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Small Business Strategies for Information Technology Implementation in Developing Countries

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This is to certify that the doctoral study by

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Abstract

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Abstract

Small business leaders need dynamic capabilities created through careful implementation of information technologies (ITs) to enhance efficiency, performance, and output. The purpose of this multicase study was to explore strategies leaders of small businesses used in developing countries to implement ITs for improved business performance. The framework for this study was the technology, organization, and environment model. The sample population consisted of 10 leaders of small businesses located in the Accra region of Ghana. The study participants had at least 5 years of experience working with small businesses that implemented IT. Data were collected from semistructured interviews and review of companies' strategic and project plans. The data analysis process included methodological triangulation, coding, the identification and congregation of themes, and the interpretation of inferences. Five themes emerged: top management support for IT implementation, investment in appropriate IT infrastructures, engaging in appropriate IT knowledge and skills training, creating an organizational culture of IT acceptance, and embracing legal and regulatory frameworks for IT. Findings from this study might assist leaders of small businesses in gaining insights into key IT strategies required for improving small business survivability. The implications of this study for positive social change include the potential to facilitate employment generation and reduce poverty in developing countries by improving small business performance.

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Dedication

I dedicate this work to God for granting me life and the strength to go through this study to impact other lives in a positive way. I thank my mother, Dorothy Ablorh, for being a pillar of support during the period. I dedicate this work to my wife, Dr. Evelyn Kwabiah, for her outstanding support, good understanding, motivation, and presence during the difficult times.

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Section 1: Foundation of the Study

Small business enterprises are a vital source of revenue, accounting for approximately 90% of industrial employment in developing countries (Ardjouman, 2014). However, small firms operate in a dynamic environment characterized by changing customer needs, increased competition, greater need for flexibility, and the rapid innovation of products and services (Parida, Oghaz, & Cedergren, 2016). Small businesses need dynamic capabilities created through careful implementation of information technologies (ITs) to enhance efficiency, performance, and output of businesses (Paul & Uhomoibhi, 2014).

IT enhances small business competitiveness, operating efficiency, and business growth (Molinillo & Japutra, 2017). Globally, enterprise leaders are placing greater emphasis on IT implementation to build dynamic capabilities (Doucek et al., 2014). Parida et al. (2016) maintained that firms with dynamic capabilities retain the flexibility to revise and reconfigure resources and routines to meet the rapidly changing business environment. However, many small businesses in developing countries fail because of limited knowledge of IT implementation strategies (Cant, Wiid, & Hung, 2015). Tob-Ogu, Kumarb, and Cullen (2018) posited that the implementation of IT could improve the organizational performance of small businesses. The outcomes of this study may enable small enterprise leaders to proffer strategies for implementing IT in developing countries for improved business performance.

Background of the Problem

Proper implementation and application of IT enables business leaders to transform small businesses and boost productivity (Zhuming & David, 2015). Bilgihan and Wang (2016) noted that IT systems are fundamental to ensuring small leaders utilize new technologies effectively. Annamalah (2018) emphasized that the sustenance and overall profitability of an organization in globalized business markets depend on the efficient management of information and related technologies.

Cesaroni and Consoli (2015) explained that many small business organizations lack IT skills and resources to expand their markets, acquire current technologies, and implement new ideas. Despite the various benefits from the use of IT to improve small businesses performance, IT implementation levels are relatively low in developing countries (Olise et al., 2014). Small business leaders lack strategies to implement IT for improved performance in developing countries (Hyder & Lussier, 2016). Malalgoda (2016) noted the lack of IT skills, capacities, and deficiencies in IT implementation strategies are major challenges that confront small business leaders in developing nations.

Olise et al. (2014) and Platero-Jaime et al. (2017) posited the implementation of IT could improve the organizational performance of small businesses. The application of IT by small business leaders may lead to improvement of business processes and systems, cost reduction, and higher productivity, which could reduce small business failures (Hyder & Lussier, 2016). The purpose of this research was to identify strategies needed by small business leaders to utilize IT for improved business performance.

Problem Statement

Small businesses in developing countries have some of the highest failure rates in the world (Hyder & Lussier, 2016; Muriithi, 2017). Sixty percent of small businesses in developing countries fail within 2 years of operation because of limited knowledge of ITs (Cant et al. 2015; Fatoki, 2015). The general business problem was small businesses are being negatively affected by the nonimplementation of ITs. The specific business problem was many small business leaders in developing countries lack strategies to implement ITs for improved business performance.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies leaders of small businesses use in developing countries to implement ITs for improved business performance. The population consisted of 10 small business leaders located in the Accra region of Ghana. The study findings may contribute to social change by improving small business performance to facilitate employment generation and reduce poverty in developing countries.

Nature of the Study

I employed a qualitative method in this study. Researchers use the qualitative method to explore the experiences and perspectives of a population (Berkel, McBride, Roulston, & Brody, 2013). I selected a qualitative method because the goal of the research was to explore the phenomenon from the perspective of small business leaders. Quantitative researchers use statistical data to test hypotheses (Denzin, 2012). Because I did not test hypotheses, the quantitative method was not appropriate for this study. Mixed

method researchers provide a dimensional framework that allows for the coexistence of quantitative and qualitative research approaches and, therefore, requires a high level of expertise (Johnson, Onwuegbuzie, & Turner, 2007: Schutt, 2015). Since I did not possess a high level of expertise, I did not use the mixed methods approach.

I chose a case study design. Researchers use a case study design within a closed system to explore the complexity and essence of a phenomenon (Hyett, Kenny, & Dickson-Swift, 2014). A case study design enables researchers to explore *how* and *what* questions to comprehend the characteristics of the case being studied (Yin, 2014). I selected the case study design because I explored a phenomenon using the *how* and *why* questions. Ethnographic design researchers immerse themselves in the culture of the participants in their natural environment to study behaviors, beliefs, and languages (Petty, Thompson, & Stew, 2012). Since I did not immerse myself in the culture of the participants to study their behaviors, beliefs, and languages, the ethnographic design was not appropriate for this study. Researchers employ a phenomenological design to explore the lived experiences of research participants (Hou, Ko, & Shu, 2013). The phenomenology design was not appropriate for this study because my focus was on the strategies small business leaders use in adopting information and communication technology (ICT) and not the lived experiences of individuals.

Research Question

What strategies do small business leaders use to implement IT for improved business performance?

Interview Questions

1. What strategies did you use to implement IT in your organization?
2. What IT strategies do you use to improve small business performance?
3. How did you overcome hurdles to IT implementation specific for developing countries?
4. What benefits have you derived from implementing IT in your organization?
5. What technological factors affected your implementation strategy?
6. How did you overcome technological factors for successful implementation?
7. What organizational factors affected your implementation strategy?
8. How did you overcome organizational factors for successful implementation?
9. What environmental factors affected your implementation strategy?
10. How did you overcome environmental factors for successful implementation?
11. What skills or factors would you identify as most crucial for small business owners who want to implement IT to improve performance?
12. What other information can you add to benefit this study?

Conceptual Framework

The framework for this study was the technology, organization, and environment model (TOEM). In developing this model, DePietro, Wiarda, and Fletscher (1990) identified three contextual areas that affect a firm's technology adoption and implementation decisions: (a) technological context, (b) organizational context, and (c) environmental context. The technological context entails the internal aspects, such as the current practices and external technologies available to the firm, while the organizational

context refers to scope, size, and managerial structure of the firm (DePietro et al., 1990; Oliviera & Martins, 2011). Oliviera and Martins (2011) stated that the environmental context is the arena in which the organization conducts business, such as the industry, competitors, and dealings with the government.

Researchers have used TOEM to understand adoption and implementation strategies as a function of appropriate technology and relevant factors within the organizational and environmental contexts (Hoti, 2015). Zabadi (2016) explained that researchers also utilize TOEM to comprehend key logical components that determine IT execution in institutions. Factors in the technological, organizational, and environmental contexts have statistically significant relationships with IT adoption (Awa, Ukoha, & Igwe, 2017). Micheni (2015) indicated that the TOEM is appropriate for adopting technologies. By identifying factors that influence technology implementation, business leaders could proffer strategies to influence implementation of IT for improved corporate performance and the reduction of business failures (Afolayan, 2015). I used TOEM as the conceptual framework in this study to explore strategies needed by leaders of small businesses to implement IT for improved business performance in developing countries.

Operational Definitions

Digital divide: When a population is economically or socially disadvantaged by limited access to or use of ICT for knowledge transfer and growth (Giebel, 2013).

Environmental context: The ecological settings in which a firm conducts business, other companies in the industry, and interactions with the government (Angeles, 2014).

Information technology (IT) capacity building: The process of improving human and organizational IT capacity for tasks to attain business objectives (Owusu-Ansah & Nyarko, 2014).

Information communication technologies (ICT): A scope of technologies for handling, storing, recovering, processing, investigating, and transmitting data (Nduati, Ombui, & Kagiri, 2015). Technologies that enable the distribution and easy accessibility of information as well as communications (Oluwatobi, Olurinola, & Taiwo, 2016).

Organizational context: The illustrative measures regarding the organization concerning operational reach, dimension, and administrative hierarchy (Oliviera & Martins, 2011).

Small business: In Ghana, a small business is a company that has less than nine workers and assets such as equipment and machinery (excluding land, buildings, and vehicles), with a value estimated not more than $500 dollars (Ackah, Kondegri, & Agboyi, 2014).

Technological context: Emerging routines, assets, and accessories organic to the firm, as well as the set of available technologies outside of the organization (Oliviera & Martins, 2011).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are ideas researchers accept as true without further investigation or interrogation (Cunliffe & Scaratti, 2017; Grant, 2014). My first assumption was IT implementation continues to be essential for enhanced business performance in

developing countries. Another assumption was that the participants in the study would be able to articulate their experiences of the studied phenomena. The final assumption was that the participants would be straightforward and honest in their portrayal of the research phenomena.

Limitations

Researchers denote limitations to define the boundaries of research and enhance the vigor of the method and theories relevant to the study (Brutus, Aguinis, & Wassmer, 2013). The first limitation was that because the sample size was small, the research findings may not apply to wider population. The other limitation was that limiting the means of data collection to only interviews and archival documents eliminated possible information that could have been acquired through other instruments and tactics.

Delimitations

Delimitations are the boundaries and parameters of the research (Azlan, 2013). The first delimitation was that the population of this study was limited to small business leaders located in Ghana. Another delimitation was that limiting the research to the perspectives of small business leaders may have limited the research breadth. Moreover, the research population was limited to 10 business leaders. Lastly, the use of TOEM as the only conceptual framework to analyze the study findings was also a delimitation.

Significance of the Study

Contribution to Business Practice

Weak growth, low gross domestic product, and unemployment characterize the economies of many developing countries (Taneja, Pryor, & Hayek, 2016; Vijayakumar,

2013). Muriithi (2017) noted that the contribution of small businesses regarding employment generation and wealth creation could be significant for the future of developing countries. Ortiz, Sosa, and Díaz (2015) maintained that IT has considerable importance for increasing small business productivity and growth. IT integration offers a unique opportunity for small business owners to explore international opportunities (Kiveu & Ofafa, 2013). Small business leaders could use IT to change industry structure, alter rules of competition, and facilitate competitive advantage through unique opportunities (Čirjevskis, 2016; Kiveu & Ofafa, 2013). Islam, Takanashi, and Natori (2013) stated that IT innovation execution in field exchanges, training, and output orientations are key achievement factors for small businesses development. The study findings may contribute to a gap in business practice by providing small business leaders with IT strategies to improve business operations and support organizational growth in developing countries.

Implications for Social Change

Kuyowo, Awodele, Aloa, and Omotunde (2013) stated that the implementation of IT strategies could facilitate productivity in an organization. Increased productivity in small businesses provides opportunities for expanding the production of goods and services, improved incomes, and job creation in developing countries (Page & Soderbom, 2015). Adjourman (2014) posited that the implementation of IT enables small business leaders to create jobs and achieve sustainable business growth. Moreover, small businesses in developing countries are vital to securing jobs and diversifying economies (Agboh, 2015). The study findings may promote positive social change by enabling small

business leaders in developing countries to identify effective strategies to utilize IT for improved enterprise performance and growth, thereby enabling job creation, economic development, and the enhancement of consumer products and service availability.

A Review of the Professional and Academic Literature

Literature reviews are an intricate part of research and help investigators to outline and develop research questions that guide studies (Hodgkinson & Ford, 2015; McGinn, Taylor, McColgan, & McQuilkan, 2016). I used this literature review to (a) assess the body of research, (b) confirm that the study identifies a gap in research, and (c) advance the current body of research regarding a specific topic. I carried out the literature review to comprehend the background of the business problem. The literature review consists of eight major categories: (a) business application of IT, (b) IT enhancement of business operations, (c) IT implementation challenges, (d) IT infrastructure (e) organizational culture types, (f) business analytics, (g) IT implementation strategies, and (h) an overview of IT implementation theories.

In this review of literature, I highlight sources from reports, peer-reviewed journal articles, and seminal books related to strategies for adopting ITs. I collected articles from ABI/Inform Complete, Emerald Management Journals, Science Direct, Sage, and Business Source Complete/Premier ProQuest databases. Keyword search terms included : *small business, business strategies, business opportunities, culture, analytics, competitiveness, innovation, adoption, strategies, implementation, human resources, skills, knowledge, infrastructure, system requirements, information technologies, strategic leadership, performance, strategic alignment, knowledge, and investment,*

diffusion of innovation theory, technology task-fit theory, technology acceptance model, and *the TOEM*. I gathered information from 205 resources for the literature review. Out of this total, 195 (95%) were peer-reviewed articles and 177 (86%) were published between 2013 and 2017. The literature review also contains four seminal books (2.1%), five government publications (2.6%), and 10 non-peer-reviewed articles (5%)

Business Application of Information Technologies

Small businesses are a vital component in alleviating poverty, especially in Africa, and are significant contributors to the industrial and economic development of many nations (Muriithi, 2017). Small enterprises in the United States enable leaders to create more jobs (Small Business Administration, 2014). Thomason, Simendinger, and Kiernan (2013) noted that small firms in the United States are an intrinsic part of the economy that has made significant contributions to the success of the nation's economy. Senff, Cavalho, Veiga, Duclos, and Pancote (2015) also asserted that small businesses account for more than half of all businesses and employment in developed countries. Moreover, small companies are an essential source of revenue, accounting for a significant number of industrial employments in developing countries (Hyder & Lussier, 2016).

The introduction and use of IT by leaders of small businesses have allowed significant changes in organizational operations and enabled enhancement of speed in clientele interaction and quality service (Kukoyi-Ajayi, 2015: Mubaraka, Kalulu, & Salisu, 2013). Mubaraka et al. (2013) further noted that IT facilitates speedy information processing, dissemination, and utilization and enables greater management and

harmonization of different departments of organization. Bouwman, Nikou, Molina-Castillo, and de Reuver (2018) asserted that IT has a significant impact on most industries and economies, emphasizing that technology use have changed small business processes and rules, resulting in the renovation of enterprises. IT positively affects the business settings and transforms the organizational configuration and output of firms (Asma & Maslin, 2015). Furthermore, various technological advancements affect small business strategies implementation and human resource management within organizations by enhancing the promotion of efficiency in the areas of electronic recruitment, staff administration, computer and communication accessories, and the design of jobs (Asma & Maslin, 2015).

Farrell (2017) affirmed that small business leaders use IT to enhance administrations by upgrading business procedures and impacting the way leaders make decisions. IT implementation offers a unique way to consolidate competitive business positions in the face of diverse challenges (Giachetti, 2016). Mattos and Laurindo (2015) maintained that IT enables business collaboration, which is an essential factor for facilitating the flow of information. Ardjouman (2014) also observed that IT provides an opportunity for small business leaders to improve operational efficiency for competitive advantage.

Business opportunities. There has been a growing demand for IT in small organizations, which makes organizations compelled to commit enormous funding into IT and related Internet services (Alenezi, Tarhini, & Masa'deh, 2015). According to Aldalayeen, Alkhatatneh, and AL Sukkar (2013), increased interest in ICT stems from

the role and influence of ICT in organizations, especially in the areas of production cost reduction, the level of price improvement, and increase in quality improvement, which enhances the increasing competitiveness of small business organizations. Aldalayeen et al. noted that the positive impact of ICT has enabled the development and expansion of work performance.

Shaijumon (2014) noted that the effects of ICT on businesses are varied and influence market competitiveness in different ways. According to Masa'deh, Tayeh, Al-Jarrah, and Tarhini (2015), ICT affords small business leaders the strategic flexibility that enables the competitive advantage of firms and enhances business operational processes. Bingi (2014) stated that the use of enterprise-class systems and technologies, such as electronic medical records and enterprise planning systems, had attracted the attention of small business leaders because of the transformational effects on businesses. Mazzarol (2015) stated that the benefits and advantages of ICT depend on elements like the type of internal business changes, such as the reengineering process, personnel retraining, and suppliers-customers interaction. On the contrary, Kwak (2013) argued that firms' usage of ICT was not likely to affect inventory turnover significantly, calling for the careful consideration of ICT implementation. From my analysis, there is need for further research to ascertain the extent of the influence of ICT on business improvement.

The dramatic advancement of the Internet beyond anticipation regarding diffusion, speed, and scope has led to global ICT-driven economic development trajectory (Watanabe, Naveed, & Zhao, 2014). However, Watanabe et al. (2014) stated that contrary to the dramatic advancement of the Internet and subsequent ICT

advancement, businesses are experiencing the consequences of a dramatic decrease in the rate of innovation. Small business leaders should, therefore, align the benefits of ICT regarding productivity with business changes.

Economic growth. A sound private venture sector contributes considerably to the economy through job creation, higher generation returns, and enhanced development and business aptitudes (Carvalho & Costa, 2014). Small businesses are a vibrant factor in developing countries as *engines* through which organizational leaders achieve business and economic growth objectives (Carvalho & Costa, 2014). According to Boohene, Ofori, Boateng, and Boohene (2015), globally, small businesses are significant in the development agenda of many nations and contribute to national income, employment, exports, and entrepreneurship development.

IT is a vital catalyst for growth (Melki, Nicolas, Khairallah, & Adra, 2017). Muthoni, Omato, and Kithinji (2013) emphasized that IT is necessary not only for the advancement of smaller organizations but the general development of the economy of any country. Ani, Ngwunta, Eneje, and Okwo (2014) posited that telecommunication is a necessary framework that adds to the improvement of different sectors of the economy. Mutoko (2014) noted that there is concern small businesses in developing countries lack the opportunities for economic growth and improvement enjoyed by firms in the advanced economies because of the scarcity of ICT application.

Tăbuşcă and Maniu (2017) affirmed that small businesses are vital for economic and competitiveness growth. Tăbuşcă and Maniu noted further that IT enables business leaders to contribute to innovation, job creation, and social integration. Despite the ever-

changing demands and challenges imposed on enterprises, leaders have introduced IT into business processes resulting in innovation, flexibility and high adaptability, faster development, and significant social interaction (Tăbuşcă & Maniu, 2017).

Maredia et al. (2017) posited that the rapid spread of IT in developing nations offers a unique opportunity to address challenges of transferring knowledge and information to many people living in remote areas. Maredia et al. noted that the low per unit cost of establishing and maintaining contacts with end users through mobile phone has spurred many innovative ideas and initiatives to provide informational products and services. These informational products and services are targeted at farmers living in rural areas via text and voice messaging and the transmission of pictures and videos (Maredia et al., 2017). According to Srinivasin (2014), IT provides access to new market openings and specific services, such as continuous training and new consultative modes. Srinivasin affirmed that IT has the potential to alter how small organizations operate and perform and are a catalyst for economic growth.

Small businesses foster the development of the business industry and the rural economy (Ramukumba, 2014). The development of small businesses engenders high rates of economic growth and contributes to socio-economic development and poverty reduction (Ramukumba, 2014). Ramukumba asserted that small business development related well to the economic growth of any country.

Social and community development. ICT is a vital catalyst for national progress and social transformation (Majchrzak, Markus, & Wareham, 2014). ICT insight has motivated policymakers in the telecom industry to ensure universal access for all citizens

(Majchrzak et al., 2013). According to Finveden et al. (2014), positive and negative social impacts can occur with the introduction and implementation phases of ICT. Ogbuabor, Agu, and Kalu (2017) noted that the introduction of ICT induces positive innovative applications and their knowledge-centric management tools, creating new products, services and business models. However, Ogbuabor et al. cautioned that ICT implementations could result in job losses and consequently unemployment.

Information Technologies Enhancement of Business Operations

ICT affects the performance of small businesses (Majchrzak et al., 2014). The potential for leveraging ICT to enable private sector development is far from being fully exploited (Rahman, 2016). Zhuming and David (2015) posited that proper implementation and application of ICT transforms businesses and boosts productivity.

Business development. Madadipouya (2015) noted that ICT supports businesses as an indispensable part of value creation in companies across the world. IT enables information exchanges that are imperative for strong business relationships (Lindh & Nordman, 2017). In this view, information exchange processes form long and stable business processes that culminate into profit generation, increased performance, and the creation of new business development (Lindh & Nordman, 2017). Advancements in the field of ICT (e.g., distributed computing, interpersonal interaction, and remote correspondence) have additionally changed data sharing and supply chains structures (Harris, Wang, & Wang, 2014). IT empowers organizations to attract more clients, present new products and services rapidly, and work together with providers and business accomplices globally (Irungu, Mbugua, & Muia, 2015). Al-Dmour, Nweiran, and Al-

Dmour (2017) asserted that adoption of IT for e-commerce in business organizations encompasses: (a) innovative use of online platforms to deliver services to users; (b) transaction flow from offline to online presence; (c) transferring customer services; and (d) delivering needs through online channels to improve service quality, reduce cost, and expand customer base reach. Businesses with high IT usage have higher productivity and growth, especially in areas such as turnover and market concentration. In addition, there is evidence that markets are more efficient in ICT-intensive industries (Polder, de Bondt, & George, 2018). Yunis, El-Kassar, and Tarhini (2017) observed that business leaders rely on IT in the dynamic global business environment to drive innovation-based activities for better efficiency and higher performance to attain and maintain competitiveness as well as improve profitability. Leif, Oscar, Tone, and Kåre (2014) forewarned that the presentation of an ICT-based apparatus alone is deficient in guaranteeing effective business development.

Business productivity. Technology enhances small business leaders' capability to gain insights into the experiences of consumers and supports the efficient fulfillment of stakeholders' expectations (Foroudi, Jin, Gupta, Melewar, & Foroudi, 2016). Ishida (2015) explained that ICT adds to a decrease in energy utilization and increase in economic growth, while Visée (2015) observed that technology had enabled the delivery of numerous advantages, such as the increasing levels of mechanization, which has improved and simplified business transactions. Visée noted further that improved network capacity and reduced response times mean that local operations, even in

continents far away from the head office, can run on global enterprise-resource planning software from remote data centers.

Oladimeji, Olofin, and Raji (2014) emphasized the dramatic effects of recent advances in ICT in both individual and workplace performance and asserted that employees application of computers had a tremendous influence on the productivity of firms. Oladimeji et al. stated further that the use of computers and the Internet are general-purpose technologies that have spread rapidly across all sectors of economies, transforming business organizations, increasing competition, and fostering innovation. Oladimeji et al. reiterated that human capital enhanced the effect of computer use on productivity.

Ortiz et al. (2015) noted that ICT had considerable importance for increasing productivity and growth. Gharakhani, Rahmati, Farokhi, and Farahmandian (2013) added that ICT implementation improves organizational operations, performance, and growth. The implementation, integration, and application of ICT strategies could increase awareness of the potential of ICT, reduce small business failure rates, and improve competitiveness (Mihalič, Praničević, & Arnerić, 2015).

Oyza and Edwin (2015) noted that the utilization of computers adds to diminishing trade costs and stimulates the development of other sectors. The use of e-mail, online business, and web-based social networking systems has altogether eliminated the physical transportation engaged with sending letters, managing an account, publicizing, and purchasing products (Rasoulinia, Mahmoudi, & Maloum, 2015). However, managers should focus attention on strategic funding in ICT since the benefits

of investment in ICT accrues after an extended time frame (Ghazinoory, Khorasani, Rostamy, Taheriatta, & Rashidirad, 2016).

Competitiveness and risk. Lin and Chang (2017) stated that businesses' international competitiveness is the results of a firm's financial and non-financial activities in foreign markets about the activities of other companies operating in the industry. Kowal and Paliwoda-Pękosz (2017) further observed that ICTs are crucial factors responsible for a businesses' international competitiveness. Lucas, Agarwal, Clemons, El Sawy, and Weber (2013) focused attention on the striking transformations in economic and social and ICT systems and encouraged more research for policy implications. Lucas et al. argued that ICT is an essential driver of economic and social value, enabling transformational change in every aspect of society.

Otim, Dow, Grover, and Wong (2013) reviewed the differential impact of various types of ICT investments on business downside risk and found that ICT investments and their timing had an impact on organizational downside risk. Moreover, transformational and informational ICT investments lead to a reduction in downside risk based upon the strategic ICT investments in the industry. Caldwell, Harland, Powell, and Zheng (2013) emphasized that ICT could enable small business leaders to control cost and build long-term relationships with customers. However, Caldwell et al. cautioned that the deployment of new technologies has risks associated with privacy and security.

Innovation. Innovation is a vital factor that influences business performance (Cuevas-Vargas, Estrada, & Larios-Gómez, 2016). Small business leaders should rethink strategies to place greater importance on innovation strategy, allowing businesses to

attain superior competitive advantages and performance (Cuevas-Vargas et al., 2016). Cavallo, Ferraria, Bollani, and Cocciac (2014) stated that the dissemination of technological transformation is a key innovative worldview that has received much attention by small business leaders because the distribution tends to increase productivity and generate a social surplus. Sana, Alistar, and Amamou (2014) asserted that ICT is a key mechanism and an enabler for small business innovation. Murphy, Carmody, and Surborg (2014) in contrast stated that although new ICT are enhancing the productivity of small businesses in specific industries through improved communication practices, profound transformations to business networks and information access, processing, and management capabilities are not occurring to the same extent. Murphy et al. asserted that knowledge and innovation benefits from ICT use remained limited at present. Cardona, Kretschmer, and Scrobel (2013) opined that ICT plays a crucial role in individual endeavors and productivity statistics as well.

ICT training results in superior business routines, additional revenues, and profits (Bosire & Nzaramba, 2014). Innovation is an essential characteristic of small businesses (Bosire & Nzaramba, 2014). Innovative enterprises can respond within the limits of the information on existing products or services to alterations required by the customer within their niche market (Mwangi & Bwisa, 2015). The lack of innovative skills among small business leaders is a significant challenge in contemporary business operations (Bosire & Nzaramba, 2014).

Zoroja (2016) stated that innovation activity of small businesses related positively to the use of ICT in internal communications, adding that development action and ICT

learning positively affect subjective measures of authoritative execution; and subjective measures of business execution connects with objective ones. Saginova, Zavyalova, Skorobogatykh, and Musatova (2015) argued that small businesses innovation influences efficiency and productivity through increased competition. Dadfar, Dahlgaard, Brege, and Alamoor (2013) examined the connection between organizational ability to innovate, product innovations and performance, and concluded that in managing changes, small business leaders should focus on organizational context and external linkages in addition to strategic design and practical implementation.

Economic transformation. IT influences the growth of economies and business efficiency and facilitates innovation through diffusion processes, usage practices, and business success (Cuevas-Vargas et al., 2016). IT implementation permits quick access to ideas and experiences from an extensive variety of groups, communities, and cultures, and remains a formidable tool for change in any society (Ladokun, Osunwole, & Olaoye, 2013). The effects of IT are diverse, and influence market competitiveness in different ways (Shaijumon, 2014). IT presents unprecedented opportunities to empower small business leaders by strengthening their capabilities in marketing their products (Shaijumon, 2014). Shaijumon (2014) stated that the creation of a value chain for each agricultural product deemed strategic could reduce malfunctions considerably, and could lead to factors at all links of the chain to draw greater benefit from work performance. IT, therefore, contributes to the reduction of poverty and the economic growth of the country.

According to Al-Nuaimi, Al-Neyadi, Mohamed, and Al-Jaroodi (2015), there is a rapid development in the use of ICT in business enterprises. Al-Nuaimi et al. stated that

IT performs a crucial role in information-based economies, and small business leaders tend to rely heavily on IT solutions to expand and develop their businesses. Charles, Ojera, and David (2015), however, stated that size, strategy, and age of a commercial enterprise are elements that shape implementation strategies, and cited the complex interplay and relationships of internal and external factors in shaping approaches to IT implementation. Charles et al. therefore advocated for a cautious approach to IT implementation.

Parida et al. (2016) examined how technology capabilities of small businesses impact on the dynamic capabilities of enterprises. Parida et al. revealed that IT abilities have an impact on dynamic capabilities of small firms. Parida et al. added that the use of IT for developing domestic operational efficiency influences adaptive capabilities, and improve networks collaboration. Using IT in communications positively affects how businesses innovate and embrace technologies (Parida et al., 2016).

Hong and Ghobakhloo (2013) posited that information systems and technologies are treasured organizational resources and crucial enablers of company overall performance, within the context of small organizations. Hong and Ghobakhloo noted that ICT leveraging competence in new product development (NPD) and NPD effectiveness are valuable capabilities that transform the value of ICT resources to a firm's performance. Hong and Ghobakhloo stated further that investments in both technical and human ICT resources have positive effects on the development of NPD capabilities and performance. Binuyo and Aregbeshola (2014) also noted that the most critical improvement arising from the investment in ICT is the enhancement of operations, and

hinged on the reduction in overhead costs. Ashari, Heidari, and Parvaresh (2014) stated that effective use of ICT in firms and organizations created several opportunities and urged small business leaders to invest in ICT to differentiate themselves apart from their competitors and enable sustainable performance. In contrast, Stahl, Eden, Jirotka, and Coeckelbergh (2014) examined the impact of ICT on the global economy and business and argued that the relationship between ICT and organizational factors is not identifiable, bringing the necessity for further research on the relationship between ICT and business productivity.

Koçoğlu, Akgün, and Keskin (2015) posited that information systems are the primary catalyst for stimulating business transformations that trigger considerable changes. Kocaoglu and Acar (2015) observed that the implementation of new data systems by many companies had triggered business transformations. Khamis, Sulaiman, and Mohezar (2014) concluded that firms could facilitate their e-business over time through the successful development of core capabilities. The key to success, therefore, is knowing how and when to apply specific technologies (Taylor, 2015).

Sandulli, Ferna´ndez-Mene´ndez, Rodrı´guez-Duarte, and Lo´pez-Sa´nchez (2012) stated that multimarket firms set up different control mechanisms and obtain various synergies depending on their size or the specific industries in which they operate. Sandulli et al. stated further that smaller firms benefit more from strategic control capabilities acquired with the implementation of ICT in operations while larger companies may benefit more from ICT-supported financial processes. ICT as a unique function is a fundamental element of infrastructure for efficient industries and a critical

productivity enhancer (Shubham, 2014). ICT is, therefore, crucial for sustaining recovery and laying the foundations for economies that are competitive in the long term (Shubham, 2014). According to Shubham (2014), ICT permits economic growth by expanding the reach of technologies such as high-speed Internet, cell broadband, and cloud computing. Suppliers benefit from ICT by developing, managing and distributing merchandise without any period and geographical limitations to support the expansion of industries by way of presenting useful tools (Ashari et al., 2014).

Business strategic alignment. Strategic alignment (SA) is the proper linkage between business strategy and ICT strategy (Chou, Wang, & Yang, 2014). Strategic ICT alignment is the extent of correlation between ICT and business strategy (Cui, Ye, Teo, & Li, 2015). According to Roses, Brito, and Filho (2015), strategic alignment between business and ICT within organizations is the extent of matching between ICT goals, set objectives and projections and the company mission and objectives, and vice versa. Majstorović (2016) defined alignment as the degree of agreement between the mission, objectives, and plans contained in the business strategy with IT strategy. Makokha and Ochieng (2014) posited that small business leaders could assess the success rate of businesses by aligning ICT usage with business objectives. Strategic leadership lays the foundation for building capabilities (Dess, Peng, & Lei, 2013).

There is agreement among scholars' implementation of IT strategies enhances business growth although the lack of long-term decision-making and IT policy initiatives continually deprive developing nations of progress (Samkange & Simba, 2015). The relationship between IT implementation and small business innovation has accelerated

research concern in entrepreneurship development, and the concept of ICT entrepreneurship (Amue, Igwe, & Abue, 2014). Although business leaders agree about the contribution of ICT entrepreneurs towards small business innovation, structural changes remain a sustainable approach in the business industry (Amue et al., 2014). SA is necessary to understand how organizational leaders can transform the employment of IT into tangible increases in business performance (Coltman, Tallon, Sharma, & Queiroz, 2015).

Saleem, Salim, Al-Ghamdi, and Ullah (2015) suggested that some leaders have chastised the normal evaluation processes of ICT systems such as returns on investments, price-value analysis, loan repayment period, and current value. Saleem et al. added that such routine evaluation methods focus only on concrete thorough costs advantage. Practical assessment presents organizations with an opportunity to learn, reduce the level of uncertainty about ICT investments, and gain investor confidence (Makokha & Ochieng, 2014). According to Cui et al. (2015), strategic IT alignment permit groups to apply IT to facilitate an enterprise strategy to attain higher overall performance.

The strategic IT alignment concept emphasized that a shared knowledge between designers of IT and enterprise executives ensures more efficient resource allocation to respond to industry challenges and possibilities (Cui et al., 2015). Pérez-Méndez and Machado-Cabezas (2015) stressed that the efficiency of strategic business orientation, information systems (IS) strategic alignment, and IS enables business performance, stating further that IS strategic alignment serves as an improved evaluator of IS effectiveness than policy direction.

Olamade, Oyebisi, and Olabode (2014) noted the extent of ICT application in maintaining long-term business focus depends on business competition, the long-term response strategy, and enterprise leaders' resolve to assimilate ICT and resist competitors. Heesen (2012) observed that rather than visualizing alignment at the organizational level as most organizations do, business leaders should conceptualize and evaluate alignment at business service levels. The impact of IT on small businesses is advantageous and, enables managers of small firms to improve operational performance to drive commercial enterprise profits and to integrate their marketing operations with marketing strategies (Colin, Galindo, & Henandez, 2015). ICT implementation, however, has not always been beneficial to small businesses because of a disconnect between consistency between a firm's business strategy and IT strategy (Alford & Page; Omotayo, 2015). Chumo (2016) emphasized that IT and business strategies do not independently enable organizations to realize performance improvement.

IT strategic alignment has great outcomes of complementary business and IT strategy on business performance in contrast to firms that have misaligned strategies (Reynolds & Yetton, 2015). Despite the significance of SA to business success, researchers continue to wrestle with issues of conceptualization and measurement (Elmorshidy, 2013). Wu, Straub, and Liang (2015) acknowledged the difficulty and complexity of measuring strategic alignment. Wójcik (2015) posited that capabilities arise when organizations embed resources into organizational routines to create identifiable business-specific skills whose advantages cannot be easily eroded. Business

enterprises that invest in IT assets and employ specific resources are likely to benefit from the competitive advantage (Gaya, 2016).

An analysis of 30 years of alignment research indicates that IT-business strategic alignment leads to higher firm performance (Gerow, Thatcher, Grover, & Roth, 2014). The business value of ICT stems from how technologies improves or enables business processes (Siurdyban, 2014). Siurdyban (2014) noted that in the field of strategic IT/business alignment, the focus remains on how IT and business partnerships enhance the value of IT. Building effective ICT and business partnerships to foster improvement and development of business processes is therefore crucial for both efficiency and innovation-related organizational growth (Siurdyban, 2014).

ICT implementation by small businesses depends on external and internal factors (Perez, Popadiuk, Roux, & Cesar, 2017). The external factors include government, competitors, IT products in markets and external ICT consultants (Siurdyban, 2014). The internal factors include the firm resources, IT users, owner-manager characteristics, and organizational behavior and characteristics (Ghobakhloo, Hong, Sabouri, & Zulkifli, 2012). IT could influence the improvement of external and internal communication. For best performances, business leaders should align IT investments with internal capabilities and organizational processes (Asta & Rimantas, 2014). The careful alignment of IT strategies and tools with the internal and external factors outlined could enable the overall organizational success of small businesses.

Information Technology Implementation Challenges

Business leaders compete in tight markets and face an unpredictable, complicated, and competitive client-oriented environment (Mihalič et al., 2015). To survive in such an environment, business leaders must adopt ways to be agile, adaptive and competitive (Mihalič et al., 2015). Business leaders encounter setbacks (Smit & Watkins, 2012), and suffer from resource poverty (Rahab & Hartono, 2012) in the attempt to adopt ICT. Business failures include bankruptcy, discontinuity of the business, and discontinuity of ownership (Ucbasaran, Shepherd, Lockett, & Lyon, 2013). Al-Shboul (2014) stated that some leadership challenges affecting the implementation of IT include (a) lack of funds, (b) limited knowledge, (c) lack of skilled staff, and (d) best practices for sustainability.

Resource poverty has come about from situations that are particular to small businesses, such as operating in an exceedingly competitive environment, financial constraints, loss of professional know-how, and susceptibility to outside forces (Rahab & Hartono, 2012). Small businesses face many challenges in the quest to adopt strategies for implementing ICT such as lack of capital investment and a lack of infrastructure and human capital (Smit & Watkins, 2012). Erratic energy supply and the inadequate knowledge of IT also create considerable challenges to small business leaders in developing countries (Adisa, Abdulraheem, & Mordi, 2014). According to Sherazi (2013), small businesses suffer from insufficient funding, low technological capabilities, outdated production facilities, and the shortage of trained workforce. Asiyai (2014) noted that obstacles to the effective integration of ICT by business leaders included lack of positive government attitude to ICT policy, insufficient financial support to invest in ICT

facilities, and lack of computer literacy. Tinuoye and Adogbeji (2013) also found that challenges associated with the use of ICT are (a) insufficient ICT facilities, (b) sophisticated accessory requirements, (c) unreliable electric power supply, (d) lack of ICT knowledge and skills, and (e) difficulty in integrating ICT into business processes.

Capital investment. Kiveu and Ofafa (2013) observed that the lack of finance and capital investment was a major challenge affecting the adoption of IT by small businesses. Cunningham, Cunningham, and Ekenberg (2016) posited that entrepreneurs in developing nations have a weak financial capacity to invest in ICT tools and equipment for better management of a business. The financial ability of many entrepreneurs is limited to the basic business requirements (Cunningham et al., 2016). Osano and Languitone (2016) also noted that small business leaders encounter difficulties accessing bank loans to finance company assets. Osano and Languitone posited further that these challenges are more significant for small businesses, and represented a major challenge. Kusi, Opata, and Tettey-Wayo (2015) investigated the reasons for lack of growth and sustainability of small businesses in Africa and found the lack of budgetary support was a common constraint impeding private venture and small business survival. For business leaders, Kusi et al. proffered alternative solutions to the problem of collateral by recommending that policy framers and companies consider the provision of credit to small businesses without the stringent standard requirements.

According to Akugri, Bagah, and Wulifan (2015), access to credit is vital for the continued existence of small enterprises. Many small firm owners in the United States indicated that lack of access to enough long-term funding to support working capital is

one critical barrier that limits business expansion (Byrd et al., 2013). Martina, Ciovicab, and Cristescua (2013), however, posited that skilled labor remains a significant obstacle in small businesses operations.

Mokaya (2012) established a statistical correlation between financial resources and IT implementation, implying that the financial capacity of a business determined application level. Mokaya concluded that the enormous investment cost in ICT implements and equipment discouraged entrepreneurs in venturing in ICT. Moreover, Naidoo and Van Niekerk, (2014) observed that the lack of financial investments might affect an organization's IT security infrastructure. However, Govender and Pretorious (2015) posited that different scholars have various opinions in current literature on which factors drive ICT and the results of ICT implementation.

Human resource base. Obeng and Boachie (2018) posited that human intellectual resource (e.g., training, experience, intelligence, and skills of individuals) is the most crucial internal organizational resource that serves as the principal driver of profitability, delivery of new products, efficient use of innovative technology, and provision of varied customer preferences. Navimipour et al. (2015) affirmed that the application of human resource strength, expertise, knowledge, and skills could result in organizational success. Jimenez et al. (2015) posited that tertiary education increases formal entrepreneurship because of the higher self-confidence, lower perceived risk and enhanced human capital. Individuals that acquire a higher educational level are most likely to commence their business ventures compared to persons with low-level education

(Byrd et al. 2013; Jimenez et al. 2015). Besides, business researchers have posited a positive correlation between human capital and success of business.

Tsekouras, Kanellou, and Rai (2013) observed that one area small businesses are disadvantaged is the field of training in management skills, which is a requirement to compete in an information and knowledge economy. ICT proficiency influences the procedures and development of information management, which encompasses data creation and transmission, and information coding and system preservation (Al-Halaly & Alnajjaar, 2016; Hawajreh & Sharabati, 2012). The lack of ICT knowledge and skills has significantly affected the adoption of technologies by small business owners (Mng'ong'ose & Victor, 2018).

Martina et al. (2013) observed that enthusiasm is the main reason for adopting ICT. Martina et al. posited further that lack of skills and knowledge both at the management and departmental levels lead to the generation of other barriers to ICT implementation and internal employee reluctance to embrace ICT. ICT enables business leaders to create the platform for efficient accumulation, preserving, and utilization of knowledge (Bogdanović, 2014). Lasch, Robert, and Le Roy (2013) stated that human capital is widely seen as a source of competitive advantage and since ICT is typically knowledge-based, a high percentage of the population with low education levels and skills would result in an adverse effect of ICT. Waziri et al. (2015) posited that adopting IT requires strong leadership with stakeholders' commitment and the necessity of moving from reactive cost leadership of ICT management to proactive strategic direction.

Banda (2013) observed that the reliability of ICT regulatory institutions is crucial to managing and controlling the sector. Banda stated further that ICT policy regulators, especially in third world nations, face a daunting task of training skilled and competent staff. Žnidaršič and Weber (2012) concluded that investment in ICT, leaders' educational and training skills, and strategies for manipulating ICT are the key factors for successful implementation of ICT. According to the United Nations Education Scientific and Cultural Organization (UNESCO) Information Paper (2014), policymakers widely accept that the access to ICT can enable persons to compete in a global economy, enabling a skilled workforce to facilitate social mobility.

Leaders knowledge of information technologies. Van Deursen and van Dijk (2014) found that knowledge is a regular worldwide indicator of ICT use. Ajuka and Anyiro (2014) also noted that knowledge of information systems and ICT use enable access to expert knowledge in business and other industries and allows for prediction of emergencies such as droughts, pest, and diseases infestations in the agriculture industry. Small business owners and managers play a pivotal role in harnessing knowledge for decision-making (Manuere, Gwangwava, & Gutu, 2012). Manuere et al. noted that despite the value of leaders' knowledge to business, some business owners lack ICT strategies, skills, and knowledge of perceived benefits, which are major barriers to ICT implementation. The lack of knowledge on the use of technologies and low computer literacy contribute significantly to the low implementation rate in small businesses in developing nations (Manuere et al., 2012). Martina et al. (2013) posited that many business owners and leaders are not familiar with concepts that underpin organizations'

deployment of technologies to enhance companies' operations. Murphy et al. (2014) observed that global information economy constituted a new phase of capitalism where the productivity and competitiveness of firms mainly depend on the ability of enterprise operators to employ and appropriately apply knowledge-based information. Shaijumon (2014) suggested that the awareness and knowledge of new ICT are the first step in the implementation process. Rahab and Hartono (2012) stressed that the introduction of ICT is likely to create alterations in work routine and structures, and increase computer anxiety among the employees. The proper design and implementation of technologies could foster information and knowledge management skills that raise the staff IT competent levels required for individual and organization's long-term capacity building (Agu, Onyishi, & Okwo, 2012).

Leadership access to information. Information and knowledge are vital mechanisms of poverty alleviation strategies, and ICTs offer the platform for flexible access to large volumes of useful business data and information (Atiqur, Mohammed, Amran, & Rahat, 2013). Atiqur et al. argued, however, that the differential in accessing and utilizing IT is the cause of poverty. Business leaders must therefore strategize to embed strategies to bridge the digital divide within organizations and strive to address the causes of poverty. In many developing countries, poor access to market information severely constrains market access (Okello, Kirui, Gitonga, Njiraini, & Nzuma, 2014). Limited access to marketplace data results in challenges such as moral hazard and adverse selections, which in turn brings about high transaction costs, and hence discourages market participation (Okello et al., 2014). The various ways of raising access

and diversification of the livelihoods of poor and subsistence farmers includes access to new and better-paying markets for agricultural products. Okello et al. posited that the use of ICT implements in general and cellular phones could enable leaders find solutions to the persistent market failures that confront small business leaders because of lack of access to market information.

Wresch and Fraser (2012) stated that ICT facilitates market entry by eliminating structural bottlenecks of distance and promoting economic freedom and development (Wresch & Fraser, 2012). The enhanced outside responsibility and hierarchical learning are consistent conclusions of the expanding administrative utilization of ICT to extend and broaden citizens association (Im, Porumbescu, & Lee, 2013). Regardless of the prospects of ICT execution, small businesses in developing countries are not finding as much accomplishment through web-based business as visualized (Wresch & Fraser, 2012).

Strategic leadership and performance. Business leaders assume multiple and diverse responsibilities (Miska & Mendenhall, 2015). Business leaders also face numerous challenges such as lack of skills and resources, while a significant number of small businesses employ outdated tools and methods, making it difficult to take advantages of opportunities to expand their markets, acquire current technologies, and acquire new ideas (Cesaroni & Consoli, 2015). Small businesses administrators require flexible proficiency and expertise to survive and be profitable in the ever-changing business industry (Shuen, Feiler, & Teece, 2014). Dynamic capabilities deal with the strategy of adapting human capital (McGuirk, Lenihan, & Hart, 2015). Adaptive human

capital facilitates the implementation of more advanced technologies and enhances innovation of businesses (McGuirk et al., 2015). Gökkaya and Özbağ (2015) posited that dynamic capabilities involve groups and shared learning in organizations, which involves coordination of diverse production skills and ability to assimilate different branches of technologies.

Global enhancements in the knowledge management industry tend to have attracted leaders and managers' attention to focus on how IT managers could improve business through ICT (Doucek et al., 2014). Global corporate strategy development has exceeded global leadership development in many companies creating leadership problems, where global companies may not have enough leaders with the required global competencies (Canals, 2014). The external business environment is constantly changing because of globalization, privatization, emerging technologies, and deregulation (Muciimi & Ngumo, 2014). Global leadership competencies rely on the functions that leaders need to perform, and specific in context and not on theoretical notions isolated from the business context (Canals, 2014). Canals posited that there is need for alignment of leadership development with the firm's purpose and strategy, and leadership commitment is a key factor in making leadership initiatives successful.

Organizations compete in a dynamic environment and competitive advantage is vital for organizational survival (Bingi, 2014). Organizational leaders are therefore constantly looking for innovative ways to either maintain or excel in businesses (Bingi, 2014). Bingi (2014) posited that appropriate investments in IT would improve the firm’s capabilities and thus offer strategic benefits.

Zahra, Abdelgawad, Sevejenona, and Sapienza (2013) posited that the concept of entrepreneurial capability is to capture institutions' ability to realize, identify, alter opportunities, and align the game-changing decisions and assets in seeking better opportunities. Zahra et al. noted that the entrepreneurial capability is instrumental for understanding a firm's diversion and evolving strategies, that is, those strategic moves that fundamentally modify the nature, area, and flow of dynamics of competition. Zahra et al. concluded that strategic leadership assumes a fundamental part in sharpening an organization's entrepreneurial ability and adjusting the capabilities of the company's game-changing techniques.

Business leaders are the strategic leaders responsible for meeting shareholder's expectations, achieving sustainability initiatives, and improving organizational performance (Carter & Greer, 2013). Business leadership involvement in the implementation and management of strategic change initiatives may contribute to successful sustainable strategies and outcomes (Epstein & Buhovac, 2014). Epstein and Buhovac (2014) posited a direct correlation between sustainability and turnover, and emphasized that a high turnover may affect how the organization functions as an entity.

Information Technology Infrastructure

IT remains a critical infrastructure to monitor, control, and operate business systems (Skotnes, 2015). Odongo and Kalu (2016) stated that infrastructure deficit in Sub Saharan Africa constitutes a major constraint on economic growth and development. Agboh (2015) said that poor IT infrastructure and lack of IT technical and managerial capacity are obstacles among small businesses that impacts business processes. Adebayo,

Balogun, and Kareem (2013) also observed that the accessibility of IT infrastructure platforms assists businesses considerably in the execution of IT policies and implementation decisions in small businesses. Manuere et al. (2012) added that bad physical infrastructure remains a major factor that hampers IT expansion and exploitation in organizations.

ICT infrastructure quality is an undeniably key determinant of the general venture atmosphere of a nation (Huang-Gon, 2014). The flexibility of enterprise leaders to leverage opportunities created by mobile communications and related services, and applications is particularly vital for smaller enterprises in low-income countries (Carroll, Shih, & Kropczynski, 2015). Haftu (2018) found that a 10% increase in mobile phone penetration results in a 1.2% change in gross domestic product per capita. Therefore, improving access to mobile phones will play a critical role in reducing the poverty level of the region through raising the per capita income of the population (Haftu, 2018).

Olusola and Oluwaseun (2013) observed that one of the crucial impediments limiting IT expansion and greater deployment is the low-level physical infrastructure. Olusola and Oluwaseun further stated that the absence of ICT strategies, nonexistent research and development avenues and skills, and the tendency to rely solely on external support are some of the IT implementation challenges in developing countries. Haun et al. (2018) advocated for an integrated IT skill development and implementation strategies to reflect providers' perspectives to promote adoption.

Systems requirements. Global developments in the data society are setting ever-greater focus on experts in the areas of ICT, and especially on managers of ICT

organizations (Doucek et al., 2014). Small business leaders understand the impact of IT on business (Figueiredo, de Souza, Pereira, Prikladnicki, & Audy, 2014). Some business leaders, however, lack development analysts to tackle customers' and clients' necessities, advance and communicate normal dialect into specialized angles and imperatives for designers, thinking about viewpoints, for example, present and potential clients, association's business and existing IT foundation (Figueiredo et al., 2014). Business leaders require IT architects to plan and characterize the segments constitute an information system of the whole organization rather than parts of a single framework and build up how items obtained and created structures could incorporate to make the general data arrangement of the business organization (Figueiredo et al., 2014). Many small businesses lack this professional skill and acquisition and application of IT resources are therefore haphazard.

Reliable energy supply. Business leaders should actualize an assortment of ICT-assisted instructional ways to support learning, and in addition enhance administration (Adu, Emunemu, & Oshati, 2017). While more current battery-operated ICTs are emerging, notwithstanding cell phones that could be energized off-sites, business leaders require more steady energy sources to operate dominant part of ICTs such as televisions, computers, and Internet services. ICT coordination requires electric power generated through grid connection, the wind, water, solar or fuel-powered generators that are regularly and readily available. Hosman and Armey (2017) posited that electric energy is the most important concern for small business leaders in implementing ICT. According to UNESCO, governments have built more national ICT infrastructure in urban areas and

neglected rural and other unpopulated areas resulting in limited power supply to support ICT infrastructure in those areas.

Paul and Uhomoibhi (2014) examined the possible future benefits of solar electricity generation for access to and use of ICT aimed at business improvement in emerging economies. Paul and Uhomoibhi posited that there are intrinsic links between energy and environmental and socio-economic dimensions of sustainable development, and recommended solar as a dependable and secured elective power supply for accessing ICT. Doe and Asamoah (2014) also noted that business managers are likely to experience poor sales, high production cost, low production, and reduced profits unless leaders identify strategies to ensure constant and reliable energy supply.

Legal and regulatory barriers. Legal and regulatory barriers influence technological advancement and expansions in most African countries (Manuere et al., 2012). Small business owners hesitate to invest in ICT because of the tendency to change governments frequently with the possibility of policy changes (Manuere et al., 2012). Furthermore, little support exists for small businesses from government and industry associations for adequate legal framework to enforce IT policies. Olusola and Oluwaseun (2013) stated that legal and regulatory issues constitute a crucial challenge for small businesses IT implementation in developing countries. Riaeche (2015) posited that while developing countries need to acquire IT and have appropriate policies in place, leaders and employees must understand the benefits of IT in the business development process of companies so that IT investments could be justified.

Edoho (2013) stated that the essential frameworks for utilizing ICT for advancement in Africa are not encompassing and remains uncoordinated. Edoho observed developing countries could not adopt the 2-G and 3-G models of ICT because such countries lack strong institutional and regulatory capacities, which are not likely to develop in the next decade. Governments and other stakeholders should guarantee that ICT platforms and frameworks address the requirements of the various types of enterprises from smaller businesses to large transnational corporations (Kamunge, Njeru, & Tirimba, 2014).

Organizational Culture Types

Culture is a set of shared beliefs and values that distinguish members of one group of people from another and shapes the values, beliefs, assumptions, expectations, perceptions, and behaviors (Khalil & Marouf, 2017). ICT are necessary components of business culture (Janićijević, & Milovanović, 2015). Braithwaite et al. (2017) stated that organizational culture is the values, behaviors, unique characteristics, goals, attitudes, practices and beliefs shared across an entire organization.

In a symbolic view of organizational culture, Idowu (2017) stated that corporate culture entails values and meanings, shared assumptions, priorities, and patterns of beliefs among employees in organizations. Organizational leaders have a crucial role in shaping and refining the organizational culture (Idowu, 2017). Idowu claimed that one of the most decisive functions of leadership is the creation and management of organizational culture. Sholekar and Shoghi (2017) affirmed that corporate culture facilitates ways by, which employees' express ideas and improve workplace communication.

According to Shao, Wang, and Feng (2015), certain culture types prevail in organizations. Hierarchical culture focuses on internal organizational stability and emphasizes security, control, order and rules (Shao et al., 2015). In regulatory corporate hierarchical environment, business leaders tend to be conservative and cautious and pay close attention to the execution of regulations (Shao et al., 2015). Rational culture underscores efficiency, development, goal fulfillment, and achievement, while group culture focuses on adaptability, coordinated effort, trust, and change (Shao et al., 2015).

Dwivedi, Wastell, Laumer, Henriksen, and Myers (2015), affirmed that some information systems may be technically appropriate but not culturally acceptable. The misfit between culture and the type of ICT can result in systems rejection by users (Dwivedi et al., 2015). Business leaders' decision on the kind of ICT tools to adopt would depend on the culture existing in organizations. Resilient cultures found in groups with long-standing traditions tend to have organizational cultures that are not willing to change (Alharbi, Olsson, Ekman, & Carlström, 2014). A corporate culture that is reluctant to change can hinder the change process and the implementation of strategies (Alhazemi et al., 2013). Moreover, European organizational culture reflects business practices embedded in Western-based systems, and when business leaders execute such frameworks in unfamiliar environments, challenges may arise because of the nonalignment of social presumptions with deeply held values (Bitsini, 2015).

Organizational leaders that create a culture that values knowledge sharing have a greater role in successful information and expertise transfer (Ahmed, Shahdaz, Aslam, Bajwah, & Bahoo, 2016). Cultures enable an environment of shared knowledge,

individual interactions, and an understanding of business ethics (Mabey & Zhao, 2016). Excellent organizational culture permits the context in which employees gain through tacit knowledge transfer, which may not be acquired through the routine business interaction and not easily kept in company archives (Omotayo, 2015).

Gulua and Kharadze (2018) emphasized that healthy organizational culture is a precondition for the long-term survival of an organization. Business leaders should share the understanding and interpretation of learning, and developing strategies for combining personality and organizational cultures, and to ensure compatibility with universal humanitarian values of organizational culture (Gulua & Kharadze, 2018). Although Ellinas, Allan, and Johansson (2017) posited that corporate culture is a complex phenomenon to understand, Zafar et al. (2017) emphasized that business leaders that understand business culture and equip employees with cultural intelligence were more likely to create a productive work environment leading to increased profits.

Ardiellis (2017) described digital culture as the dissemination of technologies into societies. Ardiellis highlighted trends in digital culture and noted digital culture is the product of contemporary phase of IT augmented and accelerated by the popularity of networked computers, personalized technologies and digital images. The emergence of digital culture is usually associated with a set of practices based on the ever more intensive use of communication technologies (Ardiellis, 2017). Ardiellis concluded that ICT is fostering cultural entrepreneurship in the cultural and creative industries in developing countries especially at the local level.

Business Analytics

Business analytics refers to the generation and use of knowledge and intelligence to apply databased decision making to support an organization's strategic and tactical business objectives (Parks & Thambusamy, 2017). Business analytics offer business leaders timely insights over competition, enables understanding of optimized business processes, growth generation, and innovation opportunities (Parks & Thambusamy, 2017). Gunasekaran (2018) affirmed that organizational leaders employ business analytics to absorb market turbulence, reducing the negative effects of market forces and making organizations more resilient to yield better competitive outcomes and business performance objectives. Laxmi and Pranathi (2015) noted that the exponential increase in information growth may improve comprehensive data analytics subcontracting markets. Business enterprises will need to incorporate all types of institutional data from all sources to bring new insights on how best to perform organizational tasks (Laxmi & Pranathi, 2015).

Wang et al. (2018) analyzed big data implementation cases and observed the causal relationships among big data analytics capabilities, IT-enabled transformation practices, benefit dimensions, and business values. Wang et al. examined big data implementation to understand how analytics capabilities transform organizational practices, thereby generating potential benefits. Power, Heavin, Demortt, and Daly (2018) noted that business analytics understanding could assist managers to assess skill deficiencies, evaluate relevance of tools and techniques, and provide stimulus for new research and development of business ideas.

Parks and Thambusamy (2017) stated and described the determinant factors of business analytics as business intelligence, information content quality, information access quality, analytical decision-making culture, and use of information for decision-making. Business analytics resources contribute to business performance by developing operational and organizational performance measures (Krishnamoorthi & Mathew, 2018). Krishnamoorthi and Mathew (2018) noted that with the growing adoption of business analytics, business leaders must understand how to create business value from investments. Krishnamoorthi and Mathew posited that higher investments in technologies may not bring additional returns, rather how IT as an organizational capability acts as a key mediator in value creation.

Pape (2016) posited, however, that although the popularity of business intelligence (BI) systems to support business analytics has tremendously increased, the determination of data items that should be stored in the BI system is vital to ensure the success of an organization's business analytic strategy. The amount of data generated through the Internet and smart devices has grown exponentially altering organizations' use of information and has resulted in continual evolvement of BI (Larson & Chang, 2016). Larson and Chang (2016) proposed that business leaders should consider using new emerging trends such as fast analytics and data science as part of BI. With fast analytics and data science, design is encapsulated into development, because data is acquired too quickly to analyze and it is unstructured and dynamic (Larson & Chang, 2016). Fast analytics can involve iteration and visualization of data to understand and define. Data science involves iterative development of analytical models where models

are created, validated, and altered until the desired results are achieved (Larson & Chang, 2016). Organizations that have well-established analytics capabilities are more likely to perform better and identify unique needs of customers than firms without analytics capabilities (Ramsbotham & Kiron, 2017; Roberts & Grover, 2012).

Information Technology Implementation Strategies

IT outsourcing has developed as an indispensable instrument for empowering businesses to access aptitudes, skills and services, concentrate on the corporate core competencies, and decrease the cost of IT service provision (Yap, Lim, & Lee, 2013). The use of IT enables the sustained success of small business organizations. Business achievement relies upon organizations capability to always embrace and make the best utilization of emerging IT for business development and competitiveness (Eze et al., 2014). Globally, different sorts of components, innovative, human, and hierarchical influenced the success or failure of IT implementation in an organization.

User perception of the benefits and usefulness that ICT brings to employees is the most important factor to consider during IT implementation (Muslem, Yussuf, & Juliana, 2018). Business and enterprise leaders' understanding of advantages of advancing IT could lead to successful cases of IT implementation (Gagnon et al., 2012). The simplicity, structure, technical concerns, and compatibility are other vital factors that affect IT implementation (Gagnon et al., 2012). The lack of compatibility with work tactics, routines, tasks, or practices constitutes a barrier that accounted for failure of IT implementation (Gagnon et al., 2012). Alford (2015) noted that to understand IT implementation in small businesses, researchers must appreciate the attitude of owners.

Eicker and Weeks (2014) asserted that although IT has proven to be a critical strategic tool, business leaders should pay attention to clear user requirements for successful implementation.

Ghobakhloo et al. (2012) emphasized that IT planning by small business leaders could use IT planning to underscore and decide how and why IT can improve business procedures and benefits. Ghobakhloo et al. noted that small business leaders should develop strategies and objectives to obtain anticipated results. Small business leaders should emphasize financial and physical resources, and devote considerable time and attention to manage IT implementation process. Furthermore, Ghobakhloo et al. concluded that IT implementation is a lasting commitment and significant venture with a high strategic value that can generate great influence over enterprise legitimacy, sustainability, and survival. Creswell, Bates, and Sheikh (2013) asserted that implementation of IT interventions depends on substantial human investment in skills and strategies.

Information Technology Implementation Theories Overview

ICT refers to extensive varieties of digital technologies that capture, process, and transmit electronic information (Adebayo et al., 2013). Mubaraka et al. (2013) stated that ICT is a range of technologies that allow the recovery, gathering, handling, investigation, and transmission of data. ICT facilitates communication, processes and transmits information, and share knowledge through electronic means. Onn (2013) defined IT as those technologies engaged in the operation, collection, transport, retrieving, and transmission of data in all forms. ICT have experienced persistent advancement and

improvement that redefined the computer age, which has led to new business practices (Barrett, Davidson, Prabhu, & Vargo, 2015).

The utilization of ICT to gain a competitive advantage is a vital strategic platform to develop dynamic capabilities amongst organizations in a rapidly globalizing business environment (Mavengere, 2014). Rapid advances in ICT have developed practically every part of the business industry (Fountoukidis, 2015). The implementation of IT enables small businesses to adopt new organizational models, thus improving the adaptability of the work environment (Boohene et al., 2015). Kossai and Piget (2014) posited that the increasing use of IT is the most significant trend in businesses especially in developing countries, noting further that IT skill, modernization, and application have enabled entrepreneurs to determine business work rate, and productivity, growth, and the inner resilience of organizations to remain competitive.

The implementation and exploration of IT by organizational leaders represent fundamentals of competitiveness and business growth (Seyal, 2015). The complex business information environments necessitate the implementation of IT to develop various avenues of operational activities that firms need to series of competitive activities required to generate an overall company overall performance (Nduati et al, 2015). Moreover, Nduati et al. (2015) stressed that IT could play a crucial role of creating business opportunities and combating pressures from competition for small businesses.

Degerli, Aytekin, and Degerli (2015) posited that business leaders seek ICT at various stages to support the decision process to decrease uncertainty in operations. Modern organizations rely on ICT for survival, and such systems hold valuable

organizational data, and enable access to knowledge and skills that create synergies to achieve highly demanding and complex goals (Luokis, Janssen, Dawes, & Zheng, 2016). Additionally, Ejiaku (2014) noted that flexible IT infrastructure is vital in developing sustained competitive advantage, and is a source of business value. Rodgers (1995) emphasized the determinants of ICT implementation and the hypothetical models that have emerged addressing ICT implementation. Rodgers noted that the most used theories are the diffusion of innovation theory, task-technology fit theory, and technology acceptance model (TAM).

The TOEM, developed by Depietro et al. (1990) enables researchers to describe the technological, organizational, and environmental contexts that affect an institution's IT implementation policies (Oliviera & Martins, 2011). Technological context describes both the internal and external factors relevant to the firm (Oliviera & Martins, 2011). The organizational context entails the descriptive analysis of the institution regarding possibilities, size, and professional structure (Oliviera & Martins, 2011). The environmental setting is the field in which a firm directs its business, that is, the industry, competitors, and interface with the government (Angeles, 2014).

Diffusion of innovation theory. Rodgers (1995) posited that researchers use the diffusion of innovation (DOI) theory to explain how new thoughts and innovation spread through societies, operating at the individual and firm levels. Rodgers used the DOI theory to explain how persons communicate change through individual networks during specified periods in a precise social framework. Rodgers noted that individuals have different assimilation levels of learning and embracing developments and thus the

segment of the society adopting the innovation is shared equally over time. Based on DOI, at a firm level, innovation relates to individual leadership unique features, internal organizational structural characteristics, and external features of the organization (Oliveira & Martins, 2011).

Researchers use different qualities to portray the leader's reaction to change (Al-Hakim, Wu, Koronios & Shous, 2016). Internal characteristics of organizational structure entail (a) centralization, (b) complexity, (c) formalization, (d) interconnectedness, (e) organizational slack, and (f) size (Oliveira & Martins, 2011). Centralization is the degree to which authority and control in an institution are vested with very few personalities (Al-Hakim et al., 2016). Furthermore, complexity denotes the extent to which an organization's members possess a relatively high level of knowledge and expertise (Al-Hakim et al., 2016). Formalization denotes how institutions ensure and emphasize on the membership adherence to organizational rules and procedures. Moreover, interconnectedness is the level of how interpersonal networks link units in a social system. Organizational slack denotes the extent of free resources available to an organization relative to the number of employees (Al-Hakim et al., 2016). External characteristics of an organization referred to system openness (Al-Hakim et al., 2016).

Task-technology fit theory. The task-technology fit theory empowers researchers and analysts to understand the extent to which technology can enable individuals in performing their tasks (Osang, 2015). Osang (2015), in a study using 95 lecturers at the National Open University of Nigeria found a positive and direct connection between the IT knowledge of business owners and the execution for e-

business. Through the application of this theory, Osang distinguished and investigated key organizational competencies to implement technologies. Sadikoglu and Olcay (2014) indicated any technological inadequacies in strategies and skills of employees in an organization could result in non-profitable business performance. However, other imperative organizational components, such as the lack of continuous change strategy, poor communication, poor merchant support, and the lack of motivation packages amongst workers greatly affect the accomplishment of any use of innovation and new technologies (Tran, 2015).

Technology acceptance model. Davis (1989) postulated the TAM to address ICT utilization and performance, and explain how potential adopters accept or reject ICT using perceived usefulness and ease of use. The anticipated benefit and the level of simplicity are the two main predictors in TAM that affect the acceptance and use of technologies (Davis, Bagozzi, & Warshaw, 1989). Perceived usefulness is the prospective client's subjective likelihood the deployment of a particular technology will increase work output (Davis et al., 1989). Perceived usefulness consists of the intention to use, user training, computer experience, and system quality (Adetimirim, 2015). Perceived ease of use refers to the degree to which the potential clients anticipate the technology used to be free from exertion during application (Aleke, Ojiako, &Wainwright, 2011). Perceived ease of use comprises computer self-efficacy, a perception of external control, Internet self-efficacy, an efficacy of library use, computer anxiety, information anxiety, and actual usability (Adetimirim, 2015). The choice of technology, target users, and context affect the implementation of a new technology (Jahangir & Begum, 2008). The

TAM forms a fundamental premise that offers an approach for understanding how the perception of ease and use of technologies could influence small business leaders' implementation of ICT. TAM has been tested, validated, and extended by various researchers owing to its power to predict the usage and adoption of ICT (Surej, 2015).

Technology, organization, and environment model. The TOEM, developed by Depietro et al. (1990) enables researchers to describe the technological, organizational, and environmental contexts that affect institutions' IT implementation policies (Oliviera & Martins, 2011). DePietro et al. proposed three aspects of enterprise settings that influence the execution of technological innovations. The settings are technological development, organizational conditions, business and organizational reconfiguration, and the industry environment (Oliviera & Martins, 2011).

Technological context describes both the internal and external factors relevant to the firm (Oliviera & Martins, 2011). Technology setting includes current practices and equipment internal to the enterprise, as well as the set of available technologies external to the company (Oliviera & Martins, 2011). DePietro et al. (1990) noted that technology portrays acceptance of the conditions within and outside to the firm as well as the technical and organizational cohesion and complexity.

Organizational support is one of the critical factors when implementing and using the new systems (Oliviera & Martins, 2011). The organizational context entails the descriptive analysis of the institution regarding possibilities, size, and professional structure (Oliviera & Martins, 2011). High-level officials can initiate and invigorate key institutional modifications by articulating the distinctive image of a company's long-term

vision, core values, and role of technology in meeting the long-term vision (Angeles, 2014). Syahida, Ismail, and Ali (2013) noted that organizational context contains factors such as organizational readiness, employee's IT knowledge and satisfaction with manual systems. Awa, Ukoha, and Emecheta (2016) stated that organization context refers to firm's (a) business scope; (b) top management support; (c) organizational culture; (d) complexity of managerial structure measured by centralization, formalization, and vertical differentiation; and (e) quality of human capital, and size-related issues such as internal slack resources and specialization.

The environmental setting is the field in which a firm directs its business, that is, the industry, competitors, and interface with the government (Angeles, 2014). These factors can influence organizations' approach to work, response to innovation, individual and collective approach to assets utilization, resources for implementing change, and the business resilience for employing such innovations (Angeles, 2014). Angeles (2014) noted that government intervention is another efficient method of restraining a firm's business activities, raising costs of business, and encouraging investigation of technologies that must meet specific criteria. Awa et al. (2016) stated that environmental context relates to the natural settings, which identifies with the operational facilitators and inhibitors such as industry pressures from other competitors trading partners' readiness, socio-cultural issues, government support policies, and technology support infrastructures.

Awa et al. (2016) maintained in contrast to other frameworks that, TOEM accentuates more on social and behavioral constructivism taking into consideration how

factors of the environment affect the execution of policies regarding technologies. The TOEM provides a useful analytical framework for studying the implementation of different types of IT (Oliviera & Martins, 2011). The TOEM has a solid theoretical basis, consistent empirical support, and the potential of application to IT innovation domains (Oliviera & Martins, 2011). Syahida et al. (2013) noted that many researchers view the TOEM as an excellent theoretical foundation for exploring IT implementation behavior within businesses.

The TOEM, developed by DePietro et al. (1990) enables researchers to describe the technological, organizational, and environmental contexts that affect an institution's IT implementation policies. Factors in the technological, organizational, and environmental contexts have statistically significant relationships with IT adoption (Awa, Ukoha, & Igwe, 2017). Cesaroni and Consoli (2015) explained that many small business organizations lack IT skills and resources to expand their markets, acquire current technologies, and implement new ideas. Moreover, small business leaders lack strategies to implement IT for improved performance in developing countries (Hyder & Lussier, 2016).

Murphy et al. (2014) in contrast stated that although new ICT are enhancing the productivity of small businesses in specific industries, acquiring processing and management capabilities are not occurring at the same extent concluding that ICT use remained limited at present. Stahl et al. (2014) examined the impact of ICT on businesses and argued that the relationship between ICT and organizational factors is not

identifiable, bringing the necessity for further research on the relationship between ICT and business productivity.

Alimo (2015) researched on the *Experiences of Successful Small Business Owners in Ghana*, and stated that small business leaders require ICT skills and capabilities for productive interaction between external partners and other stakeholders for business growth. Alimo posited that these skills were lacking in Ghana and most SMEs do not consider ICT as a need that enhances growth and sustainability. Future research could also focus on exploring the interrelationships between technological, organizational, and environmental characteristics.

Summary of Literature Review

The review of literature included (a) business application of ITs, (b) ITs and business operations, (c) IT implementation challenges, (d) IT infrastructure, (e) organizational culture types and IT, (f) business analytics and IT, (g) IT implementation strategies, and (h) IT implementation theories overview. The introduction and use of IT by small businesses have enabled significant alterations in the functioning of organizations and enhanced speed and quality of service (Mubaraka et al., 2013). Murphy et al. (2013) stated that although new IT are enhancing the productivity of small businesses in specific industries through improved communication practices, deep transformations to business networks and information access, knowledge and innovation benefits from IT use remained limited. Smit and Watkins (2012) noted that the limited use of IT is a serious setback for small business leaders. Besides, Haftu (2018) revealed

that the lack of skills and knowledge in IT are the main concerns that affect effective implementation of IT in businesses.

Business success depends on companies' ability to continually adapt and take advantage of emerging IT for innovation and business competitiveness (Eze et al., 2014). The type of organizational culture existing in a company, the level of knowledge and skills of owners, influences the rate and willingness of business leaders to adopt IT. The uncertainties of the corporate information environments in which small businesses operate necessitate the implementation of IT to develop a variety of competitive activities required to generate a superior organizational output (Nduati et al., 2015).

The conceptual framework for this study is the TOEM. DiPietro et al. (1990) identified technological context, organizational context, and environmental context as the three aspects that influence implementation of technological innovation (Oliviera & Martins, 2011). Technological context describes both the internal and external technologies relevant to the firm. Technology setting includes current practices and equipment internal to the enterprise, as well as the set of available technologies external to the firm (Oliviera & Martins, 2011). Organizational context refers to descriptive measures about the organization such as scope, size, and managerial structure. The environmental context is the area in which a firm conducts its business, that is, the industry, competitors, and dealings with the government (Angeles, 2014). The TOEM provides a useful analytical framework for studying the implementation of different types of IT (Oliviera & Martins, 2011).

Transition and Summary

In Section 1 of this qualitative case study, I introduced the foundation and background for the study related to the (a) problem and purpose statements, (b) nature of study, (c) research question, (d) conceptual framework, (e) definition of terms, (f) significance of the study, and (g) academic literature review. I also focused on exploring the challenges of adopting best practice skills in IT for business growth and productivity. In Section 2, I will address the (a) role of the researcher, (b) method and design, (c) population and sampling, (d) ethical research, (e) data collection, (f) data analysis and organization, and (g) validity and reliability. In Section 3, I will address overview of the study, presentation of findings, application to professional practice, implications for social change, recommendations for action, further study suggestions, and reflections.

Section 2: The Project

In Section 2, I will outline details of the methodology and the research process. The section includes a discussion of the role of the researcher, participants, as well as the research method and design. Section 2 concludes with a description of the population and sampling, ethical research, data collection, organization and analysis, and reliability and validity.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies leaders of small businesses use in developing countries to implement ITs for improved business performance. The population consisted of 10 leaders of small businesses located in the Accra region of Ghana. The study findings may contribute to social change by improving small business performance to facilitate employment generation and reduce poverty in developing countries

Role of the Researcher

I served as the primary instrument for data collection in this study. Denzin and Lincoln (2011) stated that in qualitative research, the researcher is the principal tool for collecting data. The role of the researcher extends to active participation in data collection to engage a deeper understanding of the purpose in question (Walshe, Ewing, & Griffiths, 2012). Moreover, Peredaryenko and Krauss (2013) stated that in research studies, investigators serve as the main data collection instrument.

I have over 5 years' experience as a small business owner with significant exposure to small business leadership in technology start-up firms. Vaccaro (2012)

indicated that a researcher's expertise in a subject area adds credibility with participants. Furthermore, the level of a researcher's information of the subject augments a thick description of the phenomenon under review (Knight et al., 2013). I had no personal or professional relationships with the research population.

A major obligation of the researcher is to protect the confidentiality of research participants (Johnson, 2014). A researcher has an ethical responsibility to commit to following through on a study and assure there is integrity in the research method (Corbin & Strauss, 2015). My duty as the researcher was to abide by *The Belmont Report* protocol. *The Belmont Report* protocol serves as a guideline for moral standards for research involving human subjects and is the principal pillar for the protection of human subjects (U.S. Department of Health & Human Services, Office of Human Research Protections, 1979). Before conducting the study, I received approval from the Walden University Institutional Review Board (IRB). I also completed the National Institute of Health training program to protect research participants (Certification #1045162). Ethical research is the foundation for producing excellence and significant qualitative research (Sandelowski, 2014).

Bias causes a misrepresentation of results and can occur in any assessment of the data collection process (Healy & Devane, 2011). I mitigated bias by avoiding familiarity with participants, applying member checking, and triangulating data. Researchers avoid bias by assuring the accuracy and repeatability of research data to prevent unnecessary personal influence (Malone, Nicholl, & Tracey, 2014). Birt et al. (2016) posited that member checking and triangulation reduce the potential for researcher bias.

I conducted personal interviews with ten business leaders, using an interview protocol to (a) maintain focus, (b) provide clarity, and (c) establish emerging themes. Researchers use interview protocols to gather viable data and to maintain focus on the research problem (Yin, 2014). Gross, Wallace, Blue-Banning, Summers, and Turnbull (2012) emphasized that using an interview protocol provides clarity for interview sessions. Moreover, Shen-Miller, Forrest, and Burt (2012) affirmed that using a robust interview protocol allows scholars to follow emerging themes. To ensure reliability and validity of the study, I followed the same interview protocol with each participant in the study.

Participants

To qualify for this research, participants had to be small business leaders with at least 5 years of IT implementation experience in Ghana. Ghana is a West African country in the sub-Saharan region of Africa (International Monetary Fund, 2016) with challenges in technology implementation (Effah, 2013). Small business leaders must have skills and knowledge for business sustainability (Frid, 2015). Small business leaders drive the economy and possess the capability for technological advantage in the global marketplace (De Massis, Audretsch, Uhlaner, & Kammerlander, 2017). In Ghana, small businesses account for 92% of all businesses (Peprah & Osei Mensah, 2016).

For this study, I accessed the National Board for Small-Scale Industries' public database to identify contact information for authorized representatives of small businesses in Ghana. McGuire et al. (2012) maintained that researchers often use public websites to identify potential research participants. Krohwinkel (2014) discussed public

records to identify qualified participants for research, and Borgman (2012) advocated the access of public archives to advance research. Moreover, Freeman (2014) acknowledged that public data were readily available and applicable for use by researchers.

I used an introductory e-mail letter to explain the purpose of the study, criteria for participation, and to solicit the assignment of an authorized representative by the business. Once the authorized representative granted me written permission to include their business in the study, I requested the authorized representative to send e-mails to qualified individuals who met the criteria, requesting their participation in the study. Qualified individuals then contacted me directly via e-mail. The people who contacted me received the informed consent form via e-mail and responded with the words *I consent* for participation acknowledgement.

To facilitate a rapport, I discussed my academic career and professional background with the participants to indicate my experience and knowledge in small business operations. The building of relationships is an essential tool for researchers to enable efficient data collection from study participants (Chilisa & Tsheko, 2014). Pezalla, Pettigrew, and Miller-Day (2012) emphasized that researchers could enhance a professional relationship with participants by revealing their work experiences. Moreover, Reback, Ferlito, Kisler, and Fletcher (2015) stated that one way of establishing and maintaining trust and a bond is for a researcher to share their relevant academic history with the research participant.

To ensure that participants aligned with the overarching research question, I focused on selecting participants with knowledge of the research problem. Yin (2014)

stated that researchers should choose participants based on familiarization with the research question. Sargeant (2012) posited further that researchers should base decisions regarding selection of study participants on their knowledge of the research problem. Erlingsson and Brysiewicz (2012) observed that study participants provide answers and offer experiences related to the questions posed by the interviewer to enable alignment with the overarching research question.

Research Method and Design

Research Method

I employed a qualitative method in this study. Researchers use the qualitative method to understand how groups relate to social problems in a natural setting (Yin, 2014). Marshall and Rossman (2014) stated that researchers employ a qualitative methodology to explore a phenomenon by analyzing a variety of sources to address a research problem. Moreover, Waite (2014) asserted that researchers use the qualitative research method to appreciate the importance people or groups ascribe to a social or human challenge. Since I explored a phenomenon to gain insight into the participants' professional experiences, the qualitative method was most appropriate.

Researchers use the quantitative method to examine relationships between variables and test hypotheses (Denzin, 2012). Quantitative researchers use experimental designs to generate statistical data to support or refute hypotheses (Ragin, 2014). Furthermore, Ebinger and Richter (2015) noted that quantitative research evolves on the manipulation of numerals, objectivity, and generalization. I did not use the quantitative

method in this study because I did not examine relationships or use numerical data to test hypotheses.

Mixed method researchers blend qualitative and quantitative strategies to gather, analyze, and merge data to provide a more profound understanding of the research problem (Chilisa & Tsheko, 2014). Mixed methods researchers elevate and explain results from a previous study method with the outcome from another research method (Frels & Onwuegbuzie, 2012; Muskat, Blackman, & Muskat, 2012). The mixed-method approach enables researchers to combine participant experiences and statistical data to expound the results of research (Scammon et al., 2013). Since I did not intend to combine participants' experiences and statistical data to expound the research findings, the mixed method was not appropriate for this study.

Research Design

I used a case study design. Researchers employ a case study design to explore functions and activities over time, including detailed data gathered from numerous sources (Yin, 2014). The case study design is appropriate for examining context-specific trends in the application of a research phenomenon (Radley & Chamberlain, 2011). A case study is feasible when the research question centers on understanding one process in a specified context (Hyett et al., 2014). I selected the case study design because I explored context-specific trends from multiple sources in this study.

Ethnographic design researchers immerse themselves in the culture of the participants in their natural environment to study behaviors, beliefs, and languages (Petty et al., 2012). Researchers use ethnography as a systemic way to gather information to

learn about the social existence of groups, cultural interactions of communities, and other organizational settings (Ejimabo, 2015). In an ethnographic study, a researcher explores the daily lives, behaviors, and activities of a culture or community (Pritchard, 2011). I did not use the ethnographic design because I did not explore the behaviors and activities of cultures.

Researchers employ a phenomenological design when investigating the lived experiences of participants (Hou et al., 2013). A phenomenological design enables researchers to collect data through cycles of questions and answers, with the intent to assign meaning to participants lived experiences (Tuohy, Cooney, Dowling, Murphy, & Sixsmith, 2013). Mayoh and Onwuegbuzie (2015) posited that researchers use phenomenology as a design to collect human existential experiences. Since I did not seek to interpret the lived experiences from the perspective of others, the phenomenological design was not appropriate.

My intention was to continually interview individuals until no new themes emerged, reaching the point of saturation. Data saturation relates to the sample size and the ability to identify repetitive themes from the participants' interviews (O'Reilly & Parker, 2012). Cleary, Horsfall, and Hayter (2014) stated that researchers should focus less on sample size and more on sample adequacy, which represents the point of reaching saturation. Houghton, Casey, Shaw, and Murphy (2013) affirmed that the absence of new themes or emerging data signifies data saturation.

Population and Sampling

The population for this study comprised a purposeful sample of small business leaders with IT implementation experience in Ghana. Researchers use a purposeful sample to select information-rich cases of individuals that are knowledgeable in the phenomenon (Merriam, 2014). A purposive sampling enables researchers to identify the participants that provide the data appropriate to address the research question (Smith, Colombi, & Wirthlin, 2013). Purposive sampling enables researchers to conceptualize results from a well-defined study population to identify regular behavior pattern (Olsen, Orr, Bell, & Stuart 2013). In this study, I identified and selected study participants based on purposeful sampling.

I conducted semistructured interviews with 10 small business leaders. Hart and Warren (2013) maintained that conducting interviews with at least 10 research participants is adequate to answer the research question. Fuji and Galt (2015) advocated using at least 10 participants for a qualitative case study. Azzi, Battini, Faccio, Persona, and Sgarbossa (2014) noted using 10 participants in a case study is an adequate sample size in exploring data from small businesses.

Data saturation and sample size have a correlational relationship (Cleary et al., 2014). I achieved data saturation by interviewing participants until responses were repetitive and no new themes emerged. O'Reilly and Parker (2012) stated that data saturation relates to the ability to identify repetitive themes from the participants' interviews. Researchers achieve data saturation when there is no further emerging phenomenon (Yin, 2014). Moreover, Knudsen et al. (2012) affirmed that researchers

reach data saturation to ensure that there is adequate collected information that accounts for all aspects of a phenomenon and provides the reader with a comprehensive source of data.

The participation criteria included individuals who had worked at least 5 years as small business leaders during IT implementation in small business enterprises in Ghana. Crocker et al. (2014) suggested researchers should have a robust participant selection criteria protocol established for their research. Ogden (2014) also suggested researchers should apply participant inclusion and exclusion criteria as part of their research participant protocol. Furthermore, Yin (2014) stated that researchers should select participants based on their ability to provide alternative perspectives.

Small business leaders possess the capability for technological advantage in the global marketplace (De Massis et al., 2017; Teece, 2014). Frid (2015) stated that small business leaders have an array of skills and knowledge required for business sustainability. Furthermore, small business leaders exemplify individuals with the inherent and expressed authority to guide businesses towards objectives (Aidis et al., 2012; Jacobs, 2014). Small business leaders adopt IT to support their competitiveness, productivity, and profitability, and appreciate the key factors that influence the implementation of such technologies by businesses (Taylor, 2015). Moreover, small business leaders with requisite experience in IT adoption offer guidance to employees on implementation and sustainability strategies (Coombs, 2014). Small business leaders participating in this study could provide insights on IT strategies that small businesses

need to implement IT and promote increased business performance and growth in developing countries.

I conducted face-to-face interviews at an on-site private conference room that was convenient and comfortable to the participants to facilitate participant privacy and confidentiality. Magnussen and Marecek (2015) noted that on-site interviews are safer and more convenient for employees because participants are comfortable in a familiar environment. Investigative interviewers should select a site familiar to the interviewee in which to conduct the interview (Chenail, 2011). Johnson and Esterling (2015) affirmed that interview settings should protect the privacy of the participants. Harris, Boggiano, Nguyen, and Pham (2013) also indicated that researchers must utilize appropriate interview spaces that will protect the secrecy of the participant's responses. Furthermore, Herring (2013) maintained that utilizing an appropriate setting for conducting interviews is crucial for eliciting honest replies from the research participants.

Participants feel safe and comfortable in a face-to-face environment with the interviewer and are more apt to share information, which may yield unexpected results applicable to a study (Jacob & Furgerson, 2012). Marshall and Rossman (2014) espoused that research interviewers should consider the potential interview site to enhance the collection of study data. Furthermore, Herring (2013) emphasized that an appropriate setting for conducting interviews is crucial for eliciting honest responses from the research participants. The face-to-face interview process is vital to developing rapport and information exchange between the researcher and the participant (Fogarty, Augoustinos, & Kettler, 2013).

Ethical Research

I communicated the study intent, procedures, risks and benefits, withdrawal protocol, and privacy and confidentiality measures on the informed consent form. Persons who contacted me received the informed consent form via e-mail and responded with the words *I consent* for participation acknowledgement. Voluntary and informed consent is a basic requirement for the ethical conduct of research (Horwitz et al., 2013).

I notified participants that prior to the completion of member checking, participants had the opportunity to withdraw from the study at any time by notifying me via e-mail. Hadidi, Lindquist, Treat-Jacobson, and Swanson (2013) noted that during the conduct of an ethical study of research, without penalties, participants must have an option to withdraw. I did not administer any incentives, payments, or rewards for any participant during the study.

I complied with all ethical and legal requirements including Walden University IRB Approval Number 03-21-18-0298085 guidelines. Compliance with IRB standards ensures that participants are free from harm and any form of exploitation in the promotion of knowledge (Aguila, Weidmer, Illingworth, & Martinez, 2016). Johnson (2014) stated that protecting participants of a study is essential for ethical compliance.

All participants received a unique identifier to safeguard the privacy of individual respondents and organizations. Sandelowski (2014) noted that giving alphanumeric representation to research participants assures anonymity and provides confidentiality. I issued alphanumeric identifier codes, assigning the letter L to represent leaders and sequential numbers to represent successive leader participant (L1, L2, and L3) and B1,

B2, and B3 to represent different businesses. Investigators apply identity coding in research studies to ensure nontraceability and safeguarding participants' anonymity and input (Kelly et al., 2013).

All interview recordings, transcripts, and unique code identifiers are stored on an encrypted external hard drive for 5 years to ensure participants' confidentiality. On expiration of 5 years, I will destroy all interview recordings and transcripts. Johnson (2014) noted that researchers must protect research participants in research projects.

Data Collection Instruments

I was the primary instrument for data collection. In qualitative studies, researchers are the primary data collection instrument (Yin, 2014). Peredaryenko and Krauss (2013) affirmed that in qualitative studies, the researcher is the primary instrument in data collection. Human instruments serve the role of guiding and shaping data collection (Postholm & Skrøvset (2013).

As the primary data collector, I used semistructured interviews to collect data from participants. Semistructured interviews are a reliable tool for collecting data to obtain firsthand explanations, personal perspectives, and target the particularphenomenon under study (Yin, 2014). The one-on-one nature of the semistructured interview process permits the researcher to collect in-depth data based on participants' ability to provide continuous responses to questions (Mojtahed, Nunes, Martins, & Peng, 2014). Researchers use semistructured interviews to enable participants to share data based on a specific set of questions as a means of collecting personal experiences (Struyve, Meredith, & Gielen, 2014).

In addition to the semistructured interviews (see Appendix), I analyzed the organization's strategic and project plans as an archival document for data triangulation. Dabić and Stojanov (2014) advocated that within qualitative case studies, researchers conduct interviews and access archival sources as vital sources of input. Yin (2014) posited that the corroboration of evidence from other sources is a marked advantage of using archival document analyzes for data triangulation in qualitative research. Moreover, when an anticipated number of participants are minimum, researchers use archival document analysis to establish a vigorous platform for data interpretations (Ravasi & Canato, 2013).

The interview protocol comprised 12 semistructured interviews with open-ended questions (see Appendix). I administered the interview questions to all participants and used an interview protocol. Foley and O'Conner (2013) noted that qualitative researchers use interview protocols to ensure cohesion, validity, and reliability of the study. An interview protocol designed in alignment with the research problem enhances the quality of study findings (Rabionet, 2011). An effective interview protocol ensures that the researcher identifies and collects the essential information from research participants (Jacob & Furgerson, 2012).

I enhanced the validity and reliability of my research by utilizing member checking. Birt et al. (2016) affirmed that member checking enables participants the opportunity to review results of the data analysis. After the interview and prior to data analysis, I requested interviewees to expound on any responses that needed further clarification via e-mail to determine that the data collected was a truthful depiction of the

participant's responses. Marshall and Rossman (2014) explained that through member checking, interviewers have an opportunity to confirm the authenticity and accuracy of transcribed data with interviewees. Member checking is the collaboration between the interviewer and study participant to corroborate transcriptions and other documented context for verification and accuracy (Harvey, 2014). Additionally, Caldwell et al. (2013) conveyed that applying member checking enables researchers to authenticate the precision of the inputs study participants communicate.

Data Collection Technique

During qualitative studies, data collection is progressive and comprised of data gathering from multiple sources such as interviews and document analysis (Hoon, 2013). As the primary data collector, I collected data from research participants using the interview protocol (see Appendix) after IRB approval (03-21-18-0298085) from Walden University. The interview process is vital to developing rapport and information exchange between the researcher and the participant (Fogarty et al., 2013). Hesse-Biber and Griffin (2012) purported that researchers use the interview technique to ensure the comprehensive collection of participants input. Moreover, Peredaryenko and Krauss (2013) proposed researchers conducting interviews possess a higher level of flexibility in the inquiry process.

Accessing the database of the National Board for small-scale businesses in Ghana, I identified contact information of authorized representatives of small businesses to gain permission to interview participants. Thereafter, I sent an e-mail to the authorized representative of the small business requesting permission to conduct the study and

interview participants. All participants received a request to participate from the authorized company representative and those interested contacted me directly. After determining that persons met study criteria, I sent the informed consent forms via e-mails to participants that included the study overview, withdrawal process, and data safeguard and waited for responses via e-mail with the words *I consent* for participation acknowledgment. Having received e-mails of consent, I established a date and time for the face-to-face interview.

I conducted face-to-face semistructured interviews. Face-to-face interviews are suitable for understanding the contextual meaning into a topic and allow participants to describe what is essential for the individual (Kearney & Trull, 2014). Fortune, Reid, and Miller (2013) noted that conducting face-to-face interviews enable researchers to establish a close relationship with participants. Face-to-face interviews are the basis of qualitative research, assures the understanding of broader issues, and fosters a trusting environment (Roller & Lavrakas, 2015).

I conducted the interviews at an on-site private conference room. Magnussen and Marecek (2015) noted that on-site interviews are comfortable for employees because participants are in a familiar environment. Kolb (2008) suggested that interviews conducted at participants' places of work afford participants maximum convenience. Furthermore, researchers should select a site familiar to the interviewee to conduct the interview (Chenail, 2011).

Each interviewee received a copy of the interview questions (Appendix) via e-mail before the interview. Savva (2013) stated that giving out questions before an

interview enables participants to acquaint themselves with questions about their knowledge and serves as a source of reference. Providing participants prior access to the questions allows the respondents to process challenging queries and enhance better assimilation and understanding of the material, allowing time for clarification for better final responses (Andersen et al., 2012). Moreover, Rizo et al. (2015) posited that revealing the interview questions before the scheduled date creates an affiliation with the participants and offers subjects with a comprehension of the research context for better responses.

Each interview lasted approximately 45 minutes. Gold, Petrilli, Hayes, and Murphy (2014) stated that a single interview session should not last beyond 45 minutes. Interviews usually last between 20 to 45 minutes (Barrington & Shakespeare-Finch, 2014). Furthermore, Gibson et al. (2012) maintained that interviews should not proceed beyond 45 minutes.

I used a digital handheld Olympus audio device to record the interview to prevent the loss of interview data. Interview recordings aid in the analysis of data (Al-Yateem, 2012). Berazneva (2014) suggested that researchers use audio recordings as a quality tool to collect and check for gaps in participants' input. Using audio recorders during interviews enable researchers to obtain accurate participant responses (Oltmann, 2016).

Advantages and disadvantages exist in data collection techniques (Rahman, 2016). Researchers use semistructured interview questions to promote flexibility in research correspondence and serve to energize vitality of the gathered data (Doody & Noonan, 2013). Edwards and Holland (2013) emphasized that semistructured interviews

enable researchers to control the research focus. Moreover, semistructured interviews allow the interviewer to communicate as acquaintances rather than strangers and offers commentary that may further the contextual accounts of the participant's experiences (Mayer, Hilts, & Jones, 2015). The possibility for an interviewee to assume a bias and stereotyped position is one disadvantage of utilizing the semistructured interview (Doody & Noonan, 2013). Yin (2014) stated that in the semistructured interview, reflexivity could cause the interviewee to offer answers they believe the researcher wants to hear. To maintain a desirable bond, participants may regulate their responses to become more congruent with the presumed beliefs of the interviewer (Ghane, Kolk, & Emmelkamp, 2012).

To enhance objectivity and mitigate bias, all research participants received the same interview questions and appraised the summaries of the individual responses to ensure accuracy. The use of member checking reduces the potential for bias (Shields, Bruder, Taylor, & Angelo, 2013). Baillie (2015) stated that validation of responses by research participants increases accuracy and objectivity of the study. Caldwell et al. (2013) conveyed that applying member checking enables researchers to authenticate the precision of the inputs study participants communicate. I asked follow-up questions where necessary to clarify and expand upon emerging themes dependent on the member checking results.

Data Organization Technique

Researchers utilize data organization techniques to manage data and enhance the study reliability and validity (Martins & Meyer, 2012). I transcribed the interviews

responses in a Microsoft Word document, complete member checking, and then uploaded the conclusive information to NVivo to facilitate theme and pattern identification. Using a research journal, I made interview notes to ensure that the data collected was reliable and valid. Greene (2014) posited that there is avoidance of potential bias and increase in the trustworthiness of research material when researchers utilize a journaling procedure. Lin, Pang, and Chen (2013) reiterated that a research journal is necessary to improve the confirmability of a study. Moreover, researchers use data logs to recognize and appropriately address the challenges associated with the interpretive flexibility of information (Sandelowski, 2014).

I removed personal and identifiable information of participants by assigning each leader with alphanumeric titles. In this study, the letter L denotes leaders, and subsequent participants, denoted as L1, L2, L3, respectively. The letter B (B1, B2, B3) denotes the various businesses. Sandelowski (2014) argued that assigning research participants, an alphanumeric representation assures anonymity and provides confidentiality. The protection of a study participant's identity is an ethical issue, and incumbent upon the researcher, as respondents may not understand the implications of participants' involvement in research at the time of consent (Saunders, Kitzinger, & Kitzinger, 2014). Moreover, Johnson (2014) noted that researchers must protect research participants in research projects. All study data are stored on an encrypted hard drive solely accessible by me for 5 years. After 5 years, electronic data erasure and shredding of hard copies of data would take place.

Data Analysis

After completing the interviews, I verified participants' understanding of my interpretations of their responses through member checking by sending the interpretations to each participant through e-mail. Member checking enables research participants to endorse, elucidate, or validate the accuracy of data (Milosevic, Bass, & Combs, 2015). Researchers can use member checking for participant confirmation that the researcher has correctly interpreted the phenomenon (Marshall & Rossman, 2011). Member checking enhances research credibility since participants, after gaining a summary of interpreted data, acknowledge, and verify their own words (Houghton et al., 2013).

For this qualitative case study, I employed data triangulation by comparing the information gathered from the participant responses with data from the organization's strategic plan. Woodside and Baxter (2013) maintained that the use of data triangulation enable researchers to assemble interview responses and other documents to understand the phenomenon. Researchers employ data triangulation to validate a phenomenon using multiple data sources such as interviews and archival records (Ponelis & Holmner, 2015). Carter, Bryant-Lukosius, DiCenso, Blythe, and Neville (2014) affirmed that researchers use triangulation to converge multiple data sources such as interviews and public records to confirm a specific phenomenon.

Coding is the primary process to analyze and organize information for theme understanding (Fowler, Lloyd, Cosenza, & Wilson, 2014). St. Pierre and Jackson (2014) suggested that researchers' code data for analysis. Researchers use coding to collect vital segments of textual data (Hickman, Atherly, Lowery, & Alpert, 2015). Furthermore,

coding of data enables researchers to identify emerging themes (Campbell, Quincy, Osserman, & Pedersen, 2013). I applied a coding process to analyze the data for emerging themes.

I then input member checked transcribed data into a data analysis software, NVivo 10, for analyzing and indexing to aid in theme and pattern development. Paulus et al. (2015) affirmed that analyzing interview data utilizing NVivo allows a researcher to identify intersecting data points. Ward, Furber, Tierney, and Swallow (2013) proposed that researchers explore NVivo as a flexible software application for deciphering the contextual content. Furthermore, Lane and Arnold (2011) noted that researchers utilize NVivo to identify meaningful units, develop emergent themes, organize data, and for triangulation. Yin (2013) concurred that the objective of the data analysis process is an in-depth evaluation of themes and patterns that emerge during the interviews.

I identified IT implementation strategies by grouping retrieved data into patterns and categories to develop themes. The conceptual framework served as the lens to analyze the findings. Gale, Heath, Cameron, Rashid, and Redwood (2013) opined that researchers use the conceptual framework to give focus to the research findings from the data analyzes. A well-articulated conceptual framework enables researchers to distinguish essential data in the analysis process (Ravitch & Rigan, 2012). Gupta et al. (2017) indicated that researchers use a conceptual framework to guide data collection and analysis, and to identify main themes. While a researcher uses the conceptual framework to gauge the scope and structure of the problem, the literature review articulates the depths and breadth of existing works related to the problem (Khattak, 2014). Joo,

McLean, and Yang, (2013) concluded that a comprehensive literature review supports the conceptual framework of the study and the development of key themes.

Reliability and Validity

Reliability and validity increase transparency and decrease opportunities for bias in qualitative research (Singh, 2014). Reliability is a process to test the merit of a qualitative study (Erlingsson & Brysiewicz, 2012). Moreover, researchers need to guarantee legitimacy, credibility, and reliability in qualitative studies (Konradsen, Kirkevold, & Olson, 2013).

Reliability

Reliability refers to the steadiness and capacity to imitate a study while minimizing errors and bias (Yin, 2014). Erlingsson and Brysiewicz (2012) stated that reliable data is consistent and repeatable. Reliability is pertinent in research studies to ensure the accuracy of data (Sayed & Nelson, 2015).

I used member checking to increase reliability in my study. Member checking permits respondents to verify the summary of interpretations of data to reduce researcher bias and ensure the accurate portrayal of participants' views (Birt et al., 2016). Member checking involves taking data from the participants to interpret, then returning the summary of interpretations to the participants for checking (Merriam, 2014). Lotfi, et al. (2013) suggested that member checking reduces researcher bias in a study. Researchers use the member checking process to limit the possibility of misinterpreting interview responses and encourage participants to be actively engaged in the study (Goldblatt, Karnieli-Miller, & Neumann, 2011).

Dependability refers to the information steadiness over a period under differing circumstances (Elo et al., 2014). Klenke (2016) noted that researchers focus on dependability to illustrate how investigators, given the same context, utilizing similar methods in relative populations to achieve similar results. Matamonasa-Bennett (2015) stated that dependability denotes that the research study is replicable. Researchers ensure dependability by accounting for all changes in study conditions and any adjustments in the research design required for the enhancement of contextual understanding (Venkatesh, Brown, & Bala, 2013). Lotfi et al. (2013) determined that member checking reduces researcher bias and increases the dependability of research.

I ensured dependability of my study through member checking by permitting participants to review the summaries of my interpretation of the interview responses to ensure accurate portrayal of the information conveyed. The investigator can use member checking for participant validation to ensure the researcher has correctly interpreted the phenomenon (Marshall & Rossman, 2011). With member checking, participants can confirm, clarify, or augment the accuracy of the data (Caretta, 2015). Lotfi et al. (2013) determined that member checking reduced researcher bias and increased the dependability of the research. Furthermore, researchers ensure dependability by accounting for all changes in study conditions and any adjustments in the research design required for the enhancement of contextual understanding (Venkatesh et al., 2013).

Validity

Researchers assure validity to mitigate threats that could potentially affect the outcome of a study (Humphry & Heldsinger, 2014). Roulston (2015) noted that

researchers enhance validity by addressing relationships between the research results and the research methods (Roulston & Shelton, 2015). Erlingsson and Brysiewicz (2012) also noted that researchers use validity protocols to promote accuracy in qualitative studies.

Credibility. Credibility in qualitative research refers to accurate representation of the study participant's experiences through description or interpretation (Tong, Chapman, Israni, Gordon, & Craig, 2013). Credibility refers to the researcher's demonstration of a precise portrayal of the studied phenomenon (Matamonasa-Bennett, 2015). Moriarty (2014) designated credibility as the meaningful contributions assigned to the data collected to convey research findings.

To enhance research credibility, I substantiated inputs of participants through member checking. Cope (2014) postulated that member checking is the most rigorous form of ensuring data credibility. Marshall and Rossman (2014) characterized member checking as techniques researchers use to address the trustworthiness of participant's interview interpretation. To ensure credibility, I asked participants to confirm and substantiate the accuracy of my interpretations of individual responses as a means of member checking.

Transferability. Transferability means the extent to which the findings of a study can be replicated in a different context or circumstances (Pedrosa, Näslund, & Jasmand, 2012). Furthermore, transferability refers to the replication of research findings to different situations, allowing for inferences (Pedrosa et al. 2012). Matamonasa-Bennett (2015) stated that transferability occurs by providing enough details about the research so that other researchers can verify and replicate the extent of applying the findings to a

related research problem. Transferability requires thick descriptions by researchers to enable the transfer of the context of one research to another with adequate data (Reilly, 2013).

Using thick descriptions of the research processes, I provided readers with adequate information to determine the extent to which study findings may be compared to other contexts. Transferability requires thick descriptions by researchers to enable the transfer of the context of one research to another with adequate data (Reilly, 2013). Elo et al. (2014) and Polit and Beck (2012) maintained that transferability is enabled when researchers extrapolate their results to other scenarios. Noble and Smith (2015) emphasized that researchers ensure transferability when the conclusions of a study can be applied to other situations and applicable in other contexts. Transferability requires thick descriptions by researchers to enable the transfer of the context of one research to another with adequate data (Reilly, 2013).

Confirmability. Confirmability refers to the objectivity and potential for congruence between two or more autonomous reviewers regarding data accuracy, significance, or meaning (Elo et al., 2014). Conformability is present after credibility, transferability, and dependability are established and the evidence and results of a study are reproducible by another researcher (Hanson et al., 2011). In addition, there is confirmability, when researchers take measures to validate that the findings of the research derived from the study findings rather than individual bias (Matamonasa-Bennett, 2015). I ensured confirmability of the data by comparing data with results to ensure that research findings emanated from the study rather than my personal bias.

Data saturation. While analyzing data, I observed for emerging themes until no new information emerged, thus reaching the point of saturation. To achieve data saturation a researcher continues to conduct interviews until no new information emerges (Palinkas et al., 2013). Researchers achieve data saturation when there are no further emerging themes to address the phenomenon (Yin, 2014). Elo et al. (2014) stated that qualitative research should include appropriate strategies for data saturation. Knudsen et al. (2012) stated that researchers achieve data saturation when there is adequate collected information that accounts for all aspects of a phenomenon and provides the reader with a comprehensive source of data.

Transition and Summary

In Section 2, I stated the purpose of my research, role of the researcher, participants' selection, and indicated the research methodology and design. Next, I described the (a) population and sampling; (b) ethical research; (c) data collection instruments, techniques, and organization; and (d) data analysis. I concluded Section 2 with a discussion on study reliability and validity. Section 3 includes the purpose statement, the research question, and the presentation of findings. Section 3 contains (a) application to professional practice, (b) implications for social change, (c) recommendations for action, (d) recommendations for further research, (e) researcher reflections, and (f) a conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multicase study was to explore strategies used by small business leaders in developing countries to implement ITs for improved business performance. Small business enterprises are a vital source of revenue, accounting for approximately 90% of industrial employment in developing countries (Ardjouman, 2014). Despite the benefits, small businesses in developing countries experience some of the highest failures rates in the world (Hyder & Lussier, 2016; Maduekwe & Kamala, 2016). Furthermore, IT implementation levels are relatively low in developing countries (Olise et al., 2014). Hyder and Lussier (2016) posited that some business leaders lack strategies to implement IT for improved performance in developing countries. The lack of business leadership strategy at the small business level necessitated this study to explore strategies small business owners need to implement IT for improved performance.

Based on the conceptual framework, literature review, and data collected, the following significant themes emerged: (a) top management support for IT implementation, (b) investment in appropriate IT infrastructure, (c) engaging in appropriate IT knowledge and skills training, (d) creating an organizational culture of IT acceptance, and (e) embracing legal and regulatory framework for IT. The following subsections constitute a presentation of the findings and identified themes, application to professional practice, social change implications, recommendations for action and further research, and my reflections and conclusion.

Presentation of the Findings

The overarching research question for this study was: What strategies do small business leaders utilize to implement IT for improved business performance in developing countries? I interviewed five business leaders and five employees of small businesses with at least 5 years' experience in IT implementation using semistructured interviews with open-ended questions (see Appendix). Furthermore, I reviewed the companies' strategic and project plan manuals and project manuals as archival documents for triangulation. Participants' interview responses and the companies' archival documents enabled me to address the research questions. The responses of business leaders and employees to the interview questions also aligned with the TOEM. I used NVivo 10 analysis software to code and organize the interview transcripts, company documents, and all other data as well as to classify all relevant data into themes. The five dominant themes that emerged from the data analysis were (a) top management support for IT implementation, (b) investment in appropriate IT infrastructures, (c) engaging in appropriate IT knowledge and skills training, (d) creating an organizational culture of IT acceptance, and (e) embracing legal and regulatory frameworks for IT.

Theme 1: Top Management Support for Information Technology Implementation

Top management support refers to backing and commitments by the highest-ranking executives for projects as well as strategy implementation (Lo et al., 2016). Hyvari (2016) posited that top management is responsible for formulating and implementing organizational objectives based on resource consideration and assessment

of the corporate environment. Top management support is an urgent influence on organizational performance and key decision-making (Wu et al., 2017).

Huang et al. (2016) stated that a critical role of leaders is to assist employees in understanding a business purpose and meaning to enhance performance. Top administration support empowers observing, monitoring, and control of IT usage in private ventures (Ghobakhloo et al., 2012). Furthermore, top management support facilitates the adoption and openness of technology in organizations (Hsuan-Yu, Feng-Hsu, Hung-Tai, & Lu-Jui, 2019). According to Engle et al. (2017), organizational top management is responsible for information, including the coordination and interpreting facts, and settling on choices about enhancement ability exercises applicable to firm execution about improvement capability activities relevant to firm performance. Lo (2016) affirmed that top management support stands out as the most critical success factor underlying the achievement of companies.

Ninety percent of participants stated that top management support and direction was crucial to successful IT implementation. According to Hoque, Hossin, and Khan (2016), business pioneers distinguish IT as a basic asset in their business achievement procedures and strategies. All participants agreed that with small businesses, leaders and owners have significant authority whose support is crucial in implementing IT policies. Eighty percent of participants affirmed that top management involvement and support for IT implementation influences the achievement of organizational objectives.

Table 1

Top Management Support for IT Implementation (Frequency)

Participants	Interview questions	Total number of references
L1A	2, 6	4
L2A	5, 11	3
L3A	2	1
L4A	2, 5	6
L5A	6	3
L1B	7	4
L2B	2	4
L3B	11	3
L4B	2, 5, 11	9
L5B	2, 11	3

Table 1 depicts the frequency of participants' responses to Interview Questions 1, 2, 3, 5, 6, 7, and 10 regarding top management support. Table 1 shows there were 40 references to top management support for employees in IT implementation. Three employees stated that top management support should encompass strategic guidance and the allocation of training resources for employees. Two employees said management backing of every step of IT implementation creates stability and guarantees that company IT policies and regulations would be consistent and unchanged. Two employees noted that strategic decision making by the organization's top management is the single most important factor that sets the basis for successful and stable IT implementation. Angeles (2014) noted that business leaders could initiate and empower key institutional alterations by articulating the particular picture of an organization's long-term vision, core values,

and role of technology in meeting the long-term vision. Mabhungu and Van Der Poll (2017) suggested that business leaders are more likely to settle on outcomes that result in long-term success and the survival of businesses. All business leaders intimated that implementing an IT project is not a matter of changing software systems; instead, the project entails management enquiring about all aspects of systems to ensure the implementation of technologies reposition the firm and transform business operations.

Participants L1A, L3A, and L4B emphasized the role of management in successful IT implementation, stressing that managers' personal involvement is a great motivation for IT innovation success. Participants L2A and L5A mentioned that managers must support IT initiatives and training to ensure long-term benefits for the organization. L1B and L4B opined that when employees envisage top management support, other employees become interested and willing to develop the projects. Participants L2B noted that during IT implementation, top management should manage employee relationships and interests.

Participants L3B and L5B stressed that management should align employee interests with organizational goals during major IT implementation. Majstorović (2016) stated that one critical responsibility of business leadership is to ensure alignment between IT implementation and business objectives. Participant L4A highlighted the role of management in the small business operations, indicating the supervisory and influential role of individual managers in IT policy adoption, implementation, and decision making. Participant L4A reiterated the role of strategy, carved out by management, in influencing IT adoption and implementation practices. The findings also

related to Okeyo and Kioko's (2017) affirmation that top management has the power to influence organizational culture by influencing the behavior of others within the company.

Participant L4B noted that emerging client demand has increased the urgency of organizations to indulge in sustainable business practices. Participant L4B proposed that top management should take advantage of the new opportunities for sustainability and proffer sustainable environmental policies in support of long-term IT implementation. According to Wu et al. (2017), regardless of style, team composition, and atmosphere, top leadership is a significant influence in organizational performance, policy, and decision making.

My analysis of company documents indicated that management strategy plays a vital role in influencing employees' IT adoption and implementation to improve performance. In the archival documents of Companies A and B, the strategic plans showed that both businesses have a strategy that aligns and supports their objectives and values through deliberate management support regarding strategic guidance, policy creation, and decision making to ensure sustainable IT implementation. Further examination of documents revealed the organizations have dedicated managers tasked with the responsibility of (a) generating resources solely for IT improvement, (b) assessing the performance of departments that benefitted from IT investment, (c) reporting to top management on the impact of IT policies and strategies, and (d) reviewing IT strategic policies. The findings also aligned with the significance of top management support enshrined in TOEM. Hosseininia and Ramezani (2016) emphasized

that suitable managerial and experiential industry-specific IT skills training is a booster for organizational survival.

Theme 2: Investment in Appropriate Information Technology Infrastructures

IT infrastructure is the most dynamic component of investments that promote growth in businesses (Bankole & Bankole, 2017). According to Skotnes (2015), IT remains a critical infrastructure to monitor, control, and operate business systems. Furthermore, Odongo and Kalu (2016) stated that infrastructure deficit in sub-Saharan Africa constitutes a significant constraint on the growth and development of small businesses. Nine participants (90%) opined that an efficient system of infrastructure is a vital requirement for successful IT implementation in small businesses. Five employees (50%) affirmed the current changing customer demands require business leaders to be abreast with the most appropriate IT infrastructures to enhance a firm's performance. Four business leaders acknowledged the contribution of an efficient infrastructure network in IT implementation for improved organizational performance. Three business leaders emphasized the provision of good Internet connectivity and coverage together with computers and other information communication devices. Iqbal, Khan and Malik (2017) stated that computers, laptops, mobile phones, and multimedia devices enhance IT assimilation and implementation in businesses.

Table 2 depicts the frequency of participants' responses to Interview Questions 1, 2, 3, 5, 6, 7, 11, and 12 regarding sound and appropriate investment in IT infrastructure acquisition. Sixty percent of participants strongly affirmed that electric power infrastructure is a prerequisite for successful IT implementation.

Table 2

Investment in Appropriate IT Infrastructures (Frequency)

Participants	Interview questions	Total number of references
L1A	1, 2, 3, 6	6
L2A	1, 2, 3, 5, 11	7
L3A	2, 3, 6, 7, 11, 12	11
L4A	1, 2, 3, 5, 6	6
L5A	1, 3, 6, 11, 12	10
L1B	2, 3, 5, 7	5
L2B	1, 2, 11, 12	4
L3B	3, 4, 11, 12	7
L4B	1, 2, 5, 11	8
L5B	1, 2, 11	4

Table 2 indicates there were 24 references to investment in appropriate infrastructure acquisition. Participant L1A explained a feature of broadband infrastructure unique to IT, stating that investment in IT infrastructure leads to higher returns, since the greater the number of users, the higher the value of broadband infrastructure. Participant L2B stated that investment in acquisition of IT infrastructure should stem from a strategic decision and the purchase should align with the long-term plans of the business.

Participant L3A explained the linkage of an efficient IT infrastructure and the contributing effects on an organization's capability and performance. Hassan and Ogundipe (2017) emphasized business leaders should focus on infrastructure acquisition because such assets remain a critical factor in business development. Bouwman et al.

(2018) posited that IT infrastructure remains strategic assets that influence value creation and business operations performance.

Participant L4A highlighted the complex and changing attributes of customers, which requires constant innovation by business leaders. Participant L4A further explained the significance of continuous innovation to meet the challenges of market trends. Participants L5A discussed the essence of acquiring specific IT infrastructure tailored to organizational needs and emphasized the role of an organization's infrastructure in harnessing dynamic capabilities. Participant L1B added that, in addition to investing in infrastructure, business leaders should development IT policies to safeguard and protect the company's infrastructure from cyber threats. Zayyad and Toycan (2018) affirmed that a lack of technology infrastructure has affected the implementation of IT by organizations. Adu and Adjei (2018) stated that development of IT infrastructure requires the development of policies for cybersecurity to prevent data loss and protection from threats.

Participant L2B maintained that the acquisition of sound IT infrastructure enables business leaders to make internal changes affecting the structure and performance of the business. Business leaders use IT infrastructure to induce dramatic changes in internal business processes, radically altering firms' structure, organization, and operations (Giotopoulos, 2018). Participant L3B stated that although invest in IT infrastructure is capital intensive, business leaders should plan for such strategic investments as the long-term benefits are profitable. Giotopoulos (2018) stated that business leaders that invest hugely in IT infrastructure are more likely to have a plan for IT implementation resulting

in a high degree of Internet integration, e-commerce activities, and organizational changes.

I reviewed the companies' documents and established that IT training is one of the priority areas of business leadership. In my analysis of the documents, the company leadership highlighted "innovative processes and models, and smooth transfer and assimilation of knowledge." I noted that business leaders had designed a strategic plan with project highlights that emphasized employee training in relevant skills, knowledge acquisition through deliberate practice, and intraworkforce skills transfer. The training bolstered the focus of small business leadership in ensuring that employees equip themselves with the necessary skills for project and business sustenance.

Theme 3: Engaging in Appropriate Information Technology Knowledge and Skills Training

Navimipour et al. (2015) affirmed that the application of human resource strength, expertise, knowledge, and skills could result in organizational success. Alam et al. (2016) stated that information intensity and the IS knowledge of employees are vital predictors of IS application and implementation in organizations. Moreover, Alam et al. argued that employees must hold considerable IT knowledge to utilize IT competently.

Business leaders could leverage organizations intellectual capacities to facilitate business technological development and achieve competitive advantage (Al-Hayaly & Alnajjar, 2016). Businesses continuously need IT knowledge to access information on customers, suppliers, employees, competitors, and the entrepreneurial environment if those businesses want to stay competitive (Al-Hayaly & Alnajjar, 2016). Knowledge is a

strategic resource that allows employees to obtain a higher level of competitiveness and innovation.

Eighty percent of participants stated that IT knowledge and skills contribute significantly to IT implementation, explaining that when employees acquire IT skills, there is minimum resistance to technology innovations. Participant L2A stated that organizational leaders should improve on the integrative skills of employees as a means of empowering their capabilities to achieve personal skills development. Business managers and supervisors may develop the aptitude to manage new technological innovations effectively by investing in integrative skills (Brownsword, 2016). Participant L2A intimated that IT implementation requires a participatory approach of all stakeholders such as supervisors, employees, managers, clients, and external agents. Amongst these, the employee's capacity and skills enhancement contribute significantly to effective IT implementation. Table 3 depicts the frequency of participants' responses to Questions 1, 2, 3, 4, 5, 6, 7, 10, and 11 regarding the engagement of appropriate IT training.

Table 3

Engaging in Appropriate IT Knowledge and Skills Training (Frequency)

Participants	Interview questions	Total number of references
L1A	1, 2,	5
L2A	1, 2, 6	6
L3A	1, 7	3
L4A	2, 3,	2
L5A	2, 3, 4,	5
L1B	1, 2, 6,	4
L2B	2, 4,	2
L3B	3, 4, 7	4
L4B	1, 4	5
L5B	1, 2, 3, 4, 7	8

Table 3 depicts there were 68 references to engaging in appropriate IT knowledge and skills training for employees in IT implementation. Seven (70%) of study participants stated that training of employees in appropriate IT knowledge and skills equips employees to understand how IT strategies support business vision and objectives. Participant L1A discussed how improving the knowledge of employees in specific IT skills contributes to the overall efficiency of the implementation policies of the organizations. Participant L1 noted that leaders could leverage IT to enhance productivity by undertaking specific employees training for assigned roles. Piszczek, Pichler, Turel, and Greenhaus (2016) concurred that organizational leaders should leverage IT for increased employee productivity by letting employees shape their ICT user role through participation in technology implementation projects. Competitive advantage of firms

arises from intangible assets such as firm-specific knowledge (Byukusenge, Munene, & Orobia, 2016).

Participant L2A opined that most employees assimilate IT training skills based on the advantages and benefits that may accrue to individuals and departments. Participant L3A noted that one strategy that supports training of employees in IT and related skills is the introducing of pedagogical support. Montrieux Vanderline, Schellens, and De Marez (2015) maintained that business leaders could facilitate understanding of the full potential of information and mobile technologies through provision of technical and pedagogical support for technology. Participant L4A observed that integrating innovative IT inevitably requires that business operators acquire new technology skills and competencies. Sipes et al. (2017) determined that organizational leaders must identify competencies before establishing strategies through careful curriculum planning, job descriptions, and professional development.

Participant L5A emphasized the contribution of enabling employees with IT-specific skills for business innovation and performance improvement. Participant L1B stated that training employees in individual skills and competencies should be a continuous process to keep up with changes and market trends as skills become less relevant with the passage of time. The integration of technological innovations requires specific technology skills. Bokhonko (2017) confirmed that changes in technology necessitate the replacement of obsolete skills as current skills may no longer apply to new technologies. Guiseppe (2015) suggested that the level of integration and the dynamically changing network in the customer-business interface requires periodic, systematic

adjustments to improve values, eliminate duplication of effort, and optimize organizational performance. Participant L2B explained strategies used to implement IT in the organization, highlighting the central common-user strategy and departmental phasing strategy. Participant L3B explained that common-user entails the training of individual employees to operate a common device to access and share data for information processing and decision-making.

Participant L4B emphasized the role of IT skills training and knowledge sharing on the performance objectives of small businesses. Participant L4B buttressed how improving employee skills have facilitated business transactions, compilation of reports, and enabled organizational leaders to keep pace with changes in business trends and the evolving nature of clients need. Management must ensure the efficient knowledge sharing amongst employees within the business, as IT adoption and implementation processes require teamwork and acceptance across the various departments of an organization (Daghfous & Zoubi, 2017). Patacsil and Tablatin (2017) confirmed that improvement in employee's IT skills leads to enhanced business performance by influencing basic encoding of business transactions, software and application development, network engineering and maintenance. Patacsil and Tablatin noted further that IT knowledge and skills are critical elements for business survivability, urging business leaders to focus on providing quality and relevant knowledge, skills, and values to meet emerging challenges of technology-driven processes and the diversified needs of clientele.

Participant L5B intimated that IT is the single most vital factor that affects individual skills development in the business environment, and suggested business

owners and organization leaders should make employee training in IT a priority. Idris (2017) affirmed that the level of training of business leaders and managers in IT knowledge and skills determines dynamic capabilities and business performance. Siddoo et al. (2017) intimated that developing employee workforce in IT skills to support business growth and innovation is a matter of business urgency for small businesses in the contemporary business environment.

I reviewed the Company B documents (i.e., strategic plan) regarding content on appropriate IT knowledge and skills training. In the analysis of the document, the small business leadership emphasized training employees to acquire knowledge and appropriate skills in IT to improve business innovation and performance. In the strategic and project plan (i.e., physical documents), the small business stated "Improving the knowledge and skills of employees through deliberate training across the employee structure…" The acquisition of IT skills and developing of employee competencies enhance operational and dynamic capabilities, which enable businesses to be robust and flexible to overcome contemporary challenges (Nadeem, Abedin, Cerpa, & Chew, 2018). Eighty percent of participants stated that IT knowledge and skills contribute immensely to IT implementation.

Theme 4: Creating an Organizational Culture of Information Technology Acceptance

Organizational culture refers to the basic pattern of shared assumptions, values, and beliefs considered the correct way of thinking about problems and opportunities facing the organization (Padilla-Vega, Sénquiz-Díaz, & Ojeda, 2017). According to Al-

Dmour et al. (2017), organizational culture is the stated philosophy, ideology, values, assumption, beliefs, hopes, behaviors, and norms that bound the organization together. Successful cultural integration within the corporate group is a vital element for maintaining and improving performance (Idris, Wahab, & Jaapar, 2015). Albar and Hoque (2017) acknowledged that organizational culture had a significant relationship with IT adoption and implementation among small businesses.

Organizational culture is a crucial element in business organizations because due to the general recognition that culture influences individual employee's performance and organizations' effectiveness, performance, and sustenance (Thokozani, 2017). Thokozani (2017) posited that business leadership focus on organizational culture stems from the belief that culture influences behavior, decision-making, organizational strategies, individual motivation, and organizational performance. An organization's capabilities hinge on routines, processes and corporate culture, which create good relations with clients, reputation, employee skills, efficiency, and effectiveness in each context, and are difficult to transfer (Wójcik, 2015). Al-Dmour et al. (2017) affirmed that organizational culture is a limiting factor in the acceptance of technological change and influences organizational performance. Furthermore, Roztockia and Weistroffer (2016) stated that the effectiveness and efficiency of business activities and services depend on the pervading business and general culture. All (100%) participants agreed that organizational culture influences the way employees accept and interact with corporate information systems. 60% of participants stated that good organizational culture is a necessity for successful IT adoption and implementation. Four business leaders (40%)

emphasized the importance of culture to IT implementation. Three leaders (30%) maintained that an ethical corporate culture is a fundamental requisite for employees to understand and embrace technologies.

Participant L1A noted further that although getting employees to understand the new culture could be difficult, employees should embrace the new IT culture as a progressive way of achieving the company goals. Participant L1A explained that the total workforce of employees, and sometimes clients need gradual exposure to the culture of IT implementation and usage. Muriithi, Horner, and Pemberton (2016) stated employee exposure to a culture of IT utilization affords business leaders varying opportunities in the global corporate world. Table 4 depicts the frequency of participants' responses to Questions 1, 3, 6, 7, 9, 11 and 12 regarding sound and appropriate infrastructure acquisition. Participant L2A expounded that IT implementation strategies become successful when business leaders create environments and models that enable employees to think, work, and approach problem resolution with a common mindset. Wu et al. (2017) posited that organizational culture is a type of consensus among employees in an organization that prompts common thinking and action.

Table 4

Creating an Organizational Culture of IT Acceptance (Frequency)

Participants	Interview questions	Total number of references
L1A	3, 8, 9	4
L2A	8	2
L3A	3, 7, 8	4
L4A	3, 9	3
L5A	8, 12	2
L1B	3, 7	2
L2B	7, 8	4
L3B	3, 7, 12	4
L4B	3, 12	2
L5B	3, 8	3

Participant L2A stated business leaders create a culture of acceptance when management accept IT innovations and set clear benchmarks for employees regarding, IT training and knowledge sharing, shared purpose, and demonstrate how IT contributes to increasing organizational capabilities. A corporate culture is the consciousness of the organization that guides the behavior of individuals; culture is a platform for a shared purpose, value, and behavioral norms (Giuseppe, 2015). Participant L4A shared experiences on the effect of good organizational culture, highlighting the seamless transition from old methods to new innovative processes and models, and smooth transfer and assimilation of knowledge amongst employees. Excellent organizational culture permits the environment in which employees gain through tacit knowledge transfer,

which may not be acquired through the routine business interaction and not easily kept in company archives (Omotayo, 2015).

Participant L5A emphasized that culture plays a pivotal role in shaping out how individuals value roles and responsibilities, and impacts decision-making, responses, and behaviors at the workplace. Zafar et al. (2017) posited that culture is an integral aspect of human life that influences employees' behavior and responses in an organization. The cultural factor impacts the strategic and work decisions of the workforce (Zafar et al., 2017).

Participant L2B observed that culture remained a vital factor in IT management and emphasized need for managers and leaders to understand the power balance with the introduction of new technology. Participant L2B underscored the role of business leaders to take measures to minimize resistance in a culture that is not familiar with IT implementation. Özbilen (2017) affirmed that the introduction of new technologies could diminish power previously held by individuals, and consequently such employees could resist sharing information and attempt to prevent the dissemination of knowledge.

Participant L3B noted that in areas where society accepts as a norm that communities should educate men to work, while women take care of homes, business managers tend to offer opportunities for male workers before considering the female counterparts. Hodstede (1980) described such cultural phenomenon as power distance. Power distance is the measure of inequality among people (Hodstede, 1980). The concept of power distance implies both leaders and followers might approve a society's measure of inequality (Bankole & Bankole, 2017). Participant L3B intimated that power distance

positively correlates with masculinity. Bankole and Bankole (2017) described masculinity as a cultural dimension that measures the extent to which people of a culture exhibit values of assertiveness, material success, affluence, achievement, performance and competition, while values such as quality of life, maintaining human relationships, service, care for the weak and solidarity associates with feminism. Participant LB3 emphasized the need for leaders to be aware of the dynamics of power distance, masculinity, and feminism. Participant L4B asserted power distance influences behavioral intention and decision making in IT adoption and implementation.

Participant L1B discussed the role of culture in IT implementation and asserted that small businesses use mobile devices to engage clients and access markets. The design and interface of some mobile communication devices grant greater convenience to the individual user and does not permit simultaneous use by two or more persons. Participant L1B found that with small businesses that use common devices, persons with individualistic cultural inclinations might resist other individuals that need access to shared IT devices. Bankole and Bankole (2017) stated that individualism is the measure of the extent to which persons in organizations prefer to act as individuals rather than collective members of a group.

Participant L4B noted that in departments where informal work relationships exist between managers and employees, implementation of IT models and processes were smooth. Participant L4B noted that such cordial informal relations foster significant interaction between supervisors and employees, thereby creating a tranquil business atmosphere and culture. Participant L4B emphasized genial organizational culture is

essential at the beginning of IT implementation, since supervisors need the willing cooperation of employees. Roztockia and Weistroffer (2016) affirmed that corporate culture could encourage or hinder the successful execution of IT projects and business activities.

Hofstede (1991) posited that whereas organizational cultural level differences reside primarily in workplace practices, national level cultural differences emanate from values. Muriithi, Horner, and Pemberton (2016) espoused that lack of exposure to a culture of information system usage affects IT use in organizations. Participants L1A and L3A explained that most interactions and documentation in organizations use information in hard copy form, as some companies were still utilizing manual systems and processes. Organizational leaders need to demonstrate benefits of IT implementation to create an environment that employees feel comfortable with adopting technologies.

I reviewed Company A documents (i.e., project plan) on organizational culture. In my analysis of this document, small businesses emphasized the role of good organizational culture on assimilating of knowledge amongst employees. In the project plan highlights, small business leaders stressed respect for local customs, norms and good organizational culture. Wójcik (2015) asserted that an organization's capabilities hinge on routines, processes and organizational culture, which create good relations with clients, reputation, employee skills, efficiency, and effectiveness in each context. Business leaders recognize the impact of culture on all aspects, processes especially the strategic decisions of organizations. Zafar et al. (2017) posited that culture is an integral aspect of human life that influences employees' behavior and responses in an

organization. Culture influences the strategic and work decisions of the workforce (Zafar et al., 2017). All participants (100%) agreed that corporate culture influences the way employees accept and interact with organizational information systems. Villa et al. (2018) affirmed that understanding the culture of the Internet and related technologies is a critical success factor in implementing IT for e-commerce and business processes in organizations.

Theme 5: Embracing Legal and Regulatory Frameworks for Information Technology

IT has become a vital source of innovation and improvement of efficiency for many sectors across the globe (Basri, Alandejani, & Almadane, 2018). IT provides the platform for global digital interaction in every segment of society (Umejiaku & Anyaegbu, 2016). Despite the benefits of technology, the growing trend of cybercrime has threatened business activities across the information environment because of the lack of a universal legal framework and jurisdictional challenges (Umejiaku & Anyaegbu, 2016). Cyberlaw concerns codified rules that govern the exchange of communication and information for the protection of intellectual property rights, freedom of speech and public access to information in cyberspace (Umejiaku & Anyaegbu, 2016). According to Umejiaku and Anyaegbu (2016), cyber ethics, on the other hand, is the application of responsible behavior on the Internet. Business leaders operating and transacting processes in the digital environment raise pertinent questions of the legal validity of electronic documents and complex issues of trust and authentication (Dempsey, 2004). Many organizational leaders in developing countries recognize that laws and government

policies play a vital role in fostering the development of ICT and the growth of the online economy (Dempsey, 2004). Pratama (2018) noted that leaders direct and monitor innovation processes through legal frameworks by creating sustainable IT innovations to support organizational innovation systems.

Awiagah, Kang, and Lim (2016) indicated that government supervision has a most significant impact on intentions to implement IT and related e-commerce. Awiagah et al. observed that government policies enable favorable regulatory conditions in stimulating small businesses' adoption and implementation of IT in Ghana. Government influences the creation of an enabling environment for the adoption of ICT by ensuring access to ICT services and facilities affordable for businesses (Awiagah, Kang, &Lim, 2016).

Cucciniello, Lapsley, and Nasi (2016) stated that IT systems adoption and implementation involve various stakeholders' interaction to shape the systems and influence acceptance. Organizational leaders implementing IT should be abreast with government goals and objectives, enshrined in various regulations and policies to ensure a smooth transition (Cucciniello et al., 2016). Olayinka et al. (2016) asserted that government policies are critical enablers in businesses adoption and implementation of IT in developing countries. Policies relating to subsidies and skills development significantly influence small businesses development of IT systems. Table 5 indicates participants' references to interview questions on legal framework and regulation.

Table 5

Embracing Legal and Regulatory Frameworks for IT (Frequency)

Participants	Interview questions	Total number of references
L1A	2, 9	3
L2A	3, 10	4
L3A	10	1
L4A	2, 3	2
L5A		
L1B	2, 3, 9	5
L2B		
L3B	9, 10, 12	3
L4B	9, 10	2
L5B	10, 12	3

Participant L1A stated that government and organizational policies are offer guidance for employees and business leaders to implement IT. Participant L1A noted that regulations and policies include statements of purpose, terms and conditions, and user description, which enables organizational leaders to provide guidance on user acceptable behaviors. Participant L2A explained that government and organizational framework and policies are necessary to safeguard investments made by business owners in companies. Regulatory support has a positive influence on IT adoption and implementation (Chong & Olesen, 2017). Participant L2A opined that the optimum use of IT and related technologies by business leaders require enabling legal and regulatory environment. Chong and Olesen (2017) posited that government regulations could either motivate or discourage organizations from adopting technological for innovations. Guermazi and

Satola (2006) stated the goal of a regulatory institution is to create a stable and open environment that encourages confidence in the business environment. A regulatory authority should establish structures that promote ease of operations, promotes business confidence and clarity, and ensures interoperability of systems, standards, networks (Guermazi & Satola, 2006). Mng'ong'ose and Victor (2018) espoused that lack of proper ICT policy enforcement has negatively affected the benefits of technologies, especially in rural areas.

Business leaders recognize the role of government policies on ICT design, development, and implementation (Palvia, Baqir, & Nemati, 2015). Palvia et al. (2015) posited that stakeholder perspective is often absent in ICT policy formulation, accounting for gaps in information systems design. Palvia et al. recommended evaluating design-actuality gaps by information systems literature, delineation of components of an information system, and analytically through case studies.

Participant L3A discussed how legal framework and regulatory policies enable employees to understand what is ethical within the business culture and industry environment. Participant L3A explained that legal framework included intellectual property rights and cyber laws, which when understood by employees guide the day-to-day approach and interaction with IT systems without violating industry policies and infringing on clients' rights. Participant L4A noted that Ghana's National Information Technology Agency has proposed three legislative bills before Parliament to streamline the information industry. These are the electronic transactions bill, electronic communications bill, and the new telecommunications amendment bill. The purpose of

the laws is to create an independent regulatory environment to monitor and sanitize the technology industry. Garell, Svedberg, and Nygren (2016) opined that the focus of regulatory authorities is to streamline regulatory processes, promote innovation, and the development of new technologies.

Participant L4A explained how regulatory policies enable organizational leaders to establish what designs and systems work, employees' actions that reinforce best practices, and activities that are likely to constitute violations of customer rights. Participant L4A stated that business leaders monitor and reinforce employee actions by training workers in business best practices. Participant L4A observed that ICT regulation and monitoring remained one of the dynamic domains in business and emphasized that the IT industry is constantly changing and therefore requires a dynamic regulatory framework that is continuously ahead of industry players. Participant L1B stressed that organizational leaders and employees monitor implementation of IT business systems, facilities, and services through regulatory framework and policies (Muriithi et al., 2016). Participant L3B explained the vital role of policies in the organization and industry and highlighted that legal and regulatory framework enables business leaders to protect consumer interests and mitigate market failures.

Participant L4B explained that businesses contribute to regulatory policies by providing best practices for policymakers' decisions. Salvioni, Gennari, and Bosetti (2016) encouraged policymakers to translate sustainable business best practices into laws for the guidance of business leaders. Participant L5B espoused that stakeholders in business organizations interact with internal and external stakeholders with varying

interests and aspirations, and without legal frameworks, business operations are likely to suffer chaos and failures. Participant L5B noted further that policy regulations are crucial in ensuring organizations work in conformity to industry and international best practices and standards.

Participant L5B explained the long-term policies of government and institutions influence IT implementation. Participant L5B noted that a stable and long-term IT regulatory framework within the industry provides certainty for strategic planning by business owners. Okeyo and Kioko (2017) posited that regulatory framework has a significant impact on IT adoption and implementation in businesses. Organizational and industry leaders use regulatory frameworks to ensure coordinated use of IT services and institutionalization of policies (Okeyo & Kioko, 2017).

A legal and regulatory framework is crucial for the development of technology in developing countries. In line with that, the Ghana ICT for Accelerated Development policy statement outlines the pivotal role of a legal framework in the information age. The specific objectives of the Ghana ICT for Accelerated Development policy states, amongst others, the creation of the necessary enabling environment to facilitate the deployment, utilization, and exploitation of ICTs within the economy and society, and promote the development and implementation of the requisite legal, institutional, and regulatory framework and structures required for supporting the deployment, utilization, and the development of ICT (Ghana ICT for Accelerated Development).

I reviewed Companies A and B documents. The strategic plan emphasized adherence to existing legal and regulatory framework to ensure high standards of cyber

ethics within organizations. The business expressed keen support for industry procedures to ensure coordinated use and standardization of policies. Four employees (50%) espoused that long-term IT regulatory framework within the industry provides certainty and facilitates strategic planning by business owners. Four (50%) of participants noted that business operations and actions contribute to regulatory policies through the institutionalization of best practices for policymakers. Business leaders affirmed that governments and industry partners must endeavor to close gaps in cyber operations to enhance the safety of customer transactions in the digitized environment.

Findings Related to Technology, Organization, and Environment Model

DePietro et al. (1990) developed the TOEM to demonstrate the technological, organizational, and environmental factors that affect the firm's technology adoption and implementation decisions. DePietro et al. highlight that rather than a purely personal factor approach, organizational and environmental factors should be central in understanding technology adoption. Ramdani, Chevers, and Williams (2013) observed that TOEM is a robust tool to predict the adoption and implementation of IT in small businesses. Small business leaders' use attributes of TOEM to understand how employees interact with technologies for business improvement (Angeles, 2014). The TOEM enable business leaders to understand adoption and implementation strategies as a function of appropriate technology and relevant factors within the organizational and environmental contexts (Hoti, 2015).

Participants' responses supported the conceptual framework for this study: TOEM. Ninety percent of participants stated that top management support and direction

was crucial to successful IT implementation. DePietro et al. (1990) stated that the premise of the TOEM within organizational context outlines organizational and top management structure as essential for IT implementations. The findings relate to DePietro et al. description of the factors that influence the implementation of IT in small businesses. In congruence to DePietro TOEM, Chiu et al. (2017) identified organizational management support as a vital principle in the corporate setting that is consistent with best practices and IT implementation strategies for enhanced organizational performance in small businesses.

Nine (90%) study participants stated investment in an efficient system of infrastructure is a vital requirement for successful IT implementation in small businesses. Pradhan et al. (2018) posited that IT infrastructure is a leading growth enabler, which plays a substantial role in small businesses productivity. IT infrastructure is the most dynamic component of investments that promote growth in businesses (Bankole & Bankole, 2017). The company infrastructure determines an organization's operational reach and size, as depicted in the TOEM (DePietro et al., 1990). Using the TOEM to analyze crucial factors relevant for small businesses, Chong and Olesen (2017) discovered IT infrastructure as a vital support factor for business leaders when strategizing for IT adoption and implementation in developing countries. Yeh, Lee, and Pai (2015) used the TOEM to investigate factors influencing IT and determined that IT capability significantly affects the implementation of IT strategies, noting further that one of the critical factors that account for IT implementation in organizations is appropriate

infrastructure. The study findings affirm the vital role of IT infrastructure acquisition by business leaders and the impact on business performance.

Eight (80%) of study participants acknowledged the significance of IT knowledge and skills training and the impact on IT implementation. Awa et al. (2016) advanced a strong case for IT knowledge and skills training, acknowledging that although some factors contribute to success in IT implementation, skills and expertise are unique since such training are more difficult to imitate by industry competitors. DePietro et al. (1990) identified current practices as a crucial factor within the technological context, influenced by skills training and acquisition. In relation to the TOEM, 80% of participants embraced the deliberate training of employees as a best practice strategy for IT implementation. Olayinka et al. (2016) acknowledged small business leaders should train employees to be proficient in IT use to ensure successful IT implementation. Awan (2013) noted that employee training and orientation is imperative for better organizational performance, a higher level of job satisfaction, better employee retention, and decreased employee's turnover rate. Findings relate to DePietro et al.'s description of training as a function of managerial structure within the scope of the organizational factor in the TOEM.

All participants agreed organizational culture influences the way employees accept and interact with business information systems. Thokozani (2017) emphasized that culture influences individual employee's performance and organization's effectiveness, and sustenance. Thokozani posited further that business leadership focus on organizational culture stems from the belief that culture influences behavior, decision-

making, organizational strategies, individual motivation, and organizational performance. Strong support from owner-managers would reduce the organizational resistance by creating cultural values that support technology usage (Lufti et al., 2016). From this perspective, findings buttress corporate culture as a crucial strategic factor in IT implementation in small businesses and are consistent with the tenets of DePietro et al. (1990) as outlined within the organizational context of the TOEM.

Four employees (50%) espoused that long-term IT regulatory framework within the industry provides certainty and facilitates strategic planning by business owners, while four (50%) of study participants noted that business operations and actions contribute to regulatory policies through the institutionalization of best practices for policymakers. DePietro et al. (1990) outlined an organization's relationship with the government as a prerequisite within the environmental context, which sets favorable conditions for technology adoption and implementation. By identifying factors that influence technology implementation, business leaders could proffer strategies to change IT implementation for improved corporate performance and reduce business failures (Afolayan, 2015).

Findings Aligned with Existing Literature

The findings of this study might assist business practitioners and address a gap in the literature regarding the best practices needed by small business leaders to implement and utilize IT strategies for improved business performance. Farrell (2017) affirmed that small business leaders use IT to enhance administrations by upgrading business procedures and imparting on the way leaders make decisions. Giachetti (2016) stated that

IT implementation offers a unique way to consolidate competitive business positions in the face of diverse challenges. IT enhances small business competitiveness, operating efficiency and business growth (Molinillo & Japutra, 2017).

Small businesses administrators require flexible proficiency and expertise to survive and be profitable in the ever-changing business industry (Shuen et al., 2014). Dynamic capabilities deal with the strategy of adapting human capital through training (McGuirk et al., 2015). Adaptive human capital facilitates the implementation of more advanced technologies and enhances innovation of businesses (McGuirk et al., 2015). Eighty percent of study participants stated that IT knowledge and skills contribute significantly to IT implementation. Small business leaders assume multiple and diverse responsibilities and employ outdated tools and methods, making it difficult to take advantages of business opportunities to expand their markets, acquire current technologies, and acquire new ideas (Cesaroni, & Consoli, 2015; Miska & Mendenhall, 2015). Shuen et al. (2014) posited that small businesses administrators require flexible proficiency and expertise to survive and be profitable in the ever-changing business industry. Nine participants (90%) opined that an efficient system of infrastructure is a vital requirement for successful IT implementation in small businesses. Despite the contribution of employee training and infrastructure acquisition as a prerequisite for IT implementations, there are concerns about the capacity of small businesses in developing countries to meet these requirements. A gap in existing literature relates to a cost-benefit analysis for small business leaders to ascertain whether the cost of infrastructure justifies the benefits accrued from IT implementation.

Organizational leaders that create a culture that values knowledge sharing have a significant role in successful information and expertise transfer (Ahmed et al., 2016). Cultures enable an environment of shared knowledge, individual interactions, and an understanding of business ethics (Mabey & Zhao, 2016). All (100%) participants agreed that organizational culture influences the way employees accept and interact with corporate information systems, while 60% of participants stated that good culture is a necessity for successful IT adoption and implementation.

Despite the benefits of implementing IT in organizations, small business leaders in developing countries encounter challenges in IT implementation leading to business failures (Cant et al., 2015). Al-Shoul (2014) stated that some problems affecting the IT implementation include (a) lack of funds, (b) limited knowledge in IT, (c) lack of skilled staff, and (d) best practices for sustainability. Asiyai (2014) noted that obstacles to the effective integration of IT by business leaders included lack of positive government attitude to IT policy and insufficient financial support to invest in IT facilities. Caldwell et al. (2013) in advocating for utilization of IT by small business leaders cautioned that new technologies have challenges and risks associated with privacy and security.

Applications to Professional Practice

The most significant contribution from the results of the study may be the identification of strategies and best practices needed by small business leaders and owners to address the challenges of IT implementation in small organizations in developing countries. The findings could assist small business leaders who are deficient in IT to gain insights into key IT strategies required for improving small business

survivability. The emerging knowledge from the findings may contribute to effective business practice by providing rich descriptions of IT and related areas that small business leaders need to understand during IT implementation in business operations. Furthermore, the findings from this study could enable small business owners to develop IT adoption and implementation guides to prepare leaders to start and sustain small businesses.

The findings could contribute to professional business practice by providing practical IT implementation strategies for small business leaders who intend to adopt and implement IT for improved business performance. Employing the TOEM could enable owners of small businesses to achieve dynamic capabilities as a means of maintaining a competitive advantage and understanding IT adoption and implementation strategies as a function of appropriate technology within the technological, organizational, and environmental contexts. Small business leaders use IT to gain a competitive advantage within organizations in their respective industries (Agwu, 2018).

As noted in the findings of the study, small business strategies for implementing IT for business performance hinges on top management support in IT implementation decisions that may result in long-term success and survival of the business through decision making and taking measures to ensure the systems implemented reposition the firm and transform business operations. Another strategy, acquisition of appropriate IT infrastructure, is the most productive investment that promotes growth in businesses (Bankole & Bankole, 2017). The training and orientation of employees could enable small business leaders to acquire and sustain individual and institutional knowledge since

knowledge is a strategic resource that allows employees to obtain higher levels of competitiveness and innovation. Business leaders could leverage organizations intellectual capacities to facilitate business technological development and achieve competitive advantage (Al-Hayaly & Alnajjar, 2016).

Implications for Social Change

Society expects organizational leaders manage business operations to achieve company objectives, and contribute to social change (Krainz, 2015). The fundamental implication of understanding strategies of IT implementation is to enhance individual and group competencies. Greater individual and organizational skills could foster increased access to markets, which could translate into higher sales, higher returns, and profitability. Zhuming and David (2015) posited proper implementation and application of IT transforms businesses and boosts productivity.

Increased productivity in small businesses provides opportunities for expanding the production of goods and services, improved incomes, and job creation in developing countries (Page & Soderbom, 2015). Higher profits for businesses could enhance the salaries of employees and result in better and healthier lifestyles. With greater profitability, small businesses are likely to employ additional employees resulting in lower unemployment, and increased purchasing power. Adjourman (2014) posited implementation of IT enables small business leaders to create jobs and achieve sustainable business growth. Small business organizations reduce the risks in IT adoption by using strategies designed for IT adoption (Anderson & Ullah, 2014; Besser, 2012; Ghobakhloo & Tang, 2014).

The acquisition of strategies for IT implementation could further improve business operations by enhancing organizational competitiveness and industry growth. IT enhances small business competitiveness, operating efficiency and business growth (Molinillo & Japutra, 2017). The introduction and use of IT by small businesses have allowed significant changes in organizational operations and enabled enhancement of speed in clientele interaction, and quality service (Kukoyi-Ajayi, 2015: Mubaraka et al., 2013).

Recommendations for Action

The research findings yielded information that may assist small business owners to identify strategies and best practices needed by small business leaders to implement IT for improved performance and survivability. Furthermore, the results of the study might assist leaders of small business organizations to understand IT implementation strategies to enhance individual and group competencies. I recommend the following actions based on the study findings:

- Small business leaders should offer strategic guidance, direction and support, and engage actively in all phases of IT implementation to ensure implementation aligns with business objectives for improved performance.
- Small business leaders should invest in specific IT infrastructures targeted at facilitating business processes to alter structural changes and built dynamic capabilities to support innovation processes for improved organizational survival.

- Small business leaders must develop training and development programs and give priority to employee training through orientation courses, in-house training sessions, seminars, and workshops to acquire, build and retain individual and organizational IT skills and competencies.
- Business leaders must create an organizational culture of acceptance by reinforcing employee actions through regular exposure and setting of clear benchmarks and associated rewards for employees who effectively interact with IT tools.
- Small business leaders must enshrine organizational roles, policies, business processes and procedures within the legal and regulatory framework of government and industry legal and policy frameworks.

I will explore opportunities to distribute my findings of this research through academic and business journals, periodicals, workshops and symposia, and other training opportunities.

Recommendations for Further Research

This study scope was limited to the activities of small business leaders operating business entities. The study findings may not apply to larger enterprises. I recommend further research and additional works centered on larger organizations to enable business practitioners to understand the unique strategies that affect IT adoption and implementation in larger organizations and the correlation in strategy with regards to organization size. The sample size of the participants in this study was a limitation. The

findings of this study, therefore, are not generalized to a broader population. Recommendations for further studies include using a larger sample size.

Data collection instruments used in this study were limited to only interviews and archival documents. The employment of these two instruments eliminates possible information, which could have been acquired through other instruments. Further research using other means of data collection instruments may produce different strategies for IT implementations in small businesses.

Reflections

During the period of my Walden DBA program, I have gathered numerous experiences relating to the operations of small business organizations in Accra region of Ghana. As a part-time operator of a small business, I did much to reduce the possibility of bias. The DBA processes enabled me to gain a better understanding of personal bias to prevent or avoid one. I followed the interview protocol strictly and made efforts not be influence the responses of participants. The information gained from participants, especially small business leaders, gave me enormous insight into the operations of small businesses operating in developing countries. The study findings offer me a better understanding of the sustainment factors relevant to small companies and what role owners must play to ensure increased survivability of small businesses.

Conclusion

The purpose of this qualitative multicase study was to explore strategies small business leaders use in developing countries to implement information technologies for improved business performance. The population consisted of 10 small business leaders

from two companies (Companies A and B) located in the Accra region of Ghana. Using semistructured interviews, with strategic plans as archival documents, I collected and triangulated data to answer the research question. Five themes emerged during the data analysis, highlighting strategies needed by small business leaders for IT implementation in developing countries. The themes include (a) top management support for IT implementation, (b) investment in specific and appropriate in IT infrastructure, (c) engaging in appropriate IT knowledge and skills training, (d) creating an organizational culture of IT acceptance, and (e) embracing legal and regulatory framework for IT.

The study findings indicated that top management must be involved and support IT implementation, setting out the direction and ensuring specific investment in IT infrastructure aligned with the overall organizational objectives. Business leaders must roll out training and development, focusing on the acquisition and retention of relevant skills through workshops, seminars, and symposia undertaken by competent and skilled personnel. Small business leaders must create a favorable organizational culture through a gradual exposure to the culture of IT implementation and usage reinforced by motivation. Strong support from owner-managers would reduce the organizational resistance by creating cultural values that support technology adoption and implementation. Small business leaders implementing IT should understand the role of government policies and work within the regulatory framework to ensure a smooth transition.

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Appendix: Interview Protocol and Questions

Interview Protocol

a. Personal introduction to participant.

b. Ascertain participant received interview questions via e-mail and find out any concerns from participants.

c. Inform participant that interview will be recorded to enhance accuracy.

d. Thank participant for accepting to participate in the study.

e. Turn on the audio recorder.

f. Start the interview following in the manner questions are arranged.

g. On completion of interview, discuss member checking with participants.

h. Thank participant for participation and turn off the audio recorder.

i. Confirm any concerns from participant and exchange contact information.

j. End of protocol.

Interview Questions

The participants will respond to the following questions during the interview process:

1. What strategies did you use to implement IT in your organization?
2. What IT strategies do you use to improve small business performance?
3. How did you overcome hurdles to IT implementation specific for developing countries?

4. What benefits have you derived from implementing IT in your organization?
5. What technological factors affected your implementation strategy?
6. How did you overcome technological factors for successful implementation?
7. What organizational factors affected your implementation strategy?
8. How did you overcome organizational factors for successful implementation?
9. What environmental factors affected your implementation strategy?
10. How did you overcome environmental factors for successful implementation?
11. What skills would you identify as most crucial for small business owners who want to implement IT to improve performance?
12. What other information can you add to benefit this study?