

TECHNOLOGY ORIENTATION: A TOOL FOR SUSTAINING SMALL AND MEDIUM ENTERPRISES IN NIGERIA

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ABSTRACT

Small and Medium enterprises are the mainstays of an economy including Nigeria economy, however they are faced with many challenges which have affected their sustainability. One of such challenges is technology orientation; that is the ability to be positioned to accept new methods of doing business especially in innovation and information and communication technology that will lead to business sustainability. Many companies are restructuring, re-engineering and rethinking how to do business in an effort to meet up with changing economic conditions in the world through technology orientation which Nigerian SMEs find difficult to do. The aim of this study is to develop a conceptual frame work on technology orientation as a tool for sustaining SMEs sustainability in Nigeria. The study emphasized three main reasons that will make it possible for SMEs to deploy technology in their business operations which are; ease of use, perceived usefulness, technical Complexity. The study concluded that technology orientation is must for SMEs owners in Nigeria in order to sustain their businesses.

Keywords: Innovation, Information, SMEs, Sustainability, Technology Orientation.

INTRODUCTION

The Nigerian economy is faced with an environment that is turbulent arising from unemployment, poverty, crimes and recession due to rapid and significant changes in regulations, consumers' demand and technological advancement which consequently erode the value of business sustainability. In response to increasing demands and pressures for economic advancement, the Nigerian government places much emphasis on promoting small and medium enterprises (SMEs) with a view to improving the economy because SMEs are considered to be very strategic in shaping economy of nations; they are a veritable means for the accomplishment of the objectives of national economies, which include: creating employments, reduced rate of poverty, income generation and improved standards of living. Remarkably, SMEs contribute to the largest percentage of workforce for instance; Ethiopia 90%, Kenya 80%, Nigeria 70%, South Africa 60%, Uganda 90% among others but their contributions to GDP is low for instance Ethiopia 3.4%, Uganda 18%, Kenya 40%, Nigeria 40% (SME Annual Report, 2017). The subject of SMEs has also formed the main crux of sustainable development in round table discussions (Kuteyi, 2013; Oyinloye, 2011).

Katz & Green (2011) stated that over the last decades, there has been the drive for promoting the development of SMEs by in Nigeria by the institutionalization, development and establishment of agencies and government support programmes. the Association of Nigerian Development Finance Institutions (ANDFI); Development Finance Institutions (DFIs); Support and Training Entrepreneurship Programme (STEP); Nigerian Investment Promotion Commission (NIPC); as well as Directorate of Food, Roads and Rural Infrastructure (DFRRI); National Council of Industry (NCI); Bank of Industry (BOI) and Small and Medium Enterprises Development Agency (SMEDAN) among others. These established agencies over time, have set up various capacity building initiative that have attempted to achieve SMEs growth and advancement, they have also initiated training that were targeted at enlightening SMEs operators on support structures that could enhance their SMEs operations all to no avail.

In spite of Nigerian government's efforts for SMEs' sustainability (Oyinloye, 2011) stressed that a large number of SMEs in African fold up within their initial five years of establishment, key among the factors responsible for the fold up include: lack of capital, inability of managers to define the firm's focus, incomprehensive findings from market research endeavours, poor succession planning, and inexperience and unskillfulness of owner/managers and lack of technology know-how. Kuteyi (2013); Souchon & Sulter (2012) stated that shortage of working-capital is considered among the most strategic problems being faced by SMEs. On the contrary, Postma & Zwart (2010) opined that the success of SMEs does not only depend on capital but largely on their capacity to be proactive in identifying economic trend and taking proactive steps to be well positioned.

In order to take advantage of economic trend and reduce these challenges, studies such as (Abeni 2014; Hult & Collage, 2014; Pett & Wolff 2011; Dike, 2008) pointed that Nigerian SMEs must be proactive in order to improve performance through technology orientation. Aremu (2004) opined that technology orientation will create and explore competitive advantages for SMEs in changing economic situation, also, in global competitiveness, technology orientation will help them to achieve and take advantage of market opportunities, in which innovations are developed and commercialized (Hoskisson & Ireland, 2011). Technology orientation will aid SMEs' capabilities to grow and generate prosperity by creating continuous revenue leading to high level of sustainability (Carton & Hofer, 2013; Brush & Vander Werf, 2010). Technology orientation will help Nigerian SMEs to create value for customers which will lead to gaining and maintaining a competitive advantage. The capability to create growing, sustainable profits streams determines whether or not SMEs can continue to exist (Rutledge, 1993). Despite increased in access to finance, mentoring and incubation programmes, and gradually improving policies by government of Nigeria, SMEs are still faced with a number of challenges most especially because of the unwillingness of the owners/managers to take personal responsibility for their businesses by adopting technology orientation (Krueger & Lindhal, 2010). Nigeria SMEs are in an age where they must focus on their mode of operations independently rather than continue to be government-dependent enterprises especially with the advent of corona virus pandemic that has made businesses work remotely via technology. Therefore, this research gives a conceptual insight on how technology orientation can sustain SMEs in Nigeria.

Gatingnon & Xuereb (2013) defined technology orientation as strategic way by which management creates desirable behavior that ensures continuous superior performance of the organization by adopting technology. Existing research have suggested that technology orientation can enhance the long term survival of firms (Ledwith & Dwyer, 2015; Li Zhao et al., 2009). Yan Chin Lin & Nhu-Hang Ha (2015) posited that for there to be high level of

performance in the SMEs' sectors in African that will enhance economy sustainability, SMEs must embrace a culture of promoting quality product/services, building customer relationship, having courteous employees, reducing the waiting time of customers before being attended to using technology. Venkatarman (2015) collaborated that lack of technology orientation has largely contributed to the problem of Nigerian SMEs. Hence, it becomes important to examine how technology orientation can contribute to the sustainability of SMEs in Nigeria (Ramachandran, 2012).

Kuteyi (2013) noted that embracing technology represents a challenge for small and medium enterprises, he opines that as the economy becomes more volatile and diverse, technology orientation becomes the key to the success of SMEs in Nigeria which will enhance economic sustainability. Adelowo, Olaopa & Siyanbola (2012) stated that technology orientation implies an organization's engagement of its technical know-how to develop novel solutions that enhance its ability to satisfy customers' requirements.

The objective of this study is to examine the relationship between technology orientation and the sustainability of small and medium enterprises (SMEs) Nigeria using a conceptual approach.

CONCEPTUAL REVIEW

Concept of Technology Orientation

Technologically-oriented firms are able to provide their customers with value through innovation therefore leading to sustainable profit; organizations employ technology to improve their means of collecting customer's information (Aziz & Yassin, 2010). Technology orientation refers to a company's inclination towards the utilization of new advances in producing products or services, it proposes that client's esteem and the long haul accomplishment of the organization is to a great extent subject to new advancements, technological solutions, products, services, or processes that an organization can give. The fast pace of technology and the short life cycles of products and services have made firms to improve on their technological expertise for them to be competitive and remain in business. Technology orientation displays the idea of "technological push" which suggests that consumers have preference for products and services of high-tech capacity (Abeni, 2014). Bagozzi & Yi (2012) also termed technology orientation as the capability and strong desire of a firm to make use of sophisticated technologies in producing new products, constantly adopting new technologies in firm's operations and focusing on creating new product and service ideas.

Carlsson et al. (2013) posited that Technology oriented firms are known for venturing into challenges, have propensity for risky and cutting-edge innovative projects, technology orientation also helps a firm to improve on its innovation capability by paying attention to technological developments in the environment and take up opportunities before competitors. These authors also stated that technology-oriented firms commit time and resources to research and development (R&D), hire technology oriented employees and create organizational culture that supports learning, innovation and creativity among employees. This helps to encourage openness to new ideas in a firm, as such, innovative solutions are proffered leading to developing differentiated products and services that exceed those from their counterparts, enhancing competitive advantage which is difficult for other firms to duplicate (Venkatraman, 2015). However, it is worthy of note that technology-oriented firms must set up structure and acquire

personnel's that are equipped with the knowledge and skill that serve the technological requirements of the firm (Lin & Germain, 2003).

Elements That Can Foster Technology Adoption by SMEs

Ease of use

Ease of use has a major influence to the technology adoption process of SMEs, according to the technology acceptance model (TAM), ease of use is the degree to which a person believes that adopting technology like websites, search engine optimization, social media and blogs would be a seamless effort. In this light, this the TAM model states SMEs owners will accept or reject the use of technology depending on how easy or how difficult its usage will be, the usage of technology is influenced by the perceived ease of use by SMEs owners. However, Reijonen, Karagozoglu & Lindell (1998) states that training will allow the exchange of information required for ease of use, specialized learning where necessary will also enhance the use of technology. For example, an investigation by Joyce, Seaman & Woods (2016) into the helpfulness and usability innovation sees a positive direct effect on Egyptian's tourism firms. Inadequate and absence of specialized learning, coupled with lack of understanding about the advantages of technology orientation is a noteworthy hindrance for SMEs in Nigeria (Jennings, 2000).

Perceived Usefulness

Ibeh & Young (2001) stated that when perceived usefulness is found to be significant, adoption of technology orientation is easier. Perceived usefulness is the enhancement in performance that can be acquired when using a technology, that is the perception of the person to that wants to use it in carrying out business operations. This must have six indicators which are; enhanced speed in performing given tasks, the improvement in work performance, the improvement in productivity, the improvement in efficiency at work, the improvement in business process at work and the usefulness of technologies in the work environment. When technology is perceived to improve productivity it enhances the adoption by the SMEs owners otherwise it will not be adopted therefore there is need for SMEs owners to have the technology orientation that will expand their perspective on how technology adoption can improve their business productivity, positively impact profitability, improve business processes and improve communication within the organization and with customers. Hult et al. (2008) also asserted that perceived usefulness encourages the adoption of technology by organizations and impacts on performance positively.

Technical Complexity

Many organizations, especially SMEs are prone to waiving the adoption of complex technologies because of their limited skills and technical knowledge. Therefore, Hendry (1995) conceptualized a metamorphosed process of knowledge sharing as a means to accessing these necessary technologies. Typically, small businesses are lacking in technology knowledge and technical skills, many of them reject the notion that technology could be of any use to their businesses as they have no idea of the benefits that it could potentially offer. If this knowledge gap is reduced, SMEs may be more willing to adopt technology (Hitt et al., 2002).

The value that accrues from technology orientation to innovation has been long recognized and adopted by large firms but SMEs owners still find it difficult to embrace technology. SMEs need to experiment with new technologies in order to survive in the market, also, in order to improve on their internal processes such as speed, reliability, information gathering and information management. This will aid better performance, identification and harnessing opportunities through value creation, increase in profit and long run sustainability (Hitt et al., 2002).

Concept of Sustainability

Sustainability is the conversion of efforts into productive use in order to achieve particular results over a period of time according to the objective of a firm. Awadh & Ismail (2013) defined business sustainability as an important gauge that provides the capacity of a business outfit to achieve the desire goals and objective upon which it is set up. In other words, business sustainability is the ability of an enterprise measured against its set goals and objectives. In the same vein, Prasetya & Kato (2011) defined sustainability as the attained outcome of actions by the combination of resources of a firm. Eniola & Entebang (2015) emphasized that sustainability is an important factor among researchers in the field of management that measures the success of a business' input against output. According to Gado (2015) business sustainability is the capability and strength of firms in using appropriate strategies of actions in achieving their business objectives such as good financial outcome, profit, large market share, quality product, improve revenue customers' satisfaction and long-term sustainability. Gado (2015) asserted that the aim of a firm is to improve their business sustainability in order to continue to exist and be able to contribute to the development of a society and the nation as a whole.

Technology Orientation and SMEs Sustainability

Technology orientation is defined as a firm's tendency towards the presentation or utilization of new methods or equipment in advancing the production/service process. In other words, technology orientation is a company's ability to create a technological mind-set and apply it in enhancing or creating products and services (Gatignon & Xuereb, 2013). Firms that inculcate a high technology orientation gain better customer retention capacity when there is change in innovation as they can present new procedures, products and services to satisfy customer needs. Technology is a critical strategy for connecting customers and organization since it is utilized to enhance a company's capacity to gather customer information (Snuif & Zwart, 2014). Technologically-oriented firms commit their assets to procuring new and propelled technologies and growing new methods to effectively operate their business.

Existing studies have shown a direct effect of technology orientation on firm sustainability. Rahman (2010) stated that creating value for customers and achieving long-term organizational success is subjected to firm's ability to drive new innovations, technological solutions, products, services, or processes which will increase the asset base of a firm. Souchon & Sulter (2012) supported that technology orientation enhances product performance and customer retention, it is considered as a major requirement for firm's sustainability, and as a result, organizations tend to invest most of their resources in it. The success of an organization is based largely on how well they can retain their customer, which is seen as its ability to

effectively achieve organizational objectives of high performance which is being enhanced by technology orientation.

Customers are the forces that enhance a firm's sustainability, however, the changing tastes of customers has made customer retention a major challenge. The term customer retention as indicated by Morris et al. (2013) is a procedure organizations use to comprehend and respond to customers' changing tastes. Customer retention process also involves learning about individual customers' unique tastes and preferences and tailoring services to service such identified peculiarities, technology orientation helps in this regard to gather this relevant information from customers, thus aiding managerial decision making about their customers. Technology orientation helps to create barriers to entry, enhances productivity, and improves revenue generation (Wu, 2009). According to Venesaar & Loomets (2008) technology orientation helps in harnessing technologies including information and communication technology, this has four main contributions to firm's sustainability; which are more visibility; provides more information; allows firm to overcome traditional trade barriers; and enhances business transactions. Technology orientation enables firms engage the use of e-mail, e-commerce, and social media network which have significantly cut down on the physical transportation involved in sending mail, banking, advertising and buying goods leading to faster turnaround time. It is worthy to note that adoption of technology is a long term investment because the positive impact is significant after a period of time, also it is important to know that organizations adopting technology have restructured by making internal changes such as personnel training and employing new ones.

In 2019, the world was faced by a deadly disease called corona virus (Covid 19), due to its wide and fast spread to different nations of the world, the World Health Organization (WHO) termed it as a global pandemic, and this necessitated a lock down and social distancing in most nations of the world. There is still lock down in some parts of the world as at the time this paper was written, the lockdown has bearing on economic and social activities because most businesses are done remotely using technology online tools, social media and e-commerce platforms such as zoom, Facebook, WhatsApp, Instagram, Jumia, Konga among others (Vinning, 2019). The lockdown has adverse effects on Small and Medium Enterprises (SMEs), the sustainability of SMEs becomes a great concern for all countries worldwide especially Nigeria.

Many SMEs in Nigeria closed down due to the pandemic because most of them do not have technology orientation, it became difficult for majority of them to move their businesses online using technology tools. Many SMEs have a lot of challenges as brought about by the pandemic such as cash flow, in ability to meet customers' demand, low or no sales and various others. It became very difficult for Small and medium-sized enterprises (SMEs) to change their business models in order to adapt to this "new normal" business environments.

Walsh (2020) see this as a global disruption, which can be an opportunity or a challenge to business model that regardless of their sizes, numerous companies are surrendering to the effects of the coronavirus but some find it difficult to cope, therefore, technology orientation is more crucial for SMEs now than ever due to the covid-19 disruption, as there is an urgent need to adopt digital technologies such as ecommerce platforms, social media, online conference tools among others to position their businesses, this could form a solid sustainability framework for changing business models of SMEs in Nigeria (Figure 1).

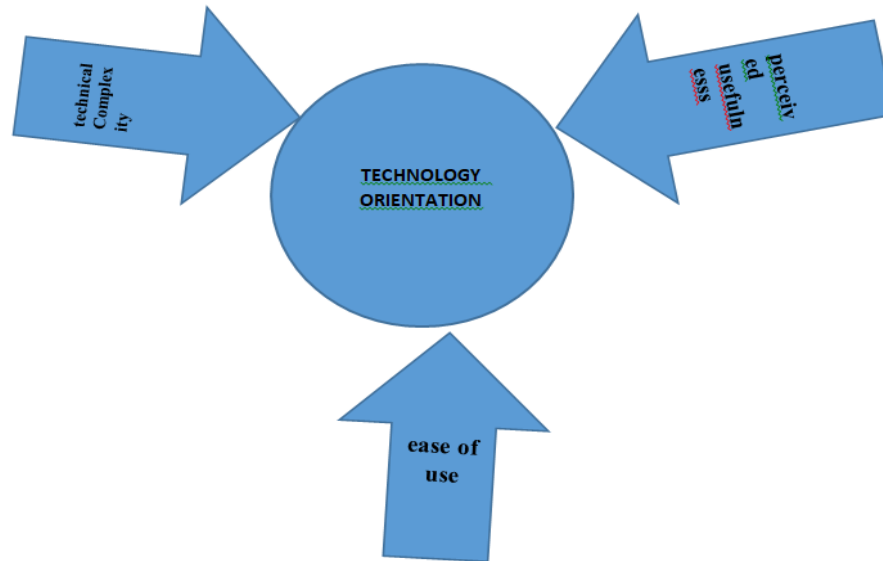


FIGURE 1
A CONCEPTUAL FRAMEWORK ON TECHNOLOGY ORIENTATION FOR SMES OWNERS

CONCLUSION

Technology orientation includes an intense inclination to technology adoption in order to improve on operational practices, procedures and competencies of business, this helps to enhance customers' engagements and maximize the strategic and competitive edge of the company, as well as sustain the business. Technology orientation has been the bane of most SMEs in Nigeria, however, ease of use, perceived usefulness, technical complexity can foster this thereby leading to SMEs sustainability.

Further research should carry out an empirical study on Technology orientation and the sustainability of SMEs in Africa.

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