

---

**Entrepreneurship and Industrialization for Rural Development: Business Incubation Approach**

Nicholaus Bhikolimana Tutuba<sup>1</sup>, Hawa Petro Tundui<sup>2</sup>

<sup>1</sup>Mzumbe University, School of Business,  
Mzumbe Area, P.O.Box 6, Mzumbe – Morogoro, Tanzania

<sup>2</sup>Mzumbe University, School of Business,  
Mzumbe Area, P.O.Box 6, Mzumbe – Morogoro, Tanzania

doi: 10.51505/IJEBMR.2022.6102

URL: <http://dx.doi.org/10.51505/IJEBMR.2022.6102>

**Abstract**

The role of business incubators and the impact of their incubation programs have limited realization in nurturing entrepreneurship and industrialization. To foster rural development in developing areas whose population depends on agriculture requires a sustainable model which can nurture firms in the sector. This qualitative case study used ten selected business incubators that support firms in the agriculture sector to analyze how rural development can be fostered. Triangulate sampling and data collection were used, and interpretative analysis shows that most incubators are in-house, operated by the Government in the manufacturing sector. The leading roles played by incubators include providing managerial advice, accessible finance and facilities, and business advice, facilitating the export of vegetables and fruits, linkage and networking, and accessible markets. Business incubators in the agriculture sector play a significant role in nurturing start-ups, creating job opportunities, and positively impacting the economy. Therefore, it is crucial for developing countries like Tanzania to include business incubators in their policies and strategic plans.

**Keywords:** entrepreneurship, industrialization, rural development, the business incubator

**1. Introduction**

The Tanzania Development Vision 2025, the instrument for rallying national efforts towards attaining the country's desired socio-economic transformation, was launched in 1999. A series of reforms followed the launch of the country's vision through the 2000s (Mushi and Mwakasangula, 2011; United Republic of Tanzania [URT], 2021). The reforms were necessitated by the socio-economic conditions like low economic growth, shortage of primary products, and high inflation that the country was experiencing. Nevertheless, these social-economic conditions affect rural areas more than urban because about 80 percent of people live in rural areas and depend on agriculture (International Fund for Agriculture Development [IFAD], 2016, URT, 2013, 2016a). Also, scholars like Bagachwa et al. (1995), Tundui and Tundui (2012), and Msamula et al. (2016) point out that in developing areas, poverty is more prevalent, especially among female-headed family units that depend on livestock and food-crop

production. Therefore, different policies, strategies, reforms, and interventions must foster rural development.

In the year 2015, the Government of URT decided to merge the two frameworks: (1) the first Five Year Development Plan (FYDP I, 2011/2012-2015/2016) and (2) the National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA II, 2010/2011-2014/2015) further extended to 2015/2016. This strategy created the Second Five Year Development Plan (FYDP II), 2016/17 – 2020/21, with the central theme of "Nurturing Industrialization for Economic Transformation and Human Development" (URT, 2016a). Furthermore, later, the Third Five Year Development Plan (FYDP III) 2020/2021 – 2025/2026, with the central theme, "Realizing Competitiveness and Industrialisation for Human Development" (URT, 2021). Both development plans, FYDP II and FYDP III focus on bringing social and economic development through industrialization (URT, 2016a, 2021). To realize this objective, the inclusion of entrepreneurs in all forms and sizes is necessary: The Government should foster a conducive business environment while the private sector drives economic growth.

*"Economic Reform Programmes implemented by the Tanzanian Government have been based on the philosophy that Tanzania is committed to a market economy whereby the private sector will take the lead in creating incomes, employment, and growth. On the other hand, the State will be a producer of public goods, play a regulatory role to level the playing field and create a conducive environment for the private sector to take the lead in driving economic growth" (URT, 2003:1)*

Furthermore, about 80% of Tanzanians live in rural areas (URT, 2001) and depend on small-scale agriculture for their livelihood (Mushi and Mwakasangula, 2011; URT, 2016b; Tutuba, 2021). The rural population of Tanzania is prone to poverty (World Bank, 2010 as cited by Msamula et al., 2018). However, scholars (Ngowi et al., 2011; Kyaruzi, 2011; Tundui and Tundui, 2012; Isaga, 2018) argue that rural entrepreneurship can stimulate the rural economy. This potential can be realized through the exploitation of natural resources (Msamula et al., 2018), promoting productivity in agriculture (IFAD, 2016; URT, 2016b; Bank of Tanzania [BOT] 2017), value addition of agriproducts (URT, 2013; Tutuba and Msamula, 2020), and fostering industrialization (URT, 2016a; Tutuba et al., 2020). This study analyses the role of business incubators in fostering entrepreneurship and industrialization for rural development in Tanzania through this understanding. Since agriculture is one of the main sectors of production in Tanzania (Bagachwa et al., 1995; Venosa and Mwakasangula, 2011; IFAD, 2016; URT, 2016b; BOT, 2017), the study was limited to incubators which are focused on nurturing firms in the agriculture sector. Therefore, specifically, the study analyzed the potential roles of agribusiness incubators in fostering entrepreneurship and industrialization for rural development in Tanzania.

With this scope, the study contributes immensely to the Resource-Based View (RBV) Theory (Msamula et al., 2016), the institutional theory (North, 1992; Msamula et al., 2018), and the economic theories of entrepreneurship (Schumpeter, 1983, 1989; Bula, 2012; Tundui and Tundui, 2012; Isaga, 2018). Also, the study provides a strategic view of different policies and strategies which promote rural development, youth empowerment, industrialization and human development, and the development of the agriculture sector. Furthermore, the study provided

empirical thought on the role of business incubators in nurturing entrepreneurship and industrialization for rural development. The incubation facts are essential in designing policies and strategies for rural development and entrepreneurship supporting systems.

This study is organized as follows: following this introduction, first, we provide the theoretical review and conceptualize key concepts of the study. Then we present the methods and approach followed by the analysis and discussion of findings. Finally, we present the study's main conclusions, recommendations, and limitations.

### *1.2 Entrepreneurship and Industrialization*

The classical and neoclassical theorists have labored to define entrepreneurship, but there is no single definition. Bula (2012) argues that defining entrepreneurship "... depends on the focus of the one defining it and from which perspective one looks at it" (p. 81). For example, entrepreneurship can be regarded from different perspectives like the economics view (Schumpeter, 1989; Cantillon 1775 as cited by Bula, 2012), sociology and psychology (Shane and Venkataraman, 2000; Shane et al., 2003), and management (Drucker, 1985; Mwasalwiba, 2010; Kyaruzi and Ngowi, 2011) perspective. However, this study is limited to the economic perspective, the economic theory of entrepreneurship approach proposed by Schumpeter (1983, 1989). This approach suits the study as it considers entrepreneurship as a process of innovatively combining factors of production to foster economic development and hence rural development.

Conventionally, entrepreneurship was strongly associated with creating a business (URT, 2003; Bula, 2012; Msamula et al., 2016): Entrepreneurship is starting an enterprise; Micro, Small, and Medium Enterprises (MSMEs). However, recently, entrepreneurship is being viewed as a way of thinking and behaving relevant to all parts of society and the economy (Cooney, 2012; Mwasalwiba et al., 2012). Moreover, entrepreneurs, as people who exploit technological breakthroughs (URT, 2013), commercialize innovations (Shane and Venkataraman, 2000; Tutuba et al., 2020), drive technological change [industrialization], and consequently create employment and promote economic growth (Shane et al., 2003; Bula, 2012; Viinikainen et al., 2017). Since this study focuses on rural development, we define entrepreneurship, and consequently, 'rural entrepreneurship' as the process of creation, discovery, and exploitation of value addition opportunities found in rural areas.

On the other hand, industrialization is the process of transforming an economy, agriculture in this case, from manual (labor-intensive) to merchandized or innovative. In industrialization, an economy is transformed from a primary one to one based on manufacturing goods. For example, instead of depending on raw cashews, the economy depends on processed cashews; Instead of selling maize, the market should depend on maize flour. Furthermore, mechanized mass production often replaces individual manual labor in an industrialized economy, and assembly lines replace artisans. Characteristics of industrialization include economic growth (URT, 2016a), the more efficient division of labor (Kyaruzi and Ngowi, 2011; Tutuba, 2021), and the use of technological innovation (Tidd and Bessant, 2018) to solve problems. Therefore, industrialization transforms from a resource-based economy to an innovative, mechanized economy based on mass manufacturing. As industrialization is usually associated with increases in total income and living standards, it is the most appropriate step toward rural development.

### *1.3 Rural development*

The National Rural Development Strategy [NRDS] points out that rural development concerns geographical areas in which (1) primary production takes place and (2) populations are found in varying densities (URT, 2001). Rural areas are defined as geographical locations with less than 150 inhabitants per km<sup>2</sup> (OECD, 1996 as cited by Msamula et al., 2016). These areas are characterized by activities related to primary processing, marketing, and services that serve rural and urban populations. In order to achieve rural development, the linkage between rural and close-by small towns and urban centers is crucial. Therefore, for operationalization of the study, rural areas are defined according to the NRDS and the National Agriculture Policy (URT, 2013): Rural areas include villages and small towns/nearby urban centers where agriculture is the main economic activity.

In Tanzania, about 80% of the population resides in rural areas; these areas are profound, where poverty is prevalent and deep. So, the development of the rural areas is a primary concern of social and economic development policy (URT, 2003, 2013), strategies (URT, 2001, 2006b), and development plans (URT, 2016, 2021). However, rural development concerns many farm and non-farm activities (URT, 2001, 2003, 2013). For example, in agricultural activities, most crops in the rural are marketed in raw form with little or no value addition. So, fostering industrialization by nurturing MSMEs engaged in agro-processing activities will provide an opportunity for increasing incomes by creating more value and appropriating a sizable amount of value (Tutuba et al., 2019; Tutuba and Msamula, 2020). Also, agro-processing can create more jobs by expanding forward and backward linkages in the economy (URT, 2013, 2016b, 2016c). The following section presents some literature on how entrepreneurship and industrialization enhance rural development.

### *1.4 Entrepreneurship and Industrialization for Rural Development*

Rural areas are regarded as 'entrepreneurial laggards' (Msamula et al., 2016; Tutuba and Msamula, 2020), but entrepreneurship serves as one of the potential means for increasing employment and income opportunities in rural areas. For entrepreneurship to bring the desired outcomes in rural areas, a profound analysis of value creation (Msamula et al., 2016; Tutuba et al., 2019) through rural entrepreneurship and industrialization in the agricultural sector is worth attention.

*"... the development of agro-enterprises has the potential for employing activities such as handling, packaging, processing, transportation, and marketing of food and agricultural produce. Economic growth in the rural areas is largely led by the growth of commercial agro-industries that are efficiently run and responsive to evolving market demands with an added advantage of stemming the acceleration of rural-urban migration" (URT, 2013:21).*

Entrepreneurship has been expected to bring substantial contributions in the rural areas of developing economies as in the developed economies. However, the desired level of economic progress through entrepreneurship in developing economies, including Tanzania, is below the expected level because of the challenges MSMEs face (URT, 2003, 2016a; Msamula et al., 2016). However, the use of incubators as a means of fostering MSMEs development and growth is suggested (Kyaruzi, 2011). Furthermore, Lewis et al. (2011) use the economic theory to argue

that to foster economic development, "entrepreneurial profit is considered a function of an excess of total revenue over total costs of an enterprise, a definition that can be applied to the business incubator as well as its clients and graduates" (p. 23). Therefore, we adopt the same understanding to analyze the role of business incubators in fostering entrepreneurship and industrialization for rural development in Tanzania.

### *1.5 Agribusiness Incubation*

The understanding of incubators and hence incubation processor programs have been looked at from different perspectives, purposes, and contexts. For example, Kyaruzi and Ngowi (2011) argue that the conceptualization of an incubator as a place or function gives the understanding that "... an incubator is either a flexible business support system that adapts itself according to the needs of an entrepreneur or an established corporation that offer services to start-ups or new ventures" (p. 110). On the other hand, Lewis et al. (2011) consider business incubation (BI) as programs designed to accelerate the successful development of entrepreneurial companies through an array of business support resources and services, developed or orchestrated by incubator management, and offered both in the incubator and through its network of contacts. A (BI) program's primary goal is to produce successful firms that will leave the program financially viable and freestanding. Despite different perspectives, understanding of incubators and hence incubation programs share some common elements and purposes (Roy, 2008; Kyaruzi, 2011). This research, however, limits its understanding of incubators, and hence agribusiness incubation, as the business supporting entity with the prime objective of nurturing start-ups or new ventures for economic development.

In recent years, entrepreneurship and industrialization have become the focus of initiatives towards achieving economic development. For example, Isaga (2018) argues that entrepreneurial activities have significantly enhanced economic development. However, the business environment in most developing countries like Tanzania is not conducive to enterprise development (URT, 2003; Kyaruzi, 2011; Msamula et al., 2018). For example, Tundui and Tundui (2012) argue that entrepreneurs in developing areas start their businesses with relatively fewer resources and "their business operating environments are less supportive due to socio-cultural, economic factors and the general business environment forces that work against them" (p. 1430). Also, in Tanzania, the support mechanisms available to the agricultural industry remain weak (URT, 2013, 2016b; Kyaruzi and Ngowi, 2011). To address such weaknesses, the different mechanisms to support entrepreneurship and industrialization of the agriculture sector have to be developed.

Fostering entrepreneurship and industrialization in rural economies can take many forms (Roy, 2008; URT, 2013). Most rural businesses are informal (Msamula et al., 2016), a family-owned hence sole proprietorship in nature, micro and small-sized (URT, 2003), which depends mainly on rural natural resources and agriculture (URT, 2013, 2016b). Therefore, to an entrepreneur, the support starts from the family, then the social groups or clan/tribe, to the government administrative units or functions. Roy (2008) argues that entrepreneurship support can be looked at three sources: policies, business incubators, and business clusters. However, this study was limited to the roles of business incubators in fostering entrepreneurship and industrialization for

rural development in Tanzania. Moreover, since incubation is conceptualized within institutions that nurture venture growth, the institutional and resource-based view theories guided the study.

### *1.6 The Resource-Based View Theory*

The Resource-Based Theory (RBT) is built on the premise that the firm's profitability is determined by firm-level influences rather than industry-level factors. It is a strategic framework asserting that the competitive performance of firms is related to their resources and capabilities (Peteraf and Barney (2003) as cited in Msamula et al., 2016). The variation in competitive performance between firms is linked to varied resources and capabilities (Teece, 2007; Tidd and Bessant, 2018). Regarding resources, Msamula et al. (2016) argue that "tangible resources and intangible resources include physical resources, human resources, financial resources, and organizational resources; thus, the value creation by MSE is linked with its strategic resources which consequently influence its competitive advantage" (p. 252). Therefore, fostering entrepreneurship and industrialization depends much on how rural firms can access potential resources for their business.

Consequently, RBV provides a framework for the number of resources is essential, but the competitive performance of businesses is linked to how such resources are orchestrated (Teece, 2007; Tutuba et al., 2019). The orchestration requires a more robust institutional framework that can organize resources, fungible and complementary assets (Tee and Gawer, 2009) necessary for the value system to create value (Adner, 2017; Tutuba and Msamula, 2020). Therefore, RBT is helpful to understand the current situation of agribusiness incubators and their role in nurturing firms in the agriculture industry. This theory is necessary to understand their situation because such agribusiness firms can only survive if they can acquire the required resources and capabilities, that is, assets and skills. Therefore, through incubation programs, business-supporting institutions must foster the same.

### *1.7 The Institution Theory*

Institutions administer the interactions of economic actors – including business enterprises. According to institution theory, the performance of a business enterprise is influenced by institutional boundaries that may be formal or informal. Formal institutions are more amendable than informal institutions (North, 1992). Institutions provide opportunities to businesses but can also hinder business enterprises. Msamula et al. (2018) argue different approaches to analyzing institutional concerns. For example, institutions can be analyzed based on the governing actors of the institutions. Such institutions can be economic institutions, political institutions, or legal institutions. Economic institutions are related to the actors linked to financial resources, quality, human resources, and technological resources (Roy, 2008; Kyaruzi, 2011). Political institutions are linked to the actors associated with the availability of basic amenities and economic systems. Legal institutions include actors involved with decisions that relate to the legislation and regulations of a particular government (URT, 2013, 2016; Msamula et al., 2018). Nevertheless, firms in rural areas of developing economies are prone to poor favorable economic institutions. Fostering rural entrepreneurship and entrepreneurial agriculture (Kyaruzi and Ngowi, 2011) is linked to entrepreneurship nurturing institutions, agribusiness incubators in this case.

## **2. Method**

### *2.1 Research approach and design*

This qualitative approach (Hair et al., 2007; Saunders et al., 2009) case study design (Yin, 2018) was conducted in three regions of Mbeya, Iringa, and Morogoro. The regions are ideal for the study as they have many agricultural activities and institutions that offer incubation services to agribusiness initiatives and innovations.

### *3.1 Sampling procedures and sample size*

Record keeping is one of the most challenging issues when researching developing areas (Tutuba and Vanhaverbeke, 2018). This study faced the same challenge. At the beginning of the study, there was no reliable information about incubators, incubates, or potential partners supporting agribusiness initiatives through incubation in Tanzania. Although we used triangulated sampling techniques (Hair et al., 2007; Yin, 2018), snowball sampling (Saunders et al., 2009) was the starting point. To overcome the limitation of this technique, namely, making the initial contact, we started the study by visiting the innovation week in Iringa, where we identified and approached the samples, and so the sample snowballed. After that, we used factors like the number of incubated, supported sectors, past information, and sustainability to determine whether or not a sample can be included in the study. Finally, ten cases from Mbeya (3), Iringa (5), and Morogoro (2) were purposively (Saunders et al., 2009; Yin, 2018) and objectively included in the study.

### *3.1 Data collection procedures*

This study collected both primary and secondary data. Using triangulated data collection techniques (Eisenhardt, 1989; Creswell, 2009; Yin, 2014), primary data were collected until saturation. The motivation of the study was explained to the interviewee. Voice recording, short clips, and note-taking were used to capture information. Secondary data is gathered through a documentary review: Annual plans, schedule of activities, and performance reports were reviewed. Also, different policies, strategies, and national plans were reviewed. The National Agriculture Policy (URT, 2013), the SME development policy (URT, 2003), the National Rural Development Strategy (URT, 2001), and the National Strategy for Youth Involvement in Agriculture ([NSYIA], URT, 2016b) were the leading documents used in the study.

### *3.1 Data management and analysis*

Collected data were cleaned, checked for completeness, and then transcribed using the transcription software. After transcribing the collected data, NVivo v.18 software was used for coding, grouping, and parten establishment. After that, the interpretative analysis (Elliott and Timulak, 2005; Corbin and Strauss, 2015) was employed to analyze agribusiness incubators' role in fostering entrepreneurship and industrialization for rural development in Tanzania.

### 3. Results

This section presents incubators' descriptions, types, features, and roles in fostering entrepreneurship and industrialization in the agriculture sector.

#### 3.1 Description of business incubators in Tanzania

The first part of this section describes the characteristics of agribusiness incubators. They are type or category, the age of an incubator, and the incubation model. Table 1 below summarizes the categories and descriptions of incubators included in the study

Table 1. The description of business incubators in Tanzania

Feature/Category		Cases
Incubation name	Innovation hub	2 Cases (20 Percent)
	Innovation center	1 Case (10 Percent)
	Incubation center	3 Cases (30 Percent)
	Resource center	2 Cases (20 Percent)
	Labs	2 Cases (20 Percent)
Incubation model	With walls	7 Cases (70 Percent)
	Without walls or Virtual	3 Cases (30 Percent)
	International	No case
	Accelerator	No case
A Sectoral Typology	Manufacturing	4 Cases (40 Percent)
	Mixed-Use	5 Cases (50 Percent)
	Technology	No Case
	Service	1 Case (10 Percent)
Lead Organization	University	4 Cases (40 Percent)
	Government	3 Cases (30 Percent)
	Non-Government Organisation	1 Case (10 Percent)
	Private or For Profit	2 Cases (20 Percent)

#### 3.1 Roles of business incubators in Tanzania

Furthermore, agribusiness incubators play different roles in fostering rural development through entrepreneurship and industrialization or value addition of agricultural products. Some roles are as summarized in table 2 below:



Table 2. Roles of Business Incubators in Fostering Entrepreneurship and Industrialization

<b>Category</b>	<b>Roles played by incubators</b>
Building entrepreneurship culture.	<ul style="list-style-type: none"> <li>• Entrepreneurship and business seminars and workshops.</li> <li>• Pieces of Training on Commercial farming and processing.</li> <li>• Motivating youth and vulnerable people to participate in farming activities for commercial and economic gain.</li> </ul>
Management activities and support	<ul style="list-style-type: none"> <li>• Conduct a feasibility study before starting a program.</li> <li>• Data recording, collection, and management.</li> <li>• Project writing for agribusiness development.</li> <li>• Establish practical tools to deliver support services</li> <li>• Build networks with area business services providers</li> <li>• Administrative and management advice.</li> </ul>
Providing resources for sustainable growth	<ul style="list-style-type: none"> <li>• Access to capital. Linkage with different financial sources.</li> <li>• Accounting and financial management services.</li> <li>• Providing working spaces and access to working tools and equipment.</li> </ul>
Business support	<ul style="list-style-type: none"> <li>• Business plan writing and business basics</li> <li>• Legal assistance business registration, intellectual property protection, and certification of business documents.</li> <li>• Access to manufacturing tools and equipment.</li> <li>• Import and export requirements. Exporting fruits and vegetables.</li> <li>• Marketing assistance. Linkage to markets. Sharing market information.</li> <li>• Access to Internet, working spaces, and computers.</li> <li>• Networking with other entrepreneurs, mainly other clients, with the area business community.</li> <li>• Assistance in developing presentation skills.</li> </ul>
Other support	<ul style="list-style-type: none"> <li>• Building interpersonal skills for inclusive growth.</li> <li>• Facilitating access to agriculture inputs to farmers to produce standard and required products.</li> <li>• Management of farms in the fruits and pine plantations</li> </ul>

#### **4. Discussion**

##### *4.1 Business incubation models available in Tanzania*

Business incubators have been given different names in Tanzania, depending on the context and focus area. Common names found include hubs, innovation or incubation centers, and labs. The preference of the names depends much on the separation and demonstration of the facility's

technical know-how, purposes, and size. However, regardless of the names, descriptions, and categories, the facilities have a common purpose and objective: to enhance the growth and development of start-ups. This finding is in line with Lewis *et al.* (2011) and Mian *et al.* (2016), who also found that business incubators in the United States and South Africa have different names like hubs, labs, and resource centers. Other broadly accepted descriptions include innovation hubs, incubation hubs, accelerators, co-working spaces, science parks, techno-parks, tech hubs.

Regarding the incubation model, about 70 percent of incubators adopt the "with walls" incubation model, while 30 percent adopt the "without walls or virtual" incubation model. In the former, incubates are supported with a multitenant business incubator facility and on-site management. That is, an incubator offers entrepreneurs space to operate their businesses. The latter supports incubates from a distance, and it does not offer entrepreneurs on-space to operate their businesses. With the wall, incubators are essential in fostering industrialization as they offer working space for start-ups, working facilities like machines, and processing tools. Similarly, the agriculture sector, where 80 percent of the population is working requires virtual support: Virtual incubators may or may not be located in the same geographic area as their client companies.

In developing areas like Tanzania, virtual incubation programs should be promoted as they tend to be less expensive to operate than wall incubators that have additional expenses related to the operation and management of a building. Similarly, in rural areas, farmers are often spread out over large areas, making commutes difficult – virtual incubation is a good alternative. A good example is a virtual facility in Nyandira, Mvomero district in the Morogoro region, managed by the Sokoine University of Agriculture. However, a significant challenge of virtual incubation is encouraging networking among farmers. Having solid networks provides an environment that facilitates peer-to-peer learning, mutual support, and potential collaboration, as well as solidarity – all of which are critical to start-up success.

Furthermore, about 40 percent of incubators focus on enhancing the value addition of agro-produced, manufacturing. The other 50 percent, oriented on mixed-use, also support value addition, logistics, and accessible markets. The description shows that incubators in rural areas can foster industrialization by promoting the value addition of agricultural products.

#### *4.2 The role of incubators in fostering entrepreneurship development*

Business incubators perform different roles to nurture start-ups in the agriculture sector; see table 2 above and exhibit 1 at the end of the paper. The roles mainly depend on several factors like the lead organization, incubation model, and available facilities and resources. Some of the roles include building innovation and entrepreneurship culture, providing management and leadership support,

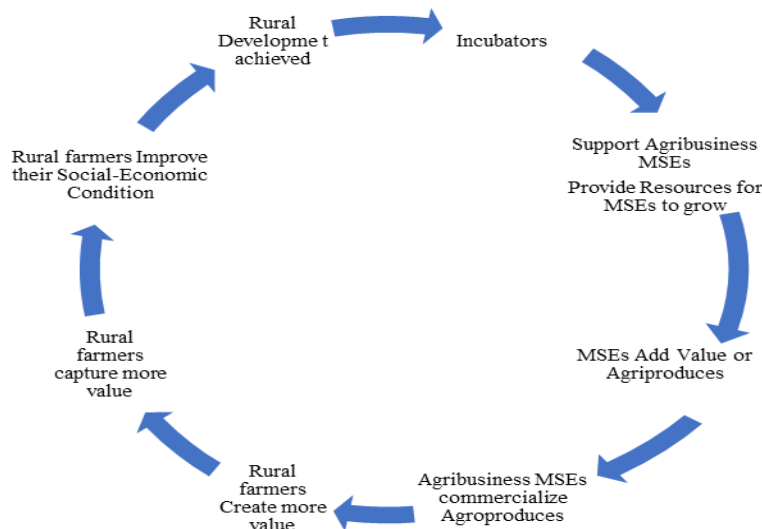
Building entrepreneurship and industrialization culture is the most important activity that BI does. Incubators trained and motivated rural people to change their attitude and mindset towards agriculture; hence they realized opportunities available in the sector. As a result, the number of youth and entrepreneurs participating in the sector has increased, the productivity and value addition activities have changed significantly and promoted rural development. Furthermore,

agribusiness incubators have been offering or supporting farmers and MSMEs to attend different seminars, training, and workshops to treat farming and agriculture activities as an essential and potential source of employment and economic growth. This is important in fostering entrepreneurship and industrialization for rural development as people view agribusiness as a potential investment rather than a survival activity.

Furthermore, import and export assistance and resource allocation for incubates promotes rural development as people get access to markets they could not have reached without the support of these incubators. Also, firms in the agriculture sector access complementary skills and assets that foster performance and productivity, value addition capabilities, and sustainable growth. For example, one case managed to provide packaging cases for avocado farmers in Iringa and Njombe, and they managed to access an export market for the product. Similarly, some green bean farmers were linked to the European Union market and managed to export their produces.

4.3 The Vicious cycle of business incubators in fostering rural development

Given that about 80% of the Tanzanian population is based in rural areas and that agriculture is the core economic activity, rural development can be achieved through commercializing agricultural activities. Producing produces from agriculture can effectively and efficiently be achieved through value addition. Furthermore, the value addition can be done if entrepreneurship and industrialization are fostered: MSEs create and capture value from agricultural activities. If rural MSEs capture a sizable value from agricultural activities, they will pay for social amenities like health, education, energy, and clean water. Their ability to access the social amenities will lead to social and economic development, hence fostering rural development. This vicious cycle can be presented as in figure 1 below.



4.3 The main conclusion and recommendations from the discussion

Fostering entrepreneurship and industrialization is inevitable as the rural population depends on agriculture which needs value addition to capture a sizable value from the activity.

Consequently, value addition in agriproducts can be reached if rural SMEs can be supported to grow. Given the challenges facing rural SMEs in developing areas like Tanzania (URT, 2003; Ngowi, 2011; Msamula et al., 2016), access to potential business resources is necessary. These resources can be complemented and developed by introducing and creating agribusiness incubators. Business incubators provide essential business resources like space, location, and linkages necessary for SMEs' development and growth. Furthermore, since most rural MSEs are informal, the incubators also provide formalization support by offering physical addresses through working space.

Despite the essential roles of agribusiness incubators, very little research has been undertaken to evaluate their roles in rural development (Heriot and Campbell, 2006; Kyaruzi, 2011; Lewis et al., 2011). This implies that little is known about incubators' role in fostering economic growth and rural development, specifically those working in agriculture. Therefore, the Government, developing partners, and researchers must focus on the archetype to realize its economic contribution. Similarly, national policies and strategies focus on small businesses but neither consider nor integrate small-scale farming and agricultural industries. For example, the SME development policy does not recognize farming activities as entrepreneurial activities. "*The SMEs cover non-farm economic activities mainly manufacturing, mining, commerce and services*" (URT, 2003:3). Likewise, Strategic Objective 7 of the NSYIA 2016 - 2021 (URT, 2016b) recognizes that "*the inadequate entrepreneurship skills and knowledge among youth has contributed to low participation in agriculture as a business.*" So, the strategic focus is to "*promote technical and entrepreneurship skills*" (p. 23) among youth to have adequate competencies and skills to participate in the activity as a business. However, the strategy did not realize the role of incubators in fostering entrepreneurship and industrialization in the agriculture sector. Following this contradiction between policy and strategies, policies like the SPD (URT, 2003) and the ADP (URT, 2013) need to be reviewed to recognize agriculture and farming activities as essential for the MSMEs development.

#### *4.4 Potential limitations and areas for further study*

Despite the potential contribution of this study in understanding the role and contribution of business incubators in fostering entrepreneurship and industrialization for rural development, some limitations have been recorded. Focusing on the agriculture sector cannot generalize that incubators can play the same roles as other sectors. A study that will consider cross-sectors of the economy, the lead organization, and incubator categories can be better for generalization. Similarly, the study was limited to the RBV theory, Institution theory, and the economic theory of entrepreneurship. Future studies should consider other theories like the industry architecture (Jacobides, 2006; Tee and Gawer, 2009), business model (Amit and Zott, 2001; Osterwalder and Pigneur, 2010), and business ecosystems (Moore, 1993; Adner, 2017; Tutuba et al., 2019; Tutuba and Msamula, 2020) to analyze how the agribusiness incubators can be used to foster entrepreneurship and innovation for rural development. Lastly, the study is limited to the economic development perspective in rural areas: fostering entrepreneurship and industrialization will bring about the economic development of rural areas. Future studies should include other entrepreneurial perspectives like social, psychological, sustainable, and inclusive development.

**References**

- Adner, R. (2017). Ecosystem as Structure: An Actionable Construct for Strategy. *Journal of Management*, 43(1), 39–58. DOI: 10.1177/0149206316678451
- Amit, R., & Zott, C. (2001). Value creation in e-business. *Strat Mgt Journal*, 22, 493–520.
- Bagachwa, M. S. D., Shechambo, F. C., Sosovele, H., Kulindwa, K. A., Naho, A. A. and Cromwell, E. (1995). *Structural Adjustment and Sustainable Agriculture in Tanzania*. Dar Es Salaam University Press
- Bank of Tanzania. (2017). *Potentiality of Sunflower Sub-sector in Tanzania*. Working Paper Series, WP No. 10, January 2017, e-ISSN 2546-1990
- Bula, H. O. (2012). Evolution and Theories of Entrepreneurship: A Critical Review on the Kenyan Perspective. *International Journal of Business and Commerce*. 1(11), 81-96.
- Drucker, P. F. (1985). *Innovation and Entrepreneurship: Practices and Principles*. New York: Harper & Row, Publishers, 220-225.
- Hisrich, R. D. (2005). *Entrepreneurship: New Venture Creation*. 5<sup>th</sup> edition, Tata McGraw Hill, New Delhi.
- International Fund for Agriculture Development. (2016). *United Republic of Tanzania: Country strategic opportunities program*. Executive Board —117th Session, Rome, 13-14 April 2016
- Isaga, N. (2018). Start-up motives and challenges facing female entrepreneurs in Tanzania. *International Journal of Gender and Entrepreneurship*. Permanent link to this document: <https://doi.org/10.1108/IJGE-02-2018-0010>
- Jacobides, M. G. (2006). The architecture and design of organizational capabilities. *Industrial and Corporate Change*. 15(1), 151–171. DOI:10.1093/ICC/dtj009
- Kyaruzi, S. I. (2011). Introduction: Entrepreneurial Agriculture and Local Economic Growth. (Eds) Kyaruzi, S. I. and Ngowi, H. P. (2011). *Fostering Entrepreneurial Agriculture in Tanzania*. Mkuki na Nyota Publishers Ltd, Dar es Salaam Tanzania
- Kyaruzi, S. I. and Ngowi, H. P. (2011). *Fostering Entrepreneurial Agriculture in Tanzania*. Mkuki na Nyota Publishers Ltd, Dar es Salaam Tanzania
- Lewis, D. A., Harper-Anderson, E. and Molnar, L. A. (2011). *Incubating Success: Incubation Best Practices That Lead to Successful New Ventures*. Institute for Research on Labour, Employment, and the Economy, University of Michigan. the United States of America
- Mian, S., Lamine, W. and Fayolle, A. (2016). Technology Business Incubation: An overview of the State of knowledge. *Technovation*. 50, 1-12.
- Moore, J. F. (1993). Predators and Prey: The New Ecology of Competition. *Harvard Business Review*. 71(3), 75-83.
- Msamula, J., Vanhaverbeke, W. & Petro, H. (2016). Rural entrepreneurship in Tanzania: why are micro and small enterprises not creating value in furniture manufacturing industry? *Transnational Corporations Review*. 8(4), 250-264

- Msamula, J., Vanhaverbeke, W. & Tutuba, N. (2018). Influence of institutions on value creation activities of micro and small enterprises in rural Tanzania. *Afrika Focus*. 31(1), 187-211
- Mwasalwiba, E. S. (2010). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training*. 52, 20-47.
- Mwasalwiba, E., Dahles, H. & Wakkee, I. (2012). Graduate Entrepreneurship in Tanzania: Contextual Enablers and Hindrances. *European Journal of Scientific Research*. 76(3), 386-402
- Ngowi, P. H., Simala, I., Namirembe, K., Baranga, D. and Lukalo K. F. (2011). *River flood plains factors in local economic development and growth: Agricultural opportunities and challenges along selected rivers in the Lake Victoria Basin of Tanzania, Kenya, and Uganda*. (Eds) Kyaruzi, S. I. and Ngowi, H. P. (2011). Fostering Entrepreneurial Agriculture in Tanzania. Mkuki na Nyota Publishers Ltd, Dar es Salaam Tanzania
- Osterwalder, A. and Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons, Hoboken, New Jersey, USA
- Roy, R. (2008). *Entrepreneurship*. Oxford University Press, New Delhi, India
- Schumpeter, J. (1983). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Translated by Redvers Opie. New Brunswick: Transaction Books.
- Schumpeter, J. (1989). "Economic Theory and Entrepreneurial History." Reprinted from Change and the Entrepreneur. Cambridge: Harvard University Press, 1949. In Essays On Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism, edited by Richard Clemence. New Brunswick: Transaction Publishers.
- Shane, S. & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. Academy of Management. *The Academy of Management Review*. 25, 217-226
- Shane, S., Locke, E. A. & Collins, C. J. (2003). Entrepreneurial Motivation. *Human Resource Management Review*. 13, 257-279
- Tee, R. and Gawer, A. (2009). Industry architecture as a determinant of successful platform strategies: a case study of the i-mode mobile Internet service. *European Management Review*. 6, 217-232
- Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Micro foundations of (Sustainable) Enterprise Performance. *Strategic Management Journal*. 28, 1319-1350
- The United Republic of Tanzania, (2016a). National Five Year Development Plan 2016/17 – 2020/21: *Nurturing Industrialization for Economic Transformation and Human Development*. Ministry of Finance and Planning, Dar es salaam, Tanzania
- The United Republic of Tanzania, (2016b). *National Strategy For Youth Involvement in Agriculture 2016-2021*. Ministry of Agriculture, Livestock, and Fisheries. Dar es Salaam, Tanzania.

- The United Republic of Tanzania, (2016c). *Sunflower sector development Strategy*. Ministry of Industry, Trade, and Investment. Dar es Salaam, Tanzania.
- The United Republic of Tanzania (2017). *Agricultural Sector Development Programme-Phase II*. Agricultural Sector for Industrial Development, ASDP II National Coordination Unit, Dodoma, Tanzania
- The United Republic of Tanzania. (2021). *The Third National Five-Year Development Plan 2021/22–2025/26: Realizing Competitiveness and Industrialisation for Human Development*. Ministry of Finance and Planning, Dodoma, Tanzania
- Tidd, J. and Bessant, J. (2018). *Managing Innovation. Integrating Technological, Market, and Organizational Change*. 6th edition, TJ International Ltd, Padstow, Cornwall, UK
- Tundui, C. and Tundui, H. (2012). Survival, Growth Strategies, and Performance of Women-Owned Micro and Small Businesses in Tanzania. *International Journal of Business and Management*. 7(8), 143-155
- Tutuba, N. and Msamula, J. (2020). Industry Architecture: A Model to Create Value and Appropriate Value in the Value System of Rural Economies in Tanzania. *Journal of Academic Research in Economics*. 12(3), 509-531
- Tutuba, N. B., Tundui, H. P. and Msamula, J. S. (2019). Business Ecosystems as the Approach to Create Value and Appropriate Value for Small Firms in Emerging Markets. *Journal of Strategic Innovation and Sustainability*. 14(5). 90-107  
<https://doi.org/10.33423/jsis.v14i5.2525>
- Tutuba, N. B. (2021). Commercialization Inabilities of Rural Value Chain Activities in Emerging Markets: The Theory of Constraints Approach. *Journal of Management Policy and Practice*. 22(2). 72-82 <https://doi.org/10.33423/jmpp.v22i2.4467>
- United Republic of Tanzania (2003). *Small and Medium Enterprise Development Policy*. Ministry of Industry and Trade, Dar es Salaam, Tanzania
- The United Republic of Tanzania. (2001). *Rural Development Strategy*. Prime Minister's Office. Dar es Salaam.
- Venosa, M. and Mwakasangula, E. (2011). Awareness of Farmers on Rural Development Approaches in Tanzania: A Case of Farmer Group in Kilosa District, Morogoro (Eds) Kyaruzi, S. I. and Ngowi, H. P. (2011). *Fostering Entrepreneurial Agriculture in Tanzania*. Mkuki na Nyota Publishers Ltd, Dar es Salaam Tanzania
- Viinikainen J., Heineck, G., Böckerman, P., Hintsanen, M., Raitakari, O. and Pehkonen, J. (2017). Born entrepreneurs? Adolescents' personality characteristics and entrepreneurship in adulthood. *Journal of Business Venturing Insights*. 8, 9–12.

*Exhibit 1: Different roles played by agribusiness incubators in Tanzania to foster entrepreneurship and industrialization for rural development*

Pic 1: Training incubates on commercial farming – Case 1, Iringa



Pic 2: The Manufacturing Centre for Agro-Processors – Case 7, Mbeya



Pic 3: Training incubates on business skills – Case 10, Morogoro



Pic 4: Training incubates on Record-Keeping for Sustainable business Management – Case 1, Iringa



Pic 5: Attitude change, incubates are nurtured to work smart and not hard – Case 3. Iringa



Pic 6: A Community Space where agro-entrepreneurs meet, discuss, work, and get access to their produces – Case 8, Mbeya



Exhibit 2: Description of cases used in the study

<b>Cases</b>	<b>Location</b>	<b>Ownership</b>	<b>Incubation model</b>	<b>Focal Services</b>
Case 1	Iringa	Private	Virtual	Manufacturing
Case 2	Iringa	Government organization	Walls	Mixed
Case 3	Iringa	Private	Walls	Service
Case 4	Iringa	NGO	Walls	Manufacturing
Case 5	Iringa	University/Higher Institution	Walls	Mixed
Case 6	Mbeya	University/ Higher Institution	Walls	Mixed
Case 7	Mbeya	Government organization	Walls	Manufacturing
Case 8	Mbeya	Research Institute (Government)	Virtual	Manufacturing
Case 9	Morogoro	University/ Higher Institution	Walls	Mixed
Case 10	Morogoro	University/ Higher Institution	Walls	Mixed