decline of this overflow which results in less celebrity entrepreneurs. This decline has not just affected entrepreneurs but also organisations like iHub whose most important revenue has been grants. The type of investors who used to give iHub capital are now looking for results and return, which to this point has been inadequate.

There is a shared opinion that with the Silicon Savannah hype there came to much money at the same time for the ecosystem to handle but things are starting to adjust and stabilise.

When it comes to loans there are a great deal of banks who offers loans at reasonable prices as long as you can show for some collateral. Amongst the entrepreneurs who take on debt you will not find any of the celebrity entrepreneurs. Instead, taking on debt is considered a good way for entrepreneurs to stay motivated and become stronger and more resilient to setbacks.

Overall, were there three interviewees who did not consider financing a major issue, these were Merck, @iBizAfrica and Nest.

6.2.3 Culture

As Isenberg states in his model, the cultural aspects of the EE are a key ingredient for it to flourish. The interview data indicates that the culture in Nairobi in particular has its advantages and disadvantages. These areas are stated below.

All our interviewees states that the Kenyan are entrepreneurial, he or she has to be in order to get by. Apparently this does not just apply to the ones who run or want to run their own company, it goes for everyone. There is a thing called *side hustles*, which shows an entrepreneurial mind-set. Side hustles could be an extra job or some dealings

on the side of one's main occupation, basically it is something that have the potential to generate extra income. There is some social status related to these businesses and the more of them a person has, the higher the status.

Those interviewees who coaches entrepreneurs in their SSO mentioned some negative effects of these side hustles. They talked about entrepreneurs who ran a number of these so-called side hustles, with the problem being that they focus on the ones that give the quickest returns. This leads them to have a short term thinking and not dedicating themselves to the business that has the most potential in the long term

As mentioned earlier the Silicon Savannah hype has had a huge impact on Nairobi. Overnight came venture capitalist from all over the world trying to find the next M-Pesa to invest in. Corporations wanted to spend their CSR budgets in the blooming technical hub of Nairobi without following up what impact their capital actually had. Our interviewees agree that the EE was not ready for such a transition, but some also discusses the difficulties in preparing for such a thing. One said that the only way is to experience it and then try to adapt as quickly as possible. Regardless of Nairobi's readiness for the hype do the interviewees agree that it has had a great positive effect on the culture. Nairobi has adapted and learned a lot and most importunely, the interest from investors has not decreased. Another great effect the hype has brought is that banks and institutions as well as the general public now consider starting your own company more respectable than ever.

As mentioned in the finance section, the Silicon Savannah hype brought the celebrity entrepreneurs. These people made business out of networking, applying for grants and entering startup competitions. They became good at pitching their ideas in a way that attracted the juries of competitions and foundations and were able to get a good living out of this. Not only did they pollute the system but they were able to steal grants from the ones who actually intended to use it in a good way. According to our interviewees the system has adapted and learnt to detect these kind of fraud entrepreneurs. But there are still some worries about another kind of more honest startups. These kind of startups have, unlike the celebrity entrepreneurs, the ambition to grow their company, expand and employ more people. But instead of working through their rough patches to develop their company further, they focus too much on how to seize the next round of grants which can keep them going for another year.

There are two kinds of entrepreneurs, the ones that are happy with providing for themselves and the ones closest around them, these are called bread and butter entrepreneurs, and then there are those with the ambition to become one of the great success stories. When asking the interviewees which of these two categories the general entrepreneur belongs to, the answers were ambiguous. Most of the people in Kenya who are running a business are probably of the bread and butter type, but the ones who look for help at an SSO generally have a higher ambition than that. Our interviewees

mention the cultural differences between tribes in regards to this question. How some tribes are content with what they have and have a tradition of sharing while other tribes are more driven and prone to seek wealth. This latter kind of mind-set is also more common in the big cities than on the country side and is according to our interviewees more favourable for entrepreneurs.

6.2.4 Supports

The strong majority of information collected for this domain is presented in the SSO trends section in 6.3 SSO trends. However, when in it came to infrastructure, most of the interviewees agreed that there certainly is work to be done.

It is evident that a lot of investments go in to roads and railways. But it is mostly investments to connect the bigger cities and to create a functional grid in East Africa. Even though this of course is very good, very little indicates that more effort will be put into making the countryside easier to access or tempering the traffic situation in Nairobi. Most Kenyans live in rural areas and many of these places are very difficult to access, which makes business in these areas a lot more difficult.

Nairobi's traffic is by many referred to as a chaotic situation. New buildings are being built, but the road development do not follow the same pace. This leads to increasing traffic on today's roads. All this while the current traffic condition brings travel time fluctuations from 15 min on a good day to one hour and 15 min on a bad day for the same distance. In general, it is safe to say that people are very happy for the investments being made but also aware that these will improve one part of a system which needs a total improvement.

When talking about the digital infrastructure people are certainly more optimistic. Even though the physical grid for both electricity and communication reaches far from everybody, Kenya is experiencing amazing leapfrogging. For instance is M-KOPA making it possible for the citizens in the most rural areas to get sufficient electricity to charge their phones and to have light at night. Moreover, is high speed mobile networks reaching new rural areas on a daily basis, which greatly improves the spreading of information.

6.2.5 Human capital

Almost all interviews revealed that there is a gap between what is being taught in school and what knowledge is needed to conduct business in Nairobi. Most of the interviewees pointed to outdated curriculums as a big part of the problem where the pupils are missing practical training. The academy has not adapted to the more flexible business environment yet and graduates are not poorly educated in a theoretical sense, but are lagging in certain areas. This leads to an artificial picture of the situation in Kenya, where more and more are being educated but at the same time not in the right way.

Some even said that there are enough entrepreneurial training in school, but it was the practical training that was missing.

Echoing what is pointed out above is a problem which also almost all interviewees mentioned, that there is a general lack of market understanding. People are not exposed to the markets in the same way as in other places, they are not a part of them. This tends to be truer in rural areas when most of the business in many sectors are taking place in Nairobi. Some mentioned that there are a lot with emphasis of for example good programmers but few with the business mind-set and knowledge needed. There is a big need for people with both the technological knowledge and the business expertise on the startup scene.

One other explanation given to this problem was that graduates are seeking the more secure workplaces. These more secure workplaces are bigger, more established firms whom can pay more and probably often without interference. When young people weigh security/stability against risks/ possibilities in a country like Kenya they tend to choose the latter. These firms have also come to realise that graduates are missing knowledge and are trying to correct this with internal training. Even universities have come to realise this and have rolled out policies making pupils get experience through internships.

In this domain nearly all organisations perceived the same things. There were no differences in regards to which sector they were active in, which type of SSO they were or if they were connected to a certain institution like a university or a NGO. But some concluded that talent was concentrated around Nairobi and less elsewhere.

6.2.6 Markets

The overall attitude towards this domain was bland and perfunctory during the interviews, though there were some common thoughts but no answers that stood out.

The first thing mentioned in most interviews were that there is an appetite for innovation in Kenya, people generally are seeking things that can solve a problem and therefore make life easier. Or as one interviewee put it, the markets in many sectors are full of needs which is a driver and forces people to become early customers. These customers may be early adopters and reference customers towards the market.

The appetite for innovation seems to be displayed unequally, where the ICT sector is more mature. Some said that the ICT sector even was beginning to become saturated and that people weren't seeking innovation at the same rate as before and that in the end not all companies can be sustained. Sectors such as agriculture, healthcare and the public sector in general are seen as markets hard to penetrate containing few early customers.

One sector or maybe best describes as part of a sector that perhaps is the strongest at the moment in this domain is fintech or financial technology. It is best labelled as the digital disruption of the financial services industry where M-Pesa is at the centre of everything. The setup of M-Pesa some of the interviewees makes more sense in Kenya or in Africa then elsewhere as few people have access to regular financial institutions like banks.

The only network mentioned were the ones connected to the multinational corporations present. The corporations often reach out to the SSOs with job offers, such as market research. When contact is made, they often return to the SSOs for networking events and such. There were examples of people moving from the SSOs and associated startups to the corporations. This deepens their relationship and enables the networking.

SSOs linked to universities had the least to say and where overall positive.

6.3 SSO trends

During the interviews questions were asked about support organisations in the EE with focus on the SSOs. The questions were concerned with how the organisation has changed since it was founded, what sparked those changes and if they saw any trends amongst the other SSOs in the EE. The following paragraphs presents the findings in general terms and is separated from the support domain due to this being a central part of the study and therefore needs to be highlighted.

The first finding presented is perhaps the most important one - that the correlation between financial sustainability and startup supporting is low. This issue seems to be more pressing now than ever with investors leaving the scene or investing in other ways or in other projects. Nearly all SSOs interviewed had or were trying to adjust their flow of income to be more self-sustaining. There were different takes on how to adjust to this new setting. Some were trying to keep their core business intact and at the same time find new revenue streams like starting or expanding functions selling services to the private and public sector alike. These services included but were not limited to consulting and many of the commissions were market research. Others were changing their business model in different ways, like Nairobi Garage who is becoming more like a first generation incubator by diverting their revenue stream to be composed largely of rent. For many SSOs a main theme was the reliance on rent to secure income in the future. A third theme discovered was that SSOs are taking equity in the startups on a wider scale. They are also changing how the contracts work, like Nailab who now have an option to get 10 % equity after two years if certain goals are met. A spillover effect from the search to become self-sustaining or for some one of the reasons for the changes is that they think they are seen as a more legit actor on the scene. Many argued that to be seen as a competent and serious actor one cannot be dependent on grants or capital from the outside.

Partly sprung from the new financial constraints described above is a diversification amongst the SSOs. As stated above some are moving away from the incubator setting and are becoming more of coworking space and some new actors are also filling this space. Others are trying to find their own niche by targeting different startup levels, ranging from pre-incubation to working with companies ready to establish themselves. The pre-incubation support perhaps the most novel of the niches. A third way they are diversifying is through the targeting of new sectors. In the beginning of 2010s nearly all SSOs established themselves in and around the ICT-sector, which is natural when this was the EEs starting point. But now they are spreading out and targeting new sectors or trying to target small segments within sectors. The most apparent new sectors are agriculture, healthcare and education which are sectors affecting a large portion of the population, areas where the government is involved or a combination of both.

The interviews indicated that there is a growing demand of affordable office spaces for startups and SME's. Something that Nairobi garage foresaw and opened a new office in 2015 which now is Africa's biggest coworking space with 400 desks. The same people who run Nairobi Garage is also partially running the successful incubator 88mph who has had its offices in Nairobi garages first coworking space on Ngong Road. By the same time Nairobi Garage opened its second office 88mph decided to pause its incubation and seed investment business, they have still not started again. The Foundry which is a coworking space of a smaller scale opened in December of 2014 are looking to expand its business. Both of these organisations vision is to help startups to get on their feet through networking and events. But to keep a steady income can not only have startups as tenants it is too unstable so they also fill up with entrepreneurial SME's.

Most of the organisations which were interviewed mentioned customer focus as one of the major issues when coaching entrepreneurs and startup teams. Many startups have a great product idea but a common mistake is to make it too complicated. They often include extra functions which all seems necessary in the entrepreneurs perspective but often not is in line with what the customers wants. With this in mind, the iHub consortium created the UX-lab in 2012 when the ICT-focus was at its peak. The UX-lab researches the user experience and helps startups develop more user friendly applications. When more and more entrepreneurs with ideas of tangible products appeared, iHub realised another need which led to the creation of the newly opened Gearbox. Gearbox is made for hardware creation with tools and manufacturing equipment otherwise out of entrepreneurs and startups reach. It is a site for production of prototypes and manufacturing optimization.

One thing that are affecting the SSOs but perhaps is best dealt with by organisations surrounding them is the need for information diffusion. Many SSOs mentioned the same need, the need for some sort of database containing which startup that has gotten investments, won competitions or been through an incubator or accelerator programme. Many interviewees pointed to the existence of celebrity entrepreneurs and

startups not seeking to grow as symptoms of the lack of the sharing of such information. The organisation ANDE are trying to address part of this problem by connecting angel investors active on the Kenyan scene with each other via a platform. On this platform they would be able share who they are investing in at the moment and at the same time help one another to reach interesting and suitable companies. Market information regardless of sector were another need mentioned by many, even the ICT related SSOs saw a need for market research and the diffusion of this information.

7. Analysis

This chapter contains the results of the triangulation made between both studies and the theoretical framework. Both studies are looked at in order to try to find differences, confirmations or complementing views. The analysis is outlined in the same manner as previous chapters, part from one instance where analysis is presented that did not fit into any of the former categories. Emphasis is put on finding connections and diverting from speculations.

7.1 Policy

The literature study and the field study both points to that the policy domain is under construction and not yet a solid part of the EE. Proving this point are the inconsistencies in the policy work, in the institutions that are enforcing them and the lack of certain parts of leadership elements.

In regards to the government part of this domain some elements are there. There are evidence of financial support and research institutes are for example being established. On the other hand the regulatory framework is a mess, the institutions are sometimes cancelling each other out and the policies are contradicting each other. While some measures suggest that Kenya has come a far way policy-wise the effects seems to be limited in the EE. Some policy-initiatives aimed at other ventures or systems spill over into the EE and can have both a positive and negative effect as shown in the examples in results. This emphasizes the importance of the need for different instruments for the EE than for other systems which is stated in the theory. And this proves the point that the domain is not yet fully functional.

The same applies as far as leadership goes which is the second part of this domain. Some elements are there or being constructed and some are missing. One can ascertain that social legitimacy is present in the policy work and that some urgency is placed into this sector. But on the other hand there is no clear entrepreneurship strategy which is also shown in the examples. Another element of leadership is the open door for advocate, which is seen in the literature study in form of the Open Data Portal. But not mentioned in the result chapter and clearly not effecting the EE. Other examples is the notion that companies are to small affect the policy-makers and that it is a good thing if big companies settle in Nairobi so that there are legit actors that are influencing policymakers. This validates some of the criticism mentioned in the literature study, namely that the government are not involving other stakeholders and are picking the winners all by themselves. Another sign of the lack of advocate is the difficulties entering or affecting public sectors like education or healthcare. Sectors the government ought to be interested in opening up and yet another indication that the Open Data Portal is less than functional.

And though Kenya may be on the right track, as many of the different measurements show, there is still a lot of work to be done. Like with the ease of doing business rating, the actors on the scene are experiencing improvements but in comparison with the world Kenya is subpar. The credit factor that exploded in rating can be explained by looking at the rankings. Though the jump might seem high, a lot of countries had similar ratings and a small improvement meant that Kenya bypassed a lot of them. In conclusion the policy domain is maturing and some elements are there, where the ICT-sector may benefit the most from the current setup. But the overall performance leaves much to be desired.

7.2 Finance

Isenberg states that for the finance domain of the EE to be fulfilled a number of actors who provide funding to startups in all stages must be present. Through the literature study a majority of these actors were found. This indicates that the tools to economically drive entrepreneurship and startups exists. Although, whether they are fully functional or if they are the right fit for the EE in Nairobi is another question.

As the availability to finance is considered as one of the most critical features in an ecosystem, the answers in this area is of great interest. There is an interesting contradiction in the findings from the field study. Most organisations mentioned access to funding as a major issue for startups. While they also expressed that there is a lot of investors looking to invest.

It is evident that there is a large influx of money to the market in aid, remittances and FDI. And according to the field study there is a notion that there has been an increase of investments during recent years. Which is also evident when looking to the FDI increase for 2013 and 2014. There is of course the possibility that the demand for investments has risen in the same pace as the increase in FDI, so that the conditions for the individual startup is unchanged. This would mean that the demand has increased with more than 500 % over a period of three years, which might not be likely. This argues that there more money exists and investors looking to invest.

Finding funding and creating revenue is generally known as a big challenge for most young ventures. Therefore is it no surprise that the findings in the field study points to that most startups consider access to finance an issue.

It is clearly a gap between the funding and the startups. There exists capital whose investor wants to invest and there are startup looking for funding. One explanation why these two do not match could be as the findings say, that there is a gap in expectations. The investors expect more from the general startup then they can offer. And the startup undervalues the investors' expectations, hence no deal is done. In the field study a few stated that investors were looking for the same return rate in Kenya as a developed

country. Which is not surprising for why should they invest in Kenya if the outlooks for the investment is better somewhere else.

The dissatisfaction of ticket sizes shown in the field study is a strong indicator of a lack in seed investments. Investors do not seem keen on investing small sums into a greater number of ventures. Since seed investments goes to early stage startups the risk of the investment increases. But on the other hand, by investing in many different ventures decreases the total risk decreases. There seems to be an opportunity for an organisation to link investors and promising ventures who are looking for seed money, and to make the process of these investments more efficient in order to bring down the administrative costs.

Merck and Nest was two of the organisations who stated that accessing funds for startups was no great difficulty. These two organisations already have major funding through the parent company for Merck, and a Hong Kong investment fund for Nest. A part of their value proposition is to channelize capital to the startups within their organisation.

7.3 Culture

Isenberg states culture as a vital feature of the EE. In order for the EE to flourish there must be an entrepreneurial culture. There must be success stories that nurture the societal norms and inspire people to take the risk of making something out of their ideas.

This study has painted a picture of the Kenyans generally being innovative and driven. But maybe not to the extent needed for a successful EE. There has always been the natural urge of providing for yourself and the ones closest to you, which has led to a basic entrepreneurial spirit. But then came the digitalization with mobile phones and internet which led to success stories like M-Pesa and Uschahidi. These innovative companies showed that success can come from within Kenya and created a spark of ambition that extended beyond the bread and butter business. Not only did M-Pesa show success from a Kenyan innovation it also opened up a new market and a new tool for business. All of a sudden could anyone send money from one place to another without owning a bank account which created new opportunities.

In 2010 iHub started and created a place for ambitious and creative people to work together and to learn from each other. iHub has grown and become the heart of the entrepreneurial Nairobi and has had a great effect of knowledge and cultural spillover. More SSOs opened shop, the EE was developing and articles of the entrepreneurial Nairobi was becoming more and more common.

Following the articles which put Nairobi on the map came the inflow of capital, which created a ton of new possibilities. And as the findings of the field study shows, along

came also people taking advantage of the situation, the celebrity entrepreneurs. But as statements from the field study also shows is the EE adapting and the culture with it.

According to the findings, the entrepreneurial culture of Nairobi is now getting more serious and a lot more result oriented. The publicity has created a greater respect for entrepreneurs which has led to a greater tolerance towards risk, failure and mistakes. Even though all this is good and it seems as though the culture is settling in, there are still some evidence of a short term thinking. One of the indicators are the side hustles. Which could originate from an older culture in Kenya of always trying to make money on the side. The other indicator being the exaggerated focus found in some entrepreneurs on getting grants. Some statements in the field study points to that there are startups which focuses more on grants and investments than developing their company. This is because it is an easier way to secure a source of income in the near future.

Most of this study is centred on Nairobi and one should be careful not to generalise Kenyans too much. According to the findings both in the literature study and the field study, the attitude and spirit depend a lot to where in Kenya you come from.

7.4 Supports

Isenberg divides the Support domain into three categories of Infrastructure, non-government institutions and support professions. All of which are a necessity for a successful startup environment. According to the model this domain also contain the SSOs which this study is partially focused on. Hence this focus will the SSOs analysis be presented on its own under subchapter.

Throughout the study, it has been evident that Kenya has struggled with infrastructural difficulties for many years. Reassuringly though, the government is well aware of the situation and according to the findings in the literature study a lot of capital will be invested to improve the situation in the coming years. Hopefully these investments will pan out and improve logistics and transportation. The traffic situation in Nairobi is on the other hand somewhat alarming. If what the field study suggests, that the city planning of road works do not follow the same escalation of the upraising of new buildings, the future of Nairobi's traffic is far from bright.

Kenya's digital infrastructure is in a class of its own, with over 35 million users Kenya has the highest internet penetration in Africa. Undoubtedly is this a great advantage for the ICT market. On the push of a button can a new application or homepage reach more three quarters of the Kenyan population.

According to the findings, there are several NGOs focusing on entrepreneurship active in the Nairobi region. Most of them is targeting different groups where they empower entrepreneurship, most occurring is NGOs working with women and the youth. The

field study shows that the NGOs work is highly appreciated. Considering that Nairobi got to hold the 6th Global Entrepreneurship Summit shows that Nairobi is becoming a global hub for entrepreneurship.

Nairobi is a metropolis and all support professions exists, and according to the field study are there SSOs in close collaboration with firms which provide these services. No praises nor complaints were mentioned in relation to these collaborations which implies a fully functional professional relationship.

7.5 Human Capital

When trying to evaluate the human capital domain it becomes clear that even though the expansion of the educational system target all of Kenya, a unreasonably big part of the higher educated are educated in Nairobi. Which means that it is possible to generalise about Nairobi when looking at the numbers for Kenya. Also evident in this domain is the governments mixed signals. On one hand they are proclaiming the importance of good if not great human capital as part of the vision 2030 and on the other hand they are cutting public spending on education.

These mixed signals are probably one factor in the decline of the quality of the education in Kenya presented in the literature study. One aspect of the expansion is that it solidifies Nairobi's place as the heart of the human capital domain even more, most likely making the educational system even more unequal. Where the rural areas will become even less relevant from an educational standpoint. Though it should be stated that not taken into account are the spillovers from the system to the rural areas. Not all graduates will be active in Nairobi. This fact is even more true when one takes in the diversification into account, where the new sectors targeted will spillover on a larger scale than for example ICT.

As for educational institutions they are present in the EE and produces skilled labour, the quality is not noteworthy though. The lack of quality also showed during the interviews as well, where the general graduate seemed to lack certain skills needed. Most evident, which might be a special circumstance for Kenya or developing countries, is the lack of market knowledge and practical experience. The authors found the fact that many were missing market knowledge and the fact that many has side-businesses to be contradicting. The most likely explanation must be that the ones that are attending universities comes from financially secure backgrounds and needn't work during their education. Whatever the reason, there needs to be more cross-functional education. Like stated in the theory chapter that a business centre placed at the engineering school tends to produce more positive effects for the EE than a centre at an economic school.

Another aspect of this domain are the presence of serial entrepreneurs which is a phenomena affecting the entirety of the EE according to Isenberg. Many of the interviewees had been entrepreneurs before joining the SSOs and thereby investing

their experience back into the EE. A couple of them still had some business on the side or had companies or ideas on hold. Another example of serial entrepreneurs are the people behind Ushahidi and iHub.

The last element of the educational institutions are the specific entrepreneurial training. The literature study told a story of a well-developed system for this type of training. The interviews painted a picture that there were enough entrepreneurial training and that the problems in this domain were elsewhere.

In conclusion one could say that the institutions are there or being constructed but that they are lagging. One could also say that there are human capital being produced but as an effect of the lagging institutions the capital produced are taught the wrong things. And perhaps one of the most important things that entrepreneurs are going serial.

7.6 Markets

As expected the literature study and the field study gave quite insubstantial material for the analysis for the markets domain. As stated there are few to none studies in regards to early customers on the Kenyan scene, but the field study showed that there are elements of the early customers part in place.

As for most of the domains, the ICT sector is the most developed, where early customers seemed to be found in earnest. But as seen in the literature study and resonated in the field study as long as an innovation makes life easier by solving a problem Kenyans will adapt it into their life. A fact which is reflected in the fintech-sector which has opened up a payment solutions for the many. As the average Kenyan or possibly the average East-African has a hard time getting a bank account or credit card, fintech is possibly the sector with the most eager early customers. Though as seen in the policy domain the public sector is as always closed for business according to the interviewees, with the literature study saying that the government is trying. Expertize in productizing is beginning to be found in the EE with the establishment of UX-lab and Gearbox, and the authors believe that there are many to come. This due to the inherent problem with the customer-centric approach.

The networks in the EE are somewhat discussed in the interviews. There is no lack of multinational corporations on the scene in Nairobi and even though most interviewees did not mention it directly the authors could determine the use of the networks of the corporations present. The diaspora networks are harder to elaborate about and more difficult to deem present or not. The authors believe that the most likely explanation for this is that entrepreneurs are not talking about these types of networks with the same terms and that it is such a natural part of the system that they do not reflect about its presence. The last element is the entrepreneur's networks which are present in Nairobi. There are many touch-points in forms of workshops, conferences and networking events often coordinated by SSOs or organisations like ANDE where entrepreneurs are

connected with each other but also other actors on the scene. These could be supports such as lawyers or accountants that sometimes are present at these events.

The bland answers and non-engagement indicates that the market domain either is a less relevant sector in the EE or that there has not been any problems in regards to this domain. There were no real differences in the answers given by actors in different sectors which also indicates that this domain is nearly fully functional to the degree the EE needs it to be

7.7 SSO trends

When analysing the trends it becomes evident that the changes to the EE affects how the SSOs are diversifying, which was expected. Another evident thing is that how the SSOs setup from the start affected the EE but also how the EE was at that time affected how they setup. The analysis of the trends are possible due to the previous analysis of the six domains of the EE.

First and foremost are the changes to the finance domain, where a different flow into the EE is found. At some point, as stated in the field study, money came in abundance. The authors believe that SSOs who established themselves at the same time as the hype and the abundance began, did not have to worry about the financial side of their business. And the authors also believe that the money did not come with any or enough demands such as return of investments or number of companies created. The organisations did not have any incentive to find other revenue streams and until recently this model were functioning. And now as the flow has changed, they must find sustainability via a bundle of different methods and at the same time find legitimacy in order to be seen as serious players towards investors.

The described lack of demands may have created an atmosphere for the companies inside the SSOs that growth is not the main aspect of their being. This would also be the spawning ground for the celebrity entrepreneurs found in the system. In this way the early SSOs might have affected the culture of the EE from the start, where their lackadaisical approach made entrepreneurship an easy way to get paid rather than a tough struggle but with great possibilities. In the end this might have made investors divert their investments away from SSOs and created the flow discussed above.

Rent is a stable and easy way of securing the financial flow, which explains the diversification towards coworking spaces in Nairobi. In a way some of the SSOs are becoming first generation incubators again, but holding on to some parts of their previous value proposition. One could say that they are working in the grey zones of the three types of SSOs presented in the theory chapter. They are redefining the role of a support organisation. Nairobi Garage which are trying to become the biggest coworking space in Nairobi, was partially spurred from the business incubator 88mph and is a great example of that grey zone. There prime purpose is to offer office space and solve

the practical issues that comes with an office for its members or tenants but they have also kept 88mph's specialization towards startups, creativity and entrepreneurship. To uphold this specialisation, they organise networking events and they invite specialists to speak or to hold workshops on a regular basis. They let their members choose the topics of these events to make sure that they bring needed knowledge. One could say that they offer all that of an incubator without time limit with focus on networking and knowledge sharing while they help their members with mentoring through outsourcing. A consequence of change though is that a coworking space as Nairobi garage attracts more mature startups than the ones of an incubator.

The older incubators and accelerator, for instance Nailab and @IbizAfrica, has experienced this change of financial climate more than others. In order to get by and to become self-sustaining they have started to find other sources of income. One reoccurring thing is consultancy services. The teams which main purpose is to help the companies in these incubators or accelerators is now also offering their services to companies outside the organisation. How this will affect the startups within the organisation is yet to be seen. But they will undoubtable have to be careful not to forget their main purpose.

The characteristics of the markets domain affected the SSOs due the availability of early customers in the form of reference customers and early adopters. As they began using these assets the distribution channels followed, so their efforts in regards to this element was from the beginning quite small. As the EE progressed and more sectors were included the demand for ways to connect products with customers became bigger. This is partly seen in the problems the SSOs have with their startups not being able to think customer-centric. It was from this demand that departments and organisations like UX-lab and Gearbox was established. The market domain is no different from the rest of the domains in the ease the ICT-sector has experienced. The other element of the market domain, namely the networks, have been strongly affected by the SSOs. The SSOs have been active in their work towards the multinational corporations through their networking events and their newly established consulting sides of which these corporations often use. This enables the entrepreneurs to reach these companies but also connects the entrepreneurs amongst themselves and broaden their network.

As stated before, the main purpose of the SSOs are facilitating growth amongst new ventures. This creates a need for them to be adaptable towards the needs of startups and entrepreneurs in the EE. UX-lab and Gearbox is perfect examples of the SSOs has created something to fill a gap in the EE. Nairobi Garage which is mentioned earlier is also another example, with their expansion of coworking space did they fill a gap between supply and demand of office spaces. These are just some examples that shows that SSOs in Nairobi are flexible and responsive to the EE, phenomenon which confirms arguments stated in the theory.

Human capital is mainly formed in the educational institutions found in the EE, but as both studies revealed the lack of quality means that some sort of refining takes place inside other organisations. For example inside the SSOs is one place where they get the training not covered by the curriculums. And through the different encounters with accountants or lawyers they are introduced to a wide variety of areas. In this way the SSOs are affecting the EE, by further forming the human capital. In the case of the EE in Nairobi it is evident that there is a strong correlation between the human capital domain and how the SSOs work.

The only domain where there is a strong lack of symbiosis is the policy domain. Both the literature and the field study are showing that the SSOs or other organisations are not able to affect the policymakers in Kenya. At the same time the policy domain has huge effects on their business in numerous ways. The SSOs are together with organisations like Ande creating interest groups to be able to reach a critical mass in order to make their voices heard. They are trying to bridge the fact that they are too small individually and that there is a lack of corporations that are big enough to influence. Furthermore the authors see policy as the only way for SSOs to affect the domain of infrastructure which leads to the easy conclusion that their voices are not heard.

7.8 Extended analysis

Even though the delimitations of this thesis were the EE geographically bound to Nairobi it became evident during the interviews and literature study that there are problems related to the general focus in Kenya. The fact is that doing business in Nairobi is like doing business in another world compared to the rest of Kenya. This is seen in the policy domain in both studies, in the supports found only found in Nairobi, in the available human capital in the literature study and also in the markets domain.

8. Discussion

This chapter will let the authors discuss and dissect the analysis. Foremost the EE will discussed as a whole and the most influential domains will be highlighted. Following is the notion of exclusion and the effects this might have on the success of the Kenyan strategy. It will also contain the authors' thoughts on the thesis credibility and how this might have been improved. Concluding the chapter is suggestions for further research.

8.1 The ecosystem and the domains

Isenberg's model of the EE enabled the authors to effectively examine the different domains and from that connect the SSOs to its evolution. It should be noted that, as stated in the theory, the NIS is comprised by the institutions and organisations. The interrelationships between them is what makes the system so complex and this makes analysis over several domains difficult. Thus many of the connections made are from one domain connected to one behaviour of the SSOs. Like how the finance domain have affected the SSOs by forcing them to diversify.

When sorting amongst the results the authors came to the insight that the ICT-sector have nearly a fully evolved EE. And as established in the theory an EE may start in one sector and spread to other sectors. This indicates that the soil must have been fertile with the place-specific properties needed. In the case of Nairobi the authors believe the universities and their data science centres has been the manure that boosted the establishment. Another notion from the theory is that there is a tendency for geographic clustering. This is of course seen in the geographical limitations the EE has, it is only present in Nairobi and even in Nairobi it is limited to certain areas. By looking at picture 2 one can see hubs within the EE have clustering tendencies in the vicinity of universities.

When generalising about the EE for all sectors it is evident that parts are missing and it is an understatement to say that it is immature. Many of the parts that evolved for the ICT-sector spills over into other sectors. Like the presence of investors, the establishment of supports like ANDE or the acceptance of entrepreneurship. But some domains do not have the luxury of these effects and are therefore lagging. As for the EE in Nairobi the most important domains were policy, finance and human capital. Important in the sense that these domains were the ones that the SSOs struggled with. The authors are not downplaying the significance of the ones not highlighted, but as every EE is constructed and thriving in a unique environment, some factors are more influential than others.

8.1.1 Finance

The finance domain is full of contradictions. Beyond the conception that money is available but at the same time difficult to get and the ticket size, the actors are far apart

in regards to expectations. As for the overall performance, there needs to be mitigating factors active in this domain. These factors would bring actors closer together and bridge some of the gaps present on the scene today. This domain has the potential to be a fully functional domain in the EE due to all necessary actors and ways of getting funds are there, but as of today this domain is a barrier.

8.1.2 Policy

Policy is a one way relationship, where the policy work affects the EE but few other organisations in any domain are affecting the policy domain. The setup as it is today is shutting organisations out and creating barriers to entry to multiple sectors. The policy domain is not as dynamic as other domains, for examples SSOs can affect policy work through organisations but not set the tone like for the culture domain or developing human capital. The institutions and directives are in the hands of the government and therefore the possibility to affect for the SSOs are limited. In order to enhance the outputs of the EE measurements must be taken to include all stakeholders on a grander scale.

8.1.3 Human capital

Human capital is a domain in need of attention for a couple of reasons. First of all, in a country such as Kenya, where educational standards has been and still are low this domain poses a problem from the beginning. One have to set aside the entrepreneurial training and look at the totality of the system and correct those flaws first. Where an obvious key is to continue to make schooling a thing for all, without chipping away at the quality. If there is to be a successful EE the base of human capital needs to be broad and not only deep. A successful EE indicates as mentioned in the theory mean wealth generation and social changes for many. The lack of the right human capital forces actors in the EE not usually connected to this domain to fill the void and start to educate people. Instead of the domain being a facilitator in the growth of venture, as people are educated in order to see and exploit ideas, it becomes a threshold.

8.2 Exploring discrepancies

There were some discrepancies amongst the answers given by the SSOs, which the authors believes to be connected to three things. The first being how the financial inflow of a SSO were constructed. The most obvious being that SSOs with financial backing by actors outside of Kenya looked upon the finance domain through a different lens. They saw fewer problems and were overall more content with the situation which is in line with the fact that they have dedicated money flowing in without interruption. They have never been exposed to the whims of the investors who one day are targeting solar panels and the next healthcare. Or exposed to foundations that want to see results in the form of businesses created, viable businesses or not. Why @iBizAfrica, who are connected to a university, felt that financing is easy is harder to elaborate about. Perhaps they are automatically seen as a legit actor due to the connection of a

governmentally accepted institution that is Strathmore University and therefore have access to more sources of money. The conclusion being that for a company seeking to invest in Kenya without knowledge of the scene in Nairobi probably chooses iBizAfrica before the Foundry when deciding to invest.

The other thing connected would be what partner the SSO have, if they are connected to a university, a bank or a global corporation. These connections are excluding the financial ones and their effects on the SSO. One example would be the SSOs connected to universities. They were most content with the current setup of the EE out of all SSOs. Surprisingly, these SSOs had few things to say in regards to the human capital domain whereas they should be the ones with most insight and power to affect. Exploring why SSOs without a partner were the ones most discontent would be an interesting trail to investigate and why amongst these, coworking spaces were most verbal and outspoken.

The third and final connection are the sectorial. These are mostly connected to the fact that the ICT-sector enjoys a more developed EE. This downplays the role of universities as discussed above, but it remains valid nonetheless. The answers from other sectors varied little and the answers that could be related to the sector in those cases were lessened in importance when generalising but brought up again when analysing smaller parts of the EE.

8.3 Beyond Nairobi

As mentioned, if only just brief in the analysis, but with support from many facts in the studies are the differences between Nairobi and the rest of the country. The effects of spillover has already been discussed in earlier parts and the authors do believe that an ecosystem placed in Nairobi may have positive effects in the more rural parts of the country. But the authors also do believe that in order to maximise the spillovers, problems and solutions from the rural areas must be taken into consideration. The EE is defined in a geographical sense to Nairobi, but this does not mean that the area of uptake are defined as such.

Furthermore, the government are trying to solve problems found in Kenya. These problems may be less present in Nairobi than in other places and they are trying to correct some of them by targeting the capital and thereby less than 10 % of the population. The skewness in this regard is hard to overlook and the authors hope that the government can find ways to enhance the EE in Nairobi on one hand and on the other include the other parts of Kenya in the solution to poverty and unemployment.

8.4 Thoughts on research methodology

Overall the authors are satisfied with their chosen methodology, it effectively reached the desired goal. There are however things to discuss that might interfere with the credibility of the research.

Conducting a qualitative study through semi-structured interviews turned out to be very beneficial when loosely covering a wide and poorly researched field such as this study. The semi-structured interviews gave the interviewer a chance to dig deeper and interviewee a chance to give a developed and insightful answer. That being said, one should keep in mind that the interview guide is just that and that the follow-up questions depends on how the interviewee expresses its answers. Which in turn can depend on his or hers mood or personality. Hence, if the study was to be repeated, some questions may yield different answers. Moreover it is not only the answers that might differ, the interviewees may be interpreted differently depending on the interviewer.

Given the authors lack of experiences of interviewing there may be errors in the way questions were posed, this might have led to ambiguous answers. To address this the authors went through the interview guide carefully before every interview and also paid attention not to in anyway lead the questions in order to keep the objectivity intact.

A limitation of the study that could affect the validity is the sample selection. The authors choose to base the study on the perspective of people working at or with SSOs, whether this is representative for the whole EE can be questionable. Moreover, were the authors not able to interview all active SSOs in the area due to lack of cooperation or due to the policies of some SSOs. Interviewees at different firms did not always have equal seniority and could therefore have different levels of insight.

The field of this study is undoubtable very broad but the authors are confident that this study has laid a credible ground for future, narrower studies within the field.

8.5 Further research

As the EE still evolves today, not to mention Kenya and the EAC, research into areas such as the NIS and entrepreneurship needs to be done on a continuous basis. The topics listed below are some directions or fields of interest where research could have a big impact on the startup scene. They are all in the vicinity of this study which is why the authors are confident in their meaningfulness.

- How the financial flow affects the strategic decisions of a SSO.
- What different partnerships mean to the SSOs long-term decisions.
- How policy shops can involve other stakeholders in developing countries.

9. Conclusions

This final chapter includes the conclusions of the thesis, which contains the state of the ecosystem, the most important domains and how the EE and the SSOs are affecting each other.

9.1 The maturity of the ecosystem and highlighted domains

The first thing to consider is the different maturity levels of the ecosystem present in Nairobi, which is our first conclusion. The ICT-sector differs greatly from the rest of the sectors in terms of readiness to support SSOs. This is due to the fact that the EE evolved from just that sector. The different maturity levels will in the end influence how the SSOs adapt to and affect the ecosystem, but generalities were found that applies to all sectors. Out of the six domains, three were found more critical than the others. Meaning that there are three domains affecting the interrelationship between ecosystem and SSOs on a wider scale. Those are in no particular order:

- Finance
- Human capital
- Policy

9.2 The interrelation of the SSOs and EE.

We conclude that the SSOs and the EE's domains have various impact on each other. Below are the found impacts listed.

9.2.1 The EE's effect on the SSOs

- Policy – Existing governmental policies limits the SSOs opportunities to markets in Kenya and to the world outside.
- Finance – When the SSO loose financing they tend to move their value proposition further away from the young startups which need the SSOs services the most.
- Culture – The culture creates a demand for SSOs and enables their business.
- Human Capital – The existing knowledge is poor which gives the SSOs a hole to fill and is definitely altering

9.2.2 The SSO's effect on the EE

- Policy – The SSO has today little or no ability to affect governmental policy making. This makes the policy domain a unilateral relationship.
- Finance – The SSOs has as an intermediary opportunity to reduce the gap between startups and investors but has yet not succeeded. Making this domain a mutual influenced one.
- Culture – The SSOs empower entrepreneurs and are making entrepreneurship socially accepted towards markets and the society at large.
- Human Capital – SSOs can further educate entrepreneurs and are making the EE more customer centric.

- Markets – Through networking SSOs can facilitate early adopters and let entrepreneurs reach global market through international companies established in Nairobi.

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Appendix

A1. Interview guide

Introduction

- Presentation of ourselves
- Presentation of our thesis

Classifying the interviewee

1. Name?
2. Position at the organisation?
    a. For how long?
3. Earlier experiences in the EE?

Questions related to the SSO

1. When was the SSO founded?
2. Who are the stakeholders?
    a. Funds?
    b. University?
    c. Venture cap?
    d. Other?
3. What is the value proposition of the SSO?
4. At what point are you taking on companies?
5. Which sectors do you serve?
6. How is your current financial setup?
7. In what ways has the incubator changed from the beginning?
    a. If any changes, what has sparked them?
8. What lies ahead for your organisation?
    b. How will you stay competitive and/or relevant?

Question relating to the EE

The following question were repeated for the six domains:

1. Any issues relating to this domain?
    a. Any issue relating to the institutions found in this domain?
    b. Any changes to domain?
    c. What could improve?
    d. What is working?
2. Would you see the policy domain and its elements as an enabler or disabler?
    a. Why?

Finishing questions:

3. How do you look upon the totality of the EE?
4. What is in store for the future of the EE?
5. Can we get back to you if we have further questions?

6. Is there anybody else we should interview with insight?