

Master Thesis

Western Incubators: Their Impact on the Entrepreneurial
Process of African Ventures

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ABSTRACT

The business incubation programs are becoming a growing interest among African citizens as entrepreneurship makes an attractive career opportunity in Africa. Incubators intend to share expertise, build networks, provide for physical resources, and offer financial funds. This study investigates the impact of Western incubators on the African ventures' entrepreneurial process. The study utilizes a qualitative approach to collect data by way of interviews to gain in-depth understanding of the current impact of Western incubators. The data were obtained using semi-structured personal interviews, which were carried out with the respondents of Western incubators, partners and (former) participants in Africa. The results indicated that incubators achieve economic and social value for the African community by increasing entrepreneurial knowledge and practical skills, by connecting local partners, offering local solutions and giving access to physical and financial resources.

Keywords: business incubators; entrepreneurial process; impact; impact of incubators; African ventures; entrepreneurial skills and knowledge; network; finance

Table of Content

1. Introduction	6
2. Conceptual Background	8
2.1 Incubators	8
2.1.1. Incubation program	8
2.1.2. Development of Local Expertise	9
2.1.3. Build Local Network	10
2.1.4. Creation of Local Solutions	10
2.1.5. Access to finance	10
2.2 The Entrepreneurial Process	10
2.2.1. Startups and the Entrepreneurial Process	10
2.2.2. Idea Generation	12
2.2.3. Business Plan	12
2.2.4. Resource Collection	13
2.2.5. Launch and Manage Venture	13
2.2.6. Growth and Harvesting	14
2.3 Measuring Impact	14
2.3.1. Economic Situation	15
2.3.2. Capabilities	15
2.3.3. Relationships	15
2.4 Western Incubators and Entrepreneurial Process in Africa	16
3. Methodology	18
3.1 Research Sample	18
3.2 Data Collection	20
3.3 Data Analysis	21
4. Findings	22
4.1 Findings on Western Incubators	22
4.1.1. Incubation Program	22

4.1.2. <i>Development of Local Expertise</i>	24
4.1.3. <i>Build Local Network</i>	24
4.1.4. <i>Creation of Local Solutions</i>	25
4.1.5. <i>Access to Finance</i>	26
4.2 Findings on Entrepreneurial Process	29
4.2.1. <i>Idea Generation</i>	29
4.2.2. <i>Business Plan</i>	30
4.2.3. <i>Resource Collection</i>	30
4.2.4. <i>Launch and Manage Venture</i>	31
4.2.5. <i>Growth and Harvesting</i>	31
4.3 Findings on Impact	33
4.3.1. <i>Economic situation</i>	33
4.3.2. <i>Capabilities</i>	36
4.3.3. <i>Relationships</i>	38
4.4 Case-Oriented Research	40
4.4.1. <i>Economic situation</i>	40
4.4.2. <i>Capabilities</i>	41
4.4.3. <i>Relationships</i>	42
5. Discussion	43
5.1 Incubators	43
5.2 Entrepreneurial Process	44
5.3 Impact	45
5.4 Case-oriented Research	46
5.4.1. <i>Economic situation</i>	46
5.4.2. <i>Capabilities</i>	47
5.4.3. <i>Relationships</i>	48
6. Conclusion	50
6.1 Main Findings	50
6.2 Implications, Limitations and Future Research	52

6.2.1. Theoretical Implications	52
6.2.2. Practical Implications	53
6.2.3. Limitations and Further Research	54
7. Acknowledgements	55
8. References	56
9. Appendix	61
Appendix A. Introduction interview	61
Appendix B. Interview questions template	61
Appendix C. Overview of Relationships with Quotes	63

1. Introduction

African nations are constantly being confronted with poverty and high business failure rates. At the same time, Base of the Pyramid (BoP) markets present massive potential for small and medium-sized enterprises (SME's) (Sim, 2013). BoP is an economic term that refers to the poorest population in the world (Dembek, York, & Singh, 2018). Business incubators are introduced to address these potentials and create successful SME's in developing countries (Adegbite, 2001). Incubators are expected to give support to early-stage ventures, in order for the development of strong entrepreneurial processes (Masutha & Rogerson, 2014) and to create and capture a combination of economic and social value is created and captured for multiple stakeholders (London, 2009).

Over the past few years the early growth process of ventures has been extensively researched. Of particular interest were the identification of characteristics, factors, and conditions associated with venture creation (Grimaldi & Grandi, 2005). These characteristics, factors and conditions can be integrated into the concept entrepreneurial process. The concept can be defined as a continuous process that needs to be followed by an entrepreneur to establish a new venture more efficiently (Leach & Melicher, 2018). The concept consists of multiple stages and serves as a guideline to reach a strong and successful (new) venture (Leach & Melicher, 2018). The process is intended to reach firm value and economic growth.

Local incubators are in a unique position to improve the efficiency of a firm's entrepreneurial process that positively influence the economic and social situation of a startup's stakeholders. Incubators are organizations that share their entrepreneurial expertise and provide for a range of resources to startups and early-stage businesses to improve their market share (Adegbite, 2001). They are expected to help startups through the most fragile period by providing a supportive environment, thereby decreasing the mortality rate among startups (Peters, Rice, & Sundararajan, 2004). However, local incubators often lack (financial) resources and entrepreneurial knowledge and skills to support African entrepreneurs. Therefore, Western incubators offer their programs to increase expertise and provide resources for African early-stage ventures. Western incubators are defined as consultancies that are located in Western countries like the Netherlands, Germany, United Kingdom etc., but offer their programs in developing

continents like, Africa, Asia and South America (2SCALE, 2020). Some examples of these organizations are: 2SCALE, The Next Organization (TNXTO) and Orange Corners. Currently, the U.S.-based International Business Innovation Association estimates that there are approximately 7,000 incubators worldwide and around 600 incubators operating in Africa. To note, there is a massive lack of data with the result that the actual number could be higher or lower.

There are different types of support services organizations that help entrepreneurs to strengthen the foundation of companies. Next to incubators there are accelerators, business angels, hubs and universities. Accelerators accelerate growth of an existing company and focus on scaling a business (Szcukiewicz & Makowiec, 2021). Business angels are informal investors who invest in early-stage ventures and offer advice during difficulties (Leach & Melicher, 2018). At its core, hub is a space where entrepreneurs, enthusiasts and innovators gather ideas and build.¹ In most cases, universities assist support service organizations to educate local entrepreneurs. Universities bring entrepreneurial students in contact with organizations that offer their assistance in organizing their business.

The intention of incubators is that their support is leading to successful ventures that create a positive impact for their stakeholders. However, it is unknown what the exact impact of incubators is presently. It is important to investigate the actual impact of incubators since starting enterprises create more employment in comparison to other companies, while they develop technological innovations more efficiently. Consequently, startups can positively influence the economy of African nations. However, Western incubators have a different impact in African countries than in Western countries simply because of the many differences between the two worlds and their trading markets (Lose & Tengeh, 2017). For instance, there are differences in the level of education, experience, GDP, climate, infrastructure etcetera (Aernoudt, 2004; Lose et al., 2017). The focus of incubation programs is adjusted to the needs of the entrepreneur and environment. Therefore, Western incubators that are operating in Africa will generate a different impact.

In this research, the actual impact of the incubators' activities on the phases of the startup's entrepreneurial process, and in turn the effect of the entrepreneurial process on

¹ International Trade Centre, 2019, *Tech Hubs in Africa*.
https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/Tech%20hubs%20Africa_final_Low-res.pdf

the economic situation, capabilities and relationships of a startup's seller, buyer and community is studied. The research is related in the following African countries: Angola, Burkina Faso, Ethiopia, Ghana, Mozambique and Nigeria. The main reason for measuring the impact is that the African economy and quality of life is behind compared to the world's average. The objective of this study is to increase the insight into Western incubation programs and their ways to create economic and social benefits for multitude stakeholders. This research observes if incubators are able to enhance economic development, to satisfy primary needs, and to create employment. Based on this, the following research question is formulated.

How do Western incubation programs impact the entrepreneurial process of African ventures?

In order to answer the research question, multiple questions have been set up:

1. What is the definition of an incubator and their activities during an incubation program according to existing literature?
2. How can the entrepreneurial process be defined by secondary research?
3. How can the impact of Western incubators on the African entrepreneurial process be measured?
4. What is the expected relationship between Western incubators and the entrepreneurial process in Africa?
5. What is the expected relationship between Western incubators and the entrepreneurial process in Africa?

Chapter two constructs the conceptual framework in order to explain broad terms given by existing literature. Next, in chapter three the qualitative research method is made clear and chapter four discusses the findings of this study. Chapter five describes the findings in the context of existing theory, followed by conclusions in chapter six that answers the main research question.

The result of this research can contribute theoretically to the growth of academic knowledge, in a sense that theory is built through observing the impact of incubators on the

entrepreneurial process. Researching the entrepreneurial process and defining the proper method to establish a sustaining process might avoid business liquidation. In addition, Western incubators and local entrepreneurs deal with many challenges that might result in business liquidation anyway (Eresia-Eke et al., 2019). In order to address these local challenges, it is of high importance to investigate the objective of this study. To sum up, this study will create an effective theory and give theoretical contribution for both Western incubators and African startups.

The result of this research does not only contribute theoretically, but also practically to Western incubators and African startups in a sense that incubators might consider the impact of their program on the local society and economy. Accordingly, it will positively contribute to the quality of the program and to the foundation of the startup. Moreover, the study will create value for both incubators and incubates. In turn, this will create advantages for entrepreneurs and societies as well for incubator organization itself, given that a improved entrepreneurial process will ensure profitability while avoiding negative impact for society, resulting in mutual benefit.

2. Conceptual Background

This chapter will address the main concepts of this research: (1) incubators (2) the entrepreneurial process, (3) measuring impact, and (4) Western incubators and African entrepreneurial processes.

2.1 Incubators

2.1.1. Incubation program

Incubators offer incubation programs to entrepreneurs that seek for assistance to improve the foundation of their startup. They are present in developing and emerging markets, but also in developed markets. An incubator can be defined as a strategic consultancy that supports starting entrepreneurs with the development of a product and/or service in the hope they become self-sustaining thriving companies (Tengeh, Choto, 2015). Additionally, incubators provide buildings in which they offer housing, seed-capital, technical support, administration, networks, and management advice for ventures (Schutte, 2019). The supportive environment that an incubator offers may result into an increasing growth spurt for entrepreneurs (Studdard, 2006). They are expected to increase employment and offer access to primary needs, like education, water and other physical resources (OrangeCorners). According to Grimaldi and Grandi (2005) incubators give guidelines and services to assist early stage businesses. The early stages of a business include steps of the entrepreneurial process, such as building a viable product and securing funding (Leach & Melicher, 2018). The definitions are combined into one specific definition: an incubator is an organization that teaches business skills and offers networks, housing and (financial) resources to early stage businesses.

Incubators bring major advantages to new ventures. Incubation programs help to create marketing plans, obtain capital, find resources, and build management teams (Grimaldi & Grandi, 2005). Their role is to provide for a safe working environment for individuals and promote local job creation and economic development to accelerate growth (Masutha & Rogerson, 2014; Peters et al., 2004). According to Schutte (2019), incubators assist entrepreneurs during the period in which they are the most at risk for failure. The end

goal of incubators is that ventures finish the program, survive early-stages and become (financially) independent (Al-Mubarak & Busler, 2013).

However, there are also some downsides regarding incubation programs. Many incubator accommodations are located in big cities, which is inconvenient for entrepreneurs from small villages (Schutte, 2019). Additionally, some business incubators lack (local) skills with the result that their contribution is insufficient (Govender, 2017; Lose, & Tengeh, 2015; Schutte, 2019). Moreover, as programs are time consuming limited time is remaining for actual business activities. Furthermore, incubation support could be expensive, which might be a major problem in Africa (Schutte, 2019). Also, some incubators intervene in decision-making to control the outcome of the startup (Mitra, 2013). Lastly, many entrepreneurs become dependent on incubators, with the result that graduates are starting from scratch once the program has finished. In general, the purpose of an incubator is to share input and leave the decision-making up to the entrepreneur (Govender, 2017). In overall, it can be concluded that the right incubator with extensive local expertise and networks will overshadow negative aspects and increase the number of independent entrepreneurs in African nations. All advantages and disadvantages are displayed in **table 1**.

Advantages	Disadvantages
Optimize the organization and facilitate (financial) resources	Located in big cities
Provide for a safe working environment	Some incubators lack entrepreneurial skills
Creation of employment	Time-consuming
Accelerate economic development	Expensive programs
Entrepreneurs should become financially independent	Entrepreneurs might become dependent on incubators

Table 1: Advantages and disadvantages of incubation programs

2.1.2. Development of Local Expertise

Incubators are expected to share their experience, skills and knowledge with participants. Even if individuals have specialized knowledge they often lack a number of business skills which are provided by incubators (Tengeh & Choto, 2015). Entrepreneurs are introduced to professional management to administering the organization (Adegbite, 2001). It is important that they learn all the aspects around starting a company, like conducting market research and structuring a company (Tengeh & Choto, 2015). For all these reasons incubators share their entrepreneurial expertise with participants.

2.1.3. Build Local Network

Networking provides entrepreneurs with a great source of connections and gives access to highly influential people that can be of help when initiating business. In addition, dedicated business alliances offer good sources of funding and a range of services providing high quality information (Tengeh & Coto, 2015). Western incubators offer entrepreneurs the connection for a rich environment to network (Consultancy.org, 2018). Currently, incubators provide partnerships with governments, embassies, universities, research institutions and financial investors.

2.1.4. Creation of Local Solutions

Another activity of incubators is to create local solutions with the aim to help entrepreneurs to overcome multiple challenges. Starting entrepreneurs find difficulties in financing housing, resources and other services (Tengeh & Choto, 2015). Therefore, incubators are providers of rental space and shared offices to small businesses (Aerts, Matthyssens, & Vandenbempt, 2007). Moreover, they offer resources that are needed to initiate business and provide technical assistance when machinery fails (Tengeh & Choto, 2015). As incubators share facilities entrepreneurs are able to reduce overhead costs and significantly improve the survival and growth prospects (Adegbite, 2001).

2.1.5. Access to finance

The final main activity of incubators is to offer financial accessibility. Normally, entrepreneurs invest own assets or family or friends' assets in startups to finance the first stage of the entrepreneurial process, as bank loans and investments from venture capitalists (VCs) are mostly not possible to obtain (Leach & Melicher 2018). Incubators ensure that entrepreneurs are closely connected to capital investors to finance early-stage business activities (Aernoudt, 2004).

2.2 The Entrepreneurial Process

2.2.1. Startups and the Entrepreneurial Process

Startups are newly established enterprises founded by one or multiple entrepreneurs. It is a young company that brings a unique product or service to the market (Kane, 2010). Startups

are usually small and initially financed and operated by multiple founders or one individual (Leach & Melicher, 2018). According to Kane (2010), startups play an essential role in job creation and employment growth in a nation's economy. However, the failure rate of startups was around 90% with a 21.5% failure rate in the first year, 2019.² A starting company can be organized through the steps of an entrepreneurial process (Leach & Melicher, 2018)

The entrepreneurial process is a complex disposition of multiple activities. The process can be defined as the steps taken to establish a new venture (Leach & Melicher, 2018). This means, a new venture encounters several stages which should all be defined and completed. The process is a course of action that involves all activities, actions, and functions related to identifying and evaluating perceived opportunities and gathering resources for a successful formation of a venture (Cornwall & Naughton, 2003). Leach and Melicher (2018) state that "the process involves developing opportunities, gathering resources, and managing and building operations, all with the goal of creating value" (p.5). To sum up, the entrepreneurial process is a crucial disposition that deals with multiple activities.

As the entrepreneurial process exists of multiple stages, all stages will be explained. According to Peters et al. (2004) the concept develops over time and passes five phases namely: (1) idea generation of products and/or services (including opportunity recognition), (2) decision-making, (3) gathering resources (technology), (4) launching the new venture, and (5) creating growth and harvesting. In contrast, Gruber (2002) identifies three stages namely pre-founding stage (opportunity identification and evaluation); founding stage (business plan and market entry); and early development stage (including market penetration). A combination will be used during the research, which is represented in **figure 1**. To note, the entrepreneurial process is a dynamic process that is influenced by the internal and external environment, with the result that stages could run parallel and change overtime. Besides, it is often the case that incubators support ventures in the early-stages, which are the first four steps of the entrepreneurial process.

² Bryant, S. 2020. *How Many Startups Fail and Why?* Investopedia.
<https://www.investopedia.com/articles/personal-finance/040915/how-many-startups-fail-and-why.asp>



Figure 1: Entrepreneurial Process

2.2.2. Idea Generation

To understand the choice of **figure 1**, all steps will be explained. The first step of the entrepreneurial process is the idea generation, which is also called the early-stage entrepreneurial process (Vogel, 2016). This step includes idea generation, opportunity identification and evaluation (Vogel, 2016). All companies develop a business idea in order to create a business (Galanakis & Giourka, 2017). The business idea determines further steps and the type of market that will be targeted and penetrated (Vogel, 2016). Idea generation, assessing opportunities and evaluation are core constructs in the field of entrepreneurship (Vogel, 2016). The three constructs form a repeating cycle: from idea to opportunity, ending with an analysis of evaluation, all starting at the beginning if the idea is not succeeding. In other words, it is not a static process as judgements are frequently revised due to unexpected obstacles (Galanakis & Giourka, 2017), faced uncertainties, and newly obtained information as the environment changes (Packard, Clark, & Klein, 2017). The initial idea will be evaluated by examining the feasibility and will be screened as a possible venture opportunity (Ekanem, 2017; Vogel, 2017). During the evaluation phase the internal and external factors are analyzed, like related competition (Vogel, 2016).

2.2.3. Business Plan

If the initial idea turns out to be an opportunity, a solid business plan shall be developed. Therefore, the second stage of the entrepreneurial process is creating a business plan (Gruber, 2002). To be successful, a sound business plan is of great essence. A business plan is a written document that describes the proposed product and/or service, opportunity, current resources and financial projections. Every business plan will deviate from another since every plan is designed for different purposes (Ekanem, 2017). Yet, Leach and Melicher (2018) provide a typical business plan outline that is represented in **figure 2**. The plan provides a framework for the venture to generate revenues, make profits and produce free cash flows (Ekanem, 2017; Leach & Melicher, 2018). The second stage is needing seed

finance to fund infrastructure, marketing and development costs before revenues are earned (Leach & Melicher, 2018).

1. Executive summary
2. Business description
 - a. Description of the product and/or service
 - b. Industry and venture background
 - c. Goals and milestone objectives
3. Marketing plan and strategy
 - a. Target market, competition and customers
 - b. Pricing strategy, promotion and distribution
4. Operation and support
 - a. Quality targets, technology requirements and service support
5. Management team
 - a. Skills and organizational structure
6. Financial plans and projections
 - a. Income statements, balance sheets, and statements of cash flow
 - b. Funding sources
7. Risks and opportunities

Figure 2: Business Plan (leach & Melicher, 2018)

2.2.4. Resource Collection

The second and third stage of the entrepreneurial process are two activities taking place at the same time due to their strong connection. While the business plan is developed, resources are gathered as well. This stage involves assembling physical assets, intellectual property, human resources, information, and financial capital (Leach & Melicher, 2018; Peters et al., 2004). Resources are important to move from an opportunity to a tangible venture (Leach & Melicher, 2018). There is a possibility that new ventures do not possess required resources. Therefore, incubators provide some resources directly for new ventures, like housing. Additionally, incubators arrange indirect access to other resources via their network (Peters et al., 2004). Developing networks and strategies is of high importance to acquire resources, like finance. A strong network can positively influence a venture's survival rate (Song, Dana, & Berger, 2019). The entrepreneur should find investors for its venture to start initial production and sales. Examples of investors are business angels or VCs (Leach & Melicher, 2018).

2.2.5. Launch and Manage Venture

The fourth stage is about launching and managing the company and the final stage about growth and harvesting. The fourth stage means that the company goes online and operations should achieve the venture's goals (Leach & Melicher, 2018). This stage is very important for a new venture, because it will decide if a startup succeeds or fails. Finally, the successful venture creates growth and starts harvesting.

2.2.6. Growth and Harvesting

In the fifth stage, a decision must be made on the future prospects of the business for growth and development (Peters et al., 2004). In case of bankruptcy, entrepreneurs should have an exit strategy to limit (financial) losses (Leach & Melicher, 2018). Even though, the fifth stage is not part of the early-stages, growth prospects and harvesting strategies should be determined for ventures.

2.3 Measuring Impact

As there is a growing interest on incubators and their perceived role they play in the survival of startups, academic literature is searching if incubators are effective or not. The impact of incubators can be measured on the basis of a country's GDP and other economic and social rates. According to Ogutu and Kihonge (2016), there is a strong relationship between economic development and the number of incubators found in a country. Madaleno, Nathan, Overman and Waights (2018) argue that incubation programs are effective in general, but little is known about how effects operate and who benefits.

To measure the influence of the incubators of the entrepreneurial phases on the impact, the Base of the Pyramid Impact Assessment Framework by London (2009) is used. The Impact Assessment Framework by London (2009) is discussed to measure the impact of incubators and African startups on organizational level. The framework is a holistic approach that identifies positive and negative effects (London, 2009). The goal of this framework is to measure a venture's impact on three dimensions: economic situation, capabilities and relationships with stakeholders. The framework helps to indicate who is being affected by the venture as it might help local entrepreneurs to add value to their income and develop new skills and relationships. Any venture potentially affects three groups of local stakeholders: (1) sellers; local distributor, (2) buyers; local consumers, and (3) local communities (London, 2009). In this research, the participant of the incubation program is added to show the impact of the incubator on the participant. The framework offers managers a systematic process for measuring the effects that their activities are having locally, by involving the positive and negative impacts those activities have on the well-being of buyers, sellers and community. The framework is presented in **figure 3** (London, 2009).

2.3.1. Economic Situation

It makes sense to focus on an individual or a community's economic well-being by way of evaluating gains or losses on income, assets and liabilities to determine the impact of an incubator. Consumers may receive food security and cheaper prices; producers may increase productivity and enjoy expanded markets; and communities may see increased employment and satisfaction of primary needs (London, 2009). To create direct economic impact and establish a net change in an economy, cash inflows should outreach cash outflows (Leach & Melicher, 2018). In order for companies to create economic impact particular activities should be performed. For example, extensive knowledge about operating efficiently might create economic prosperity (Studdard, 2006). Another example could be that a company that is organized and has future plans is more likely to create growth. Growth can mean many things for stakeholders, like employment creation or tax revenue.³

2.3.2. Capabilities

Capabilities are about the incubator's influence on local health, skills and confidence of individuals and communities (London, 2009). In order for companies to create social value particular activities should be performed. For instance, it is crucial that entrepreneurs possess entrepreneurial knowledge and experience to understand the market and know the impact of making particular business decisions that results into capabilities (Leach & Melicher, 2018). Resources, processes and policies should be combined as they might generate improvements in the lives of individuals or community.

2.3.3. Relationships

Relationships of stakeholders are influenced by incubators through the potential of incubators to help individuals and communities establish new partnerships and access new networks. This framework assesses if incubators connects participants with potential partners to decrease isolation and social exclusion. Relationships with local stakeholders should be developed and consolidated. It is evaluated if incubators create potential changes within stakeholder's relationships. In the end, networks can result into resources that might create economic prosperity (Studdard, 2006).

³ Finnfund, 2020. Development Impact. <https://www.finnfund.fi/en/impact/development-impact/>

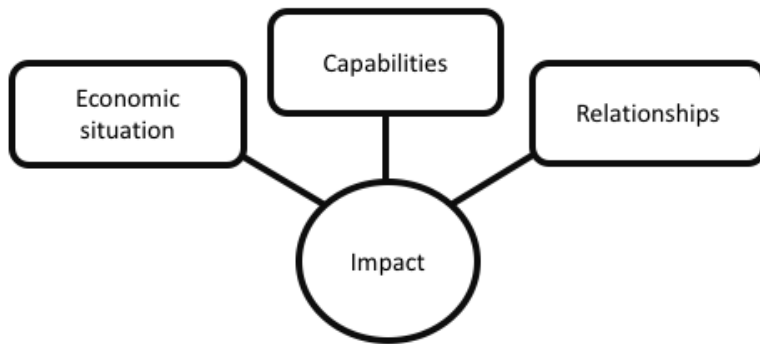


Figure 3: Components of Impact (London, 2009)

2.4 Western Incubators and Entrepreneurial Process in Africa

The governments in Africa are concerned about the issues that emerge from the fact that many inhabitants of African countries live at the Base of the Pyramid. BoP refers to the world’s population with the lowest income (Dembek, York, & Singh, 2018). According to Applegate, Castilla, Mehta, and Sesia (2017) the term is defined as those living on less than 10 dollar per day. In some African countries people are surviving on less than 2 dollar a day. The advantage is that, from an entrepreneurial perspective, BoP offers incredible business opportunities. But, there is a lack of skills among multiple African individuals to observe and exploit these opportunities (Sim, 2013). In addition, local incubators do not always possess the proper knowledge to teach starting entrepreneurs as basic education was not received (Govender, 2017; Tengeh & Choto, 2015). Therefore, governments in Africa recruit Western incubators to stimulate and teach individuals to understand the BoP market and undertake a business (Adegbite, 2001).

Western incubators perform multiple tasks to strengthen the entrepreneurial process of African entrepreneurs. They are stimulating individuals to become an entrepreneur to decrease poverty and unemployment at the BoP society (Sim, 2013). Typical BoP incubators find social and economic progress main priority.⁴ Incubators share their knowledge and experience about business activities with their participants (Tengeh & Choto, 2015). As many African entrepreneurs lack organizational skills, BoP incubators help to define opportunities and draw business plans. Moreover, these entrepreneurs are not able to provide for finance or obtain a loan in most cases. The lack of finance is hindering the development and daily business operations of startups (Quartey, Turkson, Abor, & Iddrisu, 2017). Therefore, a

⁴ 2SCALE, 2020, <https://www.2scale.org>

typical BoP business incubator have a significant role to provide for financial connections for entrepreneurs to collect resources (Flip, 2019). Mentors of incubation programs monitor financial performance and give continued strategic guidance regarding growth prospects.⁵

Table 2 is created to represent a clear overview of the tasks of a Western incubator aligned with the entrepreneurial process.

Entrepreneurial Process	Guidelines of an Incubator
1. Idea generation	Offer prospects to observe opportunities and ensure finance by offering (office) space, equipment etc.
2. Business plan	Give guidelines for business plan
3. Resource collection	Gather resources (obtain financing, introducing networks etc.)
	Prepare initial financial statements
4. Launch & manage venture	Launch and manage new venture (build and manage operations)
	Monitor financial performance
	Project cash needs
5. Growth & harvesting	Growth prospects
	Harvesting strategy
	Exit strategy

Table 2: The Guidelines of an Incubator

Even though, the exact relationship between incubators and the entrepreneurial process of African entrepreneurs is not studied yet, assumptions can be made with the help of secondary research. The activities of the Western incubator are expected to influence the entrepreneurial process of African businesses and these phases are assumed to have an economic and/or social impact. The conceptual model is presented in **figure 4**.

⁵ MIT University, https://www.mituniversity.edu.in/wp-content/uploads/2018/12/mitadt_career-update.pdf

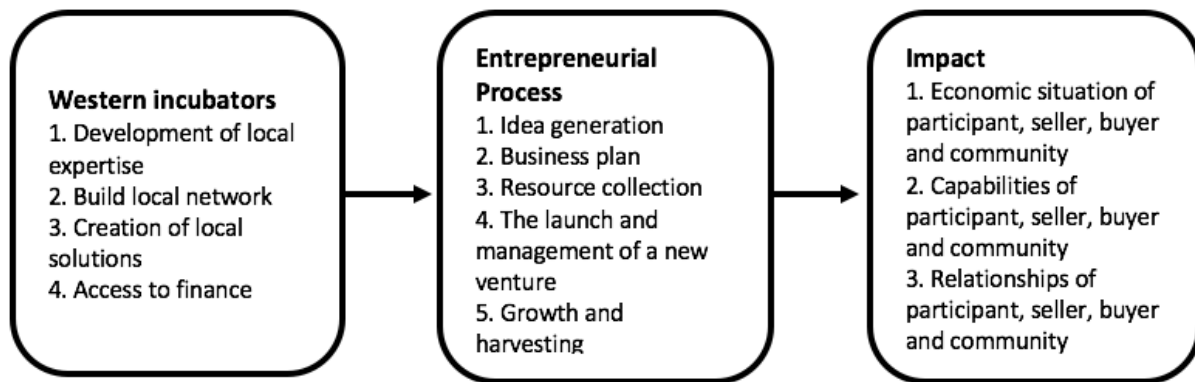


Figure 4: The Conceptual Model

3. Methodology

To identify the influence of incubators on the impact of the entrepreneurial process of African startups, a qualitative research method has been used to provide in-depth information. A qualitative research method is suited for this research problem considering its naturalistic analysis for the purpose of finding relationships and concepts in raw data (Kahn, 2014).

3.1 Research Sample

This section explains the way the sample is selected. Purposeful and convenience sampling is applied to select the appropriate units of analysis. Purposeful sampling avoids empirical generalization and creates information-rich cases with in-depth understandings related to the phenomenon of interest (Coyne, 1996; Palinkas, Horwitz, Green, Wisdom, Duan & Hoagwood, 2015). To elaborate, researchers rely on their own judgment when choosing members of the population to participate in their study. The data acquired during this method is meant to contribute to a better understanding of the conceptual background. Participants are consciously selected on particular characteristics. Convenience sampling is a type of nonrandom sampling where members of the population meet certain practical criteria to receive the desired data (Etikan, Musa, & Alkassim, 2015). The criteria that are used in this study are accessibility, availability at a given time and location of operation. With accessibility is meant the ability to reach members and respondents that referred to other potential respondents. Accessibility is referred to as the state of being unoccupied and willing to participate (Etikan et al., 2015).

To form a research sample, contact was made with multiple Dutch and foreign incubators operating in Angola, Burkina Faso, Ethiopia, Ghana, Mozambique and Nigeria to build a database with potential cases for investigation. Due to the COVID-19 crisis the population is limited to Dutch incubation cases. To note, Dutch incubators operating in Africa are quite a new phenomenon, as a result the population is rather small. The population is enlarged though by focusing on multiple cases varying from for-profit to non-profit incubators and including targeted sectors, like tourism, agriculture, and retail. Next to interviews with (local) mentors, also partners and participants of incubation programs were recruited as well to receive in-depth understandings from another view.

A strong theoretical basis is used together with cases that identify different patterns within and between cases. This results in a strong basis to develop theory by using an abductive approach (Dubois & Gadde, 2002). The study is an abductive approach, because a strong theoretical basis is used. According to Boddy (2016), a small sample size can be highly informative when new areas of findings are included. Moreover, an appropriate sample size is a prerequisite to adequately answer the research question (Marshall, 1996). As purposeful data collection is used, the chance of reaching data saturation will be higher (Suri, 2011). In order to receive data saturation a sample size of at least four cases with 12 respondents is used (Vasileiou, Barnett, Thorpe, & Young, 2018).

Based on the above-mentioned assumptions, the following cases have been selected in order to answer the research question. All respondents gave consent to refer to the incubation program name. Among them, 2Scale is selected, which is the largest incubator for inclusive agribusiness in Africa. Their goal is to establish partnerships with African agriculture companies that create genuine impact and accelerate inclusive agribusiness (2Scale, 2020). TNXTO, another incubator involved in this study, is a for-profit company located in the Netherlands that launched an incubators program in Ghana. Their goal is to create growth by optimizing and innovating business models. TNXTO launched a year-long training program in Ghana to enhance the skills of Ghanaian entrepreneurs in the strategy, management and commercial domains (TNXTO, 2020). A third party involved in this study, PUM (Programma Uitzending Managers), is set up by the Dutch employer organization VNO (Verbond van Nederlandse Ondernemingen). PUM supports Small and Medium sized Enterprises (SME) in developing countries and upcoming markets to create growth and a positive outcome on the local economy, society and environment (PUM, 2020). Lastly, Orange Corners is selected in

this research. Their goal is to turn smart ideas into successful startups (Orange Corners, 2020).

To create a representative sample from the population, two employees and two (former) participants of the program from each organization will be interviewed to obtain consistency. To get in touch with these cases, phone calls were made and emails were sent to the Dutch organizations. As interviews were conducted with the Dutch employees, further contact was made with local employees and (former) participants of the incubation programs through the Dutch contacts. In order to receive raw data from various angles and perspectives a decision is made to interview various players within the incubation program. Additionally, these Dutch organizations became a suitable candidate for this study as they operate in Africa. The research setting might have consequences for the outcome, since the results and their interpretation may depend heavily on the environment that the study was conducted (Given, 2008). Interviews with respondents were conducted in their own setting and the period of the study was from June until January. To note, throughout the period of the study the world was dealing with COVID-19 pandemic.

3.2 Data Collection

In qualitative research the form of semi-structured interviews can be used to gather raw data in order to identify the concepts related to the study and reach conceptual thinking rather than hypothesis testing (Kahn, 2014). Semi-structured interviews are meetings in which the interviewer does not strictly follow a formalized list of questions, but asks open-ended questions, allowing for discussions with the interviewee (Leech, 2002). These interviews are well-suited for the exploration of opinions and impressions of the respondents. In addition, the method enables using probes to receive clarifications on specific answers, which will lead to complete and desirable data (Leech, 2002). A semi-structured interview ensures flexibility and enables amendments in questions in order to gain a better understanding of the research question (Fylan, 2005).

Exploratory interviews are conducted in order to investigate the impact of incubators on incubates and their entrepreneurial process. In this study, the aim is to explore opinions and impressions of important factors associated with Western incubators and their impact on the entrepreneurial process of African startups. This means, classified themes guide the interviews together with prepared questions. The interview questions are based on the

conceptual background of Leach and Melicher (2018) on entrepreneurial process phases and London (2009) on the impact assessment (**figure 1 & 3**). These related topics were asked during the interviews with four representatives of each organization mentioned above. The representatives could be a program director, local clients, financial institutions etc. All this, for the reason that each representative can provide reliable information about their experiences, activities and opinions. Ultimately, 12 respondents were interviewed consisting of directors, coordinators, partners and (former) participants.

The interview procedure consisted of two phases. The goal of the research is introduced together with the question for informed consent of the units of analysis and to consent for audio-recording the interview (Appendix A). Consecutively, the interview questions are posed by the researcher to the interviewee (Appendix B). All interviews were conducted online due to COVID-19 in November and December 2020 and took approximately 45 minutes each.

3.3 Data Analysis

In order to analyze the collected raw data, interviews are transcribed to retain original data as much as possible. According to McLellan, MacQueen, and Neidig (2003) an appropriate preparation of transcripts from audio recordings is necessary to systematically organize and analyze textual data. The data collection accommodates an iterative process with a high level of certainty so that transcripts were generated consistently and systemically (McLellan et al., 2003). Subsequently, qualitative content analysis is used to identify patterns in the large amount of text and to transform these patterns into a summary of key results. Content analysis is defined as a replicable and systematic technique for compressing a large amount of text into fewer content categories (Stemler, 2000). Content analysis consist of three different methods (1) conventional, (2) directed, and (3) summative. For this study, a directed approach is chosen as the analysis starts with a theory as guidance for initial codes (Hsieh, & Shannon, 2005).

All codes are categorized in specific categories. The categories are the following: (1) role incubators, (2) incubation program, (3) local network, (4) local challenges and facilitation by incubators, (5) obtaining finance via incubators (6) idea generation, (7) business plan, (8) resource collection, (9) launch venture and growth creation, (10) economic situation, (11) capabilities, and (12) relationships. Whereas category 1-5 belong to the theme

incubators, code 6-9 belong to the entrepreneurial process, and code 10-12 belong to impact. Data that could not be coded was analyzed later on, to disclose if they represented a new category or a subcategory of an existing code (Hsieh & Shannon, 2005). Fundamentally, these codes build the basis to answer the research question. In addition, cross-case analysis was applied to facilitate the comparison of commonalities and difference between the cases (Khan & VanWynsberghe, 2008). The method used in case-oriented research can contribute to conditional generalization (Khan & VanWynsberghe, 2008).

4. Findings

This section presents overall findings on incubators (4.1), entrepreneurial process (4.2), impact (4.3), and case-oriented analysis (4.4). The programs that are included operate in many African countries like, Angola, Burkina Faso, Congo, Cote d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Mozambique, Niger, Nigeria, and Senegal. During the research four incubators are interviewed including their (former) participants, and public and private partners. The organization 2SCALE, started in 2012, counts approximately 200 employees, coaches and mentors. 2SCALE is a rather big organization and supports 2,500 SME's in the agricultural sector. The Business Star Growth Program, partnered with TNXTO, consists of two Western partners and a few local employees and was founded in 2014. Their program has 10 to 15 participants every year. The incubator PUM, a bigger player, started in 1980 and incorporates 1,700 experts within 45 sectors and 35 countries all over the globe. The experts that were interviewed mainly operate in Ethiopia. Orange Corners contains 8 Western employees and has 15 to 30 starting entrepreneurs in each country.

4.1 Findings on Western Incubators

The interviews with the organizations showed some new insights regarding Western incubators. **Table 3** represents the similarities and differences between various programs within this section.

4.1.1. Incubation Program

Western embassies in Africa are subsidizing non-profit incubation programs to stimulate entrepreneurship among African citizens. Yet, a contribution fee should still be paid by incubation participants at 3 out of 4 of the interviewed incubator programs. The fee can be

paid in cash or in kind, but this varies per incubator organization, as reflected in **table 3**. Additionally, entrepreneurs have to meet certain criteria during their screening moment, they have to: 1) operate within a specific commodity (product for BoP market); 2) be independent of donor money; 3) present a sustainable and inclusive business idea; 4) hold a certain amount of financial assets; 5) speak English. **Table 3** presents the participation criteria for African entrepreneurs per program.

Incubators employ local people that are appointed to become a lecturer or coach of an incubation program. Local lecturers or coaches are educated by Western experts, as a consequence the lectures provide the proper business intelligence and participants feel supported by their own local people. As mentioned by TNXTO: *“We provide information ... for the participant, but the information should be delivered by local people. If we share information about a financial topic, we make sure that this lecture is given by a local CFO. ... You need to avoid the trap that you fly in every month and tell them how they should do business in their own country.”* Incubators offer different programs specialized for startups, scaleups, youngsters or entrepreneurial women. Each organization believes in his own approach, like PUM: *“It is learning by doing, so learn fast and fail fast. ... I train the mentors, not to teach but to coach. The difference is to increase their problem-solving capability rather than making them depended on the advice of the teachers. This is a huge step and still difficult in Africa to change from teachers to mentors.”*

Even though the approach may vary, the content of incubation programs is similar. Namely, developing a viable business model for each participant. Moreover, incubators provide education on Corporate Social Responsibility (CSR) conditions and Sustainable Development Goals (SDG). The way of teaching differs per organizations, for example some programs use blended classes (online and offline) to share information, while others use physical classes and establish partnerships among their participants. According to the liaison of 2SCALE: *“Orange Corners program ... is more about teaching business skills, like marketing training. While, 2SCALE is more about bringing parties together and building trust and loyalty in a relationship.”* However, Orange Corners argues: *“Our programs are based on the country. For example, in countries like Angola and Mozambique, entrepreneurship is a new thing. We are at a very early-stage over there, hence we are transferring an idea into a business. This is already a big step for them. Yet, in Ghana for instance, there is already more going on within the entrepreneurship sphere. They already went through the ideation*

stage and looking towards growing business.” After all, the majority of the subjects that are discussed during the incubation program do not differ from Western business school education, as they all address concepts like: market research, segmentation, HR, resource gathering, networking, value chain, pitching skills, personal development plan and business planning.

4.1.2. Development of Local Expertise

To develop local expertise, Western incubators attract (young) African citizens. They share their expertise on entrepreneurship, so Africans can gain knowledge on how the market operates, how to produce efficiently, as well as how to create a solid business plan and gather resources. According to 2SCALE: *“The incubator learns the business champion to diversify the business model and think outside the box, especially now with COVID-19.”*

Incubators try to reach self-sustaining ventures by teaching entrepreneurial skills and give guidelines to manage the business. Western incubators build a learning community for potential African entrepreneurs that can benefit from the experience of Western experts.

TNXTO indicate multiple times in the interviews that they value organization within a company and help African ventures to gain theoretical local expertise. According to TNXTO: *“We teach business planning from sales marketing, your HR, communication, finances, value proposition etc.”* Practical local expertise is also considered to be valuable: *“Now with corona we do speed dating events online, so our participants get to know the investors and can apply their theoretical knowledge”* (PUM).

4.1.3. Build Local Network

Incubation programs create networks with local partners. Mainly with local providers of finance: local investors, (commercial) banks, but also public organizations, like government and universities. According to TNXTO: *“We work with local facilitators as well with local universities, and business schools in Ghana.”* Furthermore, Orange Corners connects co-workers and their alumni with current participants: *“We try to connect the entrepreneurs within a co-worker, as we see that some collaborations are made there as well. Also, there are connections made with alumni”*. In addition, another program links (former) participants with current participants to create a sustaining network, which is called an aggregate cluster (commercial stronghold). As stated by 2SCALE: *“We support around 2,500 small and medium*

sized enterprises. They are all present in a network of farmers, but all have a different number of farmers within their network. ... The relationships between businesses are formed when the aggregate business clusters are in place. ... they become a commercial entity as a group. They negotiate with different partners that are relevant in their value chain.” A company will need all contacts to create a long-term sustaining business, as indicated by 2SCALE: *“We support the aggregate business clusters and are part of the negotiation with local government and aggregators. They are organized as part of the network, that makes the difference in having sustaining relationships. We do not only support the company itself but also build partnerships. Because we see that if you want to build a sustainable value chain for a company, you need all the local partners that are relevant for that business to be sure that, in the long run, it is a sustainable model that can grow even more.”*

4.1.4. Creation of Local Solutions

Incubators work together with their participants to solve challenges, like political situations. For instance, Ethiopia is dealing with a civil war and Ivory Coast is coping with political instability. As stated by PUM: *“In North Ethiopia, in my time it was already difficult to get access to water and electricity, now with the war it is even worse. As incubator we can provide for the missing resources like these and facilitate the starting period of a business.”* Additionally, the African government arranges taxes and infrastructure very poorly. It is argued by respondents that external circumstances hinder local entrepreneurial activities and successes. However, according to PUM: *“We do not really look at challenges but at opportunities, when there is a good business opportunity or idea, it is possible to create value for Ethiopia. Challenges or an eco-system or not, that does not matter. Yes, it is bureaucratic and there is corruption, but it is not corruption that stops development, we learn our participants to always make the best of it and not stop you from reaching the goal. If you build a strong business opportunity and from that a strong company, challenges do not matter.”*

Besides political challenges, some internal challenges and solutions are discussed by the respondents. Incubation firms point out, there is no lack of enthusiasm or willingness to grow among African entrepreneurs, but (executive business) education is missing. Therefore, African citizens are lacking in experience, structure, awareness, entrepreneurial skills and knowledge. According to 2SCALE: *“... they do not know the market. They start with an idea*

they think there is a market in, ... but if they want to make it to the commercial market, they should be clear about what the market is and how it is segmented. people do not know their costs, they produce a product, ... a client offers them 100 dollars and they sell it, but they do not know if they even made a margin.” Western incubators are sharing their business expertise to increase market knowledge, entrepreneurial skills, opportunity awareness and structure. Although, according to TNXTO the internal local challenges “do not differ for Western or African entrepreneurs.”

The greatest local challenge for African ventures is obtaining finance for their business. In particular, working capital is difficult to gain, and as a result a proper sustainable business idea will not always be implemented. Lack of finance has many consequences for a business, such as limited resources, productivity, innovation, growth and formal businesses. To elaborate, 2SCALE indicates: *“In many African countries, the private sector development is not the main priority. they have to pay 500 dollars for a business registration. these 500 dollars adds up to the burden of the working capital. This means, many of the entrepreneurs invest these 500 dollars in machinery instead of registering to get a license, as a result many businesses are informal.”* To add, there are not many programs that help African entrepreneurs to strengthen their financial capacity.

4.1.5. Access to Finance

As obtaining finance is the main challenge for African BoP entrepreneurs, there is a supplementary research done to elucidate the ways in which Western incubators solve financial challenges. It was found there exists variation in the ways respondents have access to finance. As stated, one of the challenges for African entrepreneurs is gathering financial resources, especially among BoP entrepreneurs. Incubators support African entrepreneurs to solve financial issues. According to 2SCALE: *“As program we negotiate with financial institutions to enclose formal contracts. These contracts are intended for our business champions (participants), with the goal that they can receive finance at their level.”* In addition, the policy advisor of the Dutch Ministry for Foreign Affairs states: *“What you see is that banks are willing to invest, but they think it is too risky. But because of the program like 2SCALE they are feeling a bit more comfortable as there are formal contracts. Things are more formalized between the buyer and off taker. There is also a track record to show that their investment will increase capital at a later stage. This makes it also attractive for the*

banks to invest.” Moreover, there is a funding program of Orange Corners: “The Orange Corners innovation fund. The fund is made available for entrepreneurs that go through the incubation program. ... They receive capital from us so, they can grow their company with the basis that they have learned during the program.” On the other hand, incubators also indicate that there are no ties to financial investors: *“We prepare them for having the discussion with financial investors, like venture capitalists or business angels, but we do not have the connections”* (PUM). Overall, most cases do not supply ventures with financial support, but give indirect support by providing technical assistance, financial guidelines or negotiation techniques.

Western Incubators	2SCALE	The Next Organization	PUM/The Golden Egg Check	Orange Corners
Incubation program	Contribution fee in cash and/or in kinds Agricultural products destined for BoP markets Own assets Business idea is sustainable, inclusive and independent from donor money No export Local employees and consultants Country based – different local partnerships Development of a consistent BM Entrepreneurial skills and knowledge Local support Basic business elements Local relationship	Contribution fee in cash Scale up ran 1 business cycle Turnover of 200 k US dollar Own assets Speak English Local teachers Country based – <u>Ghana</u> : entrepreneurship middle level; focus on executive education, no basic elements Development of a consistent BM Entrepreneurial skills and knowledge Online and offline classes	No contribution fees Business idea Speak English Local mentors and coaches Country based – <u>Ghana</u> : entrepreneurship middle level. <u>Ethiopia</u> : starting level; focus on ecosystem Development of a consistent BM Entrepreneurial skills and knowledge Online and offline classes Basic business elements	Contribution fee in cash and in kinds Age: 18-35 Speak English Local teachers Country based – <u>Ghana</u> : entrepreneurship middle level; focus on growth and value creation <u>Mozambique</u> : entrepreneurship early-stage; focus on ideation. Development of a consistent BM Entrepreneurial skills and knowledge Local support From basic elements to secondary elements

Development of local expertise	Build learning community for African youngsters, female and male Find diversification Create sustainability, inclusiveness, local value chain, and food security Linking partners	Build learning community for African scale ups Create sustainability and efficiency	Build learning community for African entrepreneurs Stimulate entrepreneurship in Africa Reduce failure rate among startups Self-sustaining companies Investor readiness	Build learning community for African youngsters Set entrepreneurship on the card in Africa Create sustainability Adding value
Build Local network	Dutch embassy Government Aggregate clusters; (former) participants Local providers of finance; banks and other investors Local network via local employees Network of stakeholders; buyers, suppliers, distributors. Research institute	Dutch embassy Government Universities Facilitators Business schools Facilitators	Dutch embassy Government Universities Bank directors	Dutch embassy Government Alumni Co-worker/colleague Schools Private partners
Creation of local solutions	Lack of capital, knowledge and skills Access to finance Infrastructure Political tension Governmental instability Regulation Access to water or electricity High-priced goods	Lack of capital, knowledge and skills Access to finance Infrastructure Political instability	Lack of capital, knowledge and skills Access to finance Infrastructure Political situation Taxes poorly regulated Access to water or electricity No ecosystem in place	Lack of capital, knowledge and skills Access to finance Business registration

Access to finance	Not supplying finance Formal contracts with financial partner	Not supplying finance Share knowledge	Not supplying finance Prepare investor readiness	Supplying finance at 7 locations Connections with financial actors
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Table 3: Overview of Key Characteristics Incubators

4.2 Findings on Entrepreneurial Process

The respondents gave some interesting findings regarding the entrepreneurial process.

Table 4 represents the similarities and differences between various programs within this section.

4.2.1. Idea Generation

The organizations responded that the phase of idea development is not included in incubation programs. Even though entrepreneurs should have worked on a concept, programs still support the African startups with the development of a business plan. PUM states: *“We set up the program ... for startups that need support or help with their business idea or plan.”* Additionally, incubators help African entrepreneurs to focus on one specific business idea instead of multiple concepts. TNXTO: *“...we are helping them by giving focus. What you see in Africa is that people have multiple businesses, sometimes you need to put a focus on one thing, because that market has more potential in growing than others. We help them in making these decisions.”* Especially countries that are behind other African countries can use the help of incubators in the conceptual stage: *“We are transferring an idea into a business, which is already a big step for countries like Angola and Mozambique”* (Orange Corners). Furthermore, research suggest African entrepreneurs experience difficulty in distinguishing themselves from existing ideas, while they should differentiate from competitors to become profitable. In addition, incubation programs come across unawareness of innovative possibilities - as stated by PUM: *“There are many opportunities in the African market that are not taken by entrepreneurs. Incubators try to learn entrepreneurs how to grab these opportunities.”*

4.2.2. Business Plan

All incubator organizations that were interviewed underlined the importance of developing a well-defined and sustainable business plan. For this reason, the main focus of the incubation programs is on the creation of a stable business plan. According to Orange Corners: *“A well-developed business plan is the center of success.”* A business plan has the power to guide African entrepreneurs after the incubation program is completed. According to TNXTO: *“Most of the business plans are intended to grow value and create employment within a business.”* There are multiple strategies to develop a business plan: *“We give information and feedback on a business plan and decide if they are investor ready”* (PUM). Ahead, TNXTO indicates: *“We start with their own business plan that they already have, and challenge their plan.”* Business plans are also created jointly, by entrepreneur and coach. The method of a business plan is based on Western basic steps with cases close to African context. For instance, describing the business, strategy, financial plans and potential risks. In addition, it can be deduced from findings that programs value pitching skills in front of stakeholders. According to PUM: *“As long as the plan has not been tested in real situations, it will not survive the first context of customers”* Besides, in most cases, the business plan is developed at the same time as the value chain is developed, which shall increase product efficiency. According to 2SCALE: *“We design together the value chain and the business plan they want to work on.”*

4.2.3. Resource Collection

Access to resources was found to be difficult for African entrepreneurs, therefore incubators can support entrepreneurs to find required resources. Incubators provide for financial, legal and technological information – *“During the program we give the startups information on how to gather resources and hire people”* (PUM). Education around resource collection is of importance, as a structured stakeholder analysis and funding proposal must be made. This proposal should be pitched by entrepreneurs in front of their potential investors, like commercial banks, VC's, or government. Moreover, starting entrepreneurs need resources, like office space: *“We rent a part of the existing infrastructure, i.e. the co-working space, and provide access for a number of entrepreneurs that can use these facilities, free of charge”* (Orange Corners). Furthermore, incubators arrange formal connections with local

government and universities. In addition, contracts with stakeholders and investors are made by 2SCALE: *“There are formal contracts between the private sector and financial institutions.”* Orange Corners does not possess financial connections, but looks forward to do so. Local partners are introduced to entrepreneurs with the aim to facilitate the collection of resources, as partners can share knowledge and networks. However, cases argue that their participants already have their own connections. For example, according to PUM: *“They have extended families to create a strong network. Thereby, religion is very important in Africa, where business connections are made as well.”*

4.2.4. Launch and Manage Venture

In multiple cases incubators indicate to support starting entrepreneurs in developing the business idea into a business and do not intervene with any business activities or management. Their role is to prepare participants, so they can run their own business. It was noticed that incubators do focus on launching the business as Orange Corners indicates: *“We did set up a roadmap, a map for startups. It includes all the activities that should be done by an entrepreneur to become a formal company.”*

4.2.5. Growth and Harvesting

In general, incubator organizations do not focus much on harvesting decisions. But, there are two out of four cases that do focus on growth: *“Reflecting on their business, business planning, and predict on growth that is what we give to provide growth for them”* (TNXTO), and *“We do not need to tell them to grow, they like to have growth”* (PUM). However, according to former participants the focus on growth is insufficient: *“Real-life activities and personal coaching should be given by incubators to improve performances and start creation of actual growth.”* As the entrepreneurial process is an iterative process steps are repeated to improve defaults. Therefore, stages are sometimes running parallel and growth is created even if that was not the purpose. In general, the focus of the incubation program is dependent on the target group of an incubator. This means, some programs do focus on creating growth, while others focus on launching the business.

Entrepreneurial process	2SCALE	The Next Organization	PUM/The Golden Egg Check	Orange Corners
Idea generation	No support	Focus on one idea	Support for a business idea Learn to notice opportunities Distinguish idea from competitors	Transfer an idea into a business
Business plan	Sustainable business plan Value chain Created jointly Diversification Share knowledge on basic concepts included in BP	Main focus Restructuring and challenging Grow value Share knowledge on basic concepts included in BP	Main focus Real situation testing Investor readiness Share knowledge on basic concepts included in BP	Create funding proposal Cost structure Share knowledge about financial loans Share knowledge on basic concepts included in BP
Resource collection	Formal contracts to facilitate access to resources Community of (former) participants	Share information Informal network session	Share information Eco-system for resources	Office space Private partner events with big companies Community of entrepreneurs Entrepreneurial eco-system
Launch and manage venture	Formalize entity to launch venture	No support	No support	Roadmap for formalizing entity to launch venture
Growth and harvesting	Too far off for a startup	Strengthen position Expanding market	Growth is obvious	Too far off for a startup

Table 4: Overview of Key Characteristics Entrepreneurial Process

4.3 Findings on Impact

4.3.1. Economic situation

This section will elaborate on the changes in the economic situation of the participants and their stakeholders during and after completing an incubation program. **Table 5** represents the similarities and differences between various programs within this section.

Participant

The intended impact of all incubation programs is to increase the economic well-being of African entrepreneurs. However, according to the policy advisor of the Dutch Ministry for Foreign Affairs argues: *“The entrepreneur must not only want to earn a lot of money, but also to improve the quality of society.”* Incubation programs are not available for entrepreneurs that solely focus on making the greatest amount of money possible, since consideration for the social aspects of individuals and their community plays an important role. In addition, it should be noted that economic prosperity does not mean cash on the bank, but investing in family and friends. Programs have one jointly approach to improve the economic situation namely, teaching business management. Orange Corners (2020), give producers seed finance to increase their productivity, whereas economic growth is enabled at a later stage. Also, 2SCALE and Orange Corners introduce entrepreneurs to business partners through networking events. According to a former participant of an incubation program: *“The access to networking events contributes to your economic well-being as your network is expanding.”* Yet, indicated by a former participant and founder of Jolinaiko Eco Tours: *“The program was more about learning basic things and organizing our business. This really takes time to organize your company so I cannot really say if they were the factor that created more prosperity and employment for us.”*

Seller

Currently, producers try to exclude wholesalers in order to improve profit margins. However, there are some changes created by entrepreneurs that affect the economic well-being of sellers. For example, they can enjoy expanded markets, as productivity is increased, which is the best way to achieve stable and growing profits over time. Additionally, buyer-seller markets, organized by incubators, start negotiations that lead to better prices for producers

and distributors. According to 2SCALE: *“Our ventures give stability and sustainable outreach to farmers, with the result they become entrepreneurial farmers. As the farmer has a contract with a processor, the farmer knows his supply and income at the beginning of the year. This is what the realized impact of the program is for the local people and economy, namely economic stability and better prices.”*

Buyer

As productivity is increased by incubators, buyers have a broader range of products. Hence, consumers receive food security and consumer surplus (lower prices and greater convenience). As indicated by 2SCALE: *“Strengthen agriculture food value chains provides access to nutrient food for low-income consumers in BoP markets.”* In addition, incubators like to increase the entrepreneurial environment – *“I think the impact of the program is larger than only the few entrepreneurs that we support. It is also adding towards a more entrepreneurial environment in which young people see that their sister or neighbor is an entrepreneur and they want to become one as well”* (Orange Corners). This means, competition among African entrepreneurs will rise, which will reduce the purchasing price for buyers. On the other hand, incubation programs also argue that the improvement of the buyer’s economic well-being is just a side effect as the focus of the program is the participant.

Community

The intended impact of all cases is to increase employment for the local African community. Indicated by PUM: *“The impact of the entrepreneurial process guided by us is creating employment. Also, we help them in the innovation phase, new products come to the market, which is helping the economy.”* In addition, according to Orange Corners: *“One of our realized impacts is creating jobs. At the moment, there are 700 new jobs created by our guided entrepreneurs.”* SME’s are the engine of a national economy, as they are responsible for creating an exceedingly large amount of jobs and food security within a country. Therefore, enlarging employment improves the economic situation among African citizens. As indicated by 2SCALE: *“Our approach really helps the local economy to strengthen, because our participants build stronger businesses in the local markets.”* However, according to TNXTO creating prosperity, employment, and innovation are just side effects of the program:

“That should be in the business plan, we do not teach this or include this in the program. Of course, if an entrepreneur chooses to introduce a product that is helpful for the community than yes the business does improve the economic and social situation.”

Changes in economics	2SCALE	The Next Organization	PUM/The Golden Egg Check	Orange Corners
Participant	Teach business management Organize formal negotiation sessions	Teach business management Organizing business	Teach business management	Teach business management Organize networking events Increase income by supplying micro-loan
Sellers	Producers exclude wholesaler Organize buyer-seller market Stable income	Increased productivity	Enlarged product line	Organize networking events which increases productivity
Buyers	Accessibility to cheap nutrient food for low-income consumers Better prices Food security Consumer surplus	Increased productivity	Enlarged product line	Rise in competitors Increased productivity Consumer surplus
Community	Employment Stronger local markets	No evidence. Believe that employment creation is partly the definition of entrepreneurship	Employment Innovation	Employment

Table 5: Overview of key characteristics economic situation

4.3.2. Capabilities

This section will elaborate on the changes in the capabilities of the participants and their stakeholders during and after the completion of an incubation program. **Table 6** represents the similarities and differences between various programs within this section.

Participant

Respondents indicate that to increase the economic well-being of individuals and community, knowledge should be shared and skills must be practiced. Obviously, training is helping entrepreneurs to create skills. These skills help participants to organize their venture and create economic welfare. The improved economic situation enhances living standards for their family, friends, and employees according to PUM: *“Founders of ventures will now have 2 dollars instead of 1. In my experience, the difference is mostly spent on personal hygiene or education”*. However, CSR principles and SDG awareness practices contribute to the quality of life as well. As indicated by the policy advisor of the Dutch Ministry for Foreign Affairs: *“Proper jobs with proper working conditions should be created. Corporate social responsibility guidelines are followed as they improve the living standards of individuals.”* In addition, - *“Creating a protective working environment for females is important”* (PUM). Moreover, multiple programs are supporting entrepreneurs in solving the challenges around the COVID-19 crisis – *“Companies have a problem that they cannot sell their products as, due to COVID-19, there is no demand for their product. Together with 2SCALE we are looking for diversification of the business model and redefine their product”* (2Scale). According to a former participant: *“I think that the incubation organization made it possible that we will survive the COVID-19, but also because they are here and it is long-term and specific for your business, that makes they are very instrumental and their realized impact big.”*

Seller

Compared to the changes in the capabilities of the participant there are only small changes for the local seller. Cases indicate that awareness is created among entrepreneurs to improve the capabilities of their local seller. Therefore, participants share their knowledge with sellers and improve communication skills to increase the efficiency of business meetings. According to 2SCALE, its participants create many opportunities for their local

seller: *“From the farmers side they create opportunities as they receive a better price, create a better off-take (they know what they get), and broaden their discussions with the companies to start with (digital) payment systems. Also, they arrange investments in equipment, which might be paid partly by their partner.”*

Buyer

Next to the changes in the capabilities of the local sellers, there is also a minor effect in the capability of the local buyer. Specifically, buyers have access to multiple products and as stated by PUM – *“Products are improved to make them healthier for their buyers, for example the drinking water becomes cleaner”*. In addition, ventures ensure that the primary needs of consumers are satisfied. Currently, the results of the interviews show that there is insufficient attention for improving capabilities of the venture’s buyers.

Community

In general, incubators create capabilities that are valuable for individuals as well as for the local community, argued by PUM: *“Our contribution to the entrepreneurial process can increase the living standards of our participants and their employees ... We try to educate them also in terms of having good working conditions for their staff as it is also in their interest that their staff is paid well. So, their children (of the staff) can go to school”*. In addition, according to 2SCALE: *“Prosperity is not cash on the bank here. If farmers, especially female farmers, get more income, they will spend more money on nice clothes, children will go to school, and invest in their housing. In general, they do not trust banks, so they will not keep their money there. They spend it in the quality of life.”* In other words, incubators have the power to increase a part of the community’s quality of life. In addition, PUM indicates: *“Ethiopia is really creating new products to improve the life in Ethiopia. With that, the ... health sector is improving.”*

Changes in capabilities	2SCALE	The Next Organization	PUM/The Golden Egg Check	Orange Corners
Participant	Teach skills CSR conditions Quality of life for incubates	Teach skills	Teach skills Higher living standards for	Teach skills CSR and SDG principles

			incubates and their employees	
Sellers	Digital payment systems	Transfer knowledge	Transfer knowledge	Increase communication skills
Buyers	Access to multiple and healthier products Satisfaction of primary needs	No intentional impact	Access to healthier products	No intentional impact
Community	Quality of life	Quality of life	Quality of life Improve health sector Protective environment for women	Quality of life

Table 6: Overview of characteristics capabilities

4.3.3. Relationships

This section will elaborate on the changes in the relationships between the participants and their stakeholders during and after completing an incubation program. **Table 7** represents the similarities and differences between various programs within this section.

Participant

In most cases is it intended to connect participants with local partners, even though the connections are short-term. For instance, 2SCALE indicate: *“We do not only support the company itself but also build partnerships. We are bringing farmers together in the same commodity to make a more commercial stronghold (aggregate clusters). The SME’s are all present in a network of farmers, but all having a different number of farmers within their network. Up till now we developed 35 partnerships.”* These clusters create stability, fair prices, and support when the program is completed. Yet, some incubators only teach about the importance of creating networks. According to TNXTO: *“Relationships are addressed during the program especially during the creation of business plan.”* In addition, a former incubation participant argued that some organizations do not offer a broad network – *“During this program you only make connections with the people of your group. Luckily, in Ghana, if you put people together they always see how things can be done together.”* 2SCALE

highlights the importance of relationships: *“We see that if you want to build a sustainable value chain for a company, you need all the local partners that are relevant for that business to be sure that, in the long run, it is a sustainable model which can grow even more. The commercial stronghold ensures that they have a say and the power to negotiate. The system stays in place even when the program is phased out.”*

Seller

There is just one minor change within relationships for sellers. Namely, the impact that an incubator can have is to ensure there is a trustful relationship between a producer and a seller. For example, a policy advisor for the Dutch ministry for Foreign Affairs had the following experience during her time in Mali: *“A 2SCALE facilitator was setting up a workshop for a maize trader and off-taker. At the moment, there was a negotiation about the price between the trader and the producer. The 2SCALE facilitator invested a lot of time to make everybody feel comfortable and create a trusting and long-lasting relationship. After a few years, I found out that the relationship is still in place.”* The example of local trust building shows the importance of long-lasting relationships with a seller.

Community

Many respondents indicate that programs do not help individuals or communities outside the program to establish new partnerships or networks. As indicated by a former participant: *“Connections were not made outside the program.”* Nonetheless, according to the policy advisor of the Dutch Ministry for Foreign Affairs: *“incubators target female entrepreneurs more and more. I think that has also a positive impact in terms of gender equity and the changing relationship between men and women within the community.”* In addition, according to 2SCALE they do change the relationships within the community because - *“building a sustainable value chain for a company, all the local partners that are relevant for that business will be needed to be sure that, in the long run, it is a sustainable model that can grow even more.”*

Changes in relationships	2SCALE	The Next Organization	PUM/The Golden Egg Check	Orange Corners

Participant	Increased access to networks Sustainable value chain	Share knowledge Inside connection between participants	Share knowledge	Access to private partners from big companies
Seller	Local trust building Long-lasting relationships	No impact	No impact	No impact
Buyer	No impact	No impact	No impact	No impact
Community	Local community Men and women	No impact	Men and women	Men and women

Table 7: Overview of characteristics relationships

4.4 Case-Oriented Research

It can be concluded from the findings that incubator organizations make use of activities to achieve a strong entrepreneurial process, with the phases of the process creating impact for the participants and their stakeholders. The differences and similarities can be found in table 3 till 7, where key characteristics per program are summarized. Moreover, these activities reveal relationships that are clearly summarized in Appendix C and further described in the discussion. **Table 8** is presenting a clear overview of findings per firm.

4.4.1. Economic situation

Findings show that the activities of incubators influence the entrepreneurial process and the different stages of the process each have their own impact on the economic situation of ventures and their sellers, buyers and community. The first activity of incubators is sharing expertise on subjects like the development of a business plan (Appendix C.10), launch (formalize) a venture (C.11) and create a planning for future growth (C.12) to strengthen the entrepreneurial process. This information can be used by entrepreneurs to make operations more efficient and improve organization around a venture with the outcome that cash inflow might increase (C.13, C.28). It was found that the capabilities of incubation participants can positively influence the economic situation of entrepreneurs (C.31). Second, findings show that incubators introduce their participants to business partners to collect

physical resources which at the end improves their economic well-being. For instance, 2SCALE create connections between producers and off-takers (C.16), with the additional reason that entrepreneurs exchange resources like machinery (C.26). Third, findings show that programs facilitate access to financial resources by introducing participants to investors or by offering financial funds. For instance, TNXTO and 2SCALE help entrepreneurs to develop a funding proposal that can be pitched in front of investors to register the company (C.21, C.22), while Orange Corners supply financial resources for their entrepreneurs to create growth (C.23). All methods that collect financial resources will increase the economic situation of entrepreneurs over time and subsequent investments can be done (C.24). The aim of local relationships is to contribute positively to the earnings of African ventures (C.34). Next to the economic impact for participants, it was found that sellers can be impacted as they can enjoy expanded markets. Buyers receive food security with access to cheaper nutrient food and enjoy an enlarged product line and consumer surplus as operations are made more efficient. Furthermore, growing startups provide for stronger local markets and create employment for the local community.

4.4.2. Capabilities

It was found that incubators influence the capabilities of their participants and in turn those of the participant's stakeholders with particular activities. Firstly, it can be deduced from findings that sharing entrepreneurial expertise is the main activity for incubators to improve capabilities. As can be seen in **table 8** the main focus of incubation programs is not to support entrepreneurs to identify opportunities (C.1), but to improve the expertise of African entrepreneurs to formalize their venture (C.11). Formalizing a venture will create capabilities for a managing business (C.29). Moreover, new employees can benefit from the expertise of (former) incubation participants (C.14). Secondly, formal contracts with business partners might lead to a rise in the entrepreneurial expertise for participants, which ultimately lead to an increase in the capability of an entrepreneur. According to Orange Corners, higher-level partners share expertise with incubation participants to facilitate business activities (C.17). The third activity of incubators is searching for local solutions. They offer facilities like office space with free WIFI (C.19, C.27), and deal with food waste and African weather circumstances through presenting proper packages for products (C.20). However, the stakeholders of ventures are also (unintentionally) influenced. For instance,

sellers might appreciate technological innovation while buyers have access to healthier products. In general, the quality of life shall increase among the local community.

4.4.3. Relationships

Concerning the final component of impact, a common finding indicates incubation activities affect the entrepreneurial process phases and have an impact on the relationships. Results show the development of local expertise changes the relationships between partners. For instance, participants increase their bargaining power through informal negotiation sessions (C.15). The second activity that changes the relationship is incubators ensuring participants connections to local governments, embassies and universities, as can be viewed in **table 8**. In addition, some incubators introduce their participants to business partners who work at large companies in order to facilitate the collection of resources (C.16). Next to the activities having an impact on relationships, relationships itself also impact some phases of the entrepreneurial process. For instance, partners might increase accessibility to finance (C.32), and facilitate collection of physical and intellectual resources (C.33). Stakeholders experience minor changes within their relationships as sellers and buyers might profit from long-lasting relationships with a (former) participant and gender equity is progressing, but this is depending on the type of incubator.

		FIRMS			
		2SCALE	TNXTO	PUM	Orange Corners
INCUBATORS	Local expertise	Yes	Yes	Yes	Yes
	Local network	Yes	Yes	Yes	Yes
	Local solutions	Yes	No	Yes	Yes
	Access to finance	Yes	No	Yes	Yes
ENTREPRENEURIAL PROCESS	Idea generation	No	No	No	Yes
	Business plan	Yes	Yes	Yes	Yes
	Resource collection	Yes	No	No	Yes
	Launch & manage venture	Yes	No	No	Yes
	Growth & harvesting	No	Yes	Yes/No	No
IMPACT	Economic situation	+	+	+	+
	Capabilities	+	+	+	+
	Relationships	+	+	+	+

Table 8: Overview of Findings per Firm

5. Discussion

This section discusses the findings with the current state of art based on the conceptual model **figure 4**.

5.1 Incubators

Through primary and secondary data-collection this research aims to address the influence of Western incubators on the phases of African ventures' entrepreneurial processes and in turn the effect of these phases on impact of startup's stakeholders. By investigating how incubators are operating in Africa to help entrepreneurs, it became clear all cases have the same basic approach, namely teaching business management performed by local teachers or mentors to improve local expertise (**table 8**). All incubators value theoretical local expertise, so their participants can increase productivity and act upon internal and external risks. It is critical that small businesses can face challenges and possess entrepreneurial skills to avoid bankruptcy (Dubihlela, & Schaikwyk, 2014). However, it was also found that some incubators give their participants practical expertise to increase experience among African entrepreneurs through informal negotiation sessions. Normally, incubators facilitate the needs required by small firms and uncover theoretical aspects to get entrepreneurs through the beginning stages of a venture (Lose, Nxopo, Maziriri, & Madinga, 2016).

The cases indicate the importance of a good relationship with local institutions, like financial investors, government, and universities. A local network, formal and informal, is a supportive tool for starting entrepreneurs that seek for resources of equipment, reassurance, but most importantly money (Birley, 1985). In addition, results show some cases have connections with potential distributors, suppliers, or buyers (**table 8**). One of the cases gives a good example, as they create commercial strongholds (aggregate clusters) that exist of (former) participants and local SME's trading with each other. The clusters ensure commitment from both the businesses as well as farmers to work on improving linkages and productivity at farmer level, even after the program has been completed (2SCALE).

All cases offer physical resources to create local solutions. They accommodate offices, water and electricity to African entrepreneurs, which is in line with the existing literature. Furthermore, incubators offer solutions against African weather circumstances by sharing knowledge on proper packages to decrease food waste. Local governmental

institutions guide incubators how to cope with specific conditions of legislation, like improving infrastructure and licensing the business. It should be noticed, many entrepreneurs are not willing to formalize their business as licensing is expensive and the government asks startups for taxes at the beginning (Ghana Revenue Authority, 2020). Taxation policy affects business costs and thus, leading to a fall in business revenues (Ebrahim, Gcabo, Khumalo, & Pirttila, 2019). Therefore, incubators offer financial aid to improve the possibilities of the entrepreneur. Additionally, it is recommended for incubators to highlight the importance of requesting taxes at a later stage of the business cycle or to include self-employed deduction to give startups the opportunity to grow and survive (Orange Corners).

Incubators intent to facilitate the access to financial resources by introducing participants to financial knowledge and create investor readiness. In addition, financial integrated services are provided for entrepreneurs to increase welfare and give them the possibility to create growth (Ndabeni, 2008). For example, they supply seed finance, or they introduce participants to financial investors (C.21, C.23).

5.2 Entrepreneurial Process

Results show there is a minimum support within the first stage of the entrepreneurial process, idea generation. There have been some contradictions on this aspect in existing literature. According to Vogel (2016), idea generation is the core construct in the field of entrepreneurship and can result in both short-term and long-term benefits. Therefore, it is crucial to invest in idea generation. In contradiction Dubihlela and Schaikwyk (2014) state that business incubators do not replace entrepreneurial initiatives, but create better conditions for entrepreneurship. The business plan is influenced by Western basic theories given by mentors that arrange for educational modules, and informal sessions to determine and test the plan of entrepreneurs. This finding matches existing literature that emphasize the Western approach to create a well-determined business plan (Leach & Melicher, 2018). It can be deduced from the results that cases offer support to African entrepreneurs in regard to facilitating resource collection by closing the gap of entrepreneurial knowledge, which runs parallel with the development of the business plan. In addition, formal contracts are enclosed with financial investors and incubators provide for office space and partnerships with large private companies (C.17, C.27). According to Ysubove, Andries, and

Clarysse (2019), African entrepreneurs can benefit from the facilitation of resource collection by having access to external contacts of the incubator. The stage launch and manage a venture has shown to be included by incubators. Cases indicate to guide entrepreneurs through the formalization process. Moreover, it was found that programs run parallel when entrepreneurs initiate businesses and become mostly independent after 1 or 2 years. It is beneficial if a range of support services are available for entrepreneurs during the implementation of business activities (Salem, 2014). As a last observation this study regarding the entrepreneurial process, cases do not consider decision-making around harvesting, as it is too far away for a startup. There is some contradiction around this aspect as according to Shava (2020), a long-term business harvesting strategy upfront gives the entrepreneur a clear roadmap and is critical for guidance towards achieving the venture's mission. While Leach and Melicher (2018) indicate that harvesting strategies are not part of the early-stages of a venture, and incubators just aim to provide for a protective environment for (starting) ventures (Lose et al., 2016). Some cases do consider growth possibilities, while others do not (**table 8**).

5.3 Impact

The interviews show a positive impact on the three dimensions, economic situation, capabilities and relationships. It is also indicated that the incubators are too short in business to be secure of the actual impact. Multiple examples prove nonetheless that the economic situation of (former) participants is enhanced after the introduction of incubators. Based on the interviews, it can be determined changes in the economics of participants' stakeholders are side effects of managing businesses. These side effects are better prices, greater access to products, and increased employment, which are the results of an improved economic situation according to London (2009). Results show that incubation firms are supporting entrepreneurs by providing trainings, trade markets, networks, seed financing, and physical resources like offices. These opportunities, intellectual and physical resources result in a wider range of capabilities among the entrepreneurs and, according to London (2009) beneficially influence the satisfaction and self-esteem of the community. Incubators increase the development of local networks among African entrepreneurs. This can be said on the basis of multiple examples given by the cases. In addition, cases stimulate the development of partnerships with local sellers and buyers as explained above. According to Hansen,

Chesbrough, Nohria, and Sull (2000), incubators help entrepreneurs to network, obtain resources, and partner with others quickly, which allows them to establish their business in the marketplace ahead of competitors. The development of sustaining relationships decreases the common component for poor countries, namely social exclusion and isolation from the outside world (London, 2009). The male and female relation within the African society has been changed as female entrepreneurs are targeted by incubators, and therefore strengthen their position within the community.

5.4 Case-oriented Research

Given these findings, it can be said that all cases intend to create impact for the African community. Appendix C shows that incubation programs have an influence on all the phases of the entrepreneurial process and the aspects of impact. But, as demonstrated in the cross-oriented research, firms indicate that long-term changes are not yet visible. In order to reach the desired long-term impact to become visible in a couple of years, cases use different approaches. The confirmed proposed relationships are presented in **figure 5**, and ten new relationships are displayed in **figure 6**. Figure 6 is developed to represent the new relationships forged by Western incubation programs during their influence on the entrepreneurial process of African ventures as well as the phases of the process that manifest change in the three components of impact. Each activity, phase and impact component are indicated with a different color to give a clear overview of the relationships.

5.4.1. Economic situation

There are major influences on the economic situation of the participants, as well as on the situation of their stakeholders. One of the activities of incubators is to share experience and knowledge in order for African entrepreneurs to develop a solid business plan, launch the business, and create growth and value for the business and the community. In particular, Honig and Karlsson (2004) state that a strong business plan is a prerequisite for a business with funding to succeed; a well-organized strategy can indirectly evoke positive influences in terms of profitability. The incubator's activity to share entrepreneurial **expertise** and the catalyze the **three phases of the entrepreneurial process** were expected to contribute to the **economic situation** of the participant. Another activity consists of connecting partners with the purpose to share resources and stabilize or even decrease expenses. Access to the

market is given as well to avoid startup failure. This confirms the expected relationship between the incubator activity **building a local network** and the entrepreneurial phase of **resources** to improve economic well-being of the participant, but also of the business partner. The final activity of incubators to improve the economic situation is to facilitate access to finance for their participants. According to the findings, access to finance gives entrepreneurs the opportunity to buy resources, register the venture (C.22), and ultimately reach growth objectives (C.23). To note, registration is expensive, but brings economic advantages for both the entrepreneur and the African nation (Ghana Revenue Authority, 2020). In general, finance might enable firms to move away from poverty and once growth is created human resources will be hired. This confirms the expected relationships between **access to finance** and **resource collection** in terms of positively influencing the **economic situation**. In this light, five new relationships are revealed during this study regarding the economic situation, which are presented in **figure 5**. First C.22: **access to finance** makes it possible to **register** the firm and pay taxes, which is relationship number 2 as it is **economically beneficial** for the **African nation**. Third C.23: finance makes it possible to reach growth objectives, which have been explained above. Capital is needed through all business stages to finance enterprise activities (Leach & Melicher, 2018). Fourth: incubators created competences among participants to solve challenges around COVID-19 by finding alternative purposes for their products. Fifth: introduction to business partners increased assurance around off-take and guaranteed better prices at the same time. This implies a positive relationship between the **capabilities** and **economic situation**, but also between the **relationships** and **economic situation** of critical constituencies.

5.4.2. Capabilities

The research results show a beneficial impact on the capabilities of participants and some changes in the capabilities of stakeholders. To increase capabilities among African entrepreneurs, incubators' main strategy is to share their expertise on entrepreneurship. Expertise is crucial for startups without much capital to develop a full business (Ogotu & Kihonge, 2013). This confirms the expected relationship between the capability of sharing **local expertise** and helps to **launch & manage the venture** both having an impact on the (intellectual) **capabilities** as can be viewed in **figure 5**. Incubators enhance the connectivity between business partners and their participants to exchange knowledge (C.17).

Partnerships are not only useful for the exchange of theoretical knowledge, but also for practical actions (Ysubove et al., 2019). This results into the sixth new relationship, as a **local network** might increase entrepreneurial **expertise** of participants and their partners. The relationship might turn into an increase within capabilities among entrepreneurs, but not proven. Apart from this, incubators offer housing to reduce fixed costs and create local solutions for local entrepreneurs (C.19). According to Oguto and Kihonge (2013), it is effective to offer housing, so the concerns about fixed costs are reduced. This is confirming the expected relationship in which **local solutions** increase the physical **resources**, whereby resources impact the **capabilities**. In addition, they offer local solutions through sharing knowledge on weatherproof product packages to avoid food waste (C.20), which symbolizes the seventh additional relationship between the **local solutions** and impact **capabilities**.

5.4.3. Relationships

The final component of impact, relationships, has proven to be positively influenced by the activities of incubators. As **figure 5 and 6** show, incubation activities have a direct impact on relationships, while the entrepreneurial process does not have a direct impact on relationships. Incubation programs improve women empowerment by focusing on female entrepreneurs. Despite governmental and international support, the business environment is still poorly favorable for women. Yet, women business incubation is increasing the supply of services to female entrepreneurs to create a more favorable business environment for business women (Fiedler et al, 2010). It was shown, **incubation programs** change **relationships** between men and women in general. Cases indicate that local expertise among entrepreneurs helps to build relationships as well (C.15), suggesting the eighth additional positive relationship between incubators to develop **local expertise** and impact byway of **relationships (figure 6)**. Expertise ensures entrepreneurs to build professional and long-term partnerships consisting of trust (Ogutu & Kihonge, 2013). For this reason, incubators deem the selection and development of partnerships a critical step in starting a business, as it provides for a balanced contribution to the sustainable business model as well as for the overall developmental impact within the region. A **local network** has a direct impact on **relationships** between partners as was expected. It should be noted that it was anticipated for incubators to maintain a local network with governmental institutions, although it was not assumed that connections with trading partners were made. This is not

only changing the relationships for the participant, but also for the seller and buyer. Findings imply that sustaining partnerships can be helpful to collect seed finance (C.29), and facilitate the access to resources (C.30). According to Leach and Melicher (2018) (starting) entrepreneurs create partnerships with other organizations to reach certain benefits, such as sharing resources, reputation, marketing and distribution. This suggest the ninth and tenth new relationships between **relationships** and **the access to finance and other resources**. In general, findings reveal incubators should create partnerships with each other to increase efficiency among Western incubators and African entrepreneurs. Collaboration avoids that African entrepreneurs participate in multiple incubation programs and might increase the rate of successful entrepreneurs.

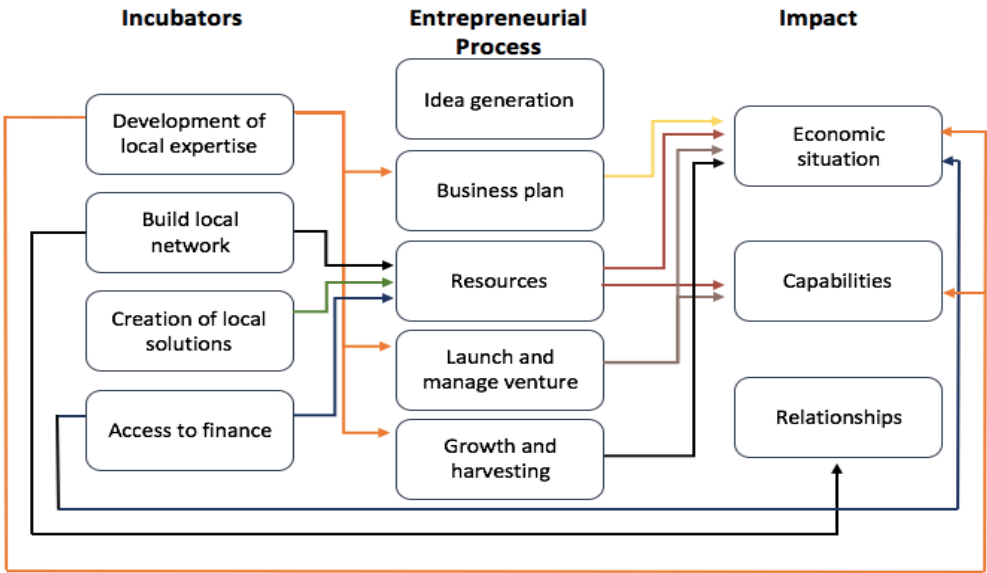


Figure 5: Existing relationships

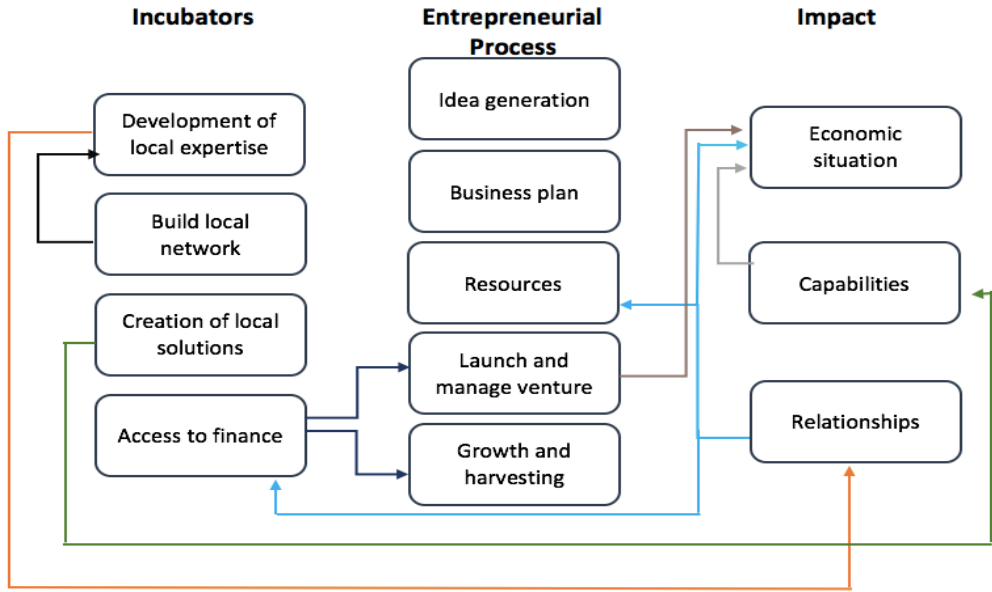


Figure 6: New Relationships

6. Conclusion

To answer the research question: “*How do Western incubation programs impact the entrepreneurial process of African ventures?*”, sub-questions have been investigated throughout this research.

6.1 Main Findings

What is the definition of an incubator and their activities during an incubation program according to existing literature?

This question has been answered in the conceptual background. Based on existing literature a business incubator can be defined as a consultancy that fosters ventures through the early-stage phases until companies have obtained knowledge, networks and financial and physical resources to function on their own. Incubators can reduce failure rate among businesses, accelerate growth and provide for a supportive environment for ventures. However, incubation programs can be time-consuming and expensive. Entrepreneurs may become depended on incubators which results an incompetency to make strategic decisions on their own. The activities of incubators exist of: sharing their expertise on organizing a business, building networks with formal institutions like the government, creation of local solutions to decrease financial obligations and provide connections for access to finance.

How can the entrepreneurial process be defined by secondary research? The conceptual background defines the entrepreneurial process. Secondary research explains the process as the steps taken to establish a new venture. One process is being used throughout this research, consisting of the following stages: (1) idea generation, (2) development of business plan, (3) resource gathering, (4) launch & manage venture and, (5) growth & harvesting. The entrepreneurial process consists of multiple activities, that constantly changes and progresses due to internal and external factors.

How can the impact of Western incubators on the African entrepreneurial process be measured?

The method of measuring impact has been answered in the conceptual background. The Base of the Pyramid Assessment Framework by London (2009) has been applied as an instrument to measure the impact of the Western incubators on the African entrepreneurial process, since this framework measures beyond financial indicators. The framework indicates that impact is reached when ventures improve their economic

situation, capabilities and relationships between participants, sellers, buyers, and community.

What is the expected relationship between Western incubators and the entrepreneurial process in Africa? The conceptual background discusses the role of Western incubators and the challenges and opportunities for ventures and their entrepreneurial process in Africa. Africa offers many opportunities for entrepreneurs, but there is a lack of knowledge and experience among the African community to exploit these opportunities. Many African entrepreneurs find difficulties to obtain financial and physical resources that are required to initiate business. Therefore, Western incubators share their expertise and experience in the field of doing and maintaining business with African entrepreneurs to decrease mortality rate among ventures and improve primary needs and employment.

To what extent do Western incubation companies teach the entrepreneurial process features to African entrepreneurs? Western incubator organizations are looked at to determine the extent to which features of the entrepreneurial process are acquired by the African entrepreneurs. This required qualitative research methods, as interviews were conducted with operating Western incubators and (former) participants of these incubation programs located in different African countries. It was demonstrated incubation programs have a different focus to reach long-lasting ventures (**table 8**). They all build a learning community and provide for local networks nevertheless. All cases, except for TNXTO, offer local solutions and access to finance. TNXTO can be perceived as a business school for African entrepreneurs that focuses on improving the executive business expertise of entrepreneurs. It can be said Western incubators teach the components of the entrepreneurial process to African individuals.

The main research question has been explored by the way of the results and the discussion. Western incubators offer their programs in African nations to support entrepreneurs and help them to create a successful startup. Business incubators have the goal to share their advice with participants and increase survival rate among African startups. In order to support entrepreneurs with the development of their business idea, Western incubators must possess excellent entrepreneurial experience and knowledge. They should be able to transfer theoretical knowledge, as well as perform practical sessions as these have proven to contribute to the success rate as well. It was disclosed, incubators reach a greater positive impact if they have both local connections with governmental

institutions and partnerships with trading partners for their participants. In addition, it was concluded that mutual connections between incubators might be more efficient for both the incubator and the participant. They should be able to create local solutions together with entrepreneurs to deal with particular challenges, like food waste and the COVID-19 crisis. Lastly, it will increase the success rate of startups if incubators are able to facilitate the access to finance by supplying financial funds while maintaining contracts with financial investors. All activities have their own positive effect on the entrepreneurial process of their participants (**figure 5&6**). For instance, their expertise assists entrepreneurs in creating understanding of the market and about organization around a venture. All of these aspects are described within the business plan of the startup. Moreover, their local network and creation of local solutions is facilitating the collection of (financial) resources. The phases of the entrepreneurial process bring certain changes in the components of impact. Resource collection can positively influence capabilities of participants. Registering the company decreases the money supply of the founder, but increases the economic situation of the country. It can be concluded that incubation activities should pay (more) attention to the first and final stage of the entrepreneurial process: idea generation and growth objectives as well as the development of harvesting strategies to reach a greater impact. This study reveals the phases of the process do not carry for changes in relationships, but on the contrary: the activities of incubators do. Activities of Western incubators have a major beneficial impact on the economic situation of their participants and the sellers, buyers and community (**table 5**). There are positive changes in the capabilities of participants, sellers, buyers and community (**table 6**). These changes in relationships for participants and community are major, while the changes for the sellers and buyers are minor to nothing (**table 7**).

6.2 Implications, Limitations and Future Research

6.2.1. Theoretical Implications

This study makes a few contributions in regards to theoretical implications in existing literature on Western incubators in Africa. Although the incubator is a researched topic, not much has been tested on what exactly is their impact on the entrepreneurial process. Therefore, this study expands the findings of past research and elucidates what the effect of

Western incubators is on the African ventures' entrepreneurial process and in turn the influence of the process's phases on the three aspects of impact. The results of this study confirm existing relationships of former studies. Furthermore, this study provides some contributions to the existing theoretical literature.

The research gives a few guidelines for incubators to increase their successfulness. Instead of having solely formal contracts with governmental institutions, this study illustrates how creating partnerships between seller and buyer give major benefits for participants. If entrepreneurs are connected to potential local buyers, their production rates will increase. It is important to be locally involved (local network) and offer certain solutions to local challenges. Local connections can decrease the problems around complicated process of registration, bad infrastructure and food waste, which are all hindering business activities. It is crucial to provide for financial funds or connections to increase the rate of success among African entrepreneurs as initial finance is needed to initiate the business. More can be done regarding growth propositions and harvesting strategies to prepare for internal and external factors. Former participants mention that if they are successful they do not know how to handle with growth.

From the results some interesting theoretical insights regarding impact arise. Formalizing ventures creates economic benefits for the African nation due to the paid taxes. Moreover, local solutions improve the capabilities for entrepreneurs, but also for the community. Furthermore, partners are willing to share their entrepreneurial experience with starting entrepreneurs with the result that local expertise is more advanced and might increase the capabilities of entrepreneurs. In addition, the economic situation improves because of the arranged trading partners. In short, this study clarifies the theoretical effects of the incubation activities on the entrepreneurial process and the aspects of impact to enlarge the success rate among African startups.

6.2.2. Practical Implications

The findings have revealed several implications for Western incubators and African individuals in the field. This research provides insights for Western incubators operating in Africa regarding strategies and how they should be used during incubation programs, so the overall impact of programs can be enlarged. Next to the existing foremost theoretical strategies, like sharing expertise and networks, offering physical resources and providing

financial access, it could be beneficial to incorporate more practical aspects to the program. For instance, incubators might develop long-lasting partnerships between trading partners to establish relationships and to create economic stability for entrepreneurs, buyers and sellers. If incubators support African entrepreneurs in solving challenges around business activities it would increase the capabilities of the participants and their stakeholders. For instance, finding alternative purposes for remaining products during the COVID-19 crisis and improving infrastructure. Incubators can offer practical sessions where participants can implement and improve their negotiation skills to increase investor readiness, with the result that capabilities increase and ultimately their economic situation rises. The impact of incubators can be magnified even more if collaboration between business incubators occurs. In short, incubators should use this study's theoretical insights and put it into practice.

An incubator should assist African startups specifically during a few phases of the entrepreneurial process to have a beneficial impact. As the BoP market offers many opportunities that go unnoticed or are not optimally exploited by African entrepreneurs, it is recommended to support entrepreneurs during the idea generation phase. Also, incubators should provide help during the development of the business plan and in registering the firm, as an organized firm that is premeditated against risks will increase their capabilities. Assistance needs to be given to gather financial and physical resources which are crucial when a positive economic impact ought to be achieved. Incubators can enlarge their impact in this light by giving more support in establishing growth objectives and future plans.

6.2.3. Limitations and Further Research

Even though it was attempted to minimize limitations, some of them were unavoidable and can be addressed by further research. As qualitative research brings some implications regarding data collection and analysis, since it is the researcher that takes the role of data collector; the researcher may possibly influence the observed statements and behavior. Apart from this aspect, this research was conducted in a limited timeframe, resulting in a limited sample size for study. Despite this limiting aspect, interviews were conducted with different and a sufficient number of organizations and individuals with knowledge on this particular subject to obtain qualitatively significant results. This limitation is compensated by using purposeful sampling, resulting into information-rich cases with in-depth understandings in the matter to reach data saturation. A third aspect that has had an

influence on this study was the COVID-19 crisis; which made it hard to reach organizations and individuals for interviews as offices were closed and travelling was discouraged. Additionally, the obtained interviews were conducted online as body language and speech could be misinterpreted.

Based on this context, a suggestion for further research is to expand the sample size to receive a higher quality of data and increase reliability. According to Guadagnoli and Velicer (1998), a larger sample size will increase the stability of component pattern relatively to the population pattern. Moreover, a concrete future research idea could be travelling to African countries and visiting Western incubator locations. Visiting these locations and attending theoretical lectures and/or practical sessions could expand the data and insights into the research. On a different note, as this study compares incubators operating in different industries, it would be recommended to focus on a specific branch and/or target group as a deeper understanding will be reached.

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9. Appendix

Appendix A. Introduction interview

First of all, I would like to thank you for your time to contribute to my research. My name is Nina Bosch, and I am a Master student from the University of Twente, studying international Business Administration. The goal of this study is to research the impact of Western incubators on the entrepreneurial process of African startups/entrepreneurs.

I like to highlight that the participation to this interview is completely voluntary, and you have the right to withdraw from the research at any time. Besides, I like to mention that there are no consequences related to this research. I expect the interview to take about 1 hour.

Next, I want to ask your permission to record this interview for the reason that I can make transcriptions of everything that is said and avoid forgetting important things. I will be the only person listening to the recording, and it will be disposed after I finished the research. It is possible that transcripts are used for further investigation or research publications, unless indicated otherwise. If permitted, I would like to include your company name in the research, but personal information, like names et., will never be used.

Finally, if you have any questions during or after the interview, please let me know.

Appendix B. Interview questions template

Interview Incubator

1. Could you please tell me something about your daily activities as [function]?
2. How did [name company] start and why?
3. Could you describe your role as an incubator in Africa?
4. Could you tell me something about your program there and about the participants?
 - a. How many participants do you approximately have each year?
5. How does your program help startups in their entrepreneurial process?
 - a. Where does the program focus on when developing the entrepreneurial process?
6. The entrepreneurial process consists of a few stages. Could you please elaborate on each stage how your incubators program supports/helps the African startup within these stages?
7. What do you think are the main challenges for African startups?
 - a. What are the most common mistakes made by African entrepreneurs?
 - b. Why do you think these mistakes are made?
8. What are the challenges for Western incubators operating in Africa?

9. Have incubators a positive or negative impact on the entrepreneurial process of African startups?
 - a. To go a bit further, what is the impact of the entrepreneurial process (developed by the incubator and the entrepreneur) on the African economy and society?
10. Does the incubator program design a startup's entrepreneurial process in a certain way so more jobs and prosperity are created?
11. If we look at the BoP framework as the assessment tool by London (2009), how do your participants form relationships with partners and government and in which stage of the entrepreneurial process will this take place?
12. Do you include, when developing the entrepreneurial process, that participants learn to form, build and shape relationships with local stakeholders, like buyers, sellers and the community?
 - a. If yes, how?
13. Is it included into the entrepreneurial process that startups help to improve the economic situation of its buyers, sellers, and the community in Africa once they complete the program? If yes, do they really improve their situation? And how?
14. Do startups offer opportunities for its buyers, sellers and the community by affecting the stakeholders' capabilities during the program and once they completed the program?
 - a. If yes, how?
15. In your experience do you think that the African economy and/or society improved after you introduced your programs?

Former Participant

1. Why did you participate in one of the incubation programs?
2. How do you think about the incubation programs?
 - a. Did the program help you in a positive way?
 - i. If yes, why?
3. What was the focus of the incubation program in your opinion if we look at the entrepreneurial process?
4. What do you think are the main challenges for you before you started the program?
5. How did the program help you solve these challenges?
6. To go a bit further, what is the impact of the entrepreneurial process (developed by the incubator and the entrepreneur) on your country's economy and society?
7. Can you say that your company's economy increased after the program?
8. Did you learn how to form relationships with partners, government and stakeholders and in which stage of the entrepreneurial process took this place? I mean with stakeholders like your buyers, sellers or your community.
 - a. If so, how did you learn this?
9. Did your company create more jobs and prosperity after you finished the program?

10. Did you also learn when developing the entrepreneurial process to improve the economic situation of your buyers, sellers, and the community in Africa once you complete the program?
11. Does your company offer opportunities for its buyers, sellers and the community by affecting the stakeholders' capabilities during the program and once you completed the program?
12. What do you think that the program could improve?

Appendix C. Overview of Relationships with Quotes

	Independent variable	Dependent variable	Quote
C.1	Incubation program	Idea generation	<i>"We offer services to youth that just have left school, to identify opportunities. But, it depends on the country"</i> (Orange Corners)
C.2	Incubation program	Business plan	<i>"We start with their own business plan that they already have, and challenge their plan to improve mistakes."</i> (TNXTO)
C.3	Incubation program	Resource collection	<i>"I was able to make use of office space, which was very nice."</i> (former participant 2)
C.4	Incubation program	Launch and manage venture	<i>"It includes all the activities that should be done by an entrepreneur to become a formal company."</i> (Orange Corners)
C.5	Incubation program	Growth and harvesting	<i>"Developing and sustainable growth is all about making the right choices .. There is a need to make growth plans, so our contribution as incubator is on that target group that want to create growth, to make them more successful and more sustainable for the future."</i> (TNXTO)
C.6	Incubation program	Economic situation	<i>"If we bring the resources together and create a platform where you can learn and gain information it comes with a price, which is</i>

			<i>sometimes hard for people to pay.” (TNXTO)</i>
C.7	Incubation program	Capabilities	<i>“We are not just teaching skills but implementing them straight away.” (2SCALE) “It is more a business course and understanding the technical skills.” (TNXTO)</i>
C.8	Incubation program	Relationships	<i>“During this program you only make connections with the people of your group. In Ghana, if you put people together they always make connections and see how things can be done together. “The other program that I joined share a whole contact list of partners that could be useful for your company. They have a list of people they would recommend to work with. They also do things cross different the sector.” (Former participant of TNXTO)</i>
C.9	Development of local expertise	Idea generation	<i>“We offer services to youth that just have left school, to identify opportunities. But, it depends on the country” (Orange Corners)</i>
C.10	Development of local expertise	Business plan	<i>“Our role is to help companies to build sustainable business plans and models.” (2SCALE)</i>
C.11	Development of local expertise	Launch and manage venture	<i>“Our roadmaps give entrepreneurs the expertise to formalize their business and thus launch the venture” (Orange Corners)</i>
C.12	Development of local expertise	Growth and harvesting	<i>“There is a need to make growth plans, so our contribution as incubator is on that target group that want to create growth, to make them more successful and more sustainable for the future.” (TNXTO)</i>
C.13	Development of local expertise	Economic situation	<i>“So what 2SCALE is doing is working with different</i>

			<i>companies in different commodities for example farmer association who is producing sorghum, aggregate sorghum, and grain sorghum than they sell it to Guinness, the brewery, here you have the problem due to the COVID times that the bars are not open so Guinness is not interested because they make less beer and sell beer. So, this company is looking for an alternative to use sorghum for the food market or animal market.” (2SCALE)</i>
C.14	Development of local expertise	Capabilities	<i>“They will share their competences with the new staff the entrepreneur hires.” (TNXTO)</i>
C.15	Development of local expertise	Relationships	<i>“We are bringing farmers together in the same commodity to make a more commercial stronghold (aggregate clusters) to learn them that they have a say and the power to negotiate.” (2SCALE)</i>
C.16	Build local network	Resource collection	<i>“These connections can help participants to collect their resources in the way that they can borrow machinery from a partner, or machinery is bought together. (Partner of 2SCALE)</i>
C.17	Build local network	Local expertise	<i>“The higher-level figures like to help out and teach them certain things that could facilitate their business activities.” (Orange Corners)</i>
C.18	Building local network	Relationships	<i>“They are all present in a network of local farmers, but all having a different number of farmers within their network.” (2SCALE)</i>

C.19	Creation of local solutions	Resource collection	<i>"We provide for office space and other great facilities like free WIFI." (Orange Corners)</i>
C.20	Creation of local solutions	Capabilities	<i>"Also shelve life and weather conditions have a major impact on the product and you should think about the proper package." (Partner of 2SCALE)</i>
C.21	Access to finance	Resource collection	<i>"At the end of the program is that if a company needs additional funding we work together to ease the access to finance. For example, we make a funding proposal together that they can pitch to investment companies, local or government bank. They can pitch their ideas for additional funding or resources." (TNXTO) "As program we negotiate with financial institutions to enclose formal contracts. These contracts are intended for our business champions (participants), with the goal that they can receive finance at their level." (2SCALE)</i>
C.22	Access to finance	Launch and manage venture	<i>"They have to pay 500 dollars for a business registration. Before they are even allowed to be a business. However, it brings also many (financial) advantages for the company" (2SCALE)</i>
C.23	Access to finance	Growth creation	<i>"They receive some capital in order to grow their business." (Orange Corners)</i>
C.24	Access to finance	Economic situation	<i>"If the business champions get access to finance their economic well-being will increase, businesses will be formalized more and they have money to invest into machinery for example." (Liaison of 2SCALE)</i>

C.25	Business plan	Economic situation	<i>"What you see often is that a company has no turnover, because they do not know their cost structure. With a well-developed business plan that is created during our program, the company's economy will increase, as they know exactly what goes in and out."</i> (Orange Corners)
C.26	Resources	Economic situation	<i>"Sometimes, it is in the interest of the off-taker that their partner is buying a certain machine or tool that speed up the production. So, they are subsidizing (a part of) the costs."</i> (Partner of 2SCALE)
C.27	Resources	Capabilities	<i>"We provide for office space and other great facilities like free WIFI."</i> (Orange Corners)
C.28	Launch and manage venture	Economic situation	<i>"In Africa, they can ask you for taxes right away. But, these startups will not have that kind of money to pay these taxes as they need it to run their business."</i> (Orange Corners)
C.29	Launch and manage venture	Capabilities	<i>"Formalizing a venture will create capabilities for a managing business as they become part of the value chain"</i> 2SCALE
C.30	Growth and harvesting	Economic situation	<i>"Of course, it is intended that we reach growth for the participants and thus increase their economic situation."</i> (PUM) <i>"A company hires people when they are growing so, they create jobs for the local society. Thus, they create new competences and therefore the economic well-being among the local society is increasing."</i> (TNXTO)

C.31	Capabilities	Economic situation	<i>"We provide our business champions from trainings to solve challenges like COVID-19 to avoid a decrease in demand." (2SCALE)</i>
C.32	Relationships	Access to finance	<i>"There are formal contracts between the private sector parts and the financial institutions." (2SCALE)</i>
C.33	Relationships	Resource collection	<i>"Relationships can help to collect resources." (Orange Corners)</i>
C.34	Relationships	Economic situation	<i>"We connect our business champions with other business champions that are part of our program (aggregate clusters). What we see is that our business champions skip the aggregators and go straight to the clusters. It helps our business champions to get a better price but also to negotiate better earnings and input from the processor." (2SCALE)</i>