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E-Business Training Strategies for Profitability in Small and Midsize Enterprises

Papa Faal
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Walden University

College of Management and Technology

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Papa Faal

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Walden University
2020

Abstract

E-Business Training Strategies for Profitability in Small and Midsize Enterprises

by

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MS, University of Maryland University College, 2007

MS, University of Maryland University College, 2008

BS, Strayer University, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

February 2020

Abstract

E-business skills are an essential part of the global market, yet many small and mid-size enterprise leaders lack the necessary training to become competitive. Grounded in the diffusion of innovation theory, the purpose of this qualitative multiple-case study was to explore e-business training strategies small and mid-size enterprise leaders use to increase profitability. The participants comprised 5 small and mid-size enterprise leaders in a metropolitan area in the Gambia who have increased profitability using e-business tools and training strategies. Data were collected from semistructured interviews and company documents. Thematic and content analysis were used to analyze the data. Three themes emerged: strategies for owner self-training on e-business tools, strategies for staff training on e-business tools, and strategy for using YouTube, seminars, and webinars for training. A key recommendation includes utilizing social media for advertising and communicating with consumers and YouTube as a training resource. The implications for positive social change include the potential for small and mid-size enterprise leaders to increase employment, reduce poverty, and improve the livelihood of individuals through increased productivity and profitability.

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Dedication

I dedicate this study to Almighty God, my creator; to my late parents, Nday Jawara and Muhammed Lamin Faal, my late grandpa Sir Dawda Kairaba Jawara, my lovely wife, Sainabou Bah Faal, and my lovely children, Ishatou and Cherno Muhammed Lamin Faal. May God bless you all and grant my late parents and all those who passed away peace, mercy, and paradise.

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Section 1: Foundation of the Study

Online business, or *e-business* has become the foundation for conducting business in the global market. E-business transactions between business-to-business, business-to-consumer, and suppliers are conducted online (Chong & Janita, 2013). Businesses that do not adjust to the changing global landscape risk become irrelevant and losing market share (Mazzarol, 2015). Leaders of all sizes of businesses, including small to mid-size enterprises (SMEs), must adopt e-business technologies to be profitable (Mazzarol, 2015). SME leaders face enormous challenges venturing into the global market due to their business size, lack of resources, and lack of e-business skills, knowledge, and training (Chatzoglou & Chatzoudes, 2016). My focus in this study was on e-business training among SME leaders in the Gambia and how it affects business profitability. SME leaders need increased awareness on e-business training for access to consumers, other businesses, and suppliers. In this study, I explored e-business training strategies successful SME leaders use to increase profitability.

Background of the Problem

Advancements in information technology have created many opportunities, such as fostering globalization and enhancing global economy and trade (Jianqiu et al., 2018; Mavrofides & Papageorgiou, 2013). Because of these technological advancements, information and communication technology (ICT) has become a world economic facilitator (Giotopoulos, Kontolaimou, Korra, & Tsakanikas, 2017). Many business leaders, especially in developed countries, leverage ICT to grow their businesses, build wealth, and significantly increase profitability (Goaied & Sassi, 2013). Unfortunately,

advancements in information technology have not led to a significant increase in profit for SME leaders in Africa, especially in the Gambia (Asongu, 2013; Ezomo & Oghogho, 2013; Kayisire & Wei, 2016; Mars, 2013).

Researchers have noted the high cost of tariffs, the operating costs of ICT, and ICT training as culprits in preventing ICT development and adoption among SME leaders (Bankole & Olatokun, 2017; Gatautis & Taruté, 2014; Giotopoulos et al., 2017). Other researchers have suggested that access to robust ICT improves lives, reduces poverty, and contributes significantly to a country's gross domestic product (Batuo, 2015; García-Pérez-de-Lema, Maldonado-Guzmán, & Valdez-Juárez, 2018; Kende & Schumann, 2013). SME leaders in the Gambia may increase profitability with a combination of access to robust ICT, reduced costs, and e-business training.

Problem Statement

E-business skills are an essential part of the global market, yet many SME leaders lack the necessary training to become competitive (Organization for Economic Co-operation and Development, 2017). Less than 50% of SME leaders have adequate e-business training to become competitive and profitable (Chatzoglou & Chatzoudes, 2016). The general business problem is that many SME leaders lack the e-business skills needed to compete in the global market and increase profitability. The specific business problem is that some SME leaders lack e-business training strategies to increase profitability.

Purpose Statement

The purpose of this qualitative multiple-case study was to explore the e-business training strategies SME leaders use to increase profitability. The population in this study included five SME leaders from five different SMEs who have successful e-businesses and training strategies and have successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees, but not more than 50 in a metropolitan area in the Gambia. The findings may influence SME leaders in the Gambia through encouraging and enhancing the use of ICT and e-business skills enabling them to harness the potential of e-business to increase their profitability. The findings from this study may also lead to improvement in the livelihood of the Gambian population through increased employment and a higher standard of living.

Nature of the Study

I employed the qualitative research method in this study. Researchers using this method gain comprehensive knowledge or understanding of phenomena in their social setting (Barnham, 2015). The qualitative research method sufficed in providing an in-depth knowledge of SME e-business training strategies. Gunaydin and McCusker (2015) and Anyan (2013) defined quantitative research as a method that deals with the numerical values used to identify patterns and logic in a social setting. A quantitative method was not suitable for this study as it could not provide the in-depth information needed to explore the e-business training strategies some SME leaders use to enhance their e-business reach, thereby increasing profitability. The use of mixed-method research

employs both qualitative and quantitative methodologies (Gunaydin & McCusker, 2015).

The mixed-method approach was not appropriate because the quantitative method provides numerical data not suitable for my aim with this study.

I used a multiple-case study design in this study. Researchers using a case study research design obtain in-depth knowledge of real-life events, conditions, and issues facing an individual, group of people, organizations, communities, or institutions (Yin, 2017). Researchers in a phenomenological study deal with the lived experience of research participants (Moustakas, 1994). A phenomenological research design was not suited for this study because my focus was not on the lived experiences of SME leaders. In a narrative research design, researchers deal with stories such as life histories and biographies of individuals (Hunt, 2014; Joyce, 2015). Because I did not focus on the life histories and biographies of the participants, narrative research was not suitable for this study. The ethnographical design, which researchers use for studying the shared experiences, beliefs, language, and behavior of a particular cultural group (Hughes, Simpson, Simpson, & Slutskaya, 2014; Hunt, 2014; Kostere, Kostere & Percy, 2015), was not suitable because I was not interested in cultural groups, languages, beliefs, or behavior in this study.

Research Question

The central question for this research was: What e-business training strategies do SME leaders in the Gambia use to increase profitability?

Interview Questions

1. What e-business training strategies have you used to establish your e-business environment?
2. What e-business training strategy did you use to increase profitability?
3. What challenges did you face while implementing your e-business training strategy?
4. How did you overcome these challenges?
5. How has the implementation of your e-business training strategy facilitated your access to the global market?
6. What other information would you like to share about your e-business training strategy?

Conceptual Framework

The conceptual framework and the foundation of this research was Rogers's (2003) diffusion of innovation (DOI) theory. Rogers first coined the DOI theory in *Diffusion of Innovation*, published in 1962 (Alavi-Majd, Ashktorab, Pashaeypoor, & Rassouli, 2016; Boardman, Khera, Phee, & Rizan, 2017; Contini & Tola, 2015; Cox & Dearing, 2018; Crandall et al., 2016; Currie, Doyle, & Garrett, 2014; Fu, Mohnen, Ventresca, & Zanello, 2016; Zhu, 2014). According to Rogers, innovation is an idea, practice, or object that a society or group of people view as new. DOI is a process of communicating an innovation to a group through certain channels over a period. Rogers's DOI theory has four main constructs: (a) innovation, (b) communication channels, (c) time, and (d) social process or consumer adoption (Alavi-Majd et al., 2016; Boardman et

al., 2017; Contini & Tola, 2015; Cox & Dearing, 2018; Crandall et al., 2016; Dibra, 2015; Fu et al., 2016; Rogers, 2003; Zhu, 2014). Scholars have used DOI to help explain barriers to ICT diffusion (Spil, Yan, Yu, & Zhang, 2015)

Some of the constraints African businesses face in venturing into the global market include lack of choices of viable Internet service, poor quality in mobile phone reception, high cost of ICT, lack of e-business training, and poor ICT infrastructure (Edoho, 2013; Gatautis & Tarutė, 2014). Many scholars have used DOI to explain the barriers to diffusion of ICT (Dibra, 2015). The DOI theory contributed to this study as to why SME leaders face constraints in the Gambia in their effort to enter the global market and the strategies some SME leaders use to facilitate entry into the world market and increase their profitability.

Operational Definitions

Information and communication technology (ICT): Depending on the perspective of approach, ICT can include all technologies that facilitate communication between humans and electronic systems in addition to applications that handle storing and retrieval of information (Giotopoulos et al., 2017). International telecommunication union (ITU, 2016) used the term ICT to refer technologies that facilitate communication over a network system.

International gateway (IGW): IGW is the means through which a country's international telecommunication traffic enters or leaves (Groupe Spéciale Mobile Association [GSM], 2016).

Internet exchange point: Internet exchange point keeps Internet traffic local, thereby increasing service quality and reducing costs (Mursu, Salminen, & Touray, 2013).

Internet service providers (ISP): ISPs are organizations that provide Internet service to consumers (GSM, 2016).

International Telecommunication Union (ITU): ITU is a sector of the United Nations responsible for the global affairs of information and telecommunication technology (ITU, 2016).

Public-private partnership (PPP): PPP is a collaborated relationship between governments and private sectors in the development process (Williams, 2012).

Assumptions, Limitations, and Delimitations

Assumptions are preconceptions a researcher might have about the outcome of research not supported by facts (Broberg, Hasanzadeh, & Kytä, 2017; Davis, Pastore, & Ritzhaupt, 2015; Dean, 2014; Lips-Wiersma & Mills, 2013; King, 2017; Marshall & Rossman, 2016). The first assumption I had was that the study participants would provide accurate and honest responses to the interview questions. The second assumption I made was that the study participants would not be forthcoming in providing information without compensation. The final assumption was that the study participants would provide unfettered access to internal business documents.

Limitations are the potential weaknesses in a study (Broberg et al., 2017; Connelly, 2013; Davis et al., 2015; Dean, 2014; King, 2017; Marshall & Rossman, 2016). According to Marshall and Rossman (2016), every study has limitations. Researchers

must identify the imperfections in their research so that readers might understand those limitations (Marshall & Rossman, 2016). The first limitation I identified was the reliability of information from the participants because of fear of reprisal from the Gambian government. Although the government of the Gambia recently changed from 22 years of brutal dictatorship to democracy, the people of the Gambia have yet to adapt to the change and might be reluctant to say anything that the government might deem defamatory. Another limitation was that the results from this multiple-case study design might not be transferable across the entire SME population in Africa and the Gambia. The third limitation was that in this study I only explored the training strategies of the SME leaders and not ICT areas such as IGW or ICT infrastructure. Exploring ICT infrastructure and IGW may yield a broader conclusion about the lack of e-business adaption among SME leaders in the Gambia.

Delimitations are the narrowing of the scope of a study by defining the boundaries of the research (Broberg et al., 2017; Connelly, 2013; Davis et al., 2015; Dean, 2014; King, 2017; Marshall & Rossman, 2016). I did not collect the data in this study from the entire country of the Gambia. Rather the scope of the study was limited to a single metropolitan area. The population in this study included five SME leaders from five different SMEs who have successful e-businesses and training strategies and have successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees, but not more than 50, in a metropolitan area in the Gambia.

Significance of the Study

This study was significant because I highlighted in it the effect that a lack of e-business training strategies can have on SME profitability. SME leaders are the most significant contributors to economic activities in both developed and developing countries (Chatzoglou & Chatzoudes, 2016; Mutalemwa, 2015). SME leaders shoulder the largest share of employment across the globe (Chatzoglou & Chatzoudes, 2016). Hence, their profitability means greater potential for national development.

Contribution to Business Practices

SMEs face many challenges in their competitive landscape (Chatzoglou & Chatzoudes, 2016; Mazzarol, 2015). Their smaller size and limited resources impede them from effectively competing with larger businesses in their industries (Mazzarol, 2015). To gain competitiveness, SME leaders must embrace technology and harness its potential (Mazzarol, 2015). Hence, training, especially in the fields of ICT and e-business, becomes a lifeline for SME leaders' survival. Identifying the e-business training strategies that have worked for the SME leaders in this study may influence other SME leaders to adopt or refine their training strategies to become competitive and, in turn, become more profitable. The business benefit of this study is that the increase in e-business training might influence the SME leaders in the Gambia by enhancing organizational leaders' access to the global market, expanding their customer base, and conducting e-commerce and other e-businesses, thereby increasing profitability.

Implications for Social Change

The SME leaders in the Gambia may use the findings from the study to revitalize their e-business training strategies and improve profitability. The revitalization of SME leaders may lead to increased employment and improve the livelihood of the people of the Gambia.

A Review of the Professional and Academic Literature

In this literature review, I focused on ICT, e-commerce, and e-business training, and I reviewed materials on DOI theory. I included 211 references, including 210 peer-reviewed articles, 13 articles that were more than 5 years old, five textbooks, and seven nonpeer-reviewed articles. Of the articles I used, 95% were peer-reviewed, and 94% were published in the last 5 years. This literature included articles from global organizations, such as ITU, GSM, the World Bank, and other reputable government institutions.

I searched numerous academic databases to gather materials and ensure that I was not duplicating extant research in this doctoral study. The databases and search engines included ABI/INFORM Complete, Business Source Complete, Communication & Mass Media Complete, ProQuest Computing, Information Science & Technology Abstracts, and Google Scholar. The search keywords and phrases I used included *ICT and e-commerce, international gateway liberalization, Internet and businesses in Africa, ITU trends in telecommunication reform 2010–11, barriers to effective e-business in developing countries, benefits of e-commerce, birth of the Internet, ICT and Africa, ICT and business in Africa, phenomenological design, international gateway and Africa,*

international gateway and small business, ICT and globalization, lifting barriers to Internet development in Africa, and international gateway in African telecommunication.

Organization

I organized the literature review thematically to ensure clarity and readability. The literature review includes subsections on the theory of DOI, the transformation of technology and its effect on global commerce with ICT as the vehicle for the innovation, the benefit of ICT to highlight the effect of ICT on the global economy, the scant ICT conditions in Africa and the effect they have on the continent's global economic presence, the proliferation of mobile technology as a substitute for fixed line ICT and how it transformed the way SME leaders in Africa conduct business, the barriers to ICT diffusion in Africa and its effect on business profitability and expansion, the effect of telecommunication liberalization on competition, price of ICT, quality of service, diffusion, and the importance of telecommunication liberalization to ICT pricing, service quality, training, and diffusion. I conclude the literature review with an analysis and summary.

Application to the Business Problem

In this study, I explored the e-business training strategies that SME leaders in Gambia use to increase profitability. SME leaders' adoption of ICT, specifically e-business technology, correlates with the IT experience and skills of the SME leaders (Day & Rahayu, 2015). The literature I reviewed for this study included research highlighting the importance of e-business training to SME leader adoption of the technology.

Introduction to Literature

The field of technology has gone through an extraordinary transformation (Chavula, 2013). From the creation of the Internet, to the increased efficiency of microcomputers, to cellular phones, smartphones, and tablets, technology has revolutionized the way we communicate, conduct daily activities, and do business. The emergence of the World Wide Web in conjunction with enhancements in computer networking infrastructure has fostered globalization, bringing the world closer together and facilitating instantaneous communication and commerce (Mavrofides & Papageorgiou, 2013). Business leaders worldwide can harness the power of ICT to expand their reach beyond national boundaries to provide goods and services to global consumers and to build a broader relationship with their customers (Bong Choi, Ho Ha, & Williams, 2014; Kalirajan & Nasir, 2016). Business leaders in advanced countries and many developing countries can use the tremendous power of ICT to bring products and services to the doorsteps of consumers through e-mail marketing and e-commerce (Chachage, Mlelwa, & Zaipuna, 2015). Stand-alone bricks-and-mortar stores have become less popular, and SME leaders and larger businesses need an online presence to remain competitive (Ahmed & Akhlaq, 2013; Hofacker, Lamont, & Swilley, 2012). The expansion of e-commerce broke down barriers to global market entry, facilitated the global competitive landscape, and enhanced business growth and profitability.

Diffusion of Innovation

DOI is a theory about the process in which information about a new idea transmits among people (Rogers, 2003). According to Rogers, innovation is an idea, practice, or

object that a society or group of people view as new. Rogers defined diffusion as the process of communicating an innovation to a group through certain channels over a period. Rogers's DOI theory has four main constructs: (a) innovation, (b) communication channels, (c) time, and (d) social process (consumer adoption) (Alavi-Majd et al., 2016; Boardman et al., 2017; Contini & Tola, 2015; Cox & Dearing, 2018; Crandall et al., 2016; Dibra, 2015; Fu et al., 2016; Rogers, 2003; Zhu, 2014). The theory posits that consumers adopt innovation communicated through a specific channel in a society over time (Dibra, 2015). Using the DOI theory, researchers can explain how a society or consumers people perceive innovations and how the perception of the effect of the new technology affects barriers regarding interest level, understanding, awareness, and acceptance of innovation.

Innovation construct. Rogers's DOI theory begins with the innovation element. Innovation may be an idea, object, or practice that potential consumers perceive as new (Dibra, 2015). The perception potential consumers relate to the innovation determines the speed of adoption of the innovation (Dibra, 2015). Rogers argued that individuals would adopt an innovation faster if the following characteristics were present: (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability.

Relative advantage characteristic. The relative advantage characteristic of DOI involves the perceived benefit of innovation for satisfying consumers' current needs. According to Rogers, individuals must perceive an innovation as relatively advantageous to their needs before adopting it (Aizstrauta, Eroles, & Ginters, 2015; Desmarchelier & Fang, 2016; Dibra, 2015; Rogers, 2003). The adoption of a new product or technology is

consumer driven in DOI. In a highly competitive landscape, consumers often subconsciously apply DOI in their approach to choosing products or services that will best serve their needs (Aizstrauta et al., 2015; Dibra, 2015). Consumers perceive the benefits of innovation through awareness, without which early adopters might not learn about an innovation (Rogers, 2003).

Compatibility characteristic. The compatibility characteristic of DOI is the stage when consumers assess if an innovation is compatible with their current needs (Rogers, 2003). According to Desmarchelier and Fang (2016), norms and values of a society facilitate DOI. Innovative products must be compatible with the values of the target society. Desmarchelier and Fang (2016) added that the compatibility of innovation must exceed the desire and the needs of the adopters for diffusion to gain pace. Rogers (2003) highlighted that compatibility is the consistency of innovation in relation to the values, experiences, and needs of the adopters. These arguments confirm the need for compatibility of innovation with the social and business settings.

Complexity characteristic. The complexity characteristic of DOI involves the need for reduced complexity in innovation. Rogers (2003) indicated that complexity is the adopters' perceived difficulty to understand and use an innovation. Spil et al. (2015) noted that complexity might adversely influence adoption because it inadvertently inhibits adopters' understanding and use of the innovation. When consumers perceive an innovation as complex, they might not adopt it (Aizstrauta et al., 2015). In a highly globalized and competitive environment, business leaders should understand an innovation despite the complexities inherent in such innovation. To overcome the

complexity predicament in an e-business environment, SME leaders may provide the necessary training to themselves and their staff.

Trialability characteristic. The trialability characteristic of DOI provides consumers assurance about the capabilities and functions of innovation. Rogers (2003) indicated that trialability is how the risk and uncertainty related to adoption is reduced. Desmarchelier and Fang (2016) added that through trialability, adopters can test products from multiple providers to make a sound decision before full adoption. With trialability, SME leaders could refine their training strategies to gain a deeper understanding of e-business products, functions, and capabilities to remain competitive. For example, SME leaders could request a demo from an e-business service provider to learn the intricacies of the business application before they adopt the product.

Observability characteristic. The observability characteristic of DOI relates to the visibility of the result of innovation. Spil et al. (2015) indicated that groups adopt an innovation if the benefit of the innovation becomes apparent. Consumers might adopt an innovation based on their perception of the benefits of that innovation, which emerges from a prolonged observation. In the case of e-business, SME leaders must continually observe their training strategies and update them as needed to maintain a competitive advantage.

Communication channel construct. According to Rogers, communication channel is the means through which knowledge about an innovation is transmitted from one individual or entity to another. Consumers gain knowledge about an innovation through channels such as radio and television broadcast, social systems such as friends,

community, or business partners, online tools such as Facebook and Twitter, and peer-groups from source to receiver (Cavalli et al., 2017).

Time construct. Rogers indicated that the time it takes to adopt an innovation depends on the innovativeness of the adopters. The construct measures how fast some consumers adopt a new idea than other consumers. Essentially, consumers who are more innovative tend to adopt new ideas than those who are less innovative. Because diffusion occurs in a consumer setting, Rogers classified consumer adoption level into the following five progressive processes based on innovativeness: innovators, early adopters, early majority, late majority, and laggards.

Consumer adoption construct. Innovators are the leaders in accepting new innovation despite the inherent high risk and uncertainty in the new innovation (Hashim, 2015). Early adopters adopt new innovation following the innovators and help spread the information about the innovation (Hashim, 2015). The early majority are those who are motivated by early adopters and innovators but are often careful before committing to adopting an innovation (Hashim, 2015). The late majority groups are those who are more cautious in adopting an innovation (Hashim, 2015). They only adopt an innovation if it aligns with their interest and most people have already adopted the innovation (Hashim, 2015). The laggards are those who resist adopting an innovation unless necessary (Hashim, 2015). They often delay or resist adoption because they are skeptical about the benefits, the necessity and the functions of new innovation. SME leaders may be considered laggards because many do not adopt new innovations. They may eventually adopt an innovation because of peer or market pressure.

In the case of diffusion of ICT and e-business training strategies, DOI theory was relevant because it highlighted the need for a competitive landscape to facilitate viability of SME leaders. Many of the constraints that African businesses face in venturing into the global market includes lack of choices of viable Internet service, poor quality in mobile phone reception, the high cost of ICT, lack of ICT training and skills, and poor ICT infrastructure (Edoho, 2013). Scholars have used the theory about the process to help explain the barriers to diffusion of ICT (Spil et al., 2015). I used of DOI theory in this study because it facilitated the explanation of the importance of ICT training, including e-business training, and the effect that training had on SME leader profitability.

Benefits of Information and Communication Technology

Global organizations and scholars alike have noted the significant role of ICT in enhancing global commerce and national economies (Andoh-Baidoo, Kunene, & Osatuyi, 2014). Kalirajan and Nasir (2016) examined the global development of ICT in the past decade and found that ICT diffusion contributed immensely to the improvement of the global economy. Jorgenson and Vu (2016) stated that ICT contributed to economic growth in both developing and developed nations as well as enhanced people's livelihoods. According to Chevrollier, Ewing, Leenderste, Quigless, and Verghese (2012), the telecommunication industry in sub-Saharan Africa (SSA) was the principal contributor to the region's GDP, adding an annual growth rate of 40%. Chevrollier et al. added that Africa possesses significant opportunity for growth in the ICT sector, projecting \$150 billion in expenditures in the sector. The authors added that in 2009, the ICT market accounted for 65% of combined GDP in 10 countries in Africa.

Donou-Adonsou, Lim, and Mathey (2016) examined the effect of telecommunication infrastructure on economic growth in SSA, indicating that SSA's economic growth has been positive since the year 2000 partly because of the region's telecommunication industry contribution to GDP. Asongu and Nwachukwu (2016) found that mobile telephones contributed significantly to Africa's economic growth. Vu (2013) who researched the link between ICT and the exceptional economic growth of Singapore highlighted that Singapore's early adoption of ICT in the 1980s transformed it into a developed nation. The leaders of Singapore made ICT the national priority and facilitated ICT diffusion and production as part of its economic growth strategy (Vu, 2013). Because of Singapore's remarkable capital investment in ICT, the country became a global leader in ICT production, yielding an 8.1% GDP growth between 1990 and 2008 (Vu, 2013). Jorgenson and Vu (2016) found that ICT is an essential factor in economic development and a structural part of the modern society, while Bong Choi et al. (2014) highlighted that the Internet is a driver of global economic competitiveness.

Foguem and Kamsu-Foguem (2014) suggested that robust ICT and mobile technology could facilitate services deliveries such as teleconsultation and second-opinion medical diagnosis to rural and remote places in Africa. For example, a physician can deliver prescriptions and diagnostics services through individual cell phones (Foguem & Kamsu-Foguem, 2014). Foguem and Kamsu-Foguem's findings are in line with those of Mars (2013) who conducted a similar study about using ICT to deliver telemedicine to rural areas of Africa.

Mavrofides and Papageorgiou (2013) noted that the diffusion of ICT creates a global domain enabling fast and real-time communication between remote networks, facilitating e-commerce and financial transactions. Singh and Thakur (2013) reported that ICT, empowered by the Internet, provides a strong foundation for e-government. Ezomo and Oghogho (2013) stressed the importance of ICT in enabling e-commerce, e-government, e-health, e-education, and e-banking. Jianqiu et al. (2018) evaluated the influence of ICT on the globalization of firms and indicated that technology was the greatest facilitator of globalization. The commercialization of the Internet, along with ICT maturity, business leaders are able to increase their global presence (Abazi-Alili, Dana, Gërguri-Rashiti, Ramadani, & Ratten, 2017).

Scholars and global organizations such as ITU consider ICT an essential element for business expansion and strategic competitive advantage. Borghoff cautioned that there is little evidence of a link between profitability and ICT expenditure partly because of slow adaptation and learning. In contrast, García-Pérez-de-Lema et al. (2018) found a significant relationship between ICT adoption and profitability. The findings of García-Pérez-de-Lema et al. are in line with several other research findings on ICT and profitability. Chong and Janita (2013) highlighted that ICT, especially e-business, significantly fosters business success and better business functions. They indicated that business leaders usually do not adopt ICT because they lack ICT knowledge, resources, and skills. With business owner's openness to innovation, the leaders could enhance their relationships with their business-to-business (B2B) partners, suppliers, and customers and thereby enhance relationship and profitability.

In their research on the relationship between a firm's productivity and ICT, Cardona, Kretschmer, and Strobel (2013) found that business leaders use ICT to improve the organization's investments, skills, and structure. Colombo, Croce, and Grilli (2013) assessed the effect on broadband technologies including advanced broadband applications such as supply chain and customer service management on SME leader productivity and found that SME leaders' adoption of basic broadband applications has limited effect on productivity. The authors found that SME leaders' adoption of an advanced broadband application has a significant effect on productivity (Colombo et al., 2013). Cardona, Kretschmer, et al. indicated that innovation enhances economic growth and that ICT facilitates innovation. Goaid and Sassi (2013) examined the effect of financial development and ICT on economic growth in Mena countries and found that ICT penetration, which includes Internet, telephones, and mobile, has a significant effect on economic growth. The strength of ICT penetration, according to the authors, is due to ICT business leader's ability to increase the organization's productivity, access to the global markets, and competitive advantage (Goaid & Sassi, 2013).

In the Doucek, Kunstova, and Maryska (2012) study of the role of ICT to foster economic growth, the authors described ICT as a significant contributor to global economic growth. The authors cited the contribution ICT had on the economic growth of EU countries and added that the more investment in ICT, the more positive effect on economic growth. They highlighted the importance of ICT skills and knowledge as a requirement for robust growth outcome. Arvin, Bele, Norman, and Pradhan (2014) researched the relationship between telecommunication and developed economic growth

using samples from the G-20 countries. They found in their study that in the end, a significant relationship existed between telecommunication development and economic growth (Arvin et al., 2014). Arvin et al. recommended that policymakers must prioritize the development of telecommunication infrastructure and economic growth policies concurrently. Ferreira, Kanyam, and Kostandini (2017) argued that Internet was a perfect deterrent to corruption.

Wang (2015) researched ICT for development and the transformative effect on social capital found ICT as instrumental in effecting development but cautioned understanding factors that hindered the achievement of development objectives. Jung, Na, and Yoon (2013) researched the effect of ICT on productivity, and the subsequent contribution to the economic growth of Korea found that ICT, over time, contributes to productivity, as well as improve human capital, which subsequently leads to economic growth. Jung et al. highlighted that Korea's early introduction of facility-based competition by liberalizing the telecommunication industry led to the diffusion of broadband and mobile networks in all households and industries in the country. Korea's liberalization policy and the privatization of the major ICT companies enhanced competition and encouraged new entries into both fixed and mobile network industries, and hence, facilitated the country's productivity and economic growth (Jung et al., 2013). The Jung et al. assessment confirmed the Arvin et al. assertion that ICT does contribute to economic growth.

Many other researchers such as Arvin et al. (2014) and Wang (2015) related ICT to economic growth, although some scholars such as Andoh-Baidoo et al. (2014)

indicated that African nations should invest heavily in health, education, and infrastructure rather than in ICT. Kayisire and Wei (2016) indicated that many African countries and regional blocs such as Economic Commission of West African States (ECOWAS), realized the significant benefits of ICT on economic growth, and had invested heavily in the improvement of their ICT infrastructure. Kayisire and Wei cautioned that many African nations still lag significantly behind in their ICT infrastructure investments.

The Deficiencies of Reliable ICT in Africa

With the significant consensus on substantial benefits of robust ICT infrastructure on global economies, nations in developed and some in the developing world continue to invest heavily in their respective ICT infrastructures (Edoho, 2013). Many nations in Africa lag considerably behind in providing reasonable ICT infrastructure capable of facilitating business expansion and profitability (Kayisire & Wei, 2016). Several scholars had depicted in their literature the dismal level of ICT infrastructure and Internet diffusion in many of the African nations. For example, Ezomo and Oghogho (2013) who researched to assess the diffusion and use of ICT as a national development tool in Nigeria, indicated that Nigeria, as well as many countries in Africa, lag significantly behind developed nations in the diffusion and use of ICT. The authors added that only 11.4% of the African population had access to the Internet. Mars (2013) stated that 6.7 % of households in Africa have Internet access. Williams (2012) indicated that with its population of 1.1 billion, Africa had only 11.5% Internet penetration, which accounted for only 5.6% of the world's Internet use. Williams' assertion is fairly in line with Ezomo

and Oghogho's assessments but deviates slightly with Mars and ITU regarding the percent of the population with access to the Internet.

According to the ITU 2016 ICT data report, the fixed- broadband penetration in Africa is 0.7%, less than one percent point compared to 8.2% in developing countries. In the same report, mobile broadband penetration for Africa stands at 29.3% compared to 40.9% in developing countries (ITU, 2016). Individual Internet penetration in Africa is 25.1% compared to 40.1% in developing countries, and 15.4% household Internet subscription in Africa compare to 41.1% in developing countries (ITU, 2016). ITU indicated in the report that digital divide remains significant between developed, developing countries and Africa.

Chevrollier et al. (2012) highlighted that despite its double-digit ICT growth in Africa, the Internet and mobile phone penetration remain low. The authors indicated that although leaders of several countries such as Kenya, Nigeria, South Africa, and Uganda have taken significant steps in improving their ICT infrastructure and education, many countries in the continent lag in their ICT sector improvements. Kayisire and Wei (2016) highlighted similar sentiment about some African nations' ICT penetration.

Kayisire and Wei (2016) stated that while Africa has experienced fast economic growth and high mobile phone technology, barriers to ICT in many of the nations in the continent remain. Andoh-Baidoo et al. (2014) suggested for African countries to invest in health, education, and transportation infrastructures rather than in ICT. Although one would assume that African nations should focus on the necessities, the benefits of

investing in robust ICT, as shown in many developed and developing nations outweighed the cost.

Hashim (2015) assessed ICT use and adoption among SME leaders in Malaysia. The author indicated that 70% of SME leaders in Malaysia are IT illiterate. IT literacy is a vital component for ICT adoption (Hashim, 2015). To overcome the low ICT adoption rate among SME leaders, business leaders must acquire ICT training and become aware of the potential for a competitive advantage (Hashim, 2015). The barriers to ICT adoption include lack of finance, ICT knowledge and training (Hashim, 2015).

The Proliferation of Mobile Phones in Africa

The limitation of fixed ICT access in many Africa countries induced an explosion in the mobile technology sectors (Edoho, 2013). Many researchers indicated the rise of mobile technology could be the solution to the fixed ICT problem developing countries, especially Africa faced. Mobile communication is considered the driving force behind ICT innovation in Africa (Chavula, 2013; Mars, 2013).

Kayisire and Wei (2016) indicated that Africa has the fastest growth in mobile technology; and that many of the African countries are investing in broadband technology although many countries remain behind. According to Asongu (2015), over 60% of the population of Africa had mobile phones in 2008. Mars (2013) indicated that 64% of the population has mobile phone although the figure is skewed. Mobile phone expansion in SSA rose to 347 million in 2014, and is forecasted to reach 504 million by 2020 (Ferreira, et al., 2017).

The prevalence of mobile phones enhanced the communication across the general population and facilitated e-commerce (Asongu, 2013; Chavula, 2013). Business leaders can connect with their customers using text messaging to share pricing information, availability of goods and services, as well as transact payments using mobile money applications such as M-Pesa (Asongu, 2013). Chavula (2013) examined the effect of ICT specifically fixed-main lines, mobile phones, and the Internet on the livelihood and income growth of the people of Africa, and found that Africa has the second highest mobile phone subscription in the world, with 620 million subscribers as of 2010, second to Asia. Gambia, Ivory Coast, and Mauritania, Senegal has the highest mobile subscription, with Gambia's 47% growth leading the rest of the low-income countries in Mobile subscription (Chavula, 2013).

Chachage et al. (2015) defined e-business as a system through which businesses provide online platform for selling and buying products and services including payment, supply, and web-based promotions. The core requirement for e-business is ICT and the Internet. Internet penetration enhances the diffusion of mobile technology and facilitates e-business expansion (Chachage et al., 2015). According to Chachage et al. (2015), seven-hundred and fifty million people in Africa have access to mobile phones and 167 million has access to the Internet. Businesses worldwide are harnessing the opportunities in mobile technology to increase their global reach and increase profitability. In 2013, the global online transactions amounted to \$1.25 trillion (Chachage et al., 2015). The continued growth in mobile technology in Africa, and the expansion of online sales and services worldwide, was potential for significant gains for SME leaders.

Business leaders expand their global reach and increase profitability through the proliferation of ICT (Mazzarol, 2015). Many businesses, small and large continue to harness the benefit of ICT. Mazzarol (2015) noted that although consensus exist confirming the benefit of ICT and e-business in increasing profitability, adoption of the digital technology is low among SME leaders. Researchers found several constrains that prevent SME leaders to adoption ICT and e-business. Among the constrains are the lack of knowledge about the benefits of e-businesses and ICT, lack of funding to invest in the ICT infrastructure, lack of trust in ICT security, lack of ICT and e-business skills, and size of the SME (Mazzarol, 2015). Educated SME leaders are likely to adopt ICT and e-business that those without any form of education (Mazzarol, 2015). Mazzarol (2015) concluded that governments should craft policies and provide training to encourage SME leaders to adopt ICT.

Dora, Elepu, Gellynck, Kabbiri, and Kumar (2018) assessed mobile phone use among the agriculture farmers in Uganda, West Africa. Dora et al. (2018) indicated that mobile phone penetration SSA reached 367 million users in 2015. Mobile broadband connection is expected to increase from 20% in 2017 to 60% by 2020 (Dora et al., 2018). Mobile phone connection is expected to surpass 400 million by end of 2020 (Dora et al., 2018). In 2014, the mobile industry added \$100 billion or 5.7% of the SSA region's GDP with projected growth of 8.2% by year 2020 (Dora et al., 2018). SME leaders in SSA use mobile phones to acquire information in supply and pricing of commodities (Dora et al., 2018). Dora et al. (2018) found that agricultural farmers in Uganda are not using mobile phones beyond inter-personal communication. Dora et al. (2018) indicated that previous

studies found that agriculture farmers in SSA lack the skills and knowledge to harness the benefits of mobile phones in their businesses. The authors suggested that governments in SSA should conduct awareness campaign for farmers to take advantage of the mobile technology.

The proliferation of mobile phones facilitated access to social media becoming the tool for communication, customer relationship, and commercial activities such as advertising and selling products. Social media tools such as Facebook, WhatsApp, Twitter, and YouTube became the avenue for both business leaders and individuals to participate in the global business and communication. For example, Ainin, Jaafar, Moghavvemi, Mohd Shuib and Parveen (2015) who researched the factors that influence use of Facebook among SME found that many SMEs use Facebook to communicate, advertise and market products. According to Ainin et al. (2015), SME leaders use Facebook to reduce advertising cost, increase finance performance, as well as improve customer relations.

Begg, Rangarajan, and Somani (2019), who researched the use of YouTube for clinical and medical learning videos, suggested that social media has become a resource for interactive learning. YouTube is the third and most frequented website for entertainment and learning with 300 hours of content every minute (Begg et al., 2019). Charlton et al. (2016) added that most surgeons use YouTube educational videos to prepare for surgery. Alzougool (2019) conducted a study about how SMEs in Kuwait use social media applications such as Facebook, Twitter, YouTube, Instagram, Skype, and LinkedIn. The findings from the study indicated that SMEs use the social media

applications to share information on their product and services, communicate with customers and market their products online. YouTube is used to search for content such as entertainment and educational videos.

Consensus exists in the literature reviewed regarding the significant stride mobile phones made in Africa in the absence of fixed landlines. However, scholars, government officials and business leaders must not ignore the limitation of mobile phones in enhancing e-commerce and other services necessary for business expansion. Although the M-Pesa was a success story brought about by the cellular proliferation, as Kayisire and Wei suggested, the continent could benefit from capacity provided by fixed-land lines such as fiber optics. Despite the significant growth in mobile phones in Africa, the need for fixed-land lines remained significant (ITU, 2016).

Barriers to ICT Diffusion in Africa

Scholars researched the ICT infrastructure in Africa and agreed on that the infrastructure is in poor condition. Many scholars such as Mazzarol (2015), Chong and Janita (2013), and Chatzoglou and Chatzoudes (2016) agreed on limitations in the diffusion of ICT in Africa compared to other developing countries. Diverging points of view exist regarding the cause of such scantiness. Kayisire and Wei (2016) suggested that although ICT was essential in the economic development of individuals and nations, low level of education, poor infrastructure, and bad policy were preventing some African nations from gaining from technological advancements. Donou-Adonsou et al. (2016) also found that poor Internet infrastructure constrained the SSA region's entry into the global market or economy.

Stressing the significance of ICT on SMEs, Mazzarol (2015) who examined the effect ICT on SMEs, indicated that SME leaders must seize the opportunity, and harness the power of ICT to expand their reach into the global market. Mazzarol added that SME leaders that do not leverage the opportunities ICT offer might risk irrelevance and lose market share. Chong and Janita (2013) researched the barriers to SME leaders B2B adoption and suggested that ICT is the greatest equalizer for access to the global market. Like large enterprises, according to the authors, SME leaders have the potential to reach the global market and become competitive by harnessing the power of the Internet. The authors indicated that barriers to SME leaders' adoption of e-business include limited resources, lack of ICT skills and knowledge, and finances. They suggested that SME leaders partner with their government to improve ICT and e-business training leading to the successful adoption of e-business. Mutalemwa (2015) researched the effect of globalization on Africa's SME leaders' development and indicated that SME leaders play a significant role in every economic section. Despite Africa's strong move to improve its ICT sectors and liberalize its market, SME leaders continue to face growing constraints in ICT adoption, including unfavorable policies, limited access to foreign direct investment contracts, inability to increase export power, and lack of ICT knowledge and skills. Aladejebi (2018) who researched the impact of human capacity building on SME in Lagos, Nigeria indicated that regulatory, capital investment and lack of skills are barriers to SME business success. The author indicated that SMEs in Nigeria contributes 80% to the country' agriculture and manufacturing workforce, and that SME owner, manager and staff training leads to increased productivity and profitability.

Chatzoglou and Chatzoudes (2016) researched the prohibiting factors to SME leaders' adoption of e-business and found the major factors affecting e-business adoption among SMEs are the lack of IT expertise, perceived benefits, lack of capital, government support and infrastructure readiness. According to the authors, more than 50% of the SME leaders in the study did not implement e-business technology. Bankole and Olatokun (2017) researched factors that influence SME leaders in Nigeria to adopt e-business and found that the major constraints affecting SME leaders' adoption of e-business include limited capital, lack of ICT workforce or ICT skill and training, and lack of government support. Bankole and Olatokun found that 96.7% of SME leaders stated lack of ICT workforce or ICT skills were inhibitors to adopting ICT, while 83.4% pointed to the lack of capital as their inhibitor. Adeyeye, Ikupolati, Medubi, Obafunmi, and Oni (2017) who researched the relationship between SMEs and human capacity building in Nigeria found that infrastructure and IT skills were barriers to business success. The findings also released that all participants agreed to have policies towards employee innovative skills development to advance productivity and profit. According to Adeyeye et al. (2017), workshops, seminars and conferences are ways SMEs owners and staff learns and builds capacity for their business operations.

Knowledge economy has become an ineluctable requirement in globalization (Asongu & Nwachukwu, 2017). Nations that adopted knowledge economy has increased human development index than nations with traditional economy (Asongu & Nwachukwu, 2017). ICT is the foundation for knowledge-based economy with mobile phones and Internet as economic growth facilitator (Asongu & Nwachukwu, 2017). The

diffusion of mobile phones in SSA might lead to the engendering of knowledge-based economy in the sub-region (Asongu & Nwachukwu, 2017) According to Asongu and Nwachukwu (2017), a correlation exists between diffusion of mobile phone and improvements in services such as delivery of medical services in rural areas, mobile payment system, and mobile banking in agricultural cooperatives and SME. In their conclusion, Asongu and Nwachukwu indicated that mobile phones have a positive role in the inclusive development of people. The authors recommended policies tailored to improving access to ICT and technology innovation for SSA to catch up with the developed nations in knowledge-based economy.

Asongu, Nwachukwu, and Orim (2018) assessed the role of mobile phones in governance and doing business in SSA. Mobile phone diffusion is integral to addressing unemployment in Africa. Asongu et al. (2018) noted that ICT enhances good governance and business operations. Infrastructure and affordability are one of the barriers to increased mobile phone usage in SSA, although the potential for mobile phone growth is high across the African region (Asongu et al., 2018). African governments should enact policies to improve ICT infrastructure, affordability, and mobile phone penetration for entrepreneurs in Africa (Asongu et al., 2018). Governance, coupled with mobile phone diffusion, according to Asongu et al., lead to a successful business.

Mahmoud, Narteh, and Yeboah-Asiamah (2018) examined the effect of mobile money on customer churn in Ghana. Customer churn is a phenomenon in which mobile phone users switch from their current service provider to another and porting their phone numbers to the new provider (Mahmoud et al., 2018). Customer churn causes undue

pressure on mobile service providers through loss of revenue (Mahmoud et al., 2018). To mitigate the customer churn phenomenon, Mahmoud et al. suggested mobile providers offer mobile money service to retain customers. In their findings, Mahmoud et al. indicated that customer satisfaction, trust, and security in mobile services such as mobile money are essential for customer retention.

Bongomin, Malinga, Munene, and Ntayi (2018) examined the relationship between social network and mobile money usage in rural Uganda. Mobile phone users use mobile money services to conduct financial transaction such as payments, money transfer and banking using their mobile phones (Bongomin et al., 2018). The mobile money system uses the SIM card in the mobile phone as the ATM card (Bongomin et al., 2018). According to Bongomin et al. (2018), mobile money services provides people in the rural areas, the poor and the unbanked the means conduct financial transactions such as paying bills, receiving money from family members, and buying food. Social networks are ways mobile users can inform other users about the benefit of mobile money services (Bongomin et al., 2018). The authors indicated in their findings that a positive relationship exists between mobile money services and social network. They concluded that governments as well as mobile money agents should ensure the protections and security of financial transactions including protection against fraud and SIM card swap.

Abor, Amidu, and Issahaku (2018) researched the role of mobile telephony on the welfare of poor households in Ghana. Consensus exists that mobile phones facilitate inclusive development of people (Abor et al., 2018). According to the authors, 46% of the people in Africa have mobile service. In their findings, Abor et al. noted that rapid

diffusion of mobile phones is essential for poverty reduction and the improvement of the welfare of the poor.

Gosavi (2018) assessed whether mobile money provide the potential to facilitate access to finance for businesses. Mobile money has revolutionized financial transactions providing 100 million users around the world access to financial facility, with over \$50 billion of global transactions (Gosavi, 2018). Users of the mobile money system safely and securely transfer funds, pay for goods and services, and build savings at a low service fee (Gosavi, 2018).

Mutalemwa (2015) examined the effect of globalization on SME development in Africa. SMEs are important sectors of the global economy because it represents 90% of Africa's formal enterprises (Mutalemwa, 2015). SMEs account for 70% of Ghana's GDP and 90% the country's business sector (Mutalemwa, 2015). Ninety-one percent of South Africa's businesses are SMEs (Mutalemwa, 2015). According to Mutalemwa (2015), globalization engendered prosperity for SMEs and large corporations in developed countries. Mutalemwa (2015) noted that SMEs in developed countries can absorb the challenges of globalization than those in developing and underdeveloped countries. In Africa, SME leaders are not able to harness the benefits of globalization due to challenges such as poor ICT infrastructure, lack of investment, funding, and IT skills (Mutalemwa, 2015). SME leaders in Africa will be able to compete globally if governments in the continent provide the environment, regulatory, technical, financial, and educational support to the SME leaders (Mutalemwa, 2015).

Aker and Ksoll (2016) examined the use of mobile phones among farmers in Niger. The goal of the study was to assess if mobile technology can improve agricultural performance in Africa. More than 60% of SSA population has mobile phones (Aker & Ksoll, 2016). In their study of 1144 farmers in 90 villages in Niger, Aker and Ksoll provided mobile phones and trained the participants on how to use the mobile technology. The focus was to see if the use of mobile phone to gain information on pricing, market needs, transportation, and bargaining will increase the farmer's yield. In their findings, Aker and Ksoll reported slight increase of yield and types of crops planted among some farmers and no change in yield for others. Aker and Ksoll (2016) concluded that learning how to use mobile phones was more important to the farmers than using the device for market intelligence.

Kaba (2018) assessed the influence of socioeconomic status on Internet use in SSA. The focus of the study was on the digital inequality between socioeconomically advantaged and socioeconomically disadvantaged groups in SSA. Kaba (2018) found that socioeconomic status and education influences Internet use among the people of SSA. People in the socioeconomically disadvantaged group lack the education, skills and means needed to participate in the information society (Kaba, 2018). The cost and availability of ICT are additional barriers for the disadvantaged group to access ICT (Kaba, 2018). According to Kaba (2018), the digital inequality among the different social status is facilitated by politics rather than technical incompetency (Kaba, 2018).

Edoho (2013) explored the challenges and opportunities of implementing ICT in Africa, and highlighted policy, corruption, poverty, skills, and education and poor

infrastructure among others, as the barriers the continent faced in its quest to ICT adoption. Cunningham, Cunningham, and Ekenberg (2016) and Hashim (2015) found similar findings, in line with those of Ezomo and Oghogho, and Williams. There is a consensus among scholars on the barriers to ICT adoption in Africa. What is evident among all the findings in the literature are a high cost of ICT, poor ICT infrastructure, and lack of relevant ICT skills. Although one cannot minimize the significance of ICT skills, infrastructure and a high cost of ICT in the ICT adoption equation, the significance of policy and regulation in reforming the ICT sector for a robust competitive landscape cannot be ignored. Mursu et al. (2013) researched the barriers of ICT in developing countries and found that despite the consensus that ICT played a critical role in the development, many nations in the developing countries, especially in Africa, remained behind in attaining the expected benefits from ICT. In their research in the Gambia, Mursu et al. found infrastructure, political leadership, Internet exchange point, sociocultural, education, technology, and security.

Mursu et al. (2013) showed infrastructure and economic barriers as the most common and significant constraints to ICT diffusion in developing countries. In a separate study conducted in 2015, Mursu, Salminen, and Touray found that micromanagement and invisible hands were additional factors in preventing ICT diffusion in the Gambia. Mursu et al. (2015) found the lack of an Internet exchange point a factor in ICT adoption, ISP, government, and regulation; however, Mursu et al. (2015) did not test ICT training as a factor in preventing ICT adoption among SME leaders in the Gambia.

The U.S. Department of Commerce (USDOC) conducts country research on international sales strategies for the international trade administration and U.S. businesses to facilitate global trade. In a research published on July 25, 2017, the USDOC indicated that businesses in the Gambia do not utilize the potential of e-commerce. No functioning e-commerce websites exists in the Gambia beside the limited e-banking mobile application mobile service companies such as Africell and Qcell provide to their customers (USDOC, 2017). Online payment systems and business to business (B2B) and cross-border ecommerce do not exist in the country (USDOC, 2017).

Liberalization of Telecommunication Industry

Without political will, good governance, or foresight, the development and diffusion of ICT in many developing and underdeveloped nations may not yield any significant headway (Batuo, 2015). Researchers have found that privatization and liberalization play a fundamental role in improving ICT diffusion (Batuo, 2015). The implementation of the right policies and regulations for ICT diffusion may engender the anticipated economic effect. Andoh-Baidoo et al. (2014) added that political roles, e-government, commercialization, and liberalization are critical factors for Internet growth in Africa. They argued that investment by both the private and public sectors contributes to technological advancement.

Williams (2012) researched the reasons why rural areas of Africa lacked adequate access to ICT and pointed to high costs of ICT as the grounds of inadequacy, suggesting that the solution might be a public-private partnership (PPP) to bring down the price of ICT. According to the Williams, market competition may not be enough. Williams

posited that despite the liberalization of telecommunication of the 1990s, which gave way to demonopolization of ICT and innovation around the world, many rural areas struggle to catch-up with ICT diffusion. According to the author, the PPP model might facilitate ICT infrastructure development in rural areas through public funding assistance for private ICT operators. Kende and Schumann (2013) indicated that regional and world bodies such as ECOWAS, the World Bank, and ITU all supported PPP model to enhance submarine cable investments.

Gasmi, Maingard, Noumba, and Virto (2013) raised the question of whether to measure privatization reform equally across developed, developing, and underdeveloped countries. Gasmi et al. (2013) found that while many countries in Latin America, Caribbean, and Asia have privatized their telecommunication sector since the 1990s, governments in many African countries maintained a tight monopoly of their fixed landlines. Because many international financial institutions encouraged privatization as part of their required reform for African nations, the question of the effect of privatization of fixed-main lines is relevant (Gasmi et al., 2013).

According to Gasmi et al. (2013), access to the fixed landline in developed nations from 1985 to 2007 stood at 49.9% while in the same period, it stood at 11.4% in Latin America and the Caribbean, 4.1% in Asia, and 2.5% in Africa. Gasmi et al. highlighted that almost all the developed countries had privatized their telecommunication sectors. Seventy percent of Latin American and Caribbean countries, according to the authors, had privatized their telecom industry; however, only 40%

landlocked African countries had privatized their telecommunication sector while only 30% of the resource-rich African countries had privatized their telecommunication.

Researchers found that liberalization and regulations showed significant benefit in the dismantling of monopoly and liberalizing the ICT. Kayisire and Wei (2016) suggested that liberalization of ICT market along with democracy is best for improvement in ICT. Batuo (2015) found a significant relationship between liberalization of ICT and country's investment and output. Jung et al. (2013) highlighted that Korea's early introduction in enabling facility-based competition by liberalizing the telecommunication industry led to the diffusion of broadband and mobile networks in all households and industries in the country. Korea's liberalization policy and the privatization of the major ICT companies enhanced competition and encouraged new entries into both fixed and mobile network industries facilitating the country's productivity and economic growth (Jung et al., 2013).

Badran (2012) accessed the reason behind the creation the Independent Regulatory Agency (IRA) in the telecommunication sector of Egypt. The Egyptian government created the IRA to facilitate the process of privatization of the country's telecom sector (Badran, 2012). The Egyptian government liberalized the telecom sector in 2002 resulting in significant improvement of the country's telecom services (Badran, 2012). Duso and Seldeslachts (2010) examined the reasons why some countries adopted liberalization faster than others did. The authors argued that competition among interest groups, including personal interests and ideologies of politicians, often shaped the outcome of policies. They suggested that while the intrinsic benefit of liberalization was

well documented, political interest, as well as other interest groups, contributed significantly to the speed of the liberalization process. The assertion of Duso and Seldeslachts on political and interest group in the liberalization process suggests that the absence of regulation ensuring fairness in rules could deem the liberalization outcome ineffective.

Feijóo and Gómez-Barroso (2010) stated that beginning in the 1970s, the need for globalization and privatization of the telecommunication industry had been at the forefront of political, technological, and economic discourse. In line with other assertions from the literature on public-sector service qualities, Feijóo and Gómez-Barroso noted that unlike private-sector service qualities, public sector provided services were often inefficient. Feijóo and Gómez-Barroso pointed the government failure theory to assert their claim on public sector ineffectiveness in service provision. They introduced three theories used to facilitate PPP: Split theory, subsidiary, and practical logic. The authors highlighted opposing views on the perceived benefits of privatization by emphasizing that competition and entry into the telecommunication sector bring more benefits than mere privatization. The Feijóo and Gómez-Barroso (2010) finding align with the Williams (2012) PPP model.

Asquer (2011) investigated the reasons why liberalization and regulatory reform of network industries do not often yield the intended benefit. The author found that often, liberalization and regulation enhance ICT performance, but might diminish expected efficiency and effectiveness. Asquer cited poor policy design, over-optimism, governance failures regulatory capture, and incumbent's obstacles to competition as reasons for the

poor outcomes. The author argued that in Italy, the liberalization of the ICT industries, which began in 1990 and completed in 2000, yield mixed results as some industries generate better performance and service improvements than others. Asquer, however, asserted that the telecommunication reform led to increased competition, service delivery, and reduced prices. Asquer added that policy changes must include the lifting of barriers to new entry into the markets, and the breaking down of incumbent monopolies to encourage competition.

Lioukas and Pateli (2011) examined the ICT Alliance and technological-based innovation and indicated that the European Union (EU) liberalization of the telecommunication industry encouraged ICT firm alliances and forced innovation in the industry that resulted in the enhancement of services and product features. Andrés, Cuberes, Diouf, and Serebrisky (2010) stressed that competition and telecommunication market liberalization enhances Internet diffusion. Reddy (2013) examined the level of substantial market power the Fiji telecommunication operators had over the market, and whether they were abusing their power to warrant price control. The Reddy (2013) finding showed the leading telecom operators such as Vodafone, Telecom Fiji, and Telecommunication Limited held significant market power even after liberalization.

In line with Andrés et al. (2010) and Kimura, Omole, and Williams (2010) assessed Africa's ICT sector for the World Bank and stated that Africa's ICT sector had improved significantly in the past several years due to the policy changes some African countries adopted moving away from monopoly to privatization. Some African countries have liberalized their telecommunication sectors resulting in expanded ISP services and

mobile technology, reduced ICT prices, and accessibility for most of the continent's citizens (Kayisire & Wei, 2016; Kimura et al., 2010). The development of the five \$1.7 billion underwater fiber optic cables along the coast of Africa, which provides a combined capacity of 12 terabytes, connects the continent to the global network (Kimura et al., 2010). Belloc, Nicita, and Parcu (2013) evaluated the European telecommunication industry liberalization aimed at enhancing economic growth and unifying the telecom market in the region. Belloc et al. found that the EU liberalization and the elimination of market barriers did not immediately result in high competition. They showed that even with relevant regulations implemented, the adoption of liberalization alone did not measure significant market liberalization. Because new entries companies need access to infrastructure owned by the incumbent, incumbents could maintain market dominance even when governments removed entry barriers. Georgopoulos and Karamanis (2012) assessed the effect of the liberalization of the Greek telecommunication sector and found that the effect of the country's gradual liberalization of the sector resulted in an intensified competitive environment, the introduction of 108 new market entries, and a significant decrease in Internet service prices. What was evident in the literature was that ICT liberalization played a key role in reducing ICT cost and encouraged adoption among SME leaders.

Kalirajan and Nasir (2016) explored the export performance of computer, information, business and telecommunication services to Asia and South East Asian nations (ASEAN). ICT facilitated the export of services across national borders and enhanced globalization (Kalirajan & Nasir, 2016). The liberalization of trade facilitated

global economic growth through ICT expansion and advancement, and service outsourcing (Kalirajan & Nasir, 2016). The authors found that service export performance is lower in developing ASEAN countries than in developed countries. Kalirajan and Nasir (2016) concluded that developing countries must dismantle cross-border trade constraints and adopt advance ICT to increase service export performance.

Definition and Importance of International Gateway

According to Groupe Speciale Mobile (GSM), a nonprofit organization formed by the Confederation of European Posts and Telecommunications to design a pan-European mobile technology for the region, IGW was the means through which a country's international telecommunication traffic enters or leaves a country. In the 2016 annual report, the GSM indicated that most developed nations had fully liberalized their international telecommunications markets. Many leaders of nations in part of the world such as in Asia, the Middle East, Africa, and Latin America had yet to liberalize IGW (GSM, 2016). The government leadership in the nations assigned the task of maintaining the national telecommunication to an incumbent company or corporation to maintain their country's fixed-main lines as well as the IGW (GSM, 2016). Countries that had monopolies of IGW forced ISPs and mobile operators to purchase bandwidth from the incumbent operator, resulting in higher prices of ICT and inefficiency of service (GSM, 2016).

According to GSM, IGW monopoly led to the increased costs of Internet service, as governments required local ISPs to buy the license to operate an IGW to access the offshore Internet backbone. GSM indicated that due the monopoly of IGW, most ISP and

mobile operators often resorted to adopting bypass. Bypass is how the ISPs provide the Internet and mobile services through an illegal or independent gateway using devices such as VSAT (GSM, 2016). Bypass resulted in economic losses for the respective countries (GSM, 2016). Although ISPs could provide Internet service at a cheaper rate to consumers through bypass, the quality of the service suffers because of slower bandwidth and frequent service interruption (GSM, 2016). The consequence of bypass in these nations according to the GSM was the levying of heavy taxes on ISPs and mobile operators to discourage such behavior, affecting the price of ICT and services quality. GSM highlighted that governments must encourage IGW liberalization as it leads to a reduction of ICT cost and price, skills, improvement in service quality and bandwidth for consumers.

Summary of Findings from Literature

Researchers such as Andoh-Baidoo et al. (2014), Kalirajan and Nasir (2016) and Jorgenson and Vu (2016) have found that ICT strongly influenced the Internet and global economic growth. ICT in Africa was significantly below global standards. Divergent views exist on the reasons for Africa's scant ICT diffusion. Scholars such Edoho (2013), Mars (2013), Ezomo and Oghogho (2013), and Kayisire and Wei (2016) pointed to a lack of ICT skills, unreliable service, financial difficulties, and poor quality of ICT infrastructure regulation and policy. Others pointed to gender, culture, and demographics as barriers to ICT adoption and diffusion.

Chachage et al. (2015) and Mazzarol (2015) found positive effect of ICT on SME leaders regarding e-commerce, e-business, e-banking, and use mobile devices to gain

market intelligence and customer support in their respective countries. Very few attempted to discuss the e-business training strategies SME leaders used to improve profitability. Some scholars raised questions regarding what ICT and e-business training strategy SME leaders used to expand into the global market thereby increasing profitability in the face of ICT deficiency in their respective countries. Government facilitation of ICT in the areas highlighted in the review was relevant in providing comfortable ICT landscape for SME leaders to adopt relevant ICT, especially e-businesses. ICT training was essential for SME leaders' entry into the global market because without it, even a robust ICT infrastructure available to the SME leaders was useless.

Transition

The objective of this study was to explore e-business training strategies SME leaders use to increase profitability. Most African countries have significantly poor ICT infrastructure. Most businesses in the continent did not use ICT to take part in global commerce to increase profitability and expand their businesses compared to businesses in other developing and developed nations. The qualitative exploratory multiple-case study included data from semistructured, interviews of participants from a metropolitan area in the Gambia. The population in this study included five SME leaders from five different SMEs who have successful e-businesses and training strategies, successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees but not more than 50 in a metropolitan area in the Gambia. The data for this study contained information from documents

derived from ITU, United Nations Development Program (UNDP), GSM, and internal documents and ICT training strategy documents. The findings from the study indicated the significance of e-business training in facilitating access to the global market thereby enabling African business leaders to expand their business and increase profitability.

Section 2 was the project part of this study. It included an introduction to the purpose statement, a detailed explanation of the role of the researcher, and research participants. Section 2 included the research method and research design for the study, population and sampling, ethical research, data collection instrument, data collection technique, data organization technique, data analysis, reliability and validity, transition, and summary. Section 2 included discussion of the qualitative case study methodology and multiple-case study design as defined in Yin (2017).

Section 3 was the final part of this study. It included discussions of the findings from the data analysis, a discussion of applications to professional practice, and implications for social change. Section 3 also included recommendations for action, best practices for SMEs adoption of e-business technologies to increase profitability. The final part of Section 3 included recommendations for further research and reflections.

Section 2: The Project

This section includes discussions on methodology, research techniques, data collections, and the method I followed in conducting this study. I highlight detailed information on data analysis. The categories in this section are the purpose statement, the role of the researcher, participants, research method and design, population and sample, ethical considerations, data collection instruments, data collection technique, data organization techniques, data analysis, reliability and validity, and transition and summary.

Purpose Statement

The purpose of this qualitative multiple-case study was to explore the e-business training strategies SME leaders use to increase profitability. The population in this study included five SME leaders from five different SMEs who have successful e-businesses and training strategies and have successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees, but not more than 50 in a metropolitan area in the Gambia. The findings may influence SME leaders in the Gambia through encouraging and enhancing the use of ICT and e-business skills enabling them to harness the potential of e-business to increase their profitability. The findings from this study may also lead to improvement in the livelihood of the Gambian population through increased employment and a higher standard of living.

Role of the Researcher

The role of the researcher is critical in the research process. In a qualitative study, the researcher must develop adequate study and interview questions to produce accurate and sufficient data to satisfy the requirements of the study (Gunaydin & McCusker, 2015). A researcher must ensure the research environment is one in which participants feel safe and comfortable. Researchers with geographical connections to the area of study must avoid any preconception in the research process, including bias (Frels, Nelson, Onwuegbuzie, & Wines, 2013; Yin, 2017).

My role as a researcher began with the responsibility of being the primary data collection instrument. Given that there was a geographical connection between the Gambia and me, guarding against preconceptions and bias was essential. The researcher has the responsibility to approach the research process with an open mind, good listening skills, attentiveness, and respect for the participants (Yin, 2017). I made sure to approach the research with an open mind, be a good listener, showed attentiveness, and be respectful to the participants. I adhered to the ethical guidelines of the Belmont Report, an ethical guideline sanctioned by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979). The guideline has three core principles: respect for person, beneficence, and justice.

Under the respect for person principle, researchers must treat participants with respect, dignity, and courtesy. Researchers must be truthful and allow informed consent without deception (Bodurtha et al., 2014). The beneficence principle applies to conducting research without causing harm to participants. Researchers must ensure

participants benefit from the study and be protected from risk (Bodurtha et al., 2014). Under the justice principle, researchers must ensure participants are treated fairly, not exploited, and maximally compensated if applicable (Bodurtha et al., 2014). An interview protocol is an integral part of the research process because researchers can use the protocol to constrain their thoughts and biases and guide the research process (Brown et al., 2013; Castillo-Montoya, 2016; Yin, 2017). The interview protocol I used is available in Appendix A.

Participants

The study participants for this multiple-case study included five SME leaders from five different SMEs who have successful e-businesses and training strategies and have successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees, but not more than 50, in a metropolitan area in the Gambia. There were many ways to gain access to participants, including sending letters and e-mails, using online databases, and contacting friends, family, or colleagues (Abbasi, Ibraliu, Papajani-Toska, & Pieroni, 2015; Crow & Kastello, 2017; Duan et al., 2015; Waters, 2015).

I used Access Gambia, <http://www.accessgambia.com>, a Gambian business directory website, to gain access to names of SME leaders to contact for the study. The selection process for the participants was as follows: Searching through the Access Gambia business directory on the website, I selected SMEs in the subject metropolitan area. From the SMEs, I identified companies that have a website or social media site for advertising, selling products or services using the Internet. I obtained the phone numbers

and e-mail addresses for the selected SME leaders and contacted the potential participants via telephone to introduce myself and the reason for calling. If the potential participants satisfied all the requirements, including having a training strategy, I scheduled a face-to-face meeting to establish a relationship and to deliver consent forms.

Research Method and Design

The research method and design are essential tools for guiding a research process from participant selection to data collection and analysis (Baškarada, 2014). Researchers use research methods to approach a complex phenomenon either through hypothetical testing or an in-depth understanding of the nature of a phenomenon. Three research methods exist: qualitative, quantitative, and mixed method.

Research Method

I used a qualitative approach in this study. Qualitative research contributes to the extensive understanding of a phenomenon, an event, or an experience (Barnham, 2015; Baškarada, 2014; Bezborodovs et al., 2015; Gunaydin & McCusker, 2015; Lynch & Simmons-Mackie, 2013; Sandars & Tavakol, 2014). Qualitative research must be meaningful, credible, sincere, coherent, ethical, extensive in rigor, and rich in data (Sandars & Tavakol, 2014). Gunaydin and McCusker (2015) suggested that qualitative research is suitable for various disciplines. Researchers use qualitative research to determine, illustrate, and explore underlying factors behind events and phenomena. The research method provides researchers with a means to gain an in-depth understanding of the meanings of everyday experiences, behavior, and social settings (Sandars & Tavakol, 2014). Qualitative research includes insights from a holistic or naturalistic approach

through observation or a participant's perspective (Gunaydin & McCusker, 2015).

Qualitative research was suitable for this study because the focus was on an extensive understanding of the e-business training strategies SMEs use to increase profitability.

Quantitative research includes a predetermined approach to comparing variables (Barnham, 2015; Bezborodovs et al., 2015; Gunaydin & McCusker, 2015; Sandars & Tavakol, 2014). Researchers use a quantitative method to validate, prove, or disprove a set of hypotheses. Qualitative and quantitative research both involve studying complex phenomena (Barnham, 2015). The two methods differ in approach to data collection and analysis (Barnham, 2015). Because I did not test any hypotheses or compare variables, quantitative was not suitable for this study.

Mixed-method research includes both qualitative and quantitative methods (Branco, Cota, Gonçalves, Martins, & Oliveira, 2016; Davison, Michaelson, Pickett, Taylor, & Vandemeer, 2016; Sparkes, 2015). Researchers use mixed methods in circumstances in which neither qualitative nor quantitative research methods provide sufficient outcome by themselves (Sparkes, 2015). Mixed-method researchers must conduct both the qualitative and quantitative types of research and combine the findings into a mixed-method result.

Gaining an in-depth understanding of the e-business training strategies SME leaders use to increase profitability was essential in this study. Because mixed method requires both a quantitative and a qualitative approach, the method was not suitable for this study. Hence, the qualitative research method was most fitting for this study to satisfy the research requirement.

Research Design

The research approach for this study was multiple case study. Researchers use a case study to gain an in-depth understanding of real-life events, individuals, or groups based on common experiences (Baškarada, 2014; Casey, Houghton, Murphy, & Shaw, 2015; Stake, 2013; Yin, 2017). There are two types of case study designs used by researchers. The first type of design is a single-case design (Algozzine & Hancock, 2015; Baškarada, 2014; Yin, 2017). The rationale for a single-case study includes unique and extraordinarily rare cases. Researchers use single case study to validate or restructure theories, to access situations of daily occurrence, and to explore unknown cases including cases previously not researched (Algozzine & Hancock, 2015; Carvalho, Gastaud, Godinho, Goodman, & Ramires, 2017; Yin, 2017).

The second type of case study research design is the multiple-case design (Algozzine & Hancock, 2015; Casey et al., 2015; Yin, 2017). Researchers use a multiple-case design to research multiple cases in a single study (Baškarada, 2014; Gray, Macdonald, McKinlay, Morgan, & Pullon, 2016; Haak, Löfqvist, & Tomsone, 2016; Yin, 2017). Multiple-case studies are considered more practical than single-case studies and produce more robust outcomes (Baškarada, 2014).

Qualitative research designs include phenomenological, narrative, and ethnography research designs. Researchers use the phenomenological research design to explore and understand the lived experiences of individuals regarding a specific phenomenon (Chan, Gleaves, & Walker, 2015; Liu & Niu, 2017; Rowe, 2017). Because the goal of this study was not to understand participants' lived experiences, this design

was not suitable for this research. Researchers in narrative research design deal with life histories and biographies of participants (Hunt, 2014; Joyce, 2015). The narrative design involves an in-depth written narration of the participants' history or biography (Corner, Pavlovich, & Singh, 2016; Corner, Pavlovich, & Singh, 2015; Hogg, Vanharanta, & Wong, 2017; Joyce, 2015). This study did not include narrative life experiences of the participants. Hence, the narrative design was not suitable for this study. The ethnographic design is intended for studying the shared experiences, beliefs, language, and behavior of a cultural group (Hughes et al., 2014; Kostere et al., 2015). Using the ethnographic design, researchers inculcate themselves into a culture to observe the behavioral patterns, beliefs, and language of its people (Hunt, 2014). Because the goal was not to understand a culture, the ethnographic design was not suited to this study.

Data saturation is a method of ensuring accuracy and validity of research data. To reach data saturation, researchers collect data to the point that no new data emerge (Cardon, Fontenot, Marshall, & Poddar, 2013). Triangulation is a method of using data from multiple sources to ensure reliability of the study (Korstjens & Moser, 2018).

Member checking is a process of participants validating the data and findings from the study for accuracy (Birt, Campbell, Cavers, Scott, & Walter, 2016; Korstjens & Moser, 2018; McGannon & Smith, 2018). I used both member checking and data triangulation to achieve saturation. I also examined internal business data such as sales reports and e-business training strategy documents.

Population and Sampling

The population in this study included five SME leaders from five different SMEs who have successful e-businesses and training strategies and who have successfully advertised, sold products, or provided services online using the Internet, have increased profitability using e-commerce, and have at least three employees but not more than 50 in a metropolitan area in the Gambia. Yin (2017) suggested that a sample size between three and five is sufficient for a qualitative case study. For the sampling method, I used purposive sampling. A purposive sampling was the preferred method for participant selection in a qualitative exploration study (Duan et al., 2015; Suri, 2011). Researchers use the purposive sampling in studies with limited resources to find and select participants with similar knowledge or experience in a phenomenon (Braithwaite et al., 2017). Using the sampling method, researchers have the flexibility to select participants purposefully based on the study requirement, sample size, and resource availability (Alkassim, Etikan, & Musa, 2016).

Sample size for a qualitative study depends on the aims and objectives of the study (Guassora, Malterud, & Siersma, 2016). Guassora et al., 2016). Cardon, Fontenot, et al. (2013) indicated that sample size requirement in a qualitative study directly relates to data saturation, purpose of the study, and available resources. Researchers conducting studies with broad aims and objectives require larger sample size than those conducting studies with narrow aims and objectives (Guassora et al., 2016). Cardon, Fontenot, et al. (2013) added that using smaller sample sizes, researchers may have more contact with participants than with larger sample sizes. A qualitative researcher should continue to

collect data until saturation point when no new information emerges (Cardon, Fontenot, et al., 2013). In this study, I used sample size of five participants. The requirement for the study were that the SMEs must have successful e-businesses and training strategies, successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and have at least three employees but not more than 50 in a metropolitan area in the Gambia.

Other sampling methods such as the snowball and convenience sampling did not align with this study. With snowball sampling, researchers gain access to participants to whom they may not otherwise have access (Adams et al., 2015; Baskin, Delja, Gorospe, Mogil, & Paley, 2016; Emerson, 2015; Lockard & Woodley, 2016; Waters, 2015). In a snowball sampling method, a researcher asks a participant at the end of an interview if the participant knows someone who might be willing to participate in the research (Pattison, Robins, Snijders, & Wang, 2013; Waters, 2015). Convenience sampling includes sampling the first participant who is accessible to the researcher (Duan et al., 2015; Emerson, 2015; Karademir, Öztürk, Sezer, Yılmaz, & Yılmaz, 2015). Researchers use the sampling in neighborhood studies (Karademir et al., 2015). I did not use convenience or snowball sampling in this research because in purposive sampling I could use a smaller sample size and flexible participant selection process for the study.

Ethical Research

Ethical research is the responsibility of every researcher. To comply with the U.S. federal government research requirements, Walden University requires institutional review board (IRB) approval for every study involving human subjects conducted at the

University. IRB approved data collection for this study and provided the approval number 12-11-18-0350417 which was set to expire on December 10, 2019. The U.S. Federal Government adopted three ethical research principles researchers must satisfy to attain IRB approval before data collection (Collins & Wolinetz, 2017; Culp, Gordon, & Wolinetz, 2017). The first ethical principle is justice, which involves providing equal distribution of research burden and benefit. The second ethical principle is the beneficiary principle, which is the limitation of risk to individual participants while maximizing benefit. The third ethical principle is respect for the person, which is the protection of the rights and freedom of all participants (Baines, Taylor, & Vanclay, 2013; Collins & Wolinetz, 2017; Cruz, 2015; Graham, Powell, & Taylor, 2015; Culp et al., 2017; Leibovici, 2016; Suárez-Orozco & Yoshikawa, 2013).

In addition to the previous three principles, Wester (2011) included two additional principles in the ethical research: autonomy, and the protection of vulnerable populations. The autonomy principle is the provision of freedom of choice for the participant to either partake or opt out of research at any moment in the research process without penalty (Baines et al., 2013; Graham et al., 2015; Leibovici, 2016; Wester, 2011). The protection of the vulnerable population principle requires researchers to refrain from any coercive behavior with the participants (Baines et al., 2013; Graham et al., 2015; Leibovici, 2016; Suárez-Orozco & Yoshikawa, 2013). The participants in this study had the opportunity to inform me through face-to-face, e-mail or phone call to let me know if they wanted to withdraw from the study. The participants had my information during our initial face-to-

face meeting and were notified that they will not be coerced into staying in the study. The interviews for the study were conducted ethically without bias.

Researchers must ensure that the research environment is comfortable and safe for participants. They must make sure that the research questions and the interview questions are acceptable to all participants, and that the research findings are conclusive, valid, and confirmable (Baines et al., 2013; Graham et al., 2015; Leibovici, 2016; Wester, 2011). Researchers must provide consent forms to the participants and allow them the freedom to participate or withdraw at any time without penalty (Baines et al., 2013; Graham et al., 2015; Leibovici, 2016; Suárez-Orozco & Yoshikawa, 2013). Participants are entitled to justice, beneficence, and respect as stipulated in the Belmont Report (Brady et al., 1979). To comply with the ethical research requirements, I developed and provided a comprehensive research expectation document to the research participants. Documents derived from the research will be stored and secured in a fireproof container for 5 years. I completed the National Institutes of Health web-based training course for protecting human research participants.

Data Collection Instruments

The researcher is the primary data collection instrument in a qualitative study (Fusch & Ness, 2015; Roulston & Shelton, 2015). A qualitative researcher could become the greatest threat to the validity and reliability of the research if the researcher does not take the time to prepare, reflect, and stay grounded in the research process (Doody & Noonan, 2013). Hence, the researcher's state of mind, as well as experience, is vital in ensuring reliability, validity, and bias elimination (Bell, 2015). Researchers must

discipline themselves to achieve reliable and valid studies (Bell, 2015). Researchers must minimize any preconception, opinion, or belief about the research topic to avoid influencing the outcome of the study (Bell, 2015; Fusch & Ness, 2015). Qualitative researchers must ensure the research process has rigor, worthiness, and sincerity (Casey et al., 2015; Casey, Houghton, Murphy, & Shaw, 2013). To reduce bias and increase quality in research, scholars conduct member checking (Korstjens & Moser, 2018; McGannon & Smith, 2018). Because qualitative researchers are the instrument for data collection, they cannot be separated from the study and can reduce research bias by being aware of their own biases (Fusch & Ness, 2015). After completing data analysis, I provided the participants the transcribed data as well as the findings from the analysis to member check for accuracy. All participants reviewed and confirmed the accuracies of data and the findings.

Three types of qualitative study interviews are unstructured, structured, and semistructured (Casey et al., 2015; Casey et al., 2013; Doody & Noonan, 2013; Thurkettle, 2014). In an unstructured interview, the interviewer does not use a pre-interview protocol. Instead, the interviewer allows the interviewee to continue informally letting questions arise during the interview process (Casey et al., 2015). The interview process becomes an informal conversation between the interviewer and the interviewee (Casey et al., 2015; Casey et al., 2013; Doody & Noonan, 2013). Because of the informal nature of the unstructured interview, the data collected during the process might run into reliability and validity issues.

In a structured interview, the interviewer designs rigid interview questions, along with a set of predefined answers from which interviewees choose their answers. Because of the strict structure of the interview instrument, interviewees have no flexibility to provide additional information about the topic (Doody & Noonan, 2013; Efferin & Hartono, 2015; Nonnecke, 2016). Semistructured interview falls between unstructured and structured interviews (Aleandri & Russo, 2015; Cushing, Manice, Parides, & Ting, 2016; Efferin & Hartono, 2015; Englander, 2012; Florin & Schut, 2015; Johnson, Kallio, Kangasniemi, & Pietilä, 2016; Khansa, 2015; Lake, Long, & Serafini, 2015; Nonnecke, 2016).

In a semistructured interview, the interviewer designs structured interview protocols and enables interviewees the flexibility to describe and fully add rigor to the data collection process (Doody & Noonan, 2013; Englander, 2012; Nonnecke, 2016). In semistructured interviews, the participants can express themselves freely, which leads to the richness of the data collected (Kostere et al., 2015; Nonnecke, 2016). Because semistructured interviews add to the flexibility, rigor, and trustworthiness of a study, they were the most appropriate for this study.

Although scholars consider the researcher as the primary research instrument in the qualitative study, having a research protocol that another researcher used and tested for validity purposes was important. For this study I used a revised interview protocol from a Walden University DBA candidate. The interview protocol is available in Appendix A.

Data Collection Technique

I collected data in this study through semistructured interviews with open-ended questions. According to Doody and Noonan (2013) and Casey et al. (2015), in a semistructured interview, the interviewer designs structured interview protocols and questions to add rigor to the data collection process. Doody and Noonan (2013); Falissard, Porcher, Ravaud, and Tran (2016); and Gadarian et al. (2014) stated that researchers use standardized, open-ended questions to collect data because through this data collection method participants can better contribute to the research and follow up with the researcher. The standardized, open-ended approach is valid in both wording and questions (Doody & Noonan, 2013; Falissard et al., 2016; Gadarian et al., 2014).

I used the Access Gambia website, <http://www.accessgambia.com>, a Gambian business directory website, to identify and retrieve the contact information of the potential participants for the study. The study participants included five SME leaders from five different SMEs who have (a) successful e-businesses and training strategies; (b) successfully advertise, sell products, or provide services online using the Internet, (c) increased profitability using e-commerce, and (d) at least three employees but not more than 50 in a metropolitan area in the Gambia. I obtained the phone numbers and email addresses for the selected SMEs and contacted the potential participants via telephone to introduce myself and the reason for calling. The script for the invitation to participate in the study is available in Appendix B. A face to face meeting was scheduled with each potential participant that satisfied the inclusion criteria to establish a relationship and to

share the consent forms for review. This enabled the participants to make an informed decision without coercion or deception.

During the initial face-to-face discussion, I briefed the potential participants on the procedure of the study and the sales and training documents requirements. The SME leaders agreed to participate in the study on condition that the document review process remains confidential. I assured the participants that the information from the document review will remain confidential. The participants and I exchanged contact information such as cellphone numbers and set the time for a follow-up meeting.

At the follow-up meeting, which was the second meeting in their respective offices, I hand-delivered the informed consent forms to the potential participants for their review. I coordinated with each participant the time and date to conduct the interviews. The participants were given time to read over the consent forms and understand the content before the interview. Face-to-face interviews were conducted within the two weeks after the second meetings at the venues the participants chose. Four interviews were conducted at the participants' offices. The fifth interview was conducted at a bookstore close to the final participant's office. No permissions were required for accessing the interview venues.

Before beginning the interview, I asked the participants to review and sign the consent forms before I collected them. The informed consent form included information that participation in the study was voluntary and that there was no compensation for the study. The interview questions were available to the participant at the time of the face-to-face interview to ensure transparency. Because of technical difficulty with the Sony IC

digital voice recorder equipped with a Dragon Naturally speaking application, the IRB approved the request to use the voice recorder application on a smartphone instead. The recordings of each participant interview began and ended with the assigned codename of that participant. I took notes of my thoughts and the participant's nonverbal expressions before and during the interviews. I informed each participant the reason I took notes during the interview. Christie, Bemister, and Dobson (2015) stressed the importance of taking notes during interview sessions. To ensuring participant's perceptions are not affected, Christie et al. (2015) suggested telling the participants why notes are being taken.

The revised interview protocol from a Walden University DBA candidate was the guiding document during the interviews. Although the interview sessions were planned for 30 to 45 minutes, none of the sessions took the full 45 minutes. The interview protocol is available in Appendix A. At the end of each interview session, I asked the participant if he or she had additional information to add. None of the participants offered additional information. I thanked them for their time and participation and set another meeting to review company sales report and e-business strategy documents. After completing the interviews, the recorded data were downloaded into a computer and manually transcribed using Microsoft word.

At the third meeting, I reviewed the participant's company sales report and e-business training strategy document. The participants provided me access to review their internal documents only if I ensured confidentiality of the documents. For the four participants, internal sales report and e-business training strategy documents were

reviewed in the owners' offices and ensured the documents were not copied, photographed, or taken out of the offices. Because the interview for the fifth participant was conducted at a bookstore, I reviewed the sales report and e-business training strategy documents at the owner's office a day after the interview.

Gleaning through the company sales figures from the yearly sales reports, I verified that the companies profit grew overtime with online sales growth within the year. The e-business training strategic documents also provided information on the companies' efforts to improved training on e-business tools. The data from the internal documents were correlated with the findings from the study to verify e-business training contribution to SMEs profitability.

Data collection techniques, such as documentation and interviews, have advantages and disadvantages (Casey et al., 2015; Yin, 2017). The advantages of the interview include the interview setting in which participants feel comfortable and at ease, the participants can provide unrestricted information without feeling coerced, and the researcher can get to know the participant (Gunaydin & McCusker, 2015). The disadvantages of interview include the inexperience of the student interviewer might inadvertently provide participants leading questions, difficulty in scheduling the interview due to conflicts, and participants lack interest to provide full information to the interview questions (Casey et al., 2013; Hunt, 2014). Researchers should be mindful of the advantages and disadvantages of interview techniques to ensure the data are rich in content.

The advantages of using documentation as data collection technique include the ability to corroborate the interview data against company documents and the documentation may be used as a secondary data source (Yin, 2017). The disadvantages include limited data may exist in the documentation to provide rigor for the study and confidentiality issues might exist because of sensitive internal business data (Yin, 2017). The documentation may not align with the interview data leading to contradiction leading to validity issue (Yin, 2017). Data from the document review and the interview process were thorough and added to the trustworthiness and rigor of the findings. The confidentiality issues that the SME leaders requested for documents review were addressed prior to the review process; I reviewed the shared documents at the participants' offices.

To ensure optimum reliability, validity, rigor, and worthiness of the study, I used member checking. Member checking involves enabling study participants to review and validate the interview data (Birt et al., 2016; Korstjens & Moser, 2018; McGannon & Smith, 2018). After transcribing and synthesizing the interview data, participants received the synthesized copy via e-mail to validate the information. The participants had two weeks to review, revise or confirm the content of the data before I contacted them by phone to follow up for feedback. All participants confirmed that my interpretations of their responses were correct. None of the participants suggested changes to the information.

Data Organization Technique

Qualitative researchers are responsible for collecting the research data; ensuring the validity, the security, the management, the analysis; and reporting reliable data (Fan, 2013). Keeping track of the collected data can be time-consuming. Bondas, Turunen, and Vaismoradi (2013) suggested using field notes to keep track of the research data. By using field notes, qualitative researchers can manage the research data into a single location. Before beginning the interview, I informed the participants of the purpose of taking the notes. The field notes included the date, time and location of the interview, the participant codenames, recording number, and my biases, thoughts, and non-verbal expressions of the participants. To ensure the confidentiality of participant identity, I assigned each participant a codename P1, P2, P3, P4 and P5. To differentiate between interviews, each note had the respective participant codename, such as recording for P1, P2, P3, P4 and P5. The interview audio recordings were downloaded into my computer and transcribed using Microsoft word and then uploaded along with the field notes into NVivo. I ran queries from the NVivo 12 and saved the results into nodes and themes. Researchers such as Aguiar, Friend, Stolzer, Truong, and Tuccio (2018) and Babbage, Farris, Lowe, and Norris (2018) used NVivo application to import, analyze, and code study data. A fireproof container will hold the USB flash drive and the field notes for 5 years to ensure the data will be accessible for verification if necessary. The electronic data and field notes will be destroyed after 5 years using shredder for paper data and magnetization for the electronic data.

Data Analysis

Data analysis is the process through which researchers make sense of the collected data during the interview (Anyan, 2013; Yin, 2017). The analysis methods I used for the study were thematic and content analysis. According to Lynch and Simmons-Mackie (2013), researchers use a thematic analysis to peruse through the interview data to identify patterns and meanings of the content. Researchers use thematic analysis to browse through the research data to find common themes (Bondas et al., 2013). A content analysis includes finding related concepts or similarities from the meanings and content units in the data (Bondas et al., 2013; Cho & Lee, 2014; Lynch & Simmons-Mackie, 2013).

Data analysis process includes the following five steps: compiling the data, disassembling the data, reassembling the data, interpreting the data, and drawing a conclusion derived from the data (Yin, 2017). I followed these five steps in analyzing the collected data. The initial step involved compiling the collected data. I transcribed the audio recording and wrote a journal of my initial thoughts. I then uploaded the collected data into a data analysis application to organize and interpret the data.

The data organization (i.e., disassembling the data and reassembling the data) and interpretation were conducted using NVivo version 12 qualitative data analysis software available through subscription from the manufacturer. Most researchers use NVivo for their data analysis as it provides an array of features that enhances the data analysis process (Bishop et al., 2017; Bogo, Katz, & Logie, 2015; Lu & Phillips, 2018). By using NVivo, researchers can store and organize the research data in a single location and

database (Atkins, Macklin, Paulus, & Woods, 2016; Bernauer, Jacobs, Lichtman, & Robinson, 2013; Bishop et al., 2017; Bogo et al., 2015; Casey et al., 2015; Casey et al., 2013; Yin, 2017). The application provides researchers with a user-friendly means for easy management of data, ideas, data queries, graphical modeling of ideas and concepts, and reporting (Atkins et al., 2016). Researchers such as Aguiar et al. (2018) and Babbage et al., (2018) used NVivo application to import, analyze, and code study data. Walden University and YouTube has NVivo learning videos I watched to ensure familiarization on how use the software.

To reassemble the data, I ran several queries against the transcribed data to identify common word and sentence occurrences in the data. The common occurrences from the queries were coded into nodes. I shifted through the nodes and analyzed and identified key themes and concepts. Memos contained all the field notes, journals, and audit trails of the research process. The key themes and concepts from NVivo were compared against internal company documents using methodological triangulation. The findings were correlated against the conceptual framework and recently published literature. The literature I reviewed including Aladejebi (2018), Aizstrauta et al. (2015), and Begg et al. (2019) supported the findings from the study, especially relating to social media as training resources for SMEs.

I used Rogers's DOI constructs to answer the research question in the study and to explain how consumers perceive innovations and how the perception of the effect of the new technology affects consumer interest level, understanding, awareness, and acceptance. According to Rogers (2003), consumers would adopt an innovation faster if

the following characteristics were present: relative advantage, compatibility, complexity, trialability, and observability. The findings from the study aligned with the Rogers's DOI theory. The document review provided information on how the SMEs understood the relative advantage of adopting e-business tools and applications into their businesses to increase productivity and profitability; and overcoming the complexities inherent in the e-business tools and applications by training themselves and their staff.

Reliability and Validity

Reliability and validity are an essential element of both qualitative and quantitative research, although the concepts and approaches in the two methods are different (Collins, Leech, & Onwuegbuzie, 2012; Cope, 2014; Leung, 2015). Reliability and validity in a qualitative study refer to the degree of quality in the research process (Golafshani, 2003). Tracy (2010) highlighted eight criteria for quality in qualitative research. These criteria include worthy topic, rigor, sincerity, credibility, resonance, significance contribution, ethics, and coherence. According to Tracy, to achieve quality in a qualitative study, the research must have a worthy topic that is timely, relevant, significant, and interesting; be rich in rigor and abundance, sincerity in the results through honesty and transparency; a finding that is credible and trustworthy, a significant social effect, and to be ethical. Golafshani (2003) argued, to have reliability in qualitative research, trustworthiness is essential. To achieve the eight quality criteria as described by Tracy (2010), and trustworthiness Golafshani (2003), four approaches are necessary. The four approaches: credibility, confirmability, dependability, and transferability provide

qualitative researchers the means to achieve quality and trustworthiness in their studies (Anney, 2014; Casey et al., 2015; Collins et al., 2012).

Reliability

For research data to be reliable, it must be dependable. Dependability in a study signifies the stableness of the research data (Casey et al., 2013; Collins et al., 2012; Cope, 2014; Leung, 2015). Anney (2014) suggested that if a research finding is dependable, research participants should be able to review it and confirm its authenticity. A research finding is dependable if other researchers could draw similar results from the same data (Collins et al., 2012). Researchers can attain dependability through an audit trail, triangulation, member checking, and reflectivity (Korstjens & Moser, 2018). Audit trail involves maintaining a thorough outline of the research process in a journal. Reflectivity includes journaling the researcher's thoughts and biases during the research process (Chinnapen, Kolar, Mahal, Ross, & Woodman, 2014). Triangulation is a process of drawing a conclusion from multiple data sources (Korstjens & Moser, 2018). I used audit trails to keep track of the research process and journaling to track my biases and thoughts during the interviews.

The five types of triangulation are; data, theoretical, analysis, investigator, and methodological triangulations (Hussein, 2009). Methodological triangulation, which is the triangulation method for this study, comprises gathering data from multiple sources (Hussein, 2009). The multiple data sources include interviews, field notes, and internal company records. Member checking, on the other hand, includes using research participants to review and validate the transcript data from the study (Birt et al., 2016).

This study included methodological triangulation to ensure data saturation and dependability. In addition to member checking, I used internal data such as sales report and e-business training strategy document to triangulate for data saturation.

Validity

Qualitative research is valid when the data from the study is credible, transferable, and confirmable (Collins et al., 2012; Golafshani, 2003). To attain such credibility in a study, researchers must allow for extensive engagement and observation of participants (Casey et al., 2013). Researchers may use interviews and triangulation to provide credibility in their study (Korstjens & Moser, 2018). A research finding is transferable if researchers could use it from one study to another (Anney, 2014; Casey et al., 2013).

Transferability involves providing a detail description of the research process including research method, process, and raw data (Casey et al., 2013). Researchers must provide an extensive description of their research process for the study findings to be transferable. Although trustworthiness in a study improves through transferability, using results of the research across qualitative studies depends on context (Collins et al., 2012).

Confirmability of research findings means researchers could quickly confirm the validity and accuracy of the research data (Casey et al., 2013). According to Anney (2014), a research finding is confirmable if other researchers could corroborate it. As in dependability, researchers achieve confirmability through audit trails and reflectivity.

Data saturation is a method of ensuring accuracy and validity of research data. Researchers gain data saturation when no new information emerges in data triangulation

and member checking process (Korstjens & Moser, 2018; McGannon & Smith, 2018). I used both member checking and data triangulation to achieve saturation.

To provide rigor, quality, and trustworthiness in this research, I used audit trails and reflectivity. I ensured detail and in-depth information was gathered to make sure the study was transferable to other similar studies. All raw data, as well as the audits and the journals from this study, were available in NVivo 12 software for external access and validation.

Transition and Summary

Section one and two included the purpose of this study, the role of the researcher, data organization, data analysis, and data presentation. The research method was qualitative, and the research design was multiple-case design. The study participants included five SME leaders from five different SMEs who have successful e-businesses and training strategies, successfully advertised, sold products, or provided services online using the Internet, increased profitability using e-commerce, and at least three employees but not more than 50 in a metropolitan area in the Gambia. To gain access to participants, I used the Access Gambia business directory website. The sampling method included purposive sampling. To organize and keep track of the research data, I used field notes and reflective journals to record my thoughts, bias, perceptions, audio recording number, site, participant codes, and date and time of the interview. For data organization and interpretation, I used the NVivo 12 qualitative data analysis software. Section 3 includes the application to professional practice and implications for change. In section three, the researcher provided the results of the study. The categories in the section include an

introduction, presentation of findings, application to professional practice, implication for social change, and recommendation for actions, recommendation for further study, reflections, and take-home message.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple-case study was to explore the e-business training strategies SME leaders use to increase profitability. Five participants were selected using the purposive sampling method. I conducted semistructured open-ended face-to-face interviews with five SME leaders in a metropolitan area in the Gambia, West Africa. The interviews were conducted to answer the following central research question: What e-business training strategies do SME leaders in the Gambia use to increase profitability? The participants answered six interview questions related to their e-business training strategies. The findings from the study showed that the e-business training strategies the SME leaders use included e-learning through YouTube content. The findings also showed that the SME leaders trained themselves first on e-business tools before training their staff.

The SME leaders' incorporation of YouTube as a training resource in their training reduced or eliminated training costs. The SME leaders were able to increase visibility by leaning about e-business tools, such as CRM, Facebook features including WhatsApp, and Twitter. They used the e-business tools to communicate, advertise, and improve customer relations, and they developed a web presence by building and learning how to maintain a website, which enabled customers to browse and purchase products and services, leading to profitability.

Presentation of the Findings

The central research question for this study was: What e-business training strategies do SME leaders in the Gambia use to increase profitability? During the data analysis, the following three themes emerged: (a) strategies for owner self-training on e-business tools, (b) strategies for training staff on e-business tools, and (c) strategies for using YouTube, seminars, and webinars for training. The findings showed that the participating SMEs' e-business training strategies led to increased profit and facilitated access to the global market. All participants recognized the importance of e-business strategies and self-development.

The conceptual framework for the study was Rogers's DOI, which postulates that consumers adopt innovation communicated through a specific channel in a society over time (Dibra, 2015). I used the theory to explain how consumers perceive innovations and how the perception of the effect of the new technology affects consumer interest level, understanding, awareness, and acceptance. According to Rogers (2003), consumers adopt an innovation faster if the following characteristics are present: (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability. The findings from the study aligned with the conceptual framework.

Theme 1: Strategies for Owner Self-Training on E-Business Tools

The first theme from the data analysis was the strategies for SME owner self-training. The theme corresponded with the awareness, relative advantage, compatibility, and complexity characteristics of DOI. In Rogers's DOI, awareness is an important component in the adoption of innovation. Innovations communicated through certain

channels induced awareness for early adopters and consequently led to the desire to assess the innovation for relative advantage (Rogers, 2003). The relative advantage characteristic of DOI includes the perceived benefit of an innovation to address individual needs (Aizstrauta et al., 2015). Individuals must perceive an innovation as relatively advantageous to their needs before adopting it (Desmarchelier & Fang, 2016). As depicted in Table 1, all participants expressed their awareness of the importance of e-business to their businesses' success. They indicated that e-business tools were beneficial by allowing them to expand their business reach, thereby increasing profitability. Table 1 represents the perceptions the five participants had on the benefits of e-business tools. All participants recognized e-business as essential in expanding customer base to increase profitability. The participants expressed the importance of self-development and e-business training to their business successes.

Table 1

Perception on Benefits of E-Business

Code	# of participants	% coverage
E-business training facilitated global access	5	100
Recognizing the importance of e-business and self-development	5	100
E-business training led to increased profit	5	100

P2 expressed the relative advantages of e-business tools and training, saying:

Well like I said, my company is a global company even though we remain small. We could not have done that without e-business. I am able to do

video conference with staff, deal with clients in the States and elsewhere, and sell products without being there. Because of video conferencing, we are able to build relationships with customers.

P4 expressed similar sentiment:

As we grew, we diversified and added products that are attractive to customers abroad. We knew we have to reach our customers abroad, and the only way to reach them is through the internet. So from there, we had the website first, and then realized due to the sheer increase in our customer volume, that we need software to manage customer accounts, generating invoices and receipts.

For the SME owners to realize the potential benefits from e-business products and tools, they must acquire the necessary skills on the features of that product. SME owners train themselves to overcome the perceived complexity ascribed to the e-business product. One of the inhibitors researchers have found in SME adoption of e-business relates to the lack of relevant ICT skills (Bankole & Olatokun, 2017; Cunningham et al., 2016; Kayisire & Wei, 2016; Hashim, 2015). The participants' pursuit of training to overcome the lack of relevant e-business skills aligns with Rogers's complexity characteristics of the DOI theory. This DOI characteristic includes an individual's perceived difficulty to understand and use an innovation and the need to reduce such perception (Rogers, 2003). Abu Bakar, Ahmad, and AlSharji (2018) confirmed that individuals might not adopt an innovation if the innovation is perceived as difficult to use and understand. The perception of the difficulty to understand and use an innovation inhibits adoption and requires training to overcome the perception.

All participants in the study expressed similar sentiment about adopting e-business in their respective businesses and the need for training. Table 2 represents the perception the participants had on owner self-training on e-business tools. All participants indicated that owner self-training was important for e-business adoption.

Table 2

Theme 1, Strategies for Owner Self-Training

Code	# of participants	% coverage
Strategies for owner self-training on e-business tools	5	100

For example, P4 stated that when the need arose for the company to find solutions to cater to their growing customer base, many of whom were abroad, they sought the help of a website developer. The company owner had to first be trained on the functions of the new website, including posting and updating information. Abu Bakar et al.'s (2018) position that individuals might not adopt an innovation if the innovation is perceived difficult to use or learn supports the participants need for self-training. P1 and P2 indicated that owner self-training was critical to their businesses' success and profitability. P1 explained, "It is important to train yourself first as much as you can. Learning and everything start from you. Use Google and sources and write things down to be able to pass on information to your staff." P3 indicated that the SME owner believed strongly in self-development. P2 also explained the importance of staff and owner self-training to the company's e-business success by saying:

The company was founded in Maryland, USA, in May of 2017; we have it incorporated in the Gambia here. We could not have done it without e-business.

No way. I had done it successfully because of Facebook, WhatsApp, and e-mail. That is how I train myself, my staff, and contractors. How do we reach people, prospects, and customers? It is because of e-business we are able to do that. We have customers from U.S., Europe, and Africa.

P3, P5, and P4 concurred with P1 and P2 on the importance of owner self-training to overcome the complexity challenge. The participants' views on the importance of training align with Aladejebi's (2018) findings that SME owner, manager, and staff training leads to increased productivity and profitability. P5 explained that:

I used to be an IT professional and trainer before starting my business. Training is an important component in terms of carrying out business in general, especially your staff or employees. In my company, what we do is to ensure our staff attends training, especially entrepreneur training workshops.

As shown from participant statements, SMEs who overcome the complexity characteristics of DOI tend to adopt technology to facilitate their business environments. Theme 1 supported Rogers's DOI theory of awareness through certain communication channel, relative advantage and complexity characteristics, that SME leaders must first understand the benefits of a particular e-business product through an awareness campaign communicated channels such as media, business communities, individuals, as well as literature. When SMEs become aware of e-business products, they must assess the relative advantage the product might provide to address their business needs, evaluate its compatibility with the business norms and values, and assess the complexity of the

products' difficulty to understand and use. The participants provided training to overcome the DOI complexity.

Theme 2: Strategies for Staff Training on E-Business Tools

The second theme from the data analysis was the strategy for training staff on e-business tools. This theme also aligned with the complexity characteristics of DOI. Following SME leaders' awareness of an innovation, assessment of relative advantage and compatibility, and overcoming the perceived complexity of the innovation through self-training, SME leaders explored tools to train their staff. Similar to owner self-training, staff must pursue training to overcome the lack of relevant e-business skills. Rogers's (2003) DOI complexity characteristic is used to reduce the perception of difficulty to use and understand an innovation. All participants expressed the importance of staff training. Table 3 represents the perceptions the participants had on staff training on e-business tools. All participants indicated that staff training was important for e-business implementation and success.

Table 3

Theme 2, Strategies for Staff Training

Code	# of participants	% coverage
Strategies for staff training on e-business tools	5	100

P5 explained company staff training by saying:

Training is an important component in terms of carrying out business in general, especially your staff or employees. In my company, what we do is to ensure our staff attends training, especially entrepreneur training workshops. For example, in

the Gambia here, there is a program called EmpreTech or Enterprise Training Workshop, which brings entrepreneurs together to educate them on business best practices including how to conduct business processes such as financial recordkeeping and marketing. We ensure our staff attends this training to keep up with the latest business trends and practices.

P3 concurred that staff training was high in the company training strategy by saying:

We actually ensure our staff has access to self-development. Every staff has that benefit to continue to learn and develop.” Both P1 and P2 expressed the importance of staff training to enhance productivity and profitability. P1 explained, “I had to training myself first. Training is hard. I have to make sure I am really familiar with the subject before I have to transfer to the staff.

P2 also indicated the company staff benefit from training from seminars and YouTube suggested by the SME leaders.

In their training strategies, the participants used three different methods to train their staff and themselves: (a) in-house training using YouTube or webinars, (b) in-house training using both instructor-led and YouTube or webinars, and (c) training using third-party companies. P1, P2, P3, and P5 have used in-house training in their training strategies. P4 was the only participant who used a third-party company in their training strategy. Table 4 represents the training methods the participants used in their training strategies. Four participants used in-house training methods. One participant used a third-party company for training, and one participant used both in-house and third-party training methods.

Table 4

Strategy for In-House, Third-Party, and Mixed Training Methods

Code	# of participants	% coverage
In-house training	4	80
Using a third-party company to provide staff training on e-business tools	1	20
Using mixed training methods	1	20

According to P4, company staff who receive training from an outside company, focus on the daily business activities. P4 indicated that the company initially began provide in-house training to the staff before realizing the need to outsource to the outside company that provided the e-business application. P4 explained by saying:

So, we outsourced the website development to a company in England. How it works is that they actually trained me on how to use the website dashboard to upload and post images and information on our products. I reached an agreement with the web company to handle the website together with all our e-marketing platforms, i.e., social media Facebook, Twitter, linked-in etc. As for the training for the customer Relations Managing software (CRM), our strategy is that the company from which we bought the CRM software trains our staff directly. If there are upgrades to the application, the company trains our staff on the new features of that application. I as the owner do attend all the trainings along with my staff.

When asked if the company conducted staff training in-house, P5 responded by saying “all our e-business trainings are done in-house.” P3 confirmed that the company

conducted training in-house. However, unlike P1, P2 and P5 who used in-house training strategies using social media tools such as YouTube, P3 is the only participant who used in-house instructor-led and YouTube or Webinar for training. P3 explained by saying, “we always have staff in-house to help with training. We work as a team to provide training to staff.”

Spil et al. (2015) noted that complexity characteristic in the DOI might adversely influences adoption because it inadvertently inhibits adopters’ understanding and use of innovation. As a remedy for the complexity inhibition, Aizstrauta et al. suggested that in a highly globalized and competitive environment, business leaders’ understanding of innovations despite the complexities inherent in such innovations is important. The training strategies the participants implemented were consistent with the Aizstrauta et al. (2015) suggestions for SME leasers to pursue training in order to overcome the complexity inhibitors.

Theme 3: Strategies for Using YouTube, Seminars, and Webinars for Training

The third theme from the data analysis was the strategies to use training tools such as YouTube, seminars and webinars for owner and staff training. This theme aligned with the Rogers’s trialability and observability DOI characteristics. Rogers (2003) indicated that trialability is how the risk and uncertainty related to adoption of innovation is reduced. Desmarchelier and Fang (2016) added that trialability provide adopters the means to test the innovation before full adoption. Table 5 represents the e-business training tools the participants used in their training strategies. Four participants used

YouTube for training. Two participants used seminars and webinars as well as YouTube for training.

Table 5

Emerged Theme 3, Social Media Tools for Training

Code	# of participants	% coverage
Strategy for using YouTube for training	4	80
Seminars and webinars for training	2	40

According to Rogers (2003), observability indicates the visibility of the result of innovation to others. Spil et al. (2015) posited that groups adopt an innovation if the benefit of the innovation becomes apparent. Consumers might adopt an innovation based on their perception of the benefits of that innovation, which emerges from a prolonged observation. SME leaders must continually test and observe their training strategies and update them as needed to maintain a competitive advantage. In pursuit of the finding, the best training strategy that was impactful and cost effective, the participant incorporated social media tools such as YouTube into their training strategies. P1, P2, and P5 for example, indicated they use YouTube to search for training contents for themselves and their staff. Although P3 often used instructor led training strategy, the SME also used YouTube for training on certain topics.

The use of YouTube and other social media learning tools were generally recognized by researchers (see Table 5). For example, Begg et al. (2019) and Alzougool (2019) indicated that social media is a resource for interactive learning among individuals and professionals. Begg et al. (2019) posited that YouTube is the third and most

frequented website for entertainment and learning with 300 hours of content every minute.

The findings from the literature reviewed supported the P1, P2 and P5 strategies to have YouTube as their training resource. The training videos on YouTube were comprehensive and free (Charlton et al., 2016). P5 expressed the benefits of YouTube training tools by saying:

There are many training tools online especially on YouTube for my staff and to learn and to keep up to date on our trainings. We take advantage of the various social media training tools including those for Facebook, Twitter on YouTube.

P2 also indicated that the company used YouTube to train on tools such as search engine optimization. “I also received e-training through YouTube videos and webinars to do research learning tools on customer service and search engine optimization, whether it’s in real estate or insurance. P1 expressed the company training strategy by saying:

I started training myself first to be better in what I am doing to improve my business as a whole. I do a lot of research on the topic, write down my findings and develop procedures based on what I learned so I can train my staff.

The findings from the participant interviews confirmed that prolonged trials and observations of an innovation led to adoption. The participants in the study attested that having a training strategy that was cost-effective, comprehensive, easy to use and understand, and accessible led to increased productivity and consequently, profitability.

Ainin et al. (2015) indicated that SME leaders who use Facebook to communicate and advertise reduce advertising cost, increase finance performance as well as improve customer relations. P4 confirmed the Ainin et al. statement:

Our e-business applications such as CRM and websites help increase profitability because you need less people to do the job. One person can deal with seven or eight hundred customers. With marketing one website can reach thousands of people per month. There we reduced market cost on having to advertise on radio or Facebook. With a really good website you can reduce your marketing cost.

P5 explained the company performance:

We had to continue to learn new ways to access them online. Social media provide us with the unlimited resources to reach a wide-range of customer base. Our training strategy is a key component for maintaining our constant contact with the customers abroad and hence, the global market. Our website is fully automated in that customers can browse products, add to cart, and pay online. Once the customer pays, we receive an e-mail with the order detail; we then follow-up with the customer to verify the order and address before delivering the product.

The Aladejebi's (2018) findings about training align with the findings in this study because participants used the training strategies in their businesses to reduce cost by using social media tools such as YouTube to train themselves and their staff. The SME used social media tools to increase visibility by learning about Facebook, WhatsApp, and Twitter. Using the training strategies, the SME were able to

communicate, advertise, and improve customer relations, and developed web presence by building and learning how to maintain a website thereby allowing customer to browse and purchase products and services leading to increased profitability (see Table 6). Table 6 represents the functions for which the participants use e-business tools. Five participants used WhatsApp for communication; and Facebook for advertising and customer relations. Five participants used e-receipts and e-invoice. Two participants used their website for information and customer relations only, and three participants had interactive websites. Three participants used Twitter for information dissemination.

Table 6

E-Business Tools for Communication, Advertising, and Customer Relations

Code	# of participants	% coverage
WhatsApp for communication and customer relations	5	100
Twitter for advertising	3	60
Facebook for advertising and customer relations	5	100
Website for information and customer relations only	2	40
Interactive website for information, product download and purchase	3	60
CRM for customer relations	3	60
E-receipts and e-invoices	5	100

Applications to Professional Practice

In a highly competitive business environment, SME leaders face challenges to remain relevant and profitable. Not only do SMEs compete with one another for the global consumer base, they also compete with larger organizations for the same space.

SME leaders must adapt to the changing global business landscape to remain competitive through training and awareness. The purpose of this qualitative multiple-case study was to explore the e-business training strategies SME leaders use to increase profitability.

The findings from this study are important for SMEs because it showed that when SME leaders train themselves and their staff on e-business tools and applications, they increase productivity, reduce cost related both training and advertising, increase visibility, and consequently increase profitability. The SME leaders who participated in this study found creative ways to train themselves and their staff on social media tools to learn efficient ways to reach the global customers, conduct promotions, maintain relationship with their customers, and sell products. The SMEs were able to harness the vast free educational contents that Begg et al. (2019) indicated 300 hours of which were uploaded on YouTube every minute. In addition to YouTube, the SMEs used webinars and free seminars some non-governmental organizations provided to educate themselves on business tools.

SME leaders could learn from the findings from this study and apply it to their respective businesses training strategies to grow and expand their reach to the global market thereby increasing productivity and profitability. The potentials that social media tools such as Facebook, Twitter, and YouTube provide are vast, low cost, and readily available for SMEs to harness. SME leaders could use the findings from this study to learn how to overcome the perceived complexity that inhibited them from adopting e-business technologies. Finally, SME leaders who may want to focus on the business

aspects, instead of training, may use the P4 training model by outsourcing training and the management of e-business tools to a third-party company.

Implications for Social Change

SME empowerment may be the most significant policy undertaking for any governments. The global business sectors as well as any country's labor force depend on the successes of SMEs. Global enterprises constituted 90% of SMEs which provided over 60% of the world's employment (Abor, Iddrisu, Quartey, & Turkson, 2017). SMEs can no longer prosper in the absence of the global market. Accessing the global market required e-business tools and applications, and consequently, e-business training.

Social media tools such as Facebook, Twitter, WhatsApp, Websites, and YouTube have become the resource for advertising, communication with peers and the global customer base, dissemination of information on business products and services, and the means for purchasing and sales. The proliferation of mobile phones made it possible for global businesses to access the younger consumers, most of whom were fervent social media users, from anywhere in the world. SME leaders could cost-effectively and readily have instant and unfettered access to the vast consumer-base.

The findings from this study may be used to guide SME leaders on the most the reasonable, effective, and efficient ways to advertise, communicate, and sell products and services on Facebook, Twitter, and on their websites. The SME leaders in the Gambia could use the findings to improve their training strategies by training themselves and their staff on e-business tools and to adopt YouTube as their training resource, thereby reduce cost of training, increase performance and productivity of their staff, and consequently,

profitability. Profitable SMEs could lead to increased employment, reduced poverty, and improved livelihood of the citizens.

Recommendations for Action

In the globalized business environment, organizations depend heavily on technology to remain relevant. The highly competitive business landscape requires constant vigilance and agility for organizational leaderships. By recognizing the potential benefits of e-business technologies, SME leaders could transform their businesses towards productivity and profitability.

The recommendations for action from SME leaders were that the SME leaders should recognize the integral role of e-business technologies in facilitating access to the global market. The SME leaders should understand that adopting a new technology requires processes that must begin from recognizing their business needs, asking the right questions, learning from peer organizations, and overcoming the fear related to the complexity of the technology. The leaders should be willing to try and learn the intricacies of the e-business technologies that could address their business needs.

SME leaders who aspire for growth and profitability for their businesses should recognize the potential benefits social media provide businesses across the globe. They should take advantage of the vast pool of potential consumer-base readily, and reasonably available on the social media. The SME leaders should use the findings from this study as lessons to train themselves and their staff about e-business tools, and incorporate YouTube as a training resource into their training strategies.

Recognizing the role of SMEs in generating employment, governments should provide annual training to SME leaders on the importance of e-business and how to harness its potential. Governments should also consider subsidizing the cost of ICT SME leaders use to access social media thereby encourage full participation in the global market. Finally, governments should consider creating YouTube channels dedicated to SME education to enhance targeted trainings on e-business tools and applications from which SME leaders could benefit.

The study may be submitted for publication through journal websites for journals such as Journal of Small Business and Entrepreneurship, Journal of Small Business and Management, ProQuest, and ResearchGate. The study was made available to the Gambia Department of Commerce and the Gambia Department of Trade, Industry, and employment. A summary of the study was also provided to the five SMEs that participated in this study.

Recommendations for Further Research

This study was conducted to explore the training strategies SMEs in a metropolitan area in the Gambia use to increase profitability. The five participants in the study provided significant insight on how using YouTube as training resource, and social media tools such as Facebook and Twitter, to advertise, communicate, and sell products facilitated profitability. However, because of the small sample size in this study and limited geographical area from which the sample was derived, the findings from the study may not be transferable across the entire SME population in Africa and the Gambia in particular. Further research might be needed to explore the possibility of using a larger

sample size from a larger geographical area in the Gambia to confirm or disconfirm transferability of the findings from this study. Further research might also be needed to explore the impact of ICT cost on SMEs in the Gambia to help determine whether it facilitates or dissuade e-business adoption by the SMEs.

Reflections

My journey to pursue the DBA Doctoral Study was long and hard. The obstacles I faced in the beginning few years of the study were because of the lack of proper guidance from some of the university faculty assigned to me. However, my progress in the program accelerated once the university intervened and changed the faculty who constrained my progress. Eventually, my experience changed for the better.

Although the DBA program was demanding, I enjoyed working with my new chair and classmates. I enjoyed searching for and reading the vast pool of literature to support the study topic; and finally writing the sections. The process of interviewing the five business leaders during data collection was very enlightening. I learned the importance of ethical data collection, analyzing, and writing the findings without being bias. Using the NVivo 12 application, I was able to seamlessly import and analyze the study data. Researchers conducting qualitative study should consider using NVivo application to facilitate their data analysis process. In short, the entire DBA program was rewarding and fulfilling and I am grateful for pursuing the program.

Conclusion

The purpose of this qualitative multiple-case study was to explore the e-business training strategies SME leaders use to increase profitability. To answer the overarching

central question of what e-business training strategies do SME leaders in the Gambia use to increase profitability, I used Rogers's DOI theory and conducted semistructured open-ended face-to-face interview with five SME leaders in the Gambia. The findings from the study aligned with the conceptual framework.

I used the DOI theory to explain how consumers perceive innovations and how the perception of the effect of the new technology affects social barriers regarding interest level, understanding, awareness, and acceptance. Researchers such as Bankole and Olatokun (2017) and Kayisire and Wei (2016) found that one of the barriers that prevented SMEs to adopt e-business technologies was lack of skills. In the DOI theory, individuals use the complexity characteristic to overcome difficulties related to the understanding and use of innovations. Findings from the study proved that SMEs could use social media tools such as Facebook, WhatsApp, and Twitter to expand their businesses and be able to reach the global consumer-base. SME leaders use the social media tools to communicate with their customers, advertise their products, as well as sell their products on the platforms for little or no cost. The findings revealed that SMEs were able to understand the relative advantage of adopting e-business tools and applications into their businesses to increase productivity and profitability. The findings also revealed that SMEs were also able to overcome the complexities of the e-business tools and applications through training. Using YouTube, the SME leaders were able to learn about the features of e-business tools and applications, learn new ways of using Facebook and Twitter, and other social media tools to reach a larger customer-base across the world and consequently increase profitability. Ainin et al.'s (2015) assertion that SME leaders use

social media tools such as Facebook to reduce advertising cost, increase finance performance, as well as improve customer relations supported the findings from this study. Begg et al.'s (2019) assertion that social media has become a resource for interactive learning, aligned with the finding in this study.

SME leaders should recognize the potential benefit of e-business tools and application could bring to their business. SME leaders should also adopt e-business training as the cornerstone of their business operations by incorporating YouTube and other social media tools into their training strategies. Finally, SME leaders should harness the potential benefits of social media to increase visibility, reduce advertising cost, increase productivity, and consequently increase profitability.

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Appendix A: Interview Protocol

Interview: The e-business training strategies SMEs use to increase profitability

A. I will hold the interview at a location convenient to the participants.

B. I will begin the face-to-face or the audio recorder interviews with a brief introduction and an overview of the research topic.

C. I will thank the participants for their participation in the study and assure them of my concern about the sensitivity of their time.

D. I will reassure the participants that the interview will remain confidential.

E. I will inform the participants that I will record the interview for accuracy and reliability purposes.

F. I will observe the participants' body languages during the interview and ask probing questions as needed to get more in depth from the answer they provided.

G. I will thank the participants at the end of the interviews and explain the next step, which is member-checking and schedule a follow-up date and time with them.

H. After I have concluded the study, transcribed and recorded findings, I will share a brief synthesis of the individual questions.

I. I will bring probing questions related to other information that I may have found noting the information related to adhere to IRB approval.

J. I will walk through each question, read the interpretation, and ask the participants if I miss anything and they have some additions.

K. At the conclusion of the study, I will provide the participant with a summary of the study findings.

Appendix B: Invitation to Participants

Dear {Participant},

My name is Papa Faal. I am a doctoral candidate at Walden University. I would like to extend an invitation to you to participate in my research study. The purpose of this qualitative multiple-case study is to explore the e-business training strategies SME leaders use to increase profitability. I hope to interview five volunteers for this multiple case study.

If you are interested in participating, please review the attached informed consent form and feel free to ask any questions. You may reply to [REDACTED], call my local number, or you can call me at [REDACTED] to notify me. The first 3 volunteers will be accepted as potential participants. If you accept and are selected for this study, I would invite you to an informal meeting in a location of your choice to discuss the purpose of the study. I will also review the informed consent form with you so that you have a thorough understanding of your participation in this study. If I receive more volunteers than the required amount or collected a sufficient amount of data, I will notify you by email or phone of your status as a participant.

Thank you in advance for your consideration.

Respectfully,

Papa Faal