



Nigeria Social Enterprise Perception on Social Issues, Profit Maximization, Innovation, and Knowledge Sharing for Poverty Eradication

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Abstract: Poverty alleviation is one of the significant problems that social enterprise wants to solve. It could be absolute, relative, generational, situational, urban, or rural poverty in Africa. There are scanty literature and a shallow understanding of how technology intervenes for social entrepreneurship in a developing context. This study was conducted to address the identified gap. Quantitative method was used to gather data from the respondents utilizing Nigerian samples. This study used SPSS ver. 26 and Python for the descriptive statistics and 5 Likert Scales data analysis for 33 measurement items. The result shows that Nigeria's social enterprise focused on social issues such as social vision, social need, social change, social goal, social value, social mission, and social efforts. The knowledge of SME owners' insights on business start-ups in Nigeria and how social entrepreneurship could facilitate business growth and renewal is essential for future pursuit of social entrepreneurship. The importance of communication, operational, social, and collaborative technology was highlighted, and the study concluded with limitations and future research opportunities.

Keywords: Social entrepreneurship, technology, innovation, Africa, knowledge sharing, poverty eradication

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INTRODUCTION

Poverty alleviation is one of the significant problems that social enterprise wants to solve. Poverty is economic depression and could manifest differently (Wan, Wang, & Zhang, 2021; Zameer, Shahbaz, & Vo, 2020). It could be absolute, relative, generational, situational, urban, or rural poverty in Africa. In 2019 statistics by Varrella (2019), a poor individual earned less than 137.4 (361 dollars) thousand Naira per year, and about 40.1 percent of the Nigerian population belong to this category. Among the 36 states in Nigeria, Sokoto (87.73%) and Taraba (87.72%) top the list of poverty, while Lagos had the least poverty rate with 4.5% (Varrella, 2019). To corroborate that poverty is an issue in Africa, the Rosenberg International Franchise Center (RIFC) Global Social Franchise Index revealed the top ten countries in Africa to top 131 countries. These countries (Gambia, Liberia, Chad, Lesotho, Mauritania, Swaziland, Niger, Togo, Burkina Faso, and Benin) that belong to the West, Northwest, North-central, and South Africa needs

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social entrepreneurial and franchising intervention. Statistics also show that a Gambian earns 37.7 times less and takes a full year to earn what an average American earns less than a week and a half (Rosenberg International Franchise Center, 2020). For a social enterprise to track these records, they need data and technology.

One of the apparent demarcations between the developed and the developing countries is technological advancement (Gbadegeshin et al., 2019). Technology adoption, use, and continuous use are paramount among the highly educated. This circumstance exposed highly educated social entrepreneurs than the low educated and less exposed counterparts. The digital divides call for an urgent intervention between the digital natives and digital immigrants' social entrepreneurs in developing countries. Presently, in the developing countries context, there are challenges of unconnected society, lack of access to knowledge, information, and knowledge management, inadequate technological facilities, unsafe way of using technology and environmental issues that leads to increasing carbon footprint, inadequate social entrepreneur technology competencies, privacy, and trust issues and limitation in visibility and publicity of social enterprise (Boris & Sergey, 2018; Cross, 2013; Galvin & Iannotti, 2015; Gbadegeshin et al., 2019; Gopalkrishnan, 2013; Horwitch & Mulloth, 2008; Patrignani & Whitehouse, 2015; Richardson, Kettinger, Banks, & Quintana, 2014; Urpelainen & Yoon, 2016; Vargas-Hernandez & Gonzalez, 2020; Warnecke & Houndonougbo, 2016). One solution to these persistent problems is the intervention of innovative technologies tailored to social enterprise operations.

There are gaps in society concerning social, cultural, and environmental challenges that need technology intervention. The already adopted technology seems to be underutilized, and some new technology is springing up that is needed for a more extensive reach of society socially excluded. These technologies will help the social enterprise to create social value, alleviate poverty and develop the economy. For instance, the data economy is advancing. The social enterprise generates many data that need technology such as artificial intelligence, machine learning as an offshoot of artificial intelligence, deep learning, machine vision, and data analytics for descriptive, diagnostic, predictive, and prescriptive insights. Besides, mobile applications, IT kiosks, platforms for social enterprise ecosystems, data visualization applications, and project management software will help the social enterprise work with their collaborators and manage their projects seamlessly. One such software is Miradi, adaptive management software for conservation projects. Some of the software packages are open source, while others are premium.

Objectives of the Study

1. To advance social entrepreneurship literature in a developing context and deepen understanding of the need for technology-enabled intervention in social entrepreneurship operations.
2. The study looks at the importance and relevance of communication technology, operational technology, social technology, and collaborative technology to help social entrepreneur achieve their set goals of poverty alleviation, cultural synchronization, and a green environment. The specific objectives are as follows:
 - To explore the need for technology-enabled social entrepreneurship.
 - To review existing and emerging technology and how their integration could profit social entrepreneurship.
 - To examine how technology intervention in social entrepreneurship could facilitate business growth and renewal.

Research Problem

Literature impacts are growing on entrepreneurship and social entrepreneurship, but there is scanty literature on social franchising in Africa, especially Nigeria. Despite extensive work on social entrepreneurship in Nigeria, there is a gap in technology-enabled social entrepreneurship. There is a need to enable technology to tackle radical change in society and prepare the social enterprise for technology-enabled service in the nearest future to advance social franchising.

Recent studies on social entrepreneurship in the Nigerian context focused on technology diffusion in emerging markets and used consumer-based discrepancy theory to investigate mobile devices' populace motivations (Olaleye, Ukpabi, Karjaluoto, & Rizomyliotis, 2019). Other authors examined the influence of social vision, social networks, and financial return on social SME sustainability and found structural relationships that exist between the mentioned variables (Olaleye, Mogaji, Watat, & Ukpabi, 2020). Another study focused on the mediation of financial return between innovation and sustainability of small social entrepreneurship and recommended a study on technological effects on social entrepreneurship endeavors (Olaleye, Watat, Adusei, & Balogun, 2020). The earlier research focussed on the intercontinental, continental, and specific phenomenon in different perspectives, but there are scanty literature and shallow understanding of how technology intervenes for social entrepreneurship in a developing context.

METHODOLOGY

The study administered a questionnaire on Nigeria’s social entrepreneurship through Qualtrics online survey platform (Qualtrics, 2020) because of Nigeria’s unstable economy (Olaleye, Mogaji, et al., 2020). Limited social entrepreneurs constitute the respondents of this research, and the data was collected from 27.08.2019 to 21.11.2019 through convenience sampling.

Questionnaire Design and Data Collection

This study synthesized the literature on social networks, social vision, innovation, sustainability, and financial return in the context of social entrepreneurship and adapted 5 Likert Scales questions (disagree = 1 and strongly agree = 5) from the study of (Peng & Lai, 2012). This study utilized SPSS ver. 26 and Python for the descriptive statistics and 5 Likert Scales data analysis for 33 questions. Established social enterprise organizations in Nigeria characterized the respondents of this study, and the data was collected through the Qualtrics survey platform. Thirty-Seven (37) social enterprises participated in the survey, and after the data cleaning process, only Twenty (20) responses were found useful. The data was administered online within three months in 2019. An existing author, Nga and Shamuganathan (2010), posits that organization data could be as low as Twenty (20). Figure 1. shows the descriptive analysis of the survey items.

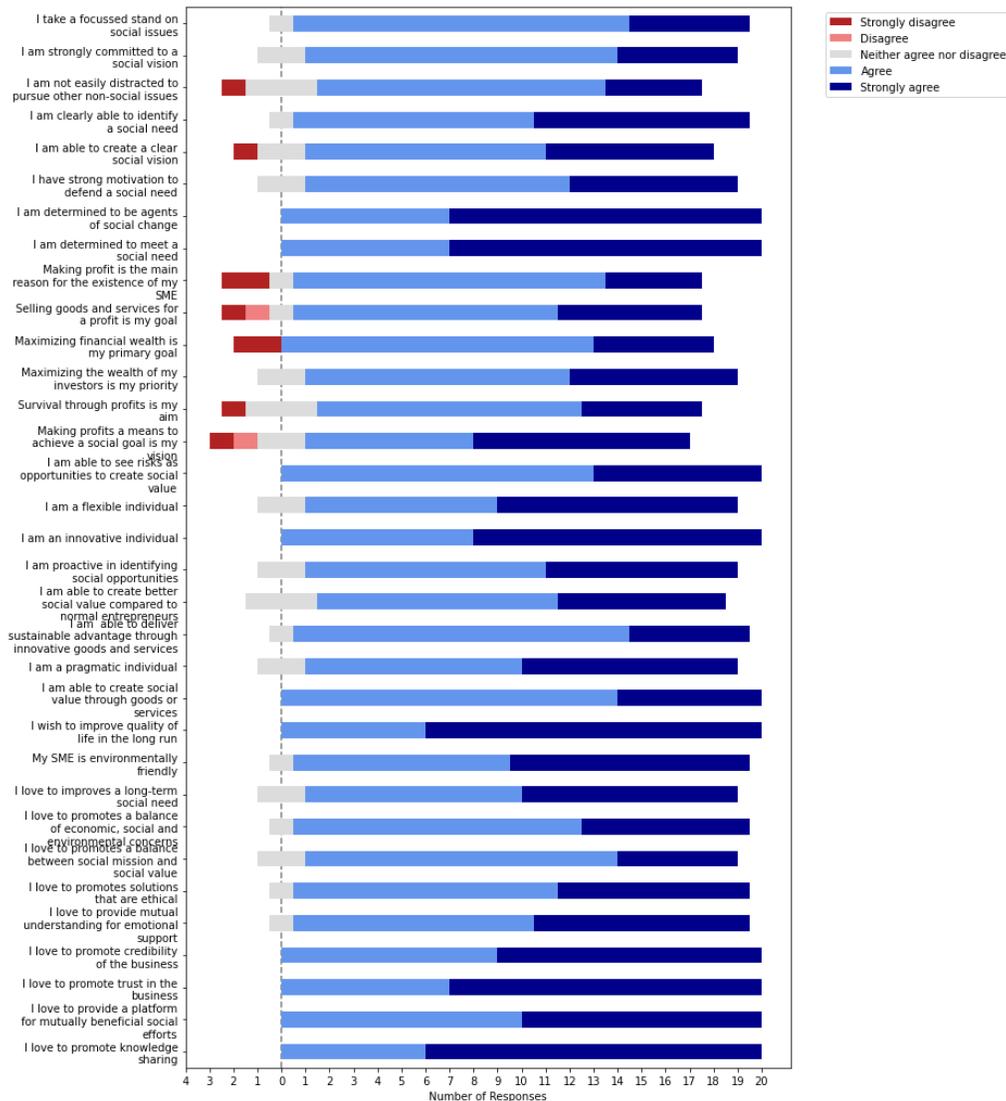


Figure 1 The Analysis of SMEs Owner Survey

Technology Description

More than ever, the role of technology in entrepreneurship has become crucial. The advancements in technology in recent years have made it possible for entrepreneurs to be more efficient, faster, cheaper, and more effective in their day-to-day activities. Like any other place globally, Nigeria is experiencing drastic technology-driven changes in how businesses are conducted. For entrepreneurs to succeed in their pursuits, the technologies covering the following aspects of the business must be strategically deployed and maintained: communication, operations, social interactions, and collaboration. Description of the technologies are as follows:

Communication Technology: There is no one definition for the term "communication technology" (Jackson, 1996). Theoretically speaking, the term refers to the device – tangible or intangible – used to transfer messages (information) from one point to another (Diaz, Chiaburu, Zimmerman, & Boswell, 2012). This device may take the form of hardware or software or a computerized system. The exchange of information is essential for problem-solving, decision-making, and various activities that occur amid living things, including humans. Common examples of communication technologies are the Internet, emails, and Instant Messaging apps (e.g., WhatsApp).

Operational Technology: An operational technology is a set of hardware or software used to monitor and control the different critical physical processes strategically (e.g., sensors, pumps, valves) utilized in the day-to-day running of the business (Hahn, 2016). Operational technology is different from conventional "information technology." While "information technology" refers to generic computerized solutions such as emails, web/mobile applications, the term operational technology is mainly associated with the Industrial Systems context (Nyqvist, 2020). However, many scholars have predicted the convergence of these two business aspects in the foreseeable future (Venables, 2020). An example of an industrial system is a sensor in a manufacturing plant that notifies the factory workers that equipment is dangerously overheating and about to explode. Operational technology implementations are often managed by Supervisory Control and Data Acquisition (SCADA) systems, which provide graphical user interfaces that alert whenever something goes wrong (Virtual Armour, 2020).

Social Technology: Gartner (2020) defines social technology as any form of an automated solution that "facilitates social interactions and is enabled by a communications capability, such as the Internet or a mobile device." Common examples of social technologies are weblogs (blogs), wikis, Web conferencing applications (e.g., Zoom), and social networks (e.g., Twitter). A study conducted by Harrysson, Schoder, and Tavakol (2016) over ten years claims that social technologies have gone through the following three-stage evolution process: (a) tryouts, (b) collaboration and knowledge work, and (c) strategic insights. According to the researchers, during the "tryout" stage, companies used Facebook or YouTube primarily for customer acquisition and interacting with existing customers. At the second stage (collaboration and knowledge work), companies used social technologies for knowledge management, insights gathering, and fostering employees' collaboration. In the final stage (strategic insights), social technologies are used as inputs to the strategy formulation process.

Collaborative Technology: A collaborative technology is defined as one that "enables and scaffolds the construction of communal ways of seeing, acting and knowing, and producing shared knowledge and new practices for successful future action" (Roschelle & Teasley, 1995). Gone are the days when devices or software applications function as stand-alone. Today, it is common that devices or software are designed to facilitate one form of collaboration or another – depending on the target audience. To this end, it has become challenging to carve out which technologies are collaborative and not. In essence, a collaborative technology must have the following attributes: (a) enable users to solve problems jointly, (b) shared knowledge (c) facilitate collaborative learning (Dillenbourg, 1999). Common examples of collaborative technologies are project management software (e.g., Jira), online shared drive (DropBox, Onedrive), and development teams' platform (slack application).

Social networks: The study of Dufays and Huybrechts (2014) argued that social networks' sociology might explain how and why social entrepreneurship arises by bridging micro-and macro-levels of analysis. The author further identified four different usages of the social network concept in the social entrepreneurship literature are identified: the embeddedness of social entrepreneurship, collective social entrepreneurship, networking as a critical skill or activity of social entrepreneurship, and finally, networking and the creation of social capital as a goal of social entrepreneurship. Social networks are useful in understanding social entrepreneurship because social networks are likely to influence access to resources, organizational effectiveness, and the building of legitimacy (Dufays & Huybrechts, 2014).

Social vision: Dees (2021) described that social vision drives the ability to see opportunities beyond the present to extend the stewardship arm to be an agent of social change. Social vision is seen as a key structural variable

articulating linkage between human decision-making at individual and collective levels — it affects the time horizon that individuals consider in their decision-making processes and contributes to the development of shared norms (Rudd, 2000). Developing a social vision is further seen as one aspect of developing long-term sustainability and competitive advantage.

Innovation: According to Nga and Shamuganathan (2010), Social innovation unlocks value by creating a platform for sustainable solutions through a synergistic combination of capabilities, products, processes, and technology. It was stressed that a more sustainable socio-economic development is achieved by utilizing innovative processes and technologies by entrepreneurs to create a social and strategic fit for products and services. These innovative initiatives gradually empower these underprivileged markets to participate in mainstream markets' activities (Nga & Shamuganathan, 2010).

Sustainability: The study of Zhang and Swanson (2014) described sustainable development as 'development that meets the present's needs without compromising future generations' ability to meet their own needs. Sustainability means having a real commitment to green practices and revamping the entire business model to its core (Smith & Sharicz, 2011). According to Zhang and Swanson (2014), social entrepreneurship is sustainable by design; businesses should engage in social entrepreneurial activities as a meaningful way to achieve sustainability goals. Kickul, Gundry, Mitra, and Berçot (2018) stated that the heart of sustainability is the business model concept and how likely the social enterprise can contribute to the need or problem that can be sustained for some time consistent with achieving its social or environmental sustainability impact.

Financial return: The financial return is described as where individuals are urged by extrinsic or financial motivation (Martínez-Climent, Zorio-Grima, & Ribeiro-Soriano, 2018). The financial perspective originates from the demand side view, which holds that entrepreneurs need to seize opportunities and compete for scarce resources to generate economic returns. The economic perspective upholds the shareholder primacy viewpoint, whereby the role of the entrepreneur as an agent to the principal is limited to the maximization of financial wealth (Nga & Shamuganathan, 2010).

RESULTS/FINDINGS

This section presents the result of the findings. The frequency utilized in this study helps to understand the respondents' characteristics and their perspective on business start-ups in Nigeria and how social entrepreneurship could facilitate business growth and renewal. The information that follows details the demographic characteristics of the respondents.

The respondents are dominated by males, which accounts for 90% of the sample. The female respondents are only 10%. The respondents' age that mostly dominated the study sample ranges from 25-34 years, followed by 35-44 years, and the least are people under 25 years. Even though the millennial generation dominates the age bracket in the study, several age groups were included in the study.

All the sampled respondents had formal education. Master's degree is the qualification acquired mainly by the respondents, which is followed closely by holders of bachelor's degrees. Some of the respondents had High school/Diploma and doctoral degree holders from the minor group of the respondents. The sampled respondents majorly start a business because of their desire to try out an innovative idea. Greater independence is another main reason that informed the decision of respondents to start a business. The least of the reasons for starting a business among SME owners is lack of job opportunities. Most of the companies owned by the respondents (entrepreneurs) have been established between 1-3 years. Followed closely are entrepreneurs with companies that have been in operation for over 11 years, and the respondents with the minor representation are owners of the company with 7-10 years of establishment. The respondents mostly realize less than 500,000 Naira in their companies per annum, while only 35% of the respondents' companies for more than 1,000,000 Naira as annual revenue.

The companies established by the respondents mostly have less than five employees working for them. Besides, 25 percent of the respondents work as both the owner and managers of their companies. The least of the respondents has staff between 10-50 employees in their company. The entrepreneur's primary barrier to starting a business in Nigeria is difficulties accessing finance, as 70% of the respondents stated. The lengthy and bureaucratic process is not seen as a challenge by the respondents. While lack of motivation and knowledge and skills in doing business account for 10%, legal obstacles (i.e., business regulations, insurance requirements) are the minor challenges that worry entrepreneurs in starting a business in Nigeria.

For the next 12 months, most respondents expect that their businesses' performance will be satisfactory. Almost all the respondents attest that their business grows over the last 12 months. The respondents were asked about the type of support they received from the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), and most of them replied that they know SMEDAN but did not receive any support. 20% do not know about SMEDAN. However, 5% have access to development programs that can accelerate the development of SMEs. Also, most of the respondents are not involved in any networks to tender jointly with partners.

This study followed the insight from the perception postulation of Qiong (2017). Processing information to make sense out of it is crucial for understanding the social entrepreneurship phenomenon. There are many exciting stimuli in social enterprise, but this study only pays attention to interesting stimuli through the selective process of perception. In simple words, perception is how a respondent feels, thinks, and understands a phenomenon, and it consists of three stages of selection, organization, and interpretation (Qiong, 2017). This study selected and focused on 33 questions to prevent information overload.

As presented in Figure 1, the study categorized the questions into social issues, profit maximization, innovation, and knowledge sharing to organize the questions into meaningful patterns. In the final stage of the perception process, the study interprets and assigns meanings to the patterns discussed earlier. This result shows that Nigeria's social enterprise focused on social issues such as social vision, social need, social change, social goal, social value, social mission, and social efforts. Also, the Nigerian social enterprise goal is to maximize profit from their business to have enough reserve to achieve their social goal, such as poverty eradication projects. Nigeria's social enterprise strongly believed that social business could only survive and continue through profit maximization. The innovative mindset of the social entrepreneur is perceived as a means of delivering sustainable advantage through innovative goods and services. Besides, the social enterprise perception in Nigeria shows a strong passion for promoting knowledge sharing. The four key areas identified need technology intervention in Nigeria.

Business Benefits

Communication technologies offer the following benefits:

1. Smartphones have made it cheaper and faster for entrepreneurs to set up their dedicated communication systems, unlike decades ago. For example, calls and messages can be exchanged via instant messaging applications such as WhatsApp.
2. Scanning of documents can be done via the CamScanner application.
3. Virtual offices have made it relatively easier for entrepreneurs to expand their business ventures to different geographical locations.
4. The Internet makes it possible to entrepreneurs to access customers anywhere in the world.
5. Emails have also made the sharing of documents faster than postal services, which were the conventional way of exchanging documents years ago.

Some of the benefits of operational technologies are as follows. Operational technologies can also eliminate redundancies and delays across the workflows, thus saving the business's costs and fostering process efficiency. Sometimes there are regulatory policies concerning occupational safety, depending on the type of venture. In this sense, operational technologies can be leveraged to configure and monitor relevant requirements as required by regulations. Further, given that operational technologies have access to almost all business operations, the various data generated may be analyzed for strategic insights. Additionally, the operational technology metrics may be used to construct relevant Key Performance Indicators (KPIs) to measure productivity across different departments.

Social technologies (such as Zoom) may be used for organizing training sessions or virtual meetings. Customer service may also be offered via social technologies, for example, Twitter. Customer engagement initiatives such as fan pages may be hosted on platforms such as Facebook or Telegram. Further, knowledge management and documentation across teams may also be implemented using wiki and blogs. Analytical tools embedded in many social technologies can also be leveraged to gather insights about customers, competitors, and market trends. Social technologies also provide excellent marketing and pooling capabilities.

Collaboration is an essential attribute of any workplace setting. The use of collaborative technologies will promote productive interactions among teams within and outside the organizations. Cloud-based shared drives such as SharePoint can store and share documents across teams in the organization. Software development teams can share code and converse extensively using slack desktop/web applications. GitLab or GitHub services allow collaboration on the code

itself as well as project management. Also, project management tools such as Jira may be used to keep track of tasks' lifecycle.

CONCLUSION & IMPLICATIONS

The purpose of this study was to extend the knowledge of and explore the need for technology-enabled social entrepreneurship, review existing and emerging technology for social entrepreneurship and examine how technology intervention in social entrepreneurship could facilitate business growth and renewal with a focus on Nigeria. The empirical research was based on a quantitative study using SME owners as the sample that responded to Nigeria's social entrepreneurship survey. The theoretical knowledge base was grounded in the literature of technology – communication technology, operational technology, social technology, and collaborative technology as a means of business solution for social issues, profit maximization, innovation, and knowledge sharing. Our empirical study revealed that building an own business is large because of the desire to try out an innovative idea. It further shows that the entrepreneurs' significant barrier in starting a business in Nigeria is difficulties accessing finance. This result is in tandem with [Eniola and Entebang \(2015\)](#) study and ([Adanlawo, Vezi-Magigaba, & Owolabi, 2021](#)) conducted recently in the same context. For business growth and renewal, social entrepreneurs must adopt and integrate diverse technology into their social operations, especially analytics, to diagnose the problem and prescribe solutions ([Moretti, Alves, & Bomtempo, 2020](#); [Tidd & Bessant, 2020](#); [Topleva & Prokopov, 2020](#)). As revealed in this study, with social enterprise's low financial state, it is suggested to start with free software or application and over time switch to the premium. This study's results contribute to social entrepreneurship literature and increase the understanding of the need for technology-enabled social entrepreneurship and foster business growth, renewal, and promote social enterprise.

This study answers the arising questions from the existing literature. The study shows the need for technology-enabled social entrepreneurship as many social enterprises in Africa, especially in Nigeria, still use conventional business transactions. Some of the social enterprises in Nigeria are not ahead of their customers in technology knowledge and application. This observation is consistent with the study of [Ioniță, Olaleye, and Onișor \(2020\)](#). They posit that inculcating new dimensions into social business is a compulsory norm for its survival and their study also reveals social media and technology as an emerging trend for social enterprise in Nigeria. This study also reviewed some free and premium technological platforms, software, and applications that will help the social enterprise understand their customers' behavioral economics to prevent their choice overload. Third, this study also shows how social enterprises can use technology to facilitate their business growth and renewal. The social enterprise can use technology to carry out market research and gathering market intelligence to execute effective plans. This result is consistent with the study of [Ogbo, Igwe, Ezeobi, Modebe, and Ume \(2019\)](#) as they recommend that digital technologies can be used to compensate for the shortcomings of traditional market research due to financial lack, skills, and time.

Besides, our study reveals a gap in the relationship between European and African countries. Due to this gap, this study suggests that the European countries can solve many problems in Africa with their expertise. The European countries can actively involve in Africa's social entrepreneurship networks, create, share knowledge and expertise. This international connection is vital for both continents, and it will promote well-being, the economy, competitiveness, and sustainable society in Africa. Jobs mobility and international perspectives will enhance this international cooperation, collaboration, and networking. The newborn African Continental Free Trade Area (AfCFTA), founded in 2018 and launched January 1st, 2021, with 54 members, could be a testing ground for this business relationship. While the study's findings may not be generalized to other populations, the knowledge of SME owners' insights on business start-ups in Nigeria and how social entrepreneurship could facilitate business growth and renewal is essential for the future pursuit of social entrepreneurship research.

Limitations & Future Research Directions

The study is not without limitations which paved the way for some opportunities for further research. First, existing and emerging technology for social entrepreneurship was merely reviewed and described in the study. Perspectives of the SMEs should be gathered on the use of the technology platforms. Second, the limited number of respondents may affect the findings' generalization; more samples should be considered in future studies. While the present study employed a quantitative method, future studies should consider a mixed methodology approach. This step can be a practical approach to glean more and relevant information from the SME owner on the need for technology-enabled social entrepreneurship. Conducting a similar study in another context or doing a comparative study can provide more

insight into the research focus.

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