

## **Contribution of Business Incubation on Entrepreneurship in Accelerating Livelihood Opportunities among Tvet Graduates**

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### **Abstract**

*Unemployment is an obstacle to sustained economic growth and development. Millions of graduates enter the workforce, whilst the labour market accommodates a working population of about 500,000 to 800,000. The aim of this review paper is to assess the contribution of Business Incubation on Entrepreneurship in Accelerating Livelihood Opportunities amongst TVET graduates. A total of 30 published reports were accessed from different databases, and 10 sampled papers were reviewed to assess the methodological scope, document limitations and assumptions, and their implication to policy. Analysis of methodological approaches reveal that scholars using cross-sectional quantitative surveys sought to answer questions that included: roles of business start-up and government regulations on Entrepreneurship Development and role of incubation programme to SMEs. Hypothesis tested perceptions, motivation, and influence on entrepreneurship education. Findings established entrepreneurship as a key source of economic revolution, job creation, and business development, with a strong relationship existing between incubation services and entrepreneurship development. Quasi experimental tested the impact of networking services, capital support and training programs, establishing a positive relationship. Qualitative approaches revealed that resources provided to participants aided entrepreneurial endeavours whereas negotiation skills and access to clients were limited. Limitation include geographical coverage, failure to leverage on digital tools to collect data, minimal adoption of mixed approaches and research designs, limiting contribution to new knowledge, and exclusion of industries, academia, and government as stakeholders. Key knowledge gap from the study is how entrepreneurship education can be made more practical to allow transition to the labour market. Thus, future research should focus on development of a conceptual framework that will be helpful in standardizing entrepreneurship education and training programmes to spur job creation for better livelihoods.*

**Keywords:** Business incubation, innovation, livelihood opportunities, entrepreneurship, graduates, start up.

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## 1.0. Introduction and Background

Unemployment is one of the most common obstacles to sustained and viable economic growth, necessitating a number of scholarly works on the role of business innovation and incubation on entrepreneurship and creation of livelihood opportunities among graduates from Institutions of Higher Learning, especially TVET Institutions. Evidence indicates that business incubation is emerging as a popular method for encouraging and supporting entrepreneurship. Ahmed et al. (2020) note that business incubators facilitate entrepreneurship and call for their wider provision and improvement to accelerate livelihood opportunities. Amoamah et al. (2017) advocate for the setting up of business incubation and innovation services to assist the growth of entrepreneurship especially among TVET graduates from tertiary institutions. However, there is hardly evidence on any specific relationship between entrepreneurship education and innovation capability of TVET graduates in Kenya.

Entrepreneurship has long been offered as the panacea for poor economic growth and high rate of unemployment in developing countries (Matlay, 2008). In many African countries, the rate of population growth oversteps employment growth, necessitating the need to promote entrepreneurship as a means of creating employment and alleviating poverty (Okafor et al., 2015). This explains the recent focus by governments and other stakeholders in various countries worldwide, on boosting entrepreneurial activities through investment in entrepreneurship education (Matlay et al., 2013). In Africa, TVET education has been identified as a panacea to solving the problem of unemployment among the youth in the country. Lose (2021) reports that having institutionalized business incubation is a strong frontier to accelerate entrepreneurship in African countries and call for central governments to develop institutions that have incubators to spur entrepreneurship.

In Kenya, the major assumption is that entrepreneurship education increases students' career prospects and employability. In Kenya, the jua kali sector absorbs the majority of TVET and graduates from higher Institutions of learning. Mbore (2021) observes that TVET institutions ought to put more focus on entrepreneurship education to provide their graduates with innovation skills. To achieve this, it is critical to have innovative capabilities and entrepreneurship at every stage within the TVET education system. This will enable the TVET graduates to be successful entrepreneurs since they will possess requisite skills and innovation capabilities. Entrepreneurship education becomes a tool to broaden ones thinking and knowledge (Kent, 1990). Sessional paper No. 1 of 2019 in the Ministry of Education provides that Kenya's education system is structured in such a way that learners who don't get an opportunity to go through the formal education system can alternatively be provided with basic education and training.

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## **1.1 Problem Statement**

This paper aims to establish the contribution of incubation on entrepreneurship for livelihood opportunities among TVET graduates. Mbore (2021) states that Kenya experienced a 4.5% economic growth rate between 2006 and 2013, though this steady increase in available jobs both formal and informal forms of employment has not been sufficient to accommodate concurrently 500,000 to 800,000 young Kenyans that enter the labour market annually. Data on the exact numbers being absorbed in the labour market is lacking, hence the widespread between these figures. The young labour force has not been put into productive use, hurting the general growth potential of its economy. The Education sessional paper No. 1 of 2019 outlines the need to of incubation and innovation centres in Kenya to promote entrepreneurial mindset among young people, especially those from TVET Institutions. Mismatch between gained skills and industry, limited data on skills, fast technological advancements in the labour market, and inadequate entrepreneurial skills among graduates for self-employment are some of the obstacles of a sustainable economic opportunity among TVET graduates.

### **1.1.1. Purpose of the Systematic Review**

The purpose of the systematic review was to identify, review and critically analyse empirical and published papers in search of evidence on the contribution of business incubation on entrepreneurship in accelerating livelihood opportunities among TVET graduates.

### **1.1.2. Objectives of the Systematic Review**

- (i) To assess the contribution of business incubation on entrepreneurship in accelerating livelihood opportunities among TVET graduates.
- (ii) To establish best practices that can be replicated to enhance livelihood opportunities among TVET graduates.
- (iii) To examine how impactful business incubation is on entrepreneurship amongst start-ups and incubates.

## **2.0. Literature Review**

### **2.1. Business Incubation Interventions on Entrepreneurship**

Studies by Gamede (2018) and Ikebuaku and Dinbabo (2018) outlined how business incubation is an effective tool towards entrepreneurship. Despite the measures put in place by Nigerian federal government, graduates from higher Institutions of learning in Nigeria have remained unemployed. The researchers argue that high levels of unemployment are rampant in developing countries, where people are grappling with abject poverty. The researchers comprehensively discussed the conversion factors in business incubation and entrepreneurship development. Personal conversion factors are when aspiring entrepreneurs are unable to maximize the learnings from entrepreneurship training because of hearing impairment. Social conversion factors such as institutions, public policies, power relations and societal hierarchies also play a significant role in the conversion of goods and services to functionings. When it comes to environmental conversion factors, the authors likened business ideas to seeds which require the right soil conditions for germination.

To investigate the effects of entrepreneurship in remedying unemployment in rural communities in South Africa, this study was guided by the concept of productive, unproductive, and destructive entrepreneurship. Productive entrepreneurs focus first on growing the pie; unproductive entrepreneurs are focused first on dividing the pie; and destructive entrepreneurs are only interested in stealing the pie. The office of the Secretary-General's Envoy on Youth recommended that the solution to youth unemployment in South Africa is entrepreneurship. One way by which the needs of the local community members are expected to be provided is through the enhancement of productive entrepreneurship. Hall & WoErMann (2014) describe this as an act of inequality and social injustice in the society.

## **2.2. Drivers of Business Incubation on Entrepreneurship**

To understand how business incubation is a driver towards enhancing livelihood opportunities among TVET graduates, the researchers reviewed studies by Li et al. (2020), Amoamah et al. (2017) and Ahmed et al. (2020). The study by Li et al. (2020) examined the role of business incubators in providing greater services (networking services, capital support, and training programs) in entrepreneurship development. The study aimed to fill a considerable research gap regarding the efforts to establish the environment of venture creations and their success gave birth to business incubators in Pakistan. The researchers presented nine hypotheses' studies related to the topic, outlining the independent variables per hypothesis which include: network services, capital support, training programs, business start-ups, government regulations, while the dependent variable in all cases was entrepreneurship development.

Examining the role business development units play a key role in the funding of quality TVET programmes in a tertiary institution based in Accra, Ghana, Amoamah et al. (2017) established that from 2009, the education sector expenditure accounted for an average of 23.7% of government expenditure against an average of 19.1% of the education sector budget allocated to the tertiary sector. The tertiary institutions, on the other hand do not have the level to internally generate funds to adequately meet expenditure requirements, looking at the role of Business Development Units. A typical Business Development Unit in a TVET institution liaises with the academic divisions to identify and develop new, profitable, and sustainable business opportunities and services that leverage the institution's facilities, properties, and community. In Accra Technical University, the Business Directorate aims to ensure that the institution provides solutions to specific business and organizational needs through training, contract research and consultancy.

## **2.3. Effects of Incubation and Innovation on Entrepreneurship**

Mbore's (2021) study outlines the effects of Incubation and innovation on entrepreneurship in TVET Institutions in Kenya. A study by Gichira & Thinji (2017) sought to determine the relationship between innovation capability and entrepreneurship education and performance of firm performance, established that firms that emphasized on training employees on entrepreneurship/enterprise education can identify entrepreneurial opportunities better thus attain superior performance. Ndung'u, Wanjau, Gichira and Mwangi (2014) cited that entrepreneurship education is a process that is aimed at influencing individuals' attitudes, behaviours, values, or intentions towards entrepreneurship skills either as a possible career or to enhance among them an appreciation of its role in the community. Wanjiku (2019) equally cited that entrepreneurship

education helps with the acquisition of personal skills in entrepreneurship opportunity recognition and managing of existing small firms.

The study by Mbore (2021) illustrates a conceptual framework indicating the dependent and independent variable and providing definitions by Lawson and Samson (2001) i.e., innovation capability is ‘the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders. Innovation capability is not just an ability to be successful at running a business new-stream, or to manage mainstream capabilities. Innovation capability is about synthesising these two-operating paradigm. Innovation capability facilitates improvement of quality contributing to decreased costs, fewer mistakes, fewer delays, and better use of resources, which leads to improved productivity, enabling the firm to capture more of the market, which enables the firm to stay in business, resulting to provision of more jobs (Summers, 2009). The promotion of innovation capability in entrepreneurship education has been recognized as part of the solution to high competition (Romania, 2015). Technical skills empowerment in entrepreneurship can contribute to entrepreneurship development through innovation and risk taking, thereby raising the competitive advantage in the firm (Wanjiku, 2019).

#### **2.4. Impact of Business Incubation on Entrepreneurship**

A study by Jain and Chaudhary (2017) indicates the positive impact of entrepreneurship programme on students is entrepreneurship skills, and how entrepreneurship programme has a negative impact on students’ entrepreneurial intention. In Bandera and Passerini (2018) study, the integration of entrepreneurship education with Information and Communication Technology (ICT) enhanced students’ technology skills especially in communication technology. Citation, by Lyons and Zhang (2017), states entrepreneurship programme has positive impact on minorities especially females. According to Roslo (2013), although there is a consistent increase in the number of graduates who venture into entrepreneurship as soon as they graduate, the percentage is still very small, about 2% annually. This data is consistent with the 2014 Global Entrepreneurship Monitor (GEM) report that only 50.37% of Malaysians see entrepreneurship as a good career choice.

Lose et al. (2016) conducted a study to determine the impact of incubation programme to small and medium size Enterprises (SMEs) development in the Western Cape Province, South Africa. While SMEs have demonstrated their importance in the development and growth of economies, failure rate of SMEs is still high, hence the researcher seeks to fill the knowledge gap. The authors identified various key forces to evaluate that could drive an individual to become an entrepreneur. However, potential opportunities and risks strategies which are essential for business success could be assessed as pull factors as opportunity and push factor as necessity. The opportunity-based entrepreneurship (OBE) is based on pull forces to become an entrepreneur such as independence of working for yourself; achievement in running and managing a sustainable enterprise; recognition in gaining social standards in the community; personal development through practicing innovative and creative ideas, and personal wealth by gaining financial freedom through the practice of entrepreneurship.

Al-Mubaraki & Busler (2015) identified the strengths and weaknesses of business incubation in developing countries. To achieve this, the researchers carried out case studies of incubator programs in Bahrain, Saudi Arabia, and the United Arab Emirates (UAE). The researchers

mention authors of 16 studies in the USA and 15 studies in Europe. One of the major theoretical gaps in this study was that the researchers failed to discuss the incubation process and how it offers support and customized services to maximize businesses potential. However, the researcher points out that technology incubation objectives are innovation and technology transfer for long-term investment, and that business incubation programs are designed to accelerate the successful development of entrepreneurial companies through an array of business support resources and services.

### **3.0. Methods**

#### **3.1. Systematic Review Procedures and Criteria**

Upon identifying and selecting a topic aligned to a contemporary issue with an aim of contributing to knowledge on the contemporary issue identified, the researchers identified a criteria to select published papers to support the systemic review. Recent empirical papers, peer reviewed and published papers by a reputable organisation are some of the guidelines that guided the selection process, in addition to target audience/population and its contribution to the contemporary issue to be reviewed. The researcher heavily relied on google scholar because of its plethora of articles, in addition to its publication period filtering feature. The listing of the articles enabled the researcher to sift out article topics related to the research, and a total of 30 published journals were selected and reviewed. Finally, 10 empirical and peer reviewed journals were selected.

Use of key words and titles such as innovation, incubation, entrepreneurship, TVET, Livelihood opportunities, and employability were interchangeably used to search for the journals on google scholar as well as International Journal for TVET and ERIC. Inclusion exclusion criteria for this systematic review include: the paper must be empirical, the study ought to have targeted TVET Institutions or Higher Institutions, should focus on the relationship between Business incubation and innovation on entrepreneurship, and is published in the last 15 years. The identified papers were further selected by critically reviewing the papers' methodological scope.

### **4.0. Methods**

#### **4.1. Critique of the Methodological Scope**

##### **4.1.1. Critique of the Quantitative Methodological Scope**

6 of the 10 journals reviewed followed a quantitative methodology approach. Five studies were cross-sectional, and one was quasi-experimental. The five studies that used cross-sectional surveys include Cai Li at al. (2020), Lose et al. (2016), Mbore (2021), Ismail et al. (2019), and Monico et al. (2021). The study by Ahmed et al. (2020) was quasi-experimental. Cai Li at al. (2020), purposive sampling was used to collect data from the sample size. The authors defend their choice of this method and they addressed how they dealt with any biasness in employing this sampling method to collect data. Specifically, to ensure that non-response bias was not a major concern in this study, an independent sample t-test was performed following primary data was collected using a survey questionnaire. Respondents were divided into two groups based on those who responded to the first follow-up (early responders) and those who responded after the third follow-up (late responders).

The study by Lose et al. (2016) is divided into sections: population, research instrument, reliability, and validity of research instrument as well as presentation of findings. The use of open and closed ended questionnaires was ideal because it allowed more participants to be examined than could be achieved through interviews in a similar time. In addition, the questionnaire was ideal since it would not require a researcher to be physically present to obtain the data but will allow the respondent to find suitable time to respond to the questionnaires. Respondents were randomly selected, and permission of business incubation managers was sought. The methods section not only portrayed accurately the characteristics of a particular individual, situation, or a group, but also describe the phenomenon under investigation. In Mboore et al. (2021), the author collected quantitative data on innovation capability. This was evaluated using a Likert scale and results expressed using descriptive statistics and regression analysis. The methodology would have been powerful had it explicitly stated how the author intended to analyse the hypothesis formulated.

For Ahmed et al. (2020), the dependent variable of the study is Business Incubator. Data was collected from the business incubators, graduate, and postgraduate schools from four big cities of Pakistan namely: Islamabad, Lahore, Karachi and Peshawar. The study employed a field survey method. A total of 260 questionnaires were distributed whereas, 245 were returned with proper responses. The measurement and structure model are analysed by using the structural equation Model (SEM) method on partial least squares (PLS). The researchers use good rigor in development of the data collection and analysis tools. They measure reliability and validity of the study which enhances the level of validity and reliability to be put on the results found.

For Ismail et al. (2019), survey study was used but the researchers did not state the why they found this research design appropriate for the study and such an inclusion would have enriched the paper. The target population number is stated together with the sample size. The methods used to reach the sample size is not known to the reader. The authors also have not stated which method was used to pick out the chosen sample (whether it was simple random, snowball, etc.). The reader does not benefit from a better presentation on the methods used to pick out the sample and whether those methods were probabilistic or non-probabilistic. A key inadequacy in the methodology is the lack of clarity on how the sample was selected the validity of the data collection tool.

#### **4.1.2. Critique of the Qualitative Methodological Scope**

Three of the 10 reviewed journals followed a qualitative methodology approach. In Gamede & Uleanya (2019), since this study focused on addressing research questions that enabled deeper understanding of experiences of inhabitants in a rural context, the qualitative method was used for data collection. The researcher appropriately identified the target population of the study, which was comprised of 12 purposively selected final year undergraduate university students in a selected rural based university in South Africa. The researcher collected data using semi-structured interviews. This allowed the respondents to be open about sensitive issues regarding unemployment in rural communities in the country. One of the remarkable strengths of the methodology section is that it was based on real-world situations, and the data was collected from respondents living naturally in the site of study: rural-based university students.

Al-Mubarak and Busler (2015) used a multi-case study methodology to provide a rich insight into the issue being examined. The author further notes that this method is recognized as the

most effective research strategy to capture the rich experience of complex projects and to provide evidence of how it is successfully used elsewhere. The author includes a figure detailing the development of a research methodology. It is not quite clear what is the purpose of this to the study. Instead, the author could have provided details on the three main sections illustrated in the figure namely, research design, data collection and data analysis all of which appear not adequately discussed with some entirely missing such as data collection and analysis. Further, the research methodology employed was not quantitative rather qualitative by use of case study. The multi-case study allowed the researcher to gain a rich insight into incubation factors.

Amoamah et al. (2021) employed a qualitative analysis on the role of Business Development Units in funding quality TVET programmes in tertiary institutions. It was based on series of interactions held to garner the views of stakeholders on securing adequate funding for quality TVET programmes, including incubation for job creation. The methodology section is too short and lacks depth with reference to how the study was carried out by the researchers. The section completely lacks the data analysis process and tools that the researchers used. Data from a quantitative dataset, such as survey results, is usually loaded into a program such as Excel or SPSS to enable researchers create tables and charts for examining findings. Often, the first step in analysing a dataset is to view top-level findings using descriptive statistics such as mean, median, and mode. The research paper does not explain this at all.

#### **4.1.3. Critique of the Mixed-Methods Methodological Scope**

Only one study used a mixed methodological scope, that is Ikebuaku & Dinbabo's (2018) paper. The methods section discussed how the researcher used the Sen's Capability approach to collect, analyse and interpret data from respondents. The methods section is divided into paragraphs that discuss population, sampling procedures, research instrument, data analysis, and ethical considerations. The population subsection described the group of individuals from which data was obtained. This study engaged a mixed approach: both quantitative (survey questionnaire) and qualitative methodologies (semi-structured interview) to collect data from a sample size of 70 entrepreneurs. The methods section presented the sampling procedures used in the study. Considering the small number of iDEA tenants who participated in the study, the entire population was sampled and a 5-point Likert scale was used to statistically evaluate their responses about the iDEA programmes.

#### **4.2. Highlight of Lessons Learnt from the Findings**

Gamede and Uleanya (2018) revealed that there is an appreciation of entrepreneurship, however infrastructures remain a contributing factor hindering entrepreneurship in the selected rural community. The study established that entrepreneurship contributes to poverty reduction in communities and there is need to scale entrepreneurship models. Al-Mubarak and Busler (2015) found that that incubator models act as a vital tool for economic development based on the number of client and graduate firms; incubators offered tangible and intangible services to produce successful companies; incubators offered platform for strong networking between client and graduated companies, also with international companies; and in developing countries, availability of funds allocated by government.

The findings of Li et al. (2020) established a positive and significant relationship between network services, capital support and training programs on entrepreneurship. For a successful business venture, start-ups need to be in a network for purposes of peer-to-peer learning,



accelerate innovation and trends in the market. It was also found that capital support is essential to support start-ups and there is need of capital start up to be integrated in public private sector policies for increased accesses and utilization in the process of having job creation. Based on the findings of the study by Amoamah et al. (2017), it was established that BUFIA is an innovative continental model providing young entrepreneurs with the best possible resources including business planning, training, networking, business team creation, business development and ownership, mentorship, and new venture financing to help turn their innovative ideas into real sustainable businesses.

The findings by Lose et al. (2016) established a positive relationship between business incubation and SMEs, as the majority of SMEs were at the exit stage for graduation, and most had completed the incubation programme. Entrepreneurs in the incubation programme admitted that being incubated by business incubators would provide fewer chances to fail in venturing into business at early stages. In Ikebuaku and Dinbabo (2018), the findings revealed that the participants of the iDEA programmes mostly benefited in the areas of access to reliable electric power and internet, whereas the contribution of iDEA programmes to the participants' negotiation skills and access to customers/clients were limited. These findings are well corroborated by the qualitative analysis in which the participants unequivocally narrated how the resources provided by iDEA aided them in their entrepreneurial endeavours.

The findings of Mbore (2021) indicated that TVET graduates are well equipped with education but is only on a theoretical basis. The findings reveal that the incorporation entrepreneurial education in different stages of the TVET education system has a causal effect innovation capability among TVET graduates. Based on the results of the study by Ahmed et al (2020), a causal relationship was established between networking services and entrepreneurship. The findings presented by Ismail et al. (2020) indicated that communication skills are one of the most important skills to success in entrepreneurship. The findings also show that the moderate relationship between entrepreneurship skills and the effectiveness of the entrepreneurship programme shows the correlation between these variables.

#### **4.3. Implications of Methodological Scope on State of Knowledge to the Research Problem**

The methodological scope of a study explains the extent to which the research area will be explored in the work and specifies the parameters within the study will be operating. Basically, this means that researchers must define what the study is going to cover and what it is focusing on. Six of the 10 journals reviewed followed a quantitative methodology approach: Li et al. (2020), Lose et al. (2016), Mbore (2021), Ismail et al. (2019), and Monico et al. (2021), and Ahmed et al. (2020). The information obtained by the researchers in the quantitative study helped to better understand the context/meaning of the data.

However, if all these reviewed papers followed qualitative approaches, this type of research wouldn't have enabled the researcher to gather in-depth insights on the role of innovation and incubation in accelerating entrepreneurship for livelihood opportunities. This is because the topics may be well understood by entrepreneurs and incubators, but the researcher would not be able to quantify a problem or address the 'what' or 'how many' aspects of a research question. It is data that can either be counted or compared on a numerical scale. Moreover, ordinary readers may understand the strengths and weaknesses of business incubation as well as their concepts, thoughts, experiences, but may fail to quantify the services offered by the incubators as

incubators offered tangible and intangible services to produce successful companies among startups and entrepreneurship in business.

On the other hand, if all these reviewed papers followed a quantitative approach, the research would lack substance when exploring market segments, such as demographic and customer groups by studying emotions and attitudes of entrepreneurs and incubators on various issues, such as funding. For example, in Amoamah et al. (2021), the researchers employed a qualitative analysis on the role of Business Development Units in funding quality TVET programmes in tertiary institutions. If a quantitative approach was used in the study, it would be difficult to quantify the extent to which Venture Capital identifies novel technologies that have the potential to generate high commercial returns at an early stage. It would also be challenging to differentiate Venture Capital from buy out private equity which typically invest in companies with proven revenue, and thereby potentially realizing much higher rates of returns.

#### **4.4. Study Limitations**

Out of the ten papers reviewed, only five had clearly stated limitations, 3 of the limitations established methodological gaps (Lose et al. (2016), Li et al. (2020), Monico et al. (2020), while the rest had identified contextual (Ahmed et al., 2020) and empirical gaps (Monico et al., 2020). For Li et al. (2020), the geographical coverage for this study was limited to major cities in Pakistan with low turnout by respondents, prompting the researchers to recommend the need of leveraging on social media to distribute the survey/research tools. Time and financial capability were equally limited to have the study coverage larger, thus limiting the data collection method to survey tool only. Lose et al. (2016) was limited to Small Medium Enterprises in the incubation programme in the Western Cape Province, which perhaps if data collection is expanded to include other provinces, findings might be more insightful. Targeted population was also limiting to sufficiently inform the study. Mbore (2021) identifies two possible limitations of the study. One, the instrument for data collection was specifically designed for TVET graduates which affected generalizability of the findings. Second, biasness in the target population, which affected the generalizability of the future study findings. The study by Ahmed et al. (2020) was conducted in Pakistan and limited to only a few major cities. Monico et al. (2020) identifies various limitations of the study. First is the sample convenience and therefore future studies should use varied and, if possible, multiple samples from different countries, depending on the geographical area targeted by the study. Another limitation relates to the focus of the study, limited to the reality of the HEI. The industries and government were also not included.

#### **4.5. Assumption of the Study**

Out of the ten papers reviewed, six clearly stated assumptions underlying the investigation. In Monico et al. (2021), the assumption was that if individuals can be proactive and develop entrepreneurial behaviours if the environment provides favourable stimuli, entrepreneurship education will be seen as a viable path in responding to an increasingly competitive local and global market. Ahmed et al. (2020) assumes that incubation is a collaborative process whose aim is to motivate people to jolt their venture, and to offer seed capital in the enlargement of new goods and service. The assumption in Gamede and Uleanya (2018) is that through entrepreneurship, viable and effective solutions can be derived to counter unemployment and development particularly among rural communities. In Li et al. (2020), various assumptions of normality and multicollinearity were assessed before testing the individual items and internal consistency, reliability, convergent and discriminant validity, and structure paths. Mbore's

(2021) assumption is that the TVET graduates need to be equipped with entrepreneurial skills that will help their firms to capture higher market share.

## **5.0. Conclusions**

From the 10 journals, it can be concluded that TVET graduates experience various obstacles towards a sustainable economic opportunity. These include mismatch between gained skills and industry, limited data on skills, fast technological advancements in the labour market, and inadequate entrepreneurial skills among graduates for self-employment. In addition, there is little or no collaboration between the learning institutions and established firms to promote entrepreneurship among TVET graduates. As such, most of the students are not oriented on the need for entrepreneurship. Thus, students studying commerce oriented or related courses should establish an entrepreneurial firm in the rural community before graduating. It can also be concluded that integrating ICT is crucial in accelerating livelihood opportunities among TVET graduates in Kenya. The level of competence goes a long way in foreseeing the students' ability to position themselves to use information data from modern ICTs in line with the various labour-market needs. This means that people in Technical Vocational institutions can use e-learning resources to optimize their rewards in the long run.

## **6.0. Recommendations**

Out of the 10 journals reviewed, similar studies should be conducted in different rural communities whether locally or in other countries using two or more rural institutions of learning. In addition, future researchers should study about incubators using quantitative and qualitative approaches in developing countries. Future researchers should also refine the theoretical bases of variables to improve the measurement of specific elements and factors to clarify the conceptual model for better empirical examining. The need to integrate business incubation into the current entrepreneurship education is key for greater effectiveness in the contribution of business incubation on entrepreneurship opportunities among TVET graduates.

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