

Emerging Technologies, Globalization and Strategic Business Management: Exploring the Trilogy for Developing Countries

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Abstract

In this paper, we explored the trilogy of emerging technology, globalization, and strategic management with a focus on developing countries. The quantitative study deployed the quasi-experimental research design whereby a cross-sectional survey was conducted to collect data from respondents at a single point in time. The Population consists of individuals who are Nigerians living either in Nigeria or in the Diaspora. With a sample size of 385, the population size was determined using the z-score at 95% confidence level and a choice response of 50%. We adopted the conceptual framework of the Unified Theory of Acceptance and Use of Technology (UTAUT), a variant of The Technology Acceptance Model (TAM), in this study. This study is significant because of the need to understand the emerging trends in technology adoption and the role of globalization against a backdrop of a given economic environment. A cursory appraisal of the environment will show that strategic business management may, or may not, have played a role in moderating the patterns in the adoption of emerging technology. Exploring the trends, trilogy, and country conditions (for a developing economy) are the springboards for this study. Among others, the study found that females use emerging technologies more than males with clear gender differences in the salience of various factors that determine an individual's technology adoption decisions in the workplace. Furthermore, it was observed that strategic management in the form of regulations and policies or incentives, can affect the impact of technology diffusion within an economy. Finally, the study recommends an expansion of the study to include topical aspect of emerging technology like Internet of Things, Artificial Intelligence and 5G devices.

Keywords: Emerging technologies, globalization, strategic business management, developing countries

DOI: 10.7176/EJBM/13-13-01

Publication date: July 31st 2021

1. Introduction

The myriad of political, economic, social, and infrastructural challenges that currently afflict developing countries constitute a significant impediment to an optimal exploration, adoption, and exploitation of the benefits of emerging technologies, globalization, and contemporary strategic business management initiatives (Dahlman, Mealy, & Wermelinger, 2016). Although organizations and business leaders in developing countries are aware of and grasp the concepts of emerging technology, globalization, and strategic business management initiatives, these concepts are, however, and in most cases, explored, adopted, and exploited as stand-alone or in silos. Business practices in developing countries are still mostly traditional as aptly described by Anastassiou, Santoro, Recker, and Rosemann (2016). The authors established that the characteristics of the traditional business management methods in developing countries include short-term performance horizon, extrinsic rewards and sanctions, and explicit coordination and control. Other defining characteristics of traditional business management in developing countries include short problem-solving attention sphere, explicit (push) managerial qualities, and the classification of tangible and intangible assets as organizations' core resources.

However, in contrast to the current traditional stand-alone or silo method of business management in most developing countries, contemporary and 21st century business practices demand seamless fusion and complementarity of emerging technologies, globalization, and strategic business management initiatives (Dent & Bozeman, 2014). According to the authors, the adoption and the seamless fusion of emerging technology, globalization, and strategic business management marked a significant phase in the evolution and advancement of modern strategic business management. Therefore, and as is the case in most developed countries, the successful exploration, adoption, and exploitation of emerging technologies in developing countries should be devoid of stand-alone or silo strategies. Rather, a holistic strategy that aims to leverage the adoption of emerging technologies on the realized benefits of globalization and contemporary strategic business management initiatives and capabilities should be the strategy of choice. Specifically, while availing developing countries the opportunity to explore, adopt, and exploit emerging technologies, such holistic approach would further enhance and ensure the utilization rates of emerging technologies, organizational competitiveness, increased spate of innovation, shorter times to market, increased profitability, and an improved level of the socio-economic conditions in developing countries.

Flowing from the above, the objectives of this study include:

1. Explore the synergies and interrelationships that exists in the variables of emerging technologies, globalization, and strategic business management
2. Explore the favourable and constraining factors that influence or impede the adoption of emerging technologies in developing countries within the concepts of globalization and strategic business management competences or capabilities
3. Do developing countries possess the resources, skills, capabilities, and competences required to adopt, deploy, and utilize emerging technologies successfully?

2. Conceptual Framework

This study is premised on The Unified Theory of Acceptance and Use of Technology (UTAUT) which is a variant of The Technology Acceptance Model (TAM) (Venkatesh & Davis, 2000) and (Venkatesh & Davis, 2003). The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that a number of factors influence the decisions of users when presented with a new technology about how and when they will use it. Specifically, the authors posited that the adoption of any technology by users is premised on two factors that consist of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). On the other hand, the Unified Theory of Acceptance and Use of Technology (UTAUT) can be used to investigate the impact of strategic management on the adoption of emerging technologies by individuals. Specifically, The UTAUT aims to explain the intention of users after adopting an information system and subsequent usage behaviors. The theory upholds four constructs that include performance expectancy, effort expectancy, social influence, and facilitating conditions. The UTAUT can, therefore, be applied by using technology acceptance constructs as dependent variables while emerging technologies are the independent variables. In this study, using the UTAUT, we strive to explore the inter-relationships between emerging technologies, globalization, and strategic management in developing countries.

3. Literature Review

Exploring the existence of the relationship and possible interdependency between emerging technologies, globalization, and strategic business management against the backdrop of The Unified Theory of Acceptance and Use of Technology (UTAUT) in developing countries requires an understanding of these variables. We will, therefore, explore the meanings and the characteristics of emerging technologies, globalization, and strategic business management.

3.1 Emerging Technologies

Emerging technologies, in their diverse forms, are revolutionizing the world of work, how organizations function, change and evolve and the nature of leadership, managerial roles and professional careers (Foster, 2006). According to the author, emerging technologies have become integral elements of business, industry and commerce throughout the world. Essentially a fluid term that connotes novel technological innovations, Rotolo, Hicks, and Martins (2015) identified five attributes that feature in emerging technologies. The five attributes identified by the authors include radical novelty; relatively fast growth; coherence; prominent impact; and uncertainty and ambiguity. Accordingly, and with consideration to the aforementioned attributes, emerging technology can be described as a radically novel and relatively fast growing technology characterized by certain degrees of coherence that persists over time and with the potential to exert a considerable impact on the socio-economic domains observed in terms of the composition of actors, institutions, and the patterns of interactions with the associated knowledge of production processes (Rotolo, Hicks, & Martins, 2015). The authors further posited that the most prominent impact of emerging technologies lies in the future and so, the emergence phase is usually somewhat uncertain and ambiguous. Specifically, findings of the authors revealed that the early phase of technology emergence is characterized by high levels of radical novelty and uncertainty and ambiguity. Furthermore, the same emergent phase is characterized by low levels of growth, coherence, and impact. In disaggregating the attributes of emerging technology, Rotolo, Hicks, and Martins (2015) described the five itemized attributes as below:

Radical Novelty: Emerging technologies fulfill given functions using different basic principles different from principles earlier used to achieve a similar purpose.

Relatively Fast Growth: Emerging technology shows relatively fast growth rates compared to non-emerging technologies.

Coherence: Coherence and its persistence over time distinguish technologies that have acquired a certain identity and momentum from those still in a state of flux and therefore not yet emerging.

Prominent impact: Emerging technologies exert prominent impact on domains that include socio-economic systems by changing the composition of actors, institutions, patterns of interactions, and the associated knowledge production processes.

Uncertainty and ambiguity: Emerging technologies are characterised by uncertainty in their possible outcomes and uses, which may be unintended and undesirable, as well as by ambiguity in the meanings different social groups associate with the given technology.

Emerging technologies, digital technology, and the transformation heralding these changes are the biggest agitator of the business world today (Azede, 2015). For example, the use of mobile telephone and its attendant impact on social media, cloud computing, embedded devices, big data, and analytics have radically changed the nature of work and competition (Bonnet, & Westerman, 2014). Technological advancements have opened many doors to various industries and the advancements have changed way of conducting business with both positive and negative consequences (University of Edinburgh, 2019). Day-to-day the tech industry is thinking of new innovative ways to improve on the latest technology. For example, the healthcare industry and other allied institutions are shifting more to the use of mobile health and telemedicine. Surely, emerging technologies have assumed increasing relevance in the context of policymaking for their perceived ability to change the status quo (Rotolo, Hicks, & Martins, 2015). According to Taiwo et al (2019), technology adoption rate was significantly affected by users' perceived risk and legislations about e-commerce in Southwest Nigeria.

3.2 Globalization

The gradual evolution of traditional to modern business management practices heralded the conceptualization of globalization. Subsequent reinforcement of the evolution of traditional to modern business management practices have been due to the changing strategic focus of business managers and the developments and advancements in business management. Other reinforcements include the rapid diffusion of information, innovation, communication technologies, and the ubiquitousness of knowledge and human capital resources (Chatterjee, 2016; Fjeldstad, Snow, Miles, and Lettl, 2012; Kilic, 2015; Oluwi, 2018; Saunila, 2014). The rapid and wholesome adoption of globalization followed the immense and inherent positive attributes and promises touted by the proponents (Oluwi, 2018). Essentially, the increased rate of adoption of globalization strategies by business organizations gave rise to a new era of international competition, with two-thirds of organizations operating globally through global markets, global operations, global financing, and global supply chains (Russell, Taylor, Castillo, & Vidyarthi, 2014). The new era of international competition reshaped global production and trade, thereby altering the organization of industries and societies alike (Aldakhil & Nataraja, 2014; Jakada, 2014; Kenyon, Meixell, and Westfall, 2016). Accordingly, Aldakhil and Nataraja (2014), Jakada (2014), and Kenyon et al. (2016) described globalization as a process in which a business rapidly expands the provision of its products and services to include global clients, economies, societies, and cultures. Similarly, and in another study, Chatterjee (2016) described globalization as a phenomenon that observers and practitioners filter through its form, activities, and consequences, which include the intense mobility of capital, labour, and information. In other studies, by Oluwi (2018) and Ralston, Richey, and Scott (2017), the authors established that globalization availed organizations the enabling environment to collaborate efficiently and to exchange idiosyncratic assets through the elimination of barriers.

Globalization has had its share of ardent supporters and opponents due to its overwhelming positive and negative effects and outcomes between 1990 and 2018. Specifically, globalization, on the one hand, created opportunities for most developed countries and positively impacted their economic growth (Kilic, 2015). On the contrary, even though globalization portended some advantages for developing countries, it, however, also resulted in poverty, injustice, income dispersal, and negative economic growth (Kilic, 2015). The existence of such glaringly lopsided and confirmed outcomes encouraged a revised definition of globalization. Although there is no one-size-fits-all definition for globalization, Kilic (2015), however, described globalization as a multi-dimensional concept that interfaces with, and affects the economic, political, social, and environmental areas of the world. Similar to Kilic's definition, the World Trade Organization (WTO) described globalization as the integration of capital, investment, and labour markets or its integration with world markets.

In sync with the above-confirmed lopsidedness in the benefits accruable to developed and developing countries, Kilic (2015) further employed the Axel Dreher indices, introduced between 2006 and 2008, to measure the impacts and effects of globalization on countries. Specifically, Kilic identified three measurement indices that include the Economic Globalization Index (EGI), the Social Globalization Index (SGI), and the Political Globalization Index (PGI). Firstly, the EGI takes cognizance of the percentages of the gross domestic product to trade, foreign trade investments and stocks, portfolio investments, and income payments to foreign nationals. Secondly, the SGI measurement index focuses on personal contacts, information flows, and cultural proximity. Thirdly, the PGI measurement index concentrates on the status and extent of international relationships a country maintains. The adoption of the globalization measurement indices, therefore, allowed for a more scientific and reliable assessment of the effects of globalization on the economic growth of countries. According to the author, the measurement indices, subsequently, revealed growth trends in four specific areas of international trade, financial integration, international labour flows, and technical change.

Based on the above measurement indices, and although generally beneficial, the consequences of

globalization are, however, among the most diverse (Chatterjee, 2016). According to Chatterjee (2016), the first consequence of globalization is the extraordinary opportunities that allowed for better capitalization and technological progress by some countries, but not others. The second is the inauguration of severe income inequality, primarily through a deterioration of income distribution. The third consequence of globalization involves the intense competition that countries, international governmental organizations, and multinational corporations contend with, in the race to the top. It is, therefore, apparent that given such negative consequences of globalization, developing countries would need to evolve and adopt approaches aimed at attaining and achieving a better-streamlined and aligned fusion of the initiatives of emerging technologies, globalization, and strategic business management (Oluwi, 2018). The evolution, adoption, and implementation of improved approaches to the complex concept of globalization would avail developing countries the benefits accruable from technological advancements, faster rates of innovation and times to market, and increased customer responsiveness (Oluwi, 2018; Saunila, 2014; Soosay & Hyland, 2015).

3.3 Strategic Business Management

The adoption and practice of modern management approach has been described as one of the veritable tools required by developing countries to scale the multifaceted obstacles presented by globalization. Specifically, the traditional management tools and techniques simultaneously create impediments to innovation, creativity, and competitiveness (Chatterjee, 2016; Fjeldstad et al., 2012; Kilic, 2015; Saunila, 2014). However, the need to satisfy the requirements of the modern economy necessitates that organizations, business leaders, and governments in developing countries shun traditional management tools and techniques designed to ensure organizational stability, operational efficiency, and predictable performance. Furthermore, and in anticipation of scaling the hurdles of globalization, Chatterjee (2016), Kilic (2015), Fjeldstad et al. (2012), Oluwi (2018), and Saunila (2014) posited that organizations, business leaders, and governments in developing countries adopt relevant and modern tools, techniques, and strategic business management initiatives. Such tools and techniques would avail them opportunities for reaping the benefits of globalization.

As a tool for providing long-term direction and cohesion, the strategic business management initiatives of organizations and governments relate to the adoption of deliberate courses of actions and the allocation and management of resources necessary for achieving set goals and objectives (Karadag, 2015). According to the author, while strategic business management initiatives are concerned with attaining sustainable positive performance, organizations, and governments, however, need to carry out and execute activities that revolve around four essential elements of environmental scanning, strategy formulation, strategy implementation, measurement, and evaluation, and strategy control. Essentially, the identification of these elements and the ability to successfully implement them remain a necessary condition for surviving and excelling in a complex 21st-century globalized economy characterized by complex emerging technologies, increased knowledge, early product development, faster time to market, and increased competition. The realization of the need for a successful implementation of elements of strategic management, therefore, requires a focus on education and training, both of which play important roles in understanding and managing the changes orchestrated by emerging technologies and globalization. According to Nwankwo and Njoku (2020), several efforts have been made by the government and organizations to address policy failures at various levels and have designed various means towards remedying the identified failures in education and training. The authors argued that one of the persistent problems is the dearth of competent human capacity to support relevant teaching and learning.

In another study, Hitt, Ireland, and Hoskisson (2015) differentiated between strategy and strategic competitiveness. On the one hand, Hitt et al. (2015) described strategy as an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. On the other hand, the authors described strategic competitiveness as the successful formulation and implementation of value-creating strategies. Flowing from these definitions, the traditional business management tools and techniques used in most developing countries are at variance with the tools and techniques necessary to exploit and reap the benefits accruable from emerging technologies and globalization (Karadag, 2015).

Flowing from the above, there arises the need for organizations, business leaders, and governments in developing countries to forge and implement strategic business management initiatives targeted at exploring, adopting, harnessing, and successfully utilizing the benefits derivable from emerging technologies and globalization. The negative ripple effects and impacts of globalization in developing countries represent obvious constraints and obstacles to achieving sustainable development. Such obstacles are exhibited through dependence on the export of raw agricultural and mineral commodities, inability to compete on the world market, depleted foreign exchange earnings, and underdeveloped institutions and infrastructures (Frankel, F. 2010 and Onyiruiba, L. 2016).

4. Methodology

We deployed the quasi-experimental research design (Leedy & Ormrod, 2010) whereby a cross-sectional survey

was conducted to collect data from respondents at a single point in time (Rindfleisch, Malter, Ganesan, & Moorman, 2008). Population of the study consisted of individuals who are Nigerians, who live in Nigeria, as well as Nigerians in the diaspora. Following the recommendation of Cochran (1963) for large populations, a sample size of 385 was determined using the z-score at 95% confidence level and a choice response of 50%. According to Cochran, samples size for a large population is given as:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where probability of maximum variability assumed = $p = .5$. Hence, $q = 1-p$
 $e = 95\%$ level of significance which is 5% confidence level. Z is the z-score at two-tailed = 1.96

$$\text{Thus, } n_0 = \frac{(1.96)^2 0.5 (1-0.5)}{(0.05)^2} = 385$$

We engaged respondents from all walks of life because the use of emerging technologies cut across all sectors. Primary data was collected from the respondents via structured questionnaire, which comprised items relating to the demographic (personal) details of the respondents (e.g., gender, age, and marital status) and items relating to the use and challenges of emerging technologies. Overall, the questionnaire comprised 30 items (see appendix 1). Furthermore, the instrument was face-validated by subjecting it to the scrutiny of six experts in ITC, five managers, three university lecturers, and five entrepreneurs. In tandem with the findings of Sreejesh, Mohapatra, and Anusree (2014), these respondents agreed that the items and general design of the instrument were appropriate, straight-forward, simple, and meaningful. The body of experts also reviewed the indicators in the questionnaire and acknowledged that they sufficiently reflected and covered the range of meanings of the variables (Bollen, 1989). Flowing from these confirmations, the instrument, therefore, does not have content validity problem. Moreover, internal consistency of the items were estimated using Cronbach's coefficient alpha measure (Cronbach, 1951). All the items scored alpha values above the 0.7 threshold recommended by Nunnally and Bernstein (1994). Conclusively, the questionnaire is deemed reliable.

5. Findings of the Study

We randomly administered questionnaire to 385 respondents via Survey Monkey. Of the total 385 Survey Monkey Audience (SMA), 149 responses were retrieved after 6 weeks, which represented 38.7% completion rate. Such a result is not surprising given that most of the respondents are very busy with work schedules. Moreover, similar studies have been revealed to have low completion rates (Liu & Wronski, 2017). However, we decided to retain all the items because they are germane to the subject matter. We did not encounter any case of missing data. Following data collection, we exported the data from the Survey Monkey to IBM@SPSS software version 22.0 for analysis. The study adopted the descriptive approach, whereby the sample characteristics and percentage occurrences of the variables were identified (Pallant, 2013). The demographic summary of the respondents is shown in Table 1.

Table 1: Demographic Characteristics of the respondents

	Item	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	87	58.39.	58.39.	58.39
	Male	62	41.61	41.61	41.61
	Total	149	100.0	100.0	100.0
Age	18-30	54	36.24	36.24	36.24
	31 – 40	36	24.16	24.16	60.40
	41- 50	32	21.48	21.48	81.88
	51-60	16	10.74	10.74	92.62
	Over 60	11	7.38	7.38	100
	Total	149	100.0	100.0	100
Highest Level of Education	Primary	1	0.67	0.67	0.67
	High School	42	28.19	28.19	28.86
	College/University	77	51.68	51.68	80.54
	Graduate School	29	19.46	19.46	100
	Total	149	100.0	100.0	

Source: Research Data (SPSS Output) 2021

Table 1 shows that 87 respondents (58.39%) were females and 62 (41.61%) were males. It can, therefore, be deduced from this result that females use emerging technologies more than males. Furthermore, it has been recognized in prior studies that “there are clear gender differences in the salience of various factors that determine an individual’s technology adoption decisions in the workplace” (Venkatesh, Morris & Ackerman,

2000).

In the age category, 54 respondents (36.24%) fall within 18-30 age bracket. Other identified age brackets showed that 36 of the respondents (24.16%) fall within 31-40 age bracket; 32 respondents (21.48%) fall within 41-50 age bracket; 16 respondents (10.74%) fall within 51-00 age bracket; while those that are above 60 years old were 11, representing 7.38% of the sample. Therefore, majority of users of emerging technologies are young people within the age bracket of 18-30, while those above 60 years have the least interest in the use of emerging technologies. Such findings are not surprising as previous studies by authors that include Lerouge, Newton, and Blanton (2005) have demonstrated that younger people have greater propensity to accept innovative and emerging technologies. Moreover, literature suggests older people are less interested and express higher levels of anxiety in the use of emerging technologies (Porter & Donthu, 2006). In another finding, Quazi and Talukder (2011) found that 'aged employees usually tend to resist change that may arise from the introduction of new or emerging technologies.

Building on the above findings, a descriptive analysis was conducted on the emerging technology (ies) items (see appendix 1). Descriptive analysis of which emerging technology (ies) respondents have used revealed that 9 respondents (6.04%) have experienced the use of Artificial Intelligence; another 9 respondents (6.04%) have experienced the use of Virtual Reality; 87 respondents (58.39%) have experienced the use of Mobile Phone Devices; 10 respondents (6.70%) have experienced the use of robotics; 14 respondents (9.40%) have experienced the use of Internet of Things; 14 respondents (9.40%) have experienced the use of 5G-powered devices and equipment; while 6 respondents, representing 4.03% have experienced the use of other types of emerging technologies. Therefore, majority of the respondents are more familiar with the use of Mobile Phone Devices, whereas few have experienced the use of Artificial Intelligence, Virtual Reality and sundry emerging technologies not expressly mentioned in this study.

Finally, respondents were asked on their primary responsibilities regarding emerging technology. Results indicated that 11 respondents (7.8%) were responsible for managing the strategic aspects of their organizations; 73 respondents (48.99%) were operators of Technology Equipment and Devices; and 11 respondents (7.38%) were involved in stakeholder management. Furthermore, 16 respondents (10.74%) were promoters of equipment and devices, while 38 respondents, representing 25.51% of the sample responsible for other tasks in their respective organizations.

6. Discussion, Implications, Recommendations

The quantitative study emanated from the curiosity about the inter-relationships between emerging technology, globalization, and strategic management in developing countries. The idea evolved from the quest to explore the synergies and inter-relationships that exist in the variables associated with, or linked to the trio of emerging technologies, globalization, and strategic management. On the other hand, we aimed to explore how developing countries have been able to, either successfully or unsuccessfully, adopt emerging technologies within the constraining factors of globalization and strategic management.

This chapter provides a summary of the findings and discussion on how research data has been used to measure perceptions, test hypothesis, examine research questions, and generalize. The theoretical platform of this study is The Unified Theory of Acceptance and Use of Technology (UTAUT2) developed for a consumer context (Venkatesh et al., 2012). UTAUT2 is a variant of the Technology Acceptance Model (TAM). In this research study, we used the UTAUT2 to explore the synergies and interrelationships that exists in the variables of emerging technologies, globalization, and strategic business management in developing countries.

7. Implications of the Study Results

This research was based on curiosity about the impact of strategic management in less developed economies with particular focus on emerging technology, globalization, and strategic management. The results showed that certain aspects of emerging technologies were used more widely compared to others. An analysis of the data showed that of the total 149 sample population, 87 respondents (58.39%) had used mobile phone devices; 6.70% had used or been exposed to robotics; 9.40% have experienced the use of Internet of Things; 9.40% had experienced the use of 5G powered devices and equipments; and 4.03% had been exposed to other types of emerging technologies. Therefore, majority of the respondents are more familiar with the use of mobile phone devices, whereas few have experienced the use of artificial intelligence, virtual reality, and a sundry of emerging technologies not expressly mentioned in this study.

Generally, strategic management in the form of regulations and policies or incentives, can affect the impact of technology diffusion within an economy. Such policies and incentives are reflected in ordinances, regulations, and licenses that are packaged as policies but serve regulatory purposes. Similarly, globalization can also affect the impact of technology diffusion within an economy. This research study provides data that can be re-evaluated by consumers, policy makers, people in the academia, and other stakeholders.

8. Limitations

The use of quasi-experimental design enabled this study to explore aspects of the variables of curiosity. It was not possible to employ generalization in the data analysis. Also, an array of variables related to emerging technologies, globalization, strategic management in less developed economies had to be kept constant to find meaning in the data matrices. It is difficult to emphatically attribute the observed trends to specific strategic initiatives, policies, or globalization. Also, there are trends that may not be attributable to the unified technology acceptance and use theory. There is the possibility that loans, subsidies, and grants may, or may not, be responsible for disparities seen in the use of mobile devices, robotics, and 5G device technologies. Finally, the study is not generalized for all areas of Nigeria but may be relevant to some states, economic blocks or zones, and demographic zones.

9. Recommendations and Future Research

While the findings from this study does not conclude that the Unified Theory of Acceptance and Use of Technology is valid for emerging technology adoption, there is, however, the possibility to narrow its investigation to specific emerging technology devices and specific policies. The existence of such a possibility can support the exploration of determining what policies are working for what kind of emerging technology device and equipment. Future studies can also be expanded to include topical aspects of emerging technology such as Internet of Things, Artificial Intelligence, 5G devices etc. Furthermore, it may be necessary to narrow down future studies, given all relevant parameters, to specific geographical area(s), emerging technology (ies), and industry (ies). A possible area is the exploration of the trilogy for indigenous textile industry, the beauty products industry, petrochemical manufacturing industry, or other import substitution sectors. Finally, the use of Robotics can also be explored within the guard-rails of this study. These are among the options for future investigations.

10. Conclusion

Our observation and analysis of the data connected with the economy of less developed countries yielded interesting results. Specifically, living and interacting with technology significantly impacts daily life. Technology affects how we communicate and interact. This interaction encompasses device-to-device, human-to-device, and verse versa. Today, businesses and individuals use email, video conferencing, and instant messaging to communicate with each other. These modes of communication have significantly improved the productivity, efficiency, and profitability of businesses and individuals. Specifically, technological developments in business operations in different sectors of the economy have profoundly saved countless jobs and impacted the Gross Domestic Product (GDP) of nation-states. Records indicate that continuous enhancement and improvement of the quality of life of the average citizen revolve around aspects of the trilogy explored in this study.

This study explored the technology adoption experience for a developing country like Nigeria and how adoption patterns run among different genders. The study suggests that collaborations among the relevant government agencies, commercial organizations, educational institutions, and other stakeholders can nurture innovation and drive acceptance of emerging technology devices and equipment. Of primary significance is the role of strategic business management in creating a nurturing environment for a wider spread of adoption opportunities. The opportunities to expand the use of Robotics, Internet of Things, Artificial Intelligence, and Virtual Reality with robust growth-enhancing regulations are vital to solving the myriad of technology challenges we face today, including the adoption rate explored in this study, albeit from the perspective of a developing country. Understanding the role of innovations and inventions, the velocity of the diffusion of emerging technologies, and the impact of globalization within the ambit of government policies are vital to continuing the technology adoption discussion in future studies.

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Appendixes

Appendix 1: Descriptive Statistics of Items on emerging technology(ies)

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Which emerging technology (ies) use experience do you have?				
Artificial Intelligence	9	6.04	6.04	6.04
Virtual Reality	9	6.04	6.04	12.08
Mobile Phone/Device	87	58.39	58.39	70.47
Robotics	10	6.70	6.70	77.17
Internet of Things	14	9.40	9.40	86.58
5G powered devices/equipment	14	9.40	9.40	95.98
Others	6	4.03	4.03	100
Total	149	100.0	100.0	
Which of the following is your primary responsibility regarding emerging technology?				
Strategic Management	11	7.38	7.38	7.38
Technology Equipment/Device User	73	48.99	48.99	56.37
Stakeholder Management	11	7.38	7.38	63.75
Equipment/Device Promoter	16	10.74	10.74	74.49
Others (specify)	38	25.51	25.51	100
Total	149	100.0	100.0	
Have you been involved in any Strategic Management activity within the last 5 years?				
Yes	47	31.54	31.54	31.54
No	102	68.46	68.46	100
Total	149	100	100	