# Graduates and Entrepreneurship in Tanzania: A Literature Review

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Abstract: High unemployment rate has continued to be a great concern worldwide, especially in developing countries. Tan zania is facing high unemployment rate while encountering slow economic growth due to low rate of entrants in entrepreneurship. Finding the solution to such main problem within the country, the government opted to encourage graduates to be involved in entrepreneurship by providing entrepreneurial education during their high education level and financial and non-financial resources to individuals that are starting small and medium sized businesses. However, there is a low rate of graduates' involved in entrepreneurship as the majority opt to be employed by other people or organisations. In this paper, there is further discussion as to some general reasons that discourage or prevent graduates to be involved in entrepreneurship. Furthermore, in aligning to educated individual that need to be encouraged into entrepreneurship, related theories Balanced Scorecard and Life Cycle theory have been included. The two theories can be used to examine why graduates are lacking in the involvement in entrepreneurship, since the balanced scorecard consist of elements that are needed for a business to perform better, whereas those elements have to perform well in life cycle stages for a business to achieve the growth stage and perceived as

Keywords: Entrepreneurship, graduates, small and medium sized businesses

## I. INTRODUCTION

Unemployment is a global concern. This is very much so in developing countries (Apergis and Payne, Unemployment has serious socio-economic impact on individuals' standard of living, health conditions and revenue collection by the government. Many government in developing countries have opt to encourage and promote entrepreneurship uptake within the society, especially graduates. This is because graduates are known as the people who struggle to find employment due to high level of competition (Fulgence, 2015; Ndyali, 2016). The growth and increase of entrepreneurial activities through small businesses are considered to create more job opportunities for the increase number of graduates and substantial contributor to the economic development (Apergis and Payne, 2016; Fulgence, 2015; Wit and Kok, 2014). According to Hwang (2017) graduates face challenges to be employed in organisations because they have inadequate skills to be sufficient within a company, but also have high dependency on the government to create job opportunities for them. Nevertheless, with the challenges that graduates face in securing jobs in organisations, there is a still a low number that are willing to be involved in entrepreneurship, increasing unemployment rate (Shamsudin, Mamun, Nawi, Nasir and Zakaria, 2017).

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Therefore, this paper will discuss on this particular problem of the low involvement of graduates in entrepreneurship based in Dar es Salaam, Tanzania. Tanzania is a developing country situated in East Africa, the poplar and trade city is Dar esSalaam. Agyei-holmes (2016) have reported that Tanzania is currently having a slow economic growth because of the economic activities continue to decrease since formal small and medium sized businesses have closed down or they are operated as informal businesses. In addition, it is estimated to almost 800,000 individuals, most being graduates increase in the labour market annually, where 21.5% of graduates located in Dar es Salaam. With such a high level of graduates increasing yearly, it is reported that there is a low rate of graduates that are willing to be involved in entrepreneurship, as many opt to be employed even though they are equipped entrepreneurial education (Katundu and Gabagambi, 2016). The decrease and low level of new entrants in entrepreneurship have affected the national tax base and economic development (Utouh, 2013). Several studies have reported differently on the reasons to why few graduates in developing countries such as Tanzania, opt to be selfemployed by being involved in entrepreneurship even though the government has continued to encourage and promote entrepreneurship through high institutions and provision of financial and non-financial resources (Tanzania National Bureau of Statistics, 2016).

# II. QUALITY OF EDUCATION

Many countries have acknowledged the significance of infusing entrepreneurship into the education system to enhance employment opportunities for graduates, which will contribute to the economic growth and adoption of new technology within the market (Lackeus, 2015). Supported by DeJaeghere and Baxter (2014), they stated that entrepreneurship education provided to graduates, mostly in developing countries is to provide graduates with necessary skills and knowledge to transit from school to working environment by being self-employed. However, Ahmed (2013) claimed that educationalinstitutions have not been graduates towards their involvement entrepreneurship, rather than to work for other people or organisations. Furthermore, the quality of education is still a concern of the education level and quality offered in many African countries. According to the survey conducted in 2014 by Inter University Council for East Africa (IUCEA), as a regulated the quality of high education in Uganda, Kenya and Tanzania, found that Tanzania education quality is low resulting to 51% of its graduates to have inadequate skills,

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knowledge and confidence in starting their own businesses. Nevertheless, Tanzanian government has continued to emphasis entrepreneurial education in all high educational levels as a way to draw more graduates to be involved in entrepreneurship, in order to reduce the unemployment rate (Katundu and Gabagambi, 2016).

#### A. Financial Constraints

People need access and sufficient financial resources to start and operate businesses. The availability of financial resources can make a significant difference between successful and unsuccessful firms, whereas Lindvert, Yazdanfar and Boter (2015) claimed that the lack of financial resources for individuals have resulted to many small and medium size business failing to start, grow and expand. A similar view is found in the Balanced Scorecard management system, where business performance depend on availability and utilisation of financial resources (Kaplan and Norton, 1992). In Tanzania, individuals wanting to start small businesses, are reported to be unsuessful in acquiring financial loans from financial institutions because they have inadequate collateral to offer the banks. Also, the loan processes and requirements tend to difficult to accomplish including the high interest rate (Marwa, 2014). Marwaalso added that banks are forced to impose strict reuirments and high interest rate because they face high risk in offering loans to individuals starting businesses without any backup and guarantee towards their success in the market. However, Lindvert, Yazdanfar and Boter (2015) claimed that financial constraints occur when financial institutions have asymmetric information concerning an individual. The loan officers will evaluate an individual based on his or her ability to perform considering age, gender or ethics. Lindvert, Yazdanfar and Boter (2015) stated that such assumptions made by bank officials towards an individual before offering a loan is wrong ethically, but also businesswise since they are missing out on opportunities of adding revenue and customers. Village Community Bank (VICOBA) in Tanzania supports such claim, since it provide small loans to many individuals starting or expanding small businesses, with a believe that they have the ability to generate returns and pay off their loans. However, individuals in Tanzania have continued to obtain financial assistance from family members, in the process of starting and expanding their businesses (Forkuoh, Li, Affum-Oseiand Quaye, 2015).

# B. Government Regulations and Policies

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Edoho (2015) stated that government policies have significant contribution towards entrepreneurial activities, since the start of new businesses and expansion of the existing businesses are influenced by the government policies and regulations. Tanzanian government have improved the regulations and policies breaking away the socialism policies and encouraging private ownership of businesses (Mutalemwa, 2015). However, the policies and regulation that are still imposed are claimed to be weak by Marwa (2014) because individuals starting or operating small and medium sized businesses face limitation to on land registration and ownership type. While large businesses are given more priority and high income individuals that are able to pay large sum of money for the land. According to

Marwa (2014) many small businesses in Tanzania fail to operate in marketable area due to the lack of suitable business premises, resulting to more businesses operating on family plots. This may be one of the factor that may discourage the increase of individuals to be involved in entrepreneurship. Auriol (2014) claimed that individuals in developing countries have difficulties in starting businesses, which is proved by the high amount of tax imposed and business registration process and cost. In Tanzania, a business require 28 working days to be fully registered and approved to operate (World Bank, 2018). Furthermore, an entrepreneur operating a small business makes 60 payments per year, which is 44.1% of the year profit as tax to the government (World Bank, 2017). In year the 2016, 35% of Gross Domestic Products in Tanzania was contribute by small and medium businesses, which is a large share of the national revenue (TanzaniaInvest, 2018). This is a huge burden to the small number of small and medium size businesses to contribute such a large amount of revenue, while other businesses tend to stay informal.

## C. Individual Factors and Perspection

Individual's perception and behaviour may affect their involvement in entrepreneurship. Earlier studies conducted by Rotter (1966) on locus control theory and self-efficacy (Gibb, 2007) claimed that individuals with high level of locus control and self-efficacy are more willingness, ability, attitude and confidence to take risks and be involved in any activity that they believe has positive outcome. However, such attitude are still being debated if it is born within an individual or can be infused within an individual through guidance and learning. According to Abaho, Olomi, Urassa (2015) they stated that self-efficacy is developed through learning, in order to draw graduates into entrepreneurship. Entrepreneurial education does play a significant role in developing graduates' attitude and confidence that starting a businesses can have positive outcome. Although, many researchers such as Ibrahim, Deveshand Ubaidullah (2017) have reported that graduates with entrepreneurial education have low involvement in entrepreneurship after completing their high level education. Moreover, the public perception have continued to shape individual's attitude towards entrepreneurship involvement. According to Preisendoerfer and Bezuidenhout (2014) individuals have less attitude towards entrepreneurship involvement when there is inadequate support from the surrounding society. For instance, in certain African societies they wrerenoted to have low perception on small and medium sized businesses, assuming such businesses to contribute less to the economic growth compared to large size businesses (Lindvert, Yazdanfar and Boter, 2015). This does affect the attitude of individuals that want to start small businesses, due to the low level acceptance in the societies, whom are the potential customers for their businesses. From a practical perspective, individual's involvement is affected by the business performance in stages of the business life cycle, which involves financial resources, customer perceptions, internal process, innovation and learning. The next session will consist reviews of theories that underpins the concerns of entrepreneurship

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involvement.

#### D. Related Theories

The contexts in this study are framed theoretically to the balanced scorecard and life cycle theory. In combing both balanced scorecard and life cycle theory to elaborate further on examining graduates involvement in entrepreneurship.

#### E. Balanced Scorecard

Balanced scorecard was developed by Robert Kaplan and David Norton after arguments from different studies concerning the performance measurement of business using financial indicators. During the years, there have been evolution on the balanced scorecard from performance measurement to a strategic planning to management system (Lesákováa and Dubcová, 2016). According to Kaplan and Norton (2010) balanced scorecard can be viewed as a management system that formed through the planning, do, checking and acting circle in a business. The balanced scorecard enables the business management or owners to organise and operate their businesses based on the visions and strategies that will monitor the performance to achieve the targeted goals (Lesákováa and Dubcová, 2016). Kaplan and Norton (1992) developed the balanced scorecard as a tool of helping the management and owners to have the ability to manage and direct long term strategies into performance. The balanced scorecard consists of four main elements which are financial perceptive, customer perspective internal process perspective and learning and growth perspectives. The tool combining both financial and non-financial information, creates a significant impact in facilitating proactive control and allowing the management to make preventive actions and decisions (Del Waal, 2013).

# F. The balanced scorecard elements

Learning and Growth perspectives: Kaplan and Norton (1992) showed that improving and creating value within an organisation, there is a need for continuous development of new ways in launching new products with good quality that meets customers' expectations but also improve the internal processes. Kaplan and Norton (2001) claimed that in order to achieve learning and growth within an organisation, the management should support changes within the organisation, which consist of technology, employees' behaviour and knowledge. Furthermore Kaplan and Norton (2004) stated that the higher the level of an organisation to support learning and growth perspectives, will lead to internal process, customers and financial performance.

Internal business process: In the earlier study by Kaplan and Norton (1992) internal business process comprised the internal strength of the organisation. The organisation have to determine what areas it excel best and how to improve other internal areas such as employee skills, productivity and management internal control. According to Kaplan and Norton (2004) it is significant for an organisation to manage its internal process because it is the source of producing quality products and services, which needs to achieve customers' satisfaction and financial performance.

Customers Perspectives: A business to continue to prosper and be successful within the market, customers play a significant role. Management have to make good decisions on investing and productivity to attract many customers and retain them through maintaining the standards of services and products. According to Kaplan and Norton (1992)

organisations need to be concerned about customers through several areas, lead times, quality, cost, performance and services. Also Kaplan and Norton (2001) still claimed the importance of customers because business strategies are developed through customer value. In starting a businesses an owner aims to attract and retain targeted customers by differentiating the products and services from competitors. Kaplan and Norton (2004) connected the elements by indicating that improvement have to be in the internal resources to attract and retain targeted customers, which will result to improved financial performance.

Finance perspectives: Kaplan and Norton (1992) stated that an organisation has the responsibility of measuring its cash flows, sales growth and operating income, which is done in strategizing the organisational growth, profit and risks (Owusu, 2017). Organisations experiencing an increase in their financial performance is an indicator that the organisation is successful (Kaplan and Norton, 2004).

## G. Life Cycle Theory

Life cycle theory concept can be traced back to the 1950s, whereas many researcher such as Chandler, (1962); Lippitt and Schmidt (1967); Penrose (1952) revealed the firms encountered several stages, which were defined as biological way of firms' birth to death similar to the way human being experience different stages from their birth to death stage. According to Dalborg (2014) the life cycle theory has contribute to better understanding of entrepreneurship and growth, since the life cycle models have continued to revolve by being presented in different number of stages by each researcher (Chandler, 1962; Lippitt and Schmidt, 1967; Penrose, 1952). However, even with the varying of the life cycle stages from one model to another, all models are describing a similar pattern, whereas the more stages the more specifications are made in certain time while for less stages, reserchers tend to overgeneralise the periods. In the late 1960s Steinmeitz (1969) is recognised as the pioneer of the life cycle model specifically from small and medium sized businesses, although they had no significant difference in the challenges that large size businesses faced in those stages. Later on, other researchers that based on small and medium size businesses are Churchill and Lewis (1983) and Kazanjian and Drazin (1989). The common stages defined in those studies are genesis, start-up, survival and growth stage.

Genesis Stage: This stage also known as the ideal stage, where an individual wanting to establish a business starts generating ideas, discovering opportunities in the market, collecting of resources and conducting research on areas they want to invest.

Start-up Stage: This is the stage where the business start to exist and marked as the birth of the business in the market. The ideas, discovery of opportunities, collected resources and information obtained through research can be implement at the beginning of the business. Proper decisions have to be made in investing and attracting the targeted customers, while also being different from other competitors within the market (Bedeian, 1990).



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Survival Stage: At this stage, a business has a defined environment and well recognised by the competitors (Miller and Friesen, 1984). However, it is claimed that survival stage is one of the challenging stage to endure before moving to the next stage. According to Church and Lewis, (1983) in this stage a business needs to have the ability to increase its income and market share in order to have a competitive advantage over other competitors and survive within the market. Otherwise a business may have to stay longer at this stage due to the intense competitions and poor revenue obtained.

Growth Stage: Miller and Friesen, (1984) this is a maturity stage, where businesses have sufficient fund to operate the activities and able to survive within the competitive environment. In this stage businesses try to hold onto their competitive advantage in order to continue retaining their customers and generating more revenue. Furthermore, businesses at this level become more efficient by conducting most of its internal and external process formally. For example, difference in authority and power to make decisions within the business and job descriptions will be formally outlined for potential candidates to work in the entreprise.

## H. Current State of Play

Several effort and strategies imposed by government bodies, private institution and non-profit organisation to influence the increase of graduates' involvement entrepreneurship, their objectives are not well met. Using both theories, Balance scorecard and life cycle studies are able to understand the behaviour and priorities of graduate entrepreneurs' on financial, customers, internal process, learning and growth perspectives within all the four stages of their businesses and compare them to non-graduates entrepreneurs. The results leads to the following recommendations:

I. The educational value that graduates are being offered in the high level education

Entrepreneurial education should be able to motivate graduates to be involved in entrepreneurship, by making sure that more reality situation are portrayed according to the market environment. Graduates should be prepared physically and mentally to tackle the market situation from the start of the business. Furthermore, sometimes graduates should be encouraged to start businesses without over processing the economic situation, since it may take a long period to have a stable economy, but still businesses can still be operated as long there is a reasonable demand.

# III. RESULT

Many graduates fail to be involved in entrepreneurship because they are convinced that all products and services are already being offered in the market and do not have any opportunity to win the market. This is because many businesses have the tendency of providing same products and services similar to the neighbouring business. Graduates should have original ideas or provide a particular product and service differently as others within the market, in order to be able to compete within the market. The increase of small and medium sized businesses in Tanzania, will

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increase the economic growth and employment opportunities. Furthermore, the high increase of graduates' involvement in entrepreneurship will decrease the level of unemployment in the country, since they are the highest contributors in the unemployment population.

## IV. CONCLUSION

In this paper we conclude that the government is able to generate entrepreneurial colloquium in high education to increase the quality.

## REFERENCES

- E. Abaho, D. Olomi and G. Urassa, Students' entrepreneurial selfefficacy: Does the teaching method matter? *Education and Training* 57(8/9) (2015)908-923.
- Agyei-holmes, Tilling the soil in Tanzania: What do emerging economies have to offer? The European Journal of Development Research 28(3) (2016) 379-396.
- Z. Ahmad, The need for inclusion of entrepreneurship education in Malaysia lower and HLIs. Education and Training 55(2) (2013) 191-203
- N.Apergisand J.E. Payne, An empirical note on entrepreneurship and unemployment. *Journal of Entrepreneurship and Public Policy*, 5(1) (2016) 73-81.
- E. Auriol, Barriers to formal entrepreneurships in developing countries, Background Paper, World Dveleopment Report 2014.
- Bedeian, Choice and determinism: A comment. Strategic Management Journal 11 (1990) 571-573.
- N.C. Churchill and V.L. Lewis, The five stages of small business growth, *Harvard Business Review*, 61(3) (1983) 30-50.
- 8. Dalborg, The life cycle in women-owned businesses: from a qualitative growth perspective. *International Journal of Gender and Entrepreneurship* 7 (2) (2015)126-147.
- DeJaeghere, J. and A. Baxter, Entrepreneurship education for youth in sub-Saharan Africa: A capabilities approach as an alternative framework to neoliberalism's individualizing risks. *Progress in Development Studies*, 14(1) (2014) 61-76
- F.M. Edoho, Entrepreneurship and Economic Change in a Developing Region: Opportunities and Challenges in Africa. Review of Contemporary Business Research, 4, (2) (2015) 1-13
- S. Forkuoh, Y.Li, E. Affum-Oseiand I. Quaye, Informal Financial Services, a Panacea for SMEs Financing? A Case Study of SMEs in the Ashanti Region of Ghana. American Journal of Industrial and Business Management, 5 (2015) 779-793
- K. Fulgence, Assessing the status of entrepreneurship education courses in higher learning institutions', *Education and Training*, 57(2) (2015) 239-258.
- 13. Gibb, Entrepreneurship: Unique Solutions for Unique Environments. Is it possible to achieve this with the Existing Paradigm? *International Journal of Entrepreneurship Education* 5 (2007) 93-142.
- Y. Hwang, What Is the Cause of Graduates' Unemployment? Focus on Individual Concerns and Perspectives. *Journal of Educational Issues*, 3(2) (2017) 1-10.
- O. Ibrahim, S. Devesh and V. Ubaidullah, Implication of attitude of graduate students in Oman towards entrepreneurship: an empirical study. *Journal of Global Entrepreneurship Research*, 7(8) (2017) 1-17.
- 16. Inter-University Council for East Africa (IUCEA) (2014). Report from a Study Establishing the Status of Higher Education Qualifications Systems and their Contributions to Human Resources Development in East Africa.
- R.S. Kaplan and D.P. Norton, Transforming the balanced scorecard from performance measurement to strategic management: Part I, 15, (2001) 87–104.
- R.S. Kaplan and D.P. Norton Kaplan, The strategy map: Guide to aligning intangible assets. Strategy and Leadership 32,(2004) 10–17
- R.S. Kaplan and D.P. Norton, The balanced scorecard: Measures that drive performance. *Harvard Business Review* 70 (1992)1–79.



- M.A. Katundu and D.M. Gabagambi, Barriers to Business Start-up among Tanzanian University Graduates: Evidence from the University of Dar-es-salaam. Global Business Review, 17(1) (2016)16-37.
- R.K Kazanjian, Relation of dominant problems to stages of growth in technology-based new venture. Academy of Management Journal. 31(2) (1988) 257-279.
- M. Lackeus, Entrepreneurship in Education—What, Why, When, How. (2015) https://www.oecd.org/cfe/leed/BGP\_Entrepreneurship-in-
  - Education.pdf
    L. Lesákováa andK. Dubcováb, Knowledge and Use of the Balanced Scorecard Method in the Businesses in the Slovak

23.

- Republic. Social and Behavioral Sciences 230 (2016) 39-48.
  24. M. Lindvert, D. Yazdanfarand H. Boter, Perceptions of financial sources among women entrepreneurs in Tanzania. African Journal of Economic and Management Studies, 6(2) (2015) 197-218
- G.L Lippittand W.H.Schmidt, Crises in a developing organization. Harvard Business Review 45 (1967) 102-112.
- N. Marwa, Micro, Small and Medium Enterprises' External Financing Challenges: The Role of Formal Financial Institutions and Development Finance Intervention in Tanzania. *International Journal of Trade, Economics and Finance* 5 (3) (2014) 230-234.
- Miller and H. Friesen, A longitudinal study of the corporate life cycle. Management Science 30 (1984) 1161-1183.
- T. Mori, Strategic Planning: A Management Contrivance for Effective Performance of SMEs Performance in Tanzania? A survey of Selected Firms in Ilala Municipality. European Journal of Business Management, 6 (39) (2014)345-353.
- D.K. Mutalemwa, Does globalisation impact SME development in Africa? African Journal of Economic and Management Studies, 6(2) (2015)164-182.
- Mwasalwiba, H. Dalhesand I. Wakkee, Graduate Entrepreneurship in Tanzania: Contextual Enablers and Hindrances. European Journal of Scientific Research 76(3) (2012) 386-402
- National Bureau of Statistics (2016) Statistical Business Register Report, 2014/2015 Tanzania mainland. Ministry of Finance and Planning. Available at: http://www.nbs.go.tz/nbs/takwimu/Br/2014 15 SBR.pdf
- L. Ndyali, Higher Education System and Jobless Graduates in Tanzania. *Journal of Education and Practice*, 7(4) (2016) 116-121.
- R. Nyello, N. Kalufya, C. Rengua, M.J. Nsoleziand C. Ngirwa, Effect of Entrepreneurship Education on the Entrepreneurial Behaviour: The Case of Graduates in the Higher Learning Institutions in Tanzania. Asian Journal of Business Management, 7(2) (2015) 37-42
- Owusu, Business intelligence systems and bank performance in Ghana: The balanced scorecard approach. Cogent Business and Management, 4: 1364056 (2017)1-22.
- 35. Penrose, Biological analogies of the firm. *American Economic Review*, 42,(1952) 804-819.
- P. Preisendoerfer, A. Bitzand J.F. Bezuidenhout, Black entrepreneurship: A case study on entrepreneurial activities and ambitions in a South African township. *Journal of Enterprising Communities People and Places in the Global Economy* 8(3) (2014) 162-179.
- 37. J. Rotter, Generalize d expectancie s for interna l versus external control of reinforcement. *Psychological Monographs: General and Applied* 80(1) (1966) 1-28.
- 38. Shamsuddin, M. Isa, M.N. Aziz, M Mahfoland T. Alagari, Graduate unemployment: The awareness and perception of graduates towards government's initiatives. *International Journal of Business*, *Economics and Law* 3(1)(2013)15-24.
- L.L Steinmetz, Critical stages of small business growth: When they
  occur and how to survive them. Business Horizons 12 (1969)29-36.
- J.E. Stiglitz and A. Weiss, Credit Rationing in Markets with Imperfect Information. *The American Economic Review*71(3) (1981) 393-410.
- 41. TanzaniaInvest (2018)Tanzania Small and Medium Enterprises. Available at: https://www.tanzaniainvest.com/sme
- 42. The World Bank (2016). Population Total. Available at: https://data.worldbank.org/indicator/SP.POP.TOTL
- The World Bank (2017). Tanzania Mainland Poverty Assessment: A New Picture of Growth for Tanzania Emerges. Available at: http://www.worldbank.org/en/country/tanzania/publication/tanzania-mainland-poverty-assessment-a-new-picture-of-growth-for-tanzania-emerges
- 44. The World Bank (2018), Doing Business Rankings Avialabe at: http://www.doingbusiness.org/rankings
- 45. J.l. Utouh, The role of gender in explaining motives for business informality and formalization. *The Journal of Business Diversity*, 13(1) (2013)96-107.

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 G.Wit and J. Kok, Do small businesses create more jobs? New evidence for Europe. Small Business Economics 42 (2) (2014) 283-295

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