



ENTREPRENEURIAL TRAINING, NETWORKING, TECHNOLOGY ADOPTION, AND PERFORMANCE OF SMALL AND MEDIUM ENTREPRISES: A CRITICAL REVIEW OF LITERATURE

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Abstract

Entrepreneurs play an important role in the economic development of any country. They make use of the factors of production to the fullest advantage of the society, generate employment, create innovation, improve standard of living and develop backward areas. This study paper seeks to make a contribution to the reviewed studies by addressing the gaps identified. It combines independent variables; entrepreneurial training, technological adoption and networking and how they influence firm performance. A review of literature indicates that studies have distinctively linked individually entrepreneurial training, technological adoption and networking on SMEs performance with varying level of significance creating unanswered issues which constitute conceptual, contextual and methodological knowledge gaps. Notably, the variables seem to have been studied over time but contradictions exist on some of the relationship while other relationships are yet to be tested empirically. The relationship among the variables are intertwined in a conceptual model and discussed in the literature review. This study is anchored on three theories namely Human Capital Theory, Social Networking Theory and Diffusion of Innovation Theory. This is premised in the notion that entrepreneurial training is key as it explores creativity in the domain of skills and knowledge of entrepreneurs as well as,



providing insights into gaining competitive advantage by building stronger pool of opportunities that translates into business growth. Networking plays a key role in providing information thereby reducing the level of uncertainty surrounding the operation of firms by allowing firms to access resources that would have been difficult to access on their own and that entrepreneurs need technological solutions, appreciate the presence and make use of it to graduate themselves from traditional business operations to modern processes to cut on operational costs and perform effective and efficient to make their products competitively at the world market. This study is expected to help upcoming or existing entrepreneurs, incubators, investors and policy makers to make prudent decisions on entrepreneurial training, networking and technology to adopt among firms.

Keywords: Entrepreneurial training, Networking, Technology adoption, Firm Performance

INTRODUCTION

Entrepreneurs play an important role in the economic development of any country as they make use of the factors of production to the fullest advantage of the society, generate employment, create innovation, improve standard of living and develop backward areas (Bula, Taigha & Muruku, 2014). Entrepreneurial Training is key as it explores creativity in the domain of skills and knowledge of entrepreneurs as well as, providing insights into gaining competitive advantage by building stronger pool of opportunities that translates into business growth (Azim & Kahtani, 2014). According to Aarakit and Kimbugwe (2015) networking relationships gives SMEs the opportunity to harvest from supplies, customers and friends what they require to grow their businesses. Networking if well utilized will improve the financial performance and increase in market share of a firm through identification of new business opportunities, ensure skills transfer and gain good ratings in the sector. In modern business world, technology has proved to offer solution to competition challenges that firms face (Olise, Anigbogu, Edoko, Okoli, 2014), entrepreneurs need technological adoption, appreciate the presence and make use of it to graduate themselves from traditional business operations to modern processes to cut on operational costs and perform effectively and efficiently to make their products competitively at the world market.

Entrepreneur training is the process or arrangement of identifying and exercising plans to empower entrepreneurs and business minded individuals to create information, knowledge, skills and understanding which permit a wide scope of issues to enhance their performance levels in their businesses (Azim & Kahtani, 2014). Entrepreneur training can be further understood as increasingly arranged and efficient training frameworks that develops

knowledgeable and skilled and experienced entrepreneurs to achieve higher performance in activities related to opportunities identification and overall running of the businesses (Kingori & Theuri, 2016). Business people must have a dream and an enthusiasm duty and inspiration to network, search for resources and take the fundamental risks through application of training skills learned so as to seek opportunities that might arise (Firdousi, 2013). The important role played by entrepreneurial activities in economic development and growth includes expanding per capita yield and income through establishing changes in the way modern businesses should be managed to create more income and associated profits through identification of the right and viable opportunities to venture in (Huka, Mbugua & Njehia, 2015).

Entrepreneurial training consolidates both casual and formal techniques. The strategies and content techniques to be used in training sessions will change depending on the group of the students under study. The proper parts of entrepreneurship training center around giving the hypothetical and practical forms of training which support business (Jones, Beynon, Pickernell & Packham, 2013). The instructor should be a specialist in entrepreneurship to educating, train and encourage the learning process which is more practical as opposed to theoretical prepositions. The informal nature of entrepreneurship training centers on knowledge building, skills improvement and social change. Both theoretical and practical forms of training are thus key in enhancing entrepreneurial competencies (Jusoh, Ziyae, Asimiran & Kadir, 2011).

Network as a term has been defined differently by different scholars and researchers. According to Aarakit and Kimbugwe (2015), it is an association where the entrepreneurs connects with other groups that they deem resourceful for their businesses to tap the necessary resources that they in turn use to grow their businesses. Mano (2014) opines networking as a process through which formal coordinated efforts are framed to share knowledge and key information to build on their ventures. In this paper networking will refer to the process where SMEs engage in sharing of information and resources through strategic alliances, collaboration and business groups. This therefore means that SMEs need to intensify their networks if they are to improve performance and hence the need to understand the effect of such networks to SME's if any. The importance of networks and networking for small and medium sized enterprises (SMEs) has been noted by a number of authors, with networking contributing to performance of SMEs. According to Stam, Arzlanian and Elfring (2014) the resources bundled up in an entrepreneur's network play an important role in the performance of that firm. Networking if well utilized will improve the financial performance and increase the market share of SMEs through identification of key partners by allowing SMEs to access resources that would have been difficult to access on their own (Armanios, Eesley & Eisenhardt, 2012).

The study distinguishes four elements of networking ability in particular namely internal communication, relational skills, partners' knowledge and coordinating (Kariuki, 2015) of which this study believes they are key in understanding the networking concept and underpinnings. It is important to note therefore that networking helps firms to grow and establish their activities in a broad area of knowledge and resources sharing. This particularly is important to SMEs to grow and establish their market base which they could have not achieved in isolated environments. For some organizations, the most widely recognized explanations behind technology adoption are to give a way to overcome the associated challenges in terms of survival as well as growth so as to remain competitive (Ndikubwimana, 2016). SMEs adopt technology for various reasons, including dynamism in customer expectations and market trends (Ghimire & Abo, 2013). The need for value creation, attaining entrepreneurial goals, improved firm processes and competitive positioning has made entrepreneurs to invest on competent technologies. This practice will also requires entrepreneurs to be equipped with technology knowledge and skills to enable them understand the role of technology adoption in related to decisions concerning growth of the firms (Yayla & Hu, 2014).

An assessment by Jeronimo and DeMedeiros (2012), found that organizations experience changes during the periods of their life cycle or as a result of changes of their operating environments. Kirby and Turner (2012) argues that a firm is forced to acquire a certain technology as the outside forces deepens to remain competitive through improved processes. It is also contended that a firm adopts that technology that will solve their current problems and associated technical hurdles experienced by the firm in a certain market of operation (Kabanda & Brown, 2017). Firms experience various stages and react to changes through adopting relevant technology to remain competitive. This incorporates the need to fulfill certain prerequisites or to react or adjust to a necessary improvement (Giovanni & Mario, 2013). Entrepreneurs are keen to grow their businesses and therefore willing to adopt a certain technology that they deem necessary to solve a given challenge and improve on their processes to gain more market and customers (Ngugi, Mcorege & Muiuru, 2013). Technology is created to fulfill the need in the market through building specific models to be used by businesses at all levels including SMEs. Therefore firms may require adjusting in its operations to suit such changes (Aral & Alstyne, 2011).

The small and medium enterprises (SME) as a crucial sector assumes a significant role in making innovational advancement, wealth, employment and monetary development in industrialized and developing nations (Diabate, 2014). For instance, in the UK, SMEs represent 99.8 percent of the activities in an economy and 52.4 percent in terms of employment (Small Business Service, 2018). The support of entrepreneurial conduct is the basic and foundation for

the economy particularly given its commitment to financial success in an economy (Giovanni & Mario, 2013).

LITERATURE

Theoretical Foundation

The study was grounded on four theories, namely; Human Capital Theory (Garibaldi, 2006), Social Networking Theory (Borgatti & Halgin, 2011) and Diffusion of Innovation Theory (DoI) (Rogers, 2003). Human Capital Theory explains how entrepreneur's skills and stock of knowledge contributes to his or her entrepreneurial productivity suggesting that education increases the productivity and earnings of entrepreneurs and their value to their businesses. Social Networking Theory depends on the reason that individual and person to person communication connections and binds offer some incentive to associations in a system by permitting them to take advantage of the assets installed inside the system to their advantage. Diffusion of Innovation Theory provides an avenue of the role of technology adoption by explaining how, over time, an idea or product gains momentum and diffuses through a specific population or social system where entrepreneurs, as part of a social system, adopt a new idea, behavior, product or technology to perform a certain business process differently than what they had previously like purchase or use a new technology. The variables considered in this paper are entrepreneurial training conceptualized as an independent variable and anchored on human capital theory, technological adoption as the moderating variable which is anchored on the diffusion of innovation theory, networking as the intervening variable which is anchored on social networking theory and SMEs performance as the dependent variable. Both the theoretical assumptions, their critique and how they relate to the study variables is well articulated.

Empirical Review

Studies have been documented on how entrepreneurial training influences performance and the role played by networking and technological adoption. In a study by Boothby, Dufour and Tang (2018) on technology adoption, training, networking and productivity performance using panel data regression equation found that a training module containing technological adoption elements influences firm performance significantly. The study further argued that technologies which are advanced enhances entrepreneurs skills to perform better with a conclusion that through networking firms are able to acquire and combine technologies depending on the training that are commonly adopted and undertaken by firms to significantly improve their performance. The paper further concludes that when firms keenly invest in

technological adoption and training through networks, performance in terms of productivity is inevitable.

Another study by Das and Goswami (2019) on how networks of entrepreneurs enables the firms acquire technologies and necessary knowledge especially on small firms leads performance using empirical studies in the context of Kamrup, a district of Assam found that support given by other firms in a network including skills and knowledge coupled with technological advancement enables firms gain new ways of doing business thus superior performance. Another study by Khalid, Ahmed, Tundikbayeva and Ahmed (2019) in empirical evidence focusing on entrepreneurship as a concept that requires networks and know-how and how this could lead to firm performance found that those firms that are well networked are able to learn new ways of doing things especially through acquisition of knowledge which significantly impact on their revenues and overall success.

Leiva, Monge and Alegre (2014) in their review of existing literature on the influence of entrepreneurial learning through networks and innovation results to superior performance argued that innovative nature of the firm is through trainings from expertise in entrepreneurship which are acquired by networking within and without various business undertakings. This will significantly result to better performance as firms will acquire the technical know-how and apply in those crucial areas of performance aspects. The study further reveals that when firms have well established themselves in a network, they are able to seek financial assistance that are key to acquiring new technologies which will improve the processes for firms to gain competitiveness and outperform others in the same industry.

Essel, Adams and Amankwah (2019) studying how entrepreneurship coupled with characteristics at institutional level in Ghana firms at small scale level using a technique of multiple regression of multivariate level found that factors of demographics like education as well as those of institution like trainings and also characteristics in the firm like advancement in technology conjointly in a significant state influence performance of SMEs. The study further gives an indication that those entrepreneurs with requisite training acquire skills which are key to networking and eventually acquisition of necessary technologies that foster performance.

Chege, Wang and Suntu (2020) studying innovation in technology information and the impact it creates to a firm using a modeling of structural equation in a 240 enterprises in SMEs indicated that adoption of technology creates a network to the firm which creates a synergy for firms to acquire entrepreneurship knowledge which significantly and positive add to the value of a firm. The study enabled the understanding of how a firm can use technology adoption like centers of ICT that are aimed at supporting businesses and their involved processes. The study therefore gives a green light to firms especially those in SMEs to acquire innovativeness

through entrepreneurial training for them to compete effectively. Kocak, Carsrud and Oflazoglu (2017) in examining how orientations in entrepreneurship and technology adoption affect performance and also innovativeness of firms especially in SMEs found that entrepreneurial training enhances entrepreneurship orientation in terms of aggressiveness, innovativeness and this gives firms ability to network for more technologies that fit their processes. The study also found that market reactivity leads to radical innovations leading to significant improvement in performance.

Gronum (2015) studying how technology adoption, competencies in entrepreneurship and breadth in innovation creates an innovative firm found that technology adoption is significantly related to firms' innovativeness thus leading to high performance. The study further found a significant interconnectedness between networking and firm performance due to dynamics in technology adoption which creates ability for the firm to network through marketing channels and also business communication channels. The study therefore gives recommendations for firms to combine factors like networking, adoption of technology and trainings on entrepreneurial related activities to gain competitive edge and perform exemplary.

Conceptual Framework

A conceptual model links key study variables in a diagrammatic manner showing the presumed relationships that may exist which are developed from the review of literature (Ravitch & Riggan, 2012). The conceptual framework for this study has been developed based on the literature and empirical reviews. The scholar, avers, conceptual framework as a hypothesized model that identifies concepts or variables considered in a study bringing out the relationships. This conceptual study paper seeks to understand the relationship between entrepreneurial training, Technology Adoption and networking and how they influence entrepreneurs' propensity to perform in their businesses. The relationships among variables are outlined in Figure 1

CONCLUSIONS

The essence of this paper was to investigate the impact of entrepreneurial training, networking and technology adoption on performance of SMEs. In view of past examinations, the proponents of all the considered factors were concluded to have positive associations with performance of SMEs. The conclusions from the empirical evidence show that there is a noteworthy positive relationship between the proponents of entrepreneurial training and performance of SMEs with the argument that entrepreneurial training resulted to better identification of viable opportunities and translating such opportunities to profitable firms. The

outcomes likewise uncovered that the entrepreneurs' skills and knowledge, obtained through practical and theoretical training are key to enhancing performance of SMEs.

Technology has basically become irreplaceable apparatus for everyday activities of business operations. SMEs are currently putting noteworthy measure of resources in innovation to reinforce their competitive positions. Because of high utilization of technology among SMEs, they have been subjected to few risks associated with manual and traditional form of operations thus increasing their returns. Earlier studies on technology appropriation in SMEs show that technologies have increased the efficiency of SMEs necessary for survival and growth.

The paper likewise infers that SMEs seek after networks to share ideas, relevant knowledge, skills and unique resources to succeed in a competing environment. These networks provide a platform through which SMEs harness what they don't possess to better their operations. Review of literature emphasized the importance of networks with an argument that those firms in relevant networks performs better since they are able to use networks strengths to solve their impeding challenges and seek more opportunities to widen their scope of operation through sharing unique resources and technologies to innovate in to better and efficient ways of operations.

Implications and recommendations

Findings of the study highlight the need for government and other policy makers to facilitate Firm networking by improving network channels like incubators and other agencies willing to support the growth of Firm to obtain business resources necessary to improve their performance and overall growth. Findings also highlight the needs for Firm to develop strategies to improve network diversity, network size and network platforms to help improve the diversity and intensity of networks that are beneficial to their operations. Policy makers can work with willing partners in the area of Firm development, for example, financial institutions, to improve frameworks for credit availability, opportunity identification guidance and trainings on financial management in order to make them more profitable. The study recommends that there is need to strengthen Firm' networking skills and competences owing to the fact that Firm are barred from marketing & advertising their services due to financial constraints, networking would be a panacea from which they can sell their services to the public.

To the Government: There should be reduction of the cost of Firm technology related equipment; this study found that only few Firm were able to acquire relevant technologies due to high initial costs. The main reason why many Firm were not using technology was that the acquisition cost was relatively high mainly due to VAT. The paper therefore, recommends that

there should be reduction of VAT on items such as computers, scanners, fax machine and printers to encourage entrepreneurs to implement technology in their entrepreneurial activities.

To Firm and Community: To educate themselves on the use of the technology related equipment's; this study found that many entrepreneurs did not use technology due to the fact that they did not know well how to use the related equipment's such as computers, scanners and fax machines. Therefore, the paper recommends that entrepreneurs and community as a whole should take initiatives to educate themselves on how to use technology in order to avoid missing full technology application to identify opportunities in their business and or reduce experts hiring charges.

The entrepreneurs ought to understand that in the present information economy, technology shapes a significant component of resources of the Firm which ought to be reconfigured to guarantee their operations to take advantage of opportunities and innovate new products for survival in the market where customers' expectations and tastes keep changing. Innovative mindsets for entrepreneurs are important to bestow a society where new products are developed to suit market niches. Firm ought to have specialized, relational, and applied abilities to successfully design, lead, sort out and control the activities that are geared towards improving their business ventures.

As indicated by the review, it could be recommended that it is significant that government consider what is required to help technology adoption in Firm to maintain a strategic partnership between what the governments provides in terms of policy and what actually is required for Firm to prosper. Likewise, and as proposed in literature, Firm need assistance in obtaining and usage of technology through training on how to network and access those technologies that are relevant in the current operations. Therefore, consultants in technology should be encouraged to provide the know how to Firm and entrepreneurs on how to acquire and use such technologies to boost their business operations.

Scope for further studies

The study was limited to review of empirical literature on small and medium enterprises. Further research should be extended to use of primary data on small and medium enterprises in Kenya and other countries in Africa and by extension globally. Further the study was based on firm performance measures such as growth in sales, growth in employment and owner satisfaction and therefore did not exhaust all indicators of firm performance in the small and medium enterprises. Other studies should consider use of Balanced Score Card (BSC) like financials, business processes, employee and customer satisfaction among other indicators.

REFERENCES

- Aarakit S. M. & Kimbugwe F. K. (2015). The Relationship between Social networks and Firm Performance in Kampala, Uganda. *International Journal of Science and Economics*.
- Aral, S., & Van Alstyne, M., (2011). The diversity-bandwidth trade-off. *American Journal of Sociology*, 117 (1), 90-171.
- Armanios, D., Eesley, C.E., Li, J., & Eisenhardt, K.M., (2012). Network ties or Institutional rules: how do entrepreneurs acquire resources to innovate and grow in emerging economies? *Working paper series*.
- Azim, M. T., & Kahtani, A. H. (2014). Entrepreneurship Education and Training: A Survey of Literature. *Life Science Journal*, 11 (1), 127-135.
- Boothby, D., Dufour, A., & Tang, J. (2018). Technology adoption, training and productivity performance. *Research Policy*, 39(5), 650-661.
- Borgatti, S. P. Halgin. DS (2011), On network theory. *Organization Science*, 22(5), 1168-1181.
- Bula, H., Taigha, E., & Muruku, W. (2014). An empirical analysis of entrepreneurship scorecard and performance of small scale women entrepreneurs in urban Kenya. *International Journal of Humanities and Social Science*, 4 (5), 208-215.
- Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya. *Information Technology for Development*, 26(2), 316-345.
- Das, M., & Goswami, N. (2019). Effect of entrepreneurial networks on small firm performance in Kamrup, a district of Assam. *Journal of Global Entrepreneurship Research*, 9(1), 7.
- Diabate A. (2014), Factors Influencing Small and Medium Enterprises (SMEs) in Adoption and Use of Technology in Cote d'Ivoire. *International Journal of Business and Management*, 9(8): 1-12.
- Essel, B. K. C., Adams, F., & Amankwah, K. (2019). Effect of entrepreneur, firm, and institutional characteristics on small-scale firm performance in Ghana. *Journal of Global Entrepreneurship Research*, 9(1), 55.
- Firdousi, F. (2013). Significance of determining assessment needs and training in the service sector. *International Journal of Business and Social Science*, 2 (17), 113-116.
- Garibaldi, M., & Korsakiene, R. (2006). Human capital and the internationalisation of SMEs: A systemic literature review. *Entrepreneurial Business and Economics Review*, 7(3), 125-142.
- Ghimire, B. and R. Abo (2013), An empirical investigation of Ivorian SMEs access to bank finance: Constraining factors at demand-level. *Journal of Finance and Investment Analysis*, 2(4): 29-55.
- Giovanni, F. and A. Mario (2013), Small company attitude towards ICT based solutions: some key elements to improve it. *Educational Technology & Society*, 2(3): 37-49.
- Gronum, S. (2015). SME performance: The role of networking, innovation breadth, and business model design.
- Gronum, S., Verreyne, M.-L., & Kstelle, T. (2012). The role of networks in small and medium-sized enterprise innovation and firm performance. *Journal of Small Business Management*, 50(2), 257-282.
- Huka, G. S., Mbugua, Z. K., & Njehia, B. (2015). Effects of business training needs analysis on competencies of trainees: The Kenyan experience. *Journal of Humanities and Social Science*, 20 (1), 76-85.
- Jeronimo, T.B. and D.D. DeMedeiros (2012), Scrum As Community of Practice to Small and Medium-Sized High Technology Enterprises Realize the Strategic Plan. *International Journal of Business, Humanities and Technology*, 2: 71-78.
- Jones, P., Beynon, M.J., Pickernell, D., & Packham, G. (2013). Evaluating the impact of different training methods on SME business performance. *Environment and Planning C Government and Policy*, 31 (1), 56-81.
- Jusoh, R., Ziyae, B., Asimiran, S., & Kadir, S. A. (2011). Entrepreneur training needs analysis: implications on the entrepreneurial skills needed for successful entrepreneurs. *International Business & Economics Research Journal*, 10(1), 143-148
- Kabanda. S. and I. Brown (2017), A structuration analysis of Small and Medium Enterprise (SME) adoption of E-Commerce: The case of Tanzania. Science Direct, *Telematics and Informatics* 34:118-132.
- Kariuki, J. W. (2015). Perceived Role of business networking on the performance of women owned enterprises in Kenya: A Case Study of Kenya Association of Women Business Owners. *Strategic Journal of Business & Change Management*, 2(1).

- Khalid, N., Ahmed, U., Tundikbayeva, B., & Ahmed, M. (2019). Entrepreneurship and organizational performance: Empirical insight into the role of entrepreneurial training, culture and government funding across higher education institutions in Pakistan. *Management Science Letters*, 9(5), 755-770.
- Kingori, G. N., & Theuri, F. S. (2016). The Role of Entrepreneurship Training and Education in Enhancing Growth of Small and Medium Enterprises in Kenya: A Case Study of Mombasa County. *Journal Of Humanities And Social Science*, 21 (4), 97-106.
- Kirby, D. and M. Turner (2012), IT and the small retail business. *International Journal of Retail and Distribution Management*, 21(7): 20–27.
- Kocak, A., Carsrud, A., & Oflazoglu, S. (2017). Market, entrepreneurial, and technology orientations: impact on innovation and firm performance. *Management Decision*.
- Leiva, J. C., Monge, R., & Alegre, J. (2014). The influence of Entrepreneurial learning in new Firms' performance: a study in Costa Rica. *Innovar*, 24(SPE), 129-140.
- Mano, R. S. (2014). Networking modes and performance in Israel's nonprofit organizations. *Nonprofit Management and Leadership*, 24(4), 429-444.
- Ndikubwimana, P. (2016). The Role of Financial Institutions in Promoting Innovation of SMEs in Rwanda: An Empirical Review, *British Journal of Economics, Management & Trade*, 14(2) 1-14
- Ngugi, J.K., M.O. Mcorege, and J.M. Muiru (2013), The Influence of Innovativeness on the Growth of SMEs in Kenya. *International Journal of Business and Social Research*, 3(1):1-14.
- Olise, C.M., Anigbogu, T., Edoko, T., Okoli, M., (2014). Determinants of ICT Adoption for Improved SME's Performance in Anambra State, Nigeria. *American International Journal of Contemporary Research*, 4(7)163-176
- Ravitch, S. M., & Riggan, M. (2012). Conceptual frameworks and the analysis of data. *Reason & rigor: How conceptual frameworks guide research*, 81-106.
- Rodgers J. M., (2004). An investigation of the diffusion of online games in Taiwan: An application of Rogers' diffusion of innovation theory. *Journal of American Academy of Business*, 5(1/2), 439-445.
- Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of business venturing*, 29(1), 152-173.
- Yayla, A. A., & Hu, Q. (2014). The effect of board of directors' IT awareness on CIO compensation and firm performance. *Decision Sciences*, 45(3), 401-436.