

Effect of Innovation on Business Sustainability in Guaranty Trust Bank Plc, Area 3 Branch, Garki, Abuja

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Abstract

This study examined the effect of innovation on business sustainability, using Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The study adopted a survey research design. The study used the entire staff of Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria as the population of the study which is 192 as the sample size. The data for the study was collected from the respondents who are staff members of the branch. The study utilised primary qualitative data which was converted to quantitative data using five-point Likert scaling. The study used correlation and regression analysis with the aid of statistical software package of SPSS version 25.00. The findings showed that there is a significant relationship between innovation and business sustainability of Branch. This implies that innovation (process innovation, organisational innovation and technological innovation) contribute significantly to business sustainability (business survival) of Branch. The study, therefore, recommended that the Branch of the Bank should continue in adopting innovation by investing more on commercial activities, research and development as well as new skills and methods of serving the customers since they are statistically significant to achieved business sustainability in the organisation.

Key Words: *Innovation, Process, Organisation, Technology, Business Sustainability*

Introduction

Innovation has been said to be the major strategy and driving force behind banks' sustainability in any competitive business environment. The introduction of novel technology and services has remained the thrust behind the spring-up of new banks and the expansion of the existing ones for the sustainability of the business. The sustainability of any business venture lies in the innovative ability of its business within the organisation. The essential role of banks in the sustainability of businesses cannot be gainsaid since banks remained the catalysts for sustainability (Ussahawanitchaki, 2012).

Basically, sustainability encompasses ability being maintained at a certain level or rate. However, from an organisational perspective, Coetzee (2017), defined sustainability as the

reduction of organisational risk that increases the probability that an organisation will survive and thrive in the future, conjugated with the mitigation of any harm to the things and people around it. Also, sustainability entails continuously taking actions that are profitable for a secured better future, and to outwit competition. This has prompted the need for organisations to be adaptive, flexible, and innovative in response to the pressure of business environments (Yusuff, Chek & Hashmi, 2005). According to the Organisation for Economic Co-operation and Development (OECD) (1997), an organisation is said to be innovative when it possesses the capability to alter its management or business model, in addition to being able to initiate new services that respond to expressed and unexpressed needs of customers.

In their study, Delgado Verde, Castro and Navas López (2011), sought to test the relationship between organisational knowledge assets and the innovation capability of a firm, they found out that innovation supported sustainable business management. Other studies also showed that innovation has led to an improvement in the process or service that has affected higher gains compared to previous achievement (Harper & Becker, 2004; Walker, Damanpour & Devece, 2011; Teece, Pisano & Shuen, 1997). In contrast, other studies showed that innovation may equally be a risky venture (Zahra, 2005), according to Colquitt, Scott and Lepine (2007), developing or initiating new services is essential for firm survival and sustainability, but these are costly organisational processes. Delgado, Porter and Stern (2010), even argued that the positive relatedness of innovation with business sustainability, more specifically technology innovation, may be overstated, whereas the potential negative effects of innovation are typically downplayed or even ignored. Hitherto the foregoing, it is imperative to properly appraise and understand organisational skills, competencies and capabilities to curtail risky or uncertain investments in innovation.

Over the years, Guaranty Trust Bank Plc, Abuja have used various innovation strategies ranging from service innovation, technology innovation and process innovation in order for to sustain their activities by ensuring that their business grows and continually survive. Yet, Guaranty Trust Bank Plc in Abuja has recorded little growth such that some Districts and even Area Councils in Abuja, Federal Capital Territory have just one branch of the bank, which may not serve the customers well.

From other extant literatures—the works by Norsiah, Mohd and Zuhriah (2015); Jaeho, Changhee and Hongsook (2017); Akinwale, Adepoju and Olomu (2017); and Eneji, Nnandy, Gukat and Odey (2018), were conducted by studying the innovation and sustainability using various organisations in Malaysia, Korea and Nigeria, but none of these studies used Guaranty Trust Bank Plc, Abuja to address this problem. However, this study used Guaranty Trust Bank Plc (GTB), Area 3, Garki, Abuja to study the variables. The study, therefore, seeks to answer the research questions: what effect does process innovation have on the sustainability of GTB, Area 3 Branch, Garki, Abuja? to what extent does organisational innovation affect the sustainability of GTB, Area 3 Branch, Garki, Abuja? and how does technology innovation affect the sustainability of GTB, Area 3 Branch, Garki, Abuja?

The main objective of the study is to examine the effect of innovation on business sustainability of GTB, Area 3 Branch, Garki, Abuja. Other specific objectives of the study are to: Examine the effect of process innovation on business sustainability of GTB, Area 3 Branch, Garki, Abuja; determine the effect of organisational innovation on business sustainability of GTB, Area 3 Branch, Garki, Abuja; evaluate the effect of technology innovation on business sustainability of GTB, Area 3 Branch, Garki, Abuja.

Arising from the specific objectives of the study, the hypotheses as stated below were tested empirically as to weigh the effect on the research questions raised as against the research problems:

- H₀₁: There is no significant relationship between process innovation and business sustainability of GTB, Area 3 Branch, Garki, Abuja.
- H₀₂: There is no significant relationship between organisational innovation and business sustainability of GTB, Area 3 Branch, Garki, Abuja.
- H₀₃: There is no significant relationship between technological innovation and business sustainability of GTB, Area 3 Branch, Garki, Abuja.

The study is restricted to the effect of innovation on business sustainability, where Guaranty Trust Bank Plc (GTB), Area 3 Branch, Abuja, Nigeria, was used as a case study. The reason for using GTB in Area 3, Abuja, Nigeria is that they had a high volume of customers who patronised them. Also, the choice of selecting the bank and branch is that aside from being the biggest

branch in Abuja, the Area 3 Branch as referred, it is the Zonal Headquarters of North Central Nigeria. Also, Guaranty Trust Bank Plc (2018), was the recipient of the Most Innovative Bank Award by African Investor Awards in 2015, 2016 and 2018. The study covered process innovation, organisational innovation and technological innovation as measures of innovation while business sustainability was measured by business survival.

Concept of Innovation

The word 'innovation' is an indicating state, condition, action, process or result of the word 'innovate'. According to Online Etymology Dictionary (2015), innovate which was translated in the 1540s as new from the Latin word *innovatus*, is a past participle of *innovare* meaning to renew, to restore or to change into new—to bring in new things or alter established practices. 'Innovation' in Latin is *innovationem* meaning a novel change, experimental variation or new thing introduced in an established arrangement.

The term innovation generally includes three types of innovations viz. product innovation, process innovation and organisational innovation (Halila & Rundquist, 2011). Innovation could also be viewed as environmental innovation, consisting of any kind of product, process or organisational innovation that adds something towards sustainable development (Doran & Ryan, 2014). Innovation is where organisations adopt or develop innovations which diagnose, observe decrease or prevent environmental problems. While conventionally, so many managers and economists considered innovation as an extra burden of the cost for the firm. This is no longer the case nowadays (Doran & Ryan, 2014).

According to Zwingina and Opusunju (2017), innovation is the process of novelty which implies that new things are done, or old things are done in new ways to increase performance in terms of sales, profitability and market shares in an organisation. To them, it is an application of technological, institutional, human resources and discoveries to productive processes, resulting in new practices, products, markets, institutions' and firms that need expansion. Innovation is the scientific, technological, organisational, financial and commercial activities that are implemented through new or improved products or services (OECD/Eurostat, 1997).

Independent of how it is defined, it is good to understand that the phenomenon of innovation is not new. Schumpeter (1934), was among the first economists to emphasize the importance of new products as a stimulus to economic growth. He argued that the competition posed by new products was far more important than marginal changes in the prices of existing products. After the Second World War, economists began to take an even greater interest in the causes of economic growth and the most important influences on innovation seemed to be industrial research and development (Harrod,1948). Howard (1993), in particular forcefully argued that today's age management of invention may represent one of the most important and sustainable sources of competitive advantage.

Process Innovation

Process innovation entails the implementation of new or improved production processor adoption of new tools, technology, or knowledge in producing a product (Oke, Burke & Myers, 2007). Basically, process innovation involves the process of re-engineering and improving internal operations of a business process (Cumming, 2008). This process involves many functional aspects of an organisation, including technical design, research and development, manufacturing, management and commercial activities. In the view of Oke *et al* (2007), process innovation is most related to the creation of, or improvement in techniques, and the development in process or system.

Organisational Innovation

Organisational innovation is broadly defined as changes in firm structure or management methods that are intended to improve a firm's use of knowledge, the quality of goods and services, or the efficiency of workflows (Kleiner, 2006). It also means the implementation of a new organisational method in the undertaking's business practices, workplace organisation or external relations. In the view of Gunday and Dutton (2011), the organisational innovations are strongly linked with all administrative efforts to renew organisational routines, procedures, mechanisms, systems, etc. in order to renew teamwork, sharing of information, coordination, learning and innovation. Component of organisational innovation includes workforce training, employee voice, work design (including the use of cross-functional production processes) and shared rewards (Dervitsiotis, 2010). This is not meant to be an exhaustive list of all dimensions of

organisational innovation, rather a range of practices that have been found to significantly enhance the productive capacity of a firm. According to Sattari (2013), theoretically, organisational innovation is best thought of as a continuous variable.

Technological Innovation

Jiaji, Quan, Jian and Jiajiao (2000), explained that technological innovation is a unified process which entails activities of technology, organisations, business and finance. It means that the entrepreneurs seize the market prospects for commercial benefits as the goal to create a stronger performance, more efficient and lower cost of production and operation system. Danneels and Kleinschmidt (2001), opined that markets and technology are core components that bring about the development of a new product. Technological process innovation is the application of a new or significantly enhanced method of production or services delivery. It includes significant changes introduced in the process of production, skills involved, equipment or software that are engaged during the innovation phase (OECD, 2005). Technological product innovation necessitates the firm to be technologically inclined thereby enabling them to serve their customers well based on their capabilities.

Concept of Business Sustainability

Business sustainability depicts the general idea of doing good for the environment the business operates in and the various stakeholders it interacts with. But perhaps, more importantly for managers, the business itself gets to benefit more in both short and long terms (Atuluku & Uchendu, 2016). According to Colbert and Kurucz (2007), business sustainability is the business of being in business. The concept is based on the idea that an organisation is the voluntary association of productive assets, including manpower, physical and capital resources for the purpose of achieving a shared goal (Barney, 2002).

Business sustainability has also been referred to as corporate sustainability (Dyllick & Muff, 2013). The concept implies the integration of conservation of nature and more efficient use of resources, which requires firms to conduct green innovation (Behnam & Cagliano, 2016). From this, it is clear that survival and growth are the two main objectives of any organisation in

today's competitive world. It has become imperative on the need for every organisation to be different and accelerative from its competitors to achieve their goals and become market leaders. In this guise, this research utilised business survival as a proxy for business sustainability.

Business survival is the ability of a firm to continuously be in operation despite various challenges, that is the managerial process of directing the affairs of a firm regularly on a going-concern basis and meets the needs of all stakeholders (Akindele, Oginni & Omoyele, 2012). Business failures have been viewed as a situation where business goes into bankruptcy or cease operations which results in losses and failure to meet its various financial commitment to creditors. In order to survive, firms always keep a close tab on the various activities that determine their continuity.

Theoretical Framework

Many theoretical frameworks seek to describe the dynamic process of the implementation of innovations. Little is known, however, about the impact of the innovation on business sustainability. This study compared constructs theorised to be related to innovation and its effects on business sustainability. The overall goal is to identify elements across innovation frameworks that are potentially modifiable and, thus, might be employed to improve the sustainability of businesses if adopted.

The Diffusion of Innovation Theory as developed by Rogers (1962), explained the user adoption of new innovation. Rogers (1962), used data from hundreds of studies on the subject to develop a five-part business decision-making process on customer engagement viz. knowledge, persuasion, decision, implementation and confirmation. According to Rogers (2003), new ideas disseminate or diffuse through communication channels over time; such innovations are initially perceived as uncertain and even risky. To overcome this doubt, most individuals seek out others like themselves who have already adopted the new idea. In this guise, the diffusion process entails a few persons who first adopt an innovation, then disseminate the information among their circle of connections. For businesses considering to roll out new products or services, diffusion of innovation can help spell the difference between a successful product or services launch and a failed one. This is why this theory is very vital for this research.

In 1997, Kim and Mauborgne (1997), posited the Blue Ocean Theory, otherwise known as the value innovation concept. They averred that companies tend to engage in head-to-head competition in search of business sustainability. They expounded that hitherto the business overcrowdedness of recent times, industries who competes for head-on results often gets nothing, but a blood-spattered red ocean of rivals fighting over a shrinking market share. Kim and Mauborgne (2005), averred that lasting success increasingly comes, not from battling competitors, but from creating blue oceans of untapped new market spaces that are ripe for growth. There are many supporters of this theory, few of them include the Chairman and President of LG Electronics—Moon Bum Shin, the former President of Chile, Eduardo Ruz Tagle, the former Prime Minister of Malaysia, Najib Razak and so on. The researcher has chosen this theory because of the popularity of the theory, organisations often adopt it as it seems to be an easy approach to business sustainability.

Similarly, Christensen (1997), posited the Disruptive Innovation Theory, which connotes innovations that fashion new markets by ascertaining new classes of customers. They do this by bringing about new business models and exploiting old technologies in new paradigms. He contrasted disruptive innovation with sustaining innovation, which simply improves existing products. Dyer, Gregersen & Christensen (2019), further builds on what has been written about the theory by outlining five discovery skills that distinguished innovative entrepreneurs and executives from ordinary managers viz. associating, questioning, observing, networking and experimenting. From an organisational perspective, Dyer *et al* (2019), opined that the theory can be exploited by organisations to inspire innovation for business sustainability by three elements viz. putting people first; processes that enable people to innovate and; the philosophy that innovation is everyone's job. This theory is particularly important in this research, as it took cognisance of recent and fast developing characteristics of innovation.

Empirical Review

Lim, Schultmann and Ofori (2010), carried out an empirical study on the effect of organisational innovation on the performance of construction firms using data statistical secondary data across 18 Organisation for Economic Cooperation and Development (OECD) countries and expert interviews in Singapore. They discovered that due to the fact that construction projects are

awarded by clients based on lowest cost, innovation appears to be an unfeasible competitive strategy. However, their study revealed that construction firms can develop their competitive advantage through manipulating innovations that consumers are willing to pay for and innovations that would reduce construction costs. Albeit their analysis was not elaborate, the study provided an organisational framework which can enable construction firms to improve their finances for innovation and develop their brand in construction products and/or services.

On the contrary, Gomes, Kruglianskas and Scherer (2011), sought to provide new inferences on the relationship between the management of technology information, sustainable development and the innovative performance of firms. They carried out a survey of 95 Brazilian industrial enterprises with innovative characteristics. They sought to understand how technological innovation management practices that take social and environmental responsibility into account influence firms' internationalisation process using simple percentages statistical technique. The independent and dependent variables from their results suggested that there was a connection between managing technology for sustainable development and innovative performance. Gomes *et al* (2011), equally tried to identify the main technological management practices that reflect a commitment to sustainable development. Though their analysis was not robust, they showed that firms' international success and a high degree of competitiveness, were based on offering innovative technology solutions that show commitment to the environment.

Norsiah, Mohd and Zuhriah (2015), analysed the effect of sustainable manufacturing practices (SMP) on economic sustainability (ES), and the mediated effect of SMP on ES through innovation performance (IP). Using a survey data collected from 150 Malaysian manufacturers, this paper empirically examines the relationships that exist among SMP (internal and external SMP), IP (product, process, organisational and marketing), and ES. Adopting partial least squares structural equation modelling (PLS-SEM) technique, the study found that internal SMP has a positive effect on ES and process innovation (PI) partially mediates this internal SMP-ES link. Surprisingly, although the relationship between external SMP and ES is not significant, incorporating product and process innovations into this link have changed the significance of the relationship. In general, the results have empirically proven the role of sustainable manufacturing practices (SMP) on economic sustainability (ES) in influencing economic performance.

Jaeho, Changhee and Hongsuk (2017), analysed the relationship between sustainability as innovation objective and innovation efficiency. They used 441 manufacturing companies in Korea from 2016 Key Information Set (KIS) data and carried out data envelopment analysis (DEA) method in calculating efficiency score of each firm and to bit regression analysis to investigate the effect of sustainability as an objective of innovation on innovation efficiency. The results showed that the objective of “environmental improvement” negatively affects innovation efficiency, while “safety improvement” positively affects efficiency. On the contrary, the effect of “material and energy reduction” by Jaeho *et al* (2017) as an objective of innovation on innovation efficiency was not verified. This could be attributed to an inadequate analysis by the researchers leading to mixed results. Nonetheless, the study brought to bear the views of several researchers on the subject of innovation.

Akinwale, Adepoju and Olomu (2017), examined the impact of research and development (R&D) expenditure, product and process innovations on small and medium enterprises (SMEs) performance in the manufacturing industry in Nigeria using a survey of 1,000 SMEs with a response rate of 52.1% in the year 2009. The results with least squares method showed that R&D spending by the firms as well as product and process innovation has significant impacts on the firm’s performance with the probability value of 0.0529, 0.0624 and 0.0086 respectively at 10% level of significance. They concluded that training of the workforce constitutes the major innovation activities in the Nigerian manufacturing SMEs as against in-house and outsourced R&D activities. The results by Akinwale *et al* (2017), equally shewed that improvement in R&D spending and other technological activities are expected to increase SMEs’ profitability. However, the 10% level of significance used by Akinwale *et al* (2017), and the response rate of 52.1% may have negatively affected the credibility of their results in adjudging the entire population.

Eneji, Nnandy, Gukat and Odey (2018), the impact of technology innovation on sustainable entrepreneurship development in Nigeria. They carried out a survey of 1000 stakeholders, using questionnaires, and simple percentages statistical technique of evaluation to investigate the factors influencing technology innovation and sustainable entrepreneurship in Nigeria. Eneji *et al* (2018), equally focused on economic factors though with interlink with other factors such as political; legal; sociocultural; environmental factors and a supplementary multiple regression analysis was equally

carried out using secondary data. They averred that the country has imported foreign technology worth billions of dollars, most of which have become obsolete in all sectors. And recommended that educational and private sectors in Nigeria should play a leading role in indigenous technology incubation, innovation, adoption and transfer. Even though the methodology by Eneji *et al* (2018), was robust with several proxies, their results showed a weak explanation of the dependent variable by the independent variables with the coefficient of determination at 39% (i.e. $R^2 = 0.391572$). This weak explanation could be attributed to measuring several variables which did not exactly address their research problem.

Although innovation is generally regarded as a means of achieving business sustainability, this relationship is not altogether sustained empirically. Which is why the effectiveness of innovation on business sustainability and performance remains of significant interest to researchers, economist and policymakers. From the extant literatures reviewed, the works by; Limet *al* (2010); Gomes *et al* (2011); Norsiah *et al* (2015); Jaeho *et al* (2017); Akinwal *eet al* (2017); and Eneji *et al* (2018), were conducted by studying the innovation and sustainability using various organisations in Singapore, Brazil, Malaysia, Korea and Nigeria, but none of these studies used Guaranty Trust Bank Plc, Abuja to address this problem. This is indicative of a knowledge gap that this study sought to contribute to. Conversely, this study used Guaranty Trust Bank Plc, Area 3, Garki, Abuja to study the variables.

Methodology

The study adopted a survey research design. Survey research design aims at collecting data and describing it in a systematic manner that indicate the characteristic, features or facts about the given population. The reason for using survey research design is to collect relevant data from respondents in the field comprising the target respondents who are employees of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The study was carried out ex post facto following a quantitative approach. Such that, primary qualitative data were collected using structured questionnaires, and converted to quantitative data with five-point Likert scaling.

The population studied, involved the staffs of GTB from all the Area 3 Branch, which has the following departments: corporate strategy, human resources, business process re-engineering,

which forms the core operational departments in the bank, also data on their population was obtained from the human resources department giving a population of 192. The sample size of this study is the 192 staff of Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria.

The questionnaire was administered to the staff of the Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria. The copies of the questionnaire distributed to the employees of the organisation by the researcher and also were assisted by some of the staff of the organisation. All the questionnaires were returned in three days by the research assistant. The questionnaire is divided into three parts. Part 1 addressed questions on personal information (respondent’s information); Part 2 also looked at questions related to innovation and; Part 3 addressed the questions related to business sustainability. The administered questionnaires were subjected to test so as to ensure its reliability. The method used for testing for the internal consistency was the Cronbach’s Alpha, which is computed with the model:

$$\alpha = \frac{Nr}{1+r(N-1)}$$

Where: α = Cronbach Alpha; N= the number of items in the scale; r = the mean inter-item correlation.

Table 3.1.: Result of Reliability Test

Variables	Cronbach’s Alpha Co-efficient	Questions
Process Innovation	0.81	4
Organisational Innovation	0.89	7
Technology Innovation	0.93	5
Business Survival	0.86	3

Source: Researcher’s Computation, 2019

In the case of this study, the levels of alpha values are above the 0.7 which were considered as reliable (Cronbach’s $\alpha > 0.70$), according to Field (2009).

To ensure easy analysis, the questionnaire was coded according to each variable of the study to ensure accuracy during analysis. The study used descriptive statistics such as mean and standard deviation as well as frequencies. The study also used correlation and regression. The correlation was used to ascertain the degree or strength of a relationship between the variables, while the regression was used to estimate the cause and effect relationship between the dependent and

independent variables. All statistical data analyses were performed using SPSS version 25.0 (IBM Corp, 2017).

The study used innovation practices indicants such as process innovation, technological innovation and organisational innovation. The dependent variable is business sustainability, measured using business survival. The study adopted the simple regression model as:

$$y=a+bx \dots\dots\dots 1$$

Where: y is the dependent variable; a is constant or intercept; b is the coefficient; x is the independent variable. However, the above model is expanded to:

$$SUV= \alpha +\beta 1PIV+\mu \dots\dots\dots 2$$

$$SUV= \alpha +\beta 1ORIV+\mu \dots\dots\dots 3$$

$$SUV= \alpha +\beta 1TCIV+\mu \dots\dots\dots 4$$

Where: SUV = Business Survival; PIV = Process Innovation; ORIV = Organisational Innovation; TCIV = Technological Innovation; α = Intercept or Constant; β = Slope of the regression line with respect to the independent variables; μ = error term;

Result and Discussion

Data Presentation and Descriptive Statistics

Table 4.1.: Breakdown of return rate of Questionnaire

Respondents	Questionnaire administered	Questionnaire not returned	Questionnaire returned	%
Staff	192	22	170	88.54

Source: Survey Data, 2019.

The above table indicates the rate of return of the administered questionnaire from the staff of Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria. The table revealed that 88.54% of the questionnaire was returned by the staff of Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria and thus 88.54% of the questionnaire was used in the analysis.

Table 4.2.: Mean of Process Innovation

Variables	5	4	3	2	1	FX	N	Mean	Remarks	Ranking	Sectorial mean
Commercial Activities	84	34	23	4	25	658	170	3.871	High	1 st	3.78
Research and Development	64	62	21	3	20	657	170	3.86	High	2 nd	
Skills	55	61	23	12	19	631	170	3.71	High	3 rd	
Combination of Account	58	51	31	10	20	627	170	3.68	High	4 th	

Source: Author’s Computation, 2019.

The above table indicates that process innovation training in Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria is unique since the sectorial mean is more than average. This portrait that Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria conducted process innovation such as engaging the staff in commercial activities, introducing research and development, bringing new skills and method of doing business in the organisation as well as establishing a framework of introducing different types of account to the customers.

Table 4.3.: Mean of Organisational Innovation

Variables	5	4	3	2	1	FX	N	Mean	Remarks	Ranking	Sectorial mean
Organisational structure	76	52	10	13	19	663	170	3.90	High	2 nd	3.85
Staff behaviour	71	49	14	21	15	650	170	3.82	High	5 th	
Organisational strategies	69	50	15	26	10	652	170	3.84	High	4 th	
Staff position	77	49	10	22	12	667	170	3.92	High	1 st	
Match staff in new areas	67	52	12	33	5	650	170	3.82	High	5 th	
Change staff salaries	68	45	15	34	8	641	170	3.77	High	7 th	
Modify organisational ideas	87	33	13	20	17	663	170	3.90	High	2 nd	

Source: Author’s Computation, 2019.

The above table indicates that organisational innovation Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria is effective since the sectorial mean is more than average. This portrait that Guaranty Trust Bank Plc, Area 3 Branch, Abuja, Nigeria frequently modified their organisational structure and apply different strategies to meet the objectives of the organisation.

Table 4.4: Mean of Technological Innovation

Variables	5	4	3	2	1	FX	N	Mean	Remarks	Ranking	Sectorial mean
Mobile banking	71	52	14	14	19	652	170	3.84	High	2 nd	3.81
Internet banking	69	47	10	20	24	627	170	3.69	High	5 th	
Local area network	74	44	15	22	15	650	170	3.82	High	3 rd	
ATM	72	39	18	33	8	644	170	3.79	High	4 th	
ICT	88	33	10	20	19	661	170	3.89	High	1 st	

Source: Author’s Computation, 2019.

The above table indicates that technological innovation Guaranty Trust Bank Plc, Area 3 Branch, Abuja is effective since the sectorial mean is more than average. This portrait that Guaranty Trust Bank Plc, Area 3 Branch, Abuja adopted technological innovation in order to contribute to the organisational goals and objectives.

Table 4.5.: Mean of Business Survival

Variables	5	4	3	2	1	FX	N	Mean	Remarks	Ranking	Sectorial mean
Expansion	13	15	3	5	7	151	43	3.51	High	3 rd	3.59
Customer base	14	16	2	7	4	158	43	3.67	High	1 st	
Daily deposit	13	8	1	6	6	154	43	3.58	High	2 nd	

Source: Author’s Computation, 2019.

The above table indicates that survival of Guaranty Trust Bank Plc, Area 3 Branch, Abuja is unique since the sectorial mean is more than average. This portrait that Guaranty Trust Bank Plc, Area 3 Branch, Abuja have a good marketing and business strategies that sustained them in the banking business.

Table 4.6.: Summary of Descriptive Statistics for the Variables used for the Study

	N	Minimum	Maximum	Mean	Std. Deviation
PIV	170	1.50	4.40	3.1261	.81068
ORIV	170	1.40	4.30	3.4137	.85913
TCIV	170	1.00	4.10	3.1158	.82520
SUV	43	1.10	4.70	3.2550	.81947

Source: Author’s Computation, 2019

Table 4.6. revealed the mean and standard deviation. The mean value of process innovation (PIV) is 3.12, organisational innovation which is represented as ORIV is 3.41, the mean value of technological innovation which is represented as TCIV is 3.11. While the mean value of survival of business (SUV) is 3.25. The table also recorded a standard deviation of the variables as PIV is 0.81, ORIV is 0.85, TCIV is 0.82 and SUV is 0.81.

Table 4.7.: Correlation of the Variables in used for the Study

		Log_SUV	Log_PIV	Log_ORIV	Log_TCIV
Log SUV	Pearson Correlation	1	.070	.160	.100
	Sig. (2-tailed)		.019	.076	.067
	N	34	170	170	170
Log PIV	Pearson Correlation	.070	1	-.055	.018
	Sig. (2-tailed)	.019		.031	.073
	N	34	170	170	170
Log ORIV	Pearson Correlation	.160	-.055	1	-.008
	Sig. (2-tailed)	.076	.031		.087
	N	34	170	170	170
Log TCIV	Pearson Correlation	.100	.018	-.008	1
	Sig. (2-tailed)	.067	.073	.087	
	N	34	170	170	170

Source: Author’s Computation, 2019

The above table indicates that there is a weak positive association between process innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. Similarly, there is also a weak positive relationship between organisational innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. Notwithstanding, the table coefficient of correlation shows a weak positive relationship between technological innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Data Analysis and Results

Process Innovation and Business Sustainability (Business Survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja

Table 4.8.: Regression Test for Process Innovation and Business Sustainability

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.070 ^a	.551	.402		.96979	
a. Predictors: (Constant), log_PIV						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.554	1	1.554	111.653	.000 ^b
	Residual	116.006	169	.940		
	Total	117.560	170			
a. Dependent Variable: log_SUV						
b. Predictors: (Constant), log_PIV						
Coefficients ^a						
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.064	.162		18.941	.000
	log_PIV	.069	.054	.070	1.2861	.000
a. Dependent Variable: log_SUV						

Source: Econometric Output, 2019

Decision Rule: 5% level of significance

The Fisher-statistics (F) is 0.111.653 with an associated P statistic value of 0.000 which suggested that the model is a good fit. The coefficient of process innovation (PIV) is positive and significant in enhancing business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The $SUV = 3.06 + 0.06 \log_PIV$ which indicates that process innovation will increase by 6% for every 1% increase in business sustainability in Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The p-value of 0.00 is less than the t-Statistic value of 1.28 and the standard error value of 0.05 is less than the t-statistic value which implies that there is a positive and significant relationship between process innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

The coefficient of determination (R^2) of 0.55 indicates that about 55% variation in business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja can be

explained by process innovation. The remaining 45% can be explained by other related factors not noted in the regression model. Thus, the finding is that there is a positive and significant relationship between process innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Organisational Innovation and Business Sustainability (Business Survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja

Table 4.9.: Regression Test for Organisational Innovation and Business Sustainability

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.016 ^a	.621	.533		.97205	
a. Predictors: (Constant), log_ORIV						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.082	1	.082	123.187	.000 ^b
	Residual	107.478	169	.945		
	Total	107.560	170			
a. Dependent Variable: log_SUV						
b. Predictors: (Constant), log_ORIV						
Coefficients ^a						
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.914	.164		17.781	.000
	log_PIV	.016	.061	.016	2.295	.000
a. Dependent Variable: log_SUV						

Source: Econometric Output, 2019

Decision Rule: 5% Level of Significance

The Fisher-statistics (F) is 0.123.187 with an associated P statistic value of 0.000 which suggested that the model is a good fit. The coefficient of organisational innovation (ORIV) is positive and significant in enhancing business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The $SUV = 2.914 + 0.016 \log_ORIV$ which indicates that organisational innovation will increase by 1.6% for every 1% increase in business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The p-value of 0.00 is

less than the t-Statistic value of 2.2 and the standard error value of 0.06 is less than the t-statistic value which implies that there is a positive and significant relationship between organisational sustainability and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

The coefficient of determination (R^2) of 0.621 indicates that about 62.1% variation in business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja can be explained by organisational innovation. The remaining 37.9% can be explained by other related factors not noted in the regression model. Thus, the finding is that there is a positive and significant relationship between organisational innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Technological Innovation and Business Sustainability (Business Survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja

Table 4.10.: Regression Test for Technological Innovation and Business Sustainability

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.029a	.581	.412		.97177	
a. Predictors: (Constant), log_TCIV						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.262	1	.262	143.278	.000 ^b
	Residual	157.298	169	.944		
	Total	167.560	170			
a. Dependent Variable: log_SUV						
b. Predictors: (Constant), log_TCIV						
Coefficients ^a						
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	2.950	.164		18.003	.000
	log_PIV	.029	.055	.029	1.527	.000
a. Dependent Variable: log_SUV						

Source: Econometric Output, 2019

Decision Rule: 5% level of significance

The Fisher-statistics (F) is 143.278 with an associated P statistic value of 0.000 which suggested that the model is a good fit. The coefficient of technological innovation (TCIV) is positive and significant in enhancing business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The $SUV = 2.95 + 0.029 \log_TCIV$ which indicates that technological

innovation will increase by 2.9% for every 1% increase in business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The p-value of 0.00 is less than the t-Statistic value of 1.5 and the standard error value of 0.05 is less than the t-statistic value which implies that there is a positive and significant relationship between technological innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

The coefficient of determination (R^2) of 0.58 indicates that about 58% variation in business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja can be explained by technological innovation. The remaining 42% can be explained by other related factors not noted in the regression model. Thus, the finding is that there is a positive and significant relationship between technological innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Discussion of Findings

The results of the analysis indicate that there is a significant relationship between innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that innovation (process innovation, organisational innovation and technological innovation) contribute significantly to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. The study is in line with the finding of Eneji *et al* (2018), who found that there is a statistically significant relationship between innovation and sustainability. The study is also in tandem with the findings of Norsiah *et al* (2015), who found an insignificant relationship between innovation and sustainability in organisations.

The study is also in tandem with Diffusion of Innovation Theory which the user adoption of new innovation and the theory view diffusion as the process whereby innovation is transfer through certain channels over time among the members of a social community that engaged in business for growth.

In Hypothesis 1, the study found that there is a significant relationship between process innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that process innovation contributes to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Hypothesis 2, revealed that there is a significant relationship between organisational innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that organisational innovation contributes significantly to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

In Hypothesis 3, the study found that there is a significant relationship between technological innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that technological innovation contributes significantly to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

Conclusion and Recommendations

The following conclusions were drawn from the results of the findings:

- i) There is a significant relationship between process innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that process innovation contributes to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.
- ii) There is a significant relationship between organisational innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that organisational innovation contributes significantly to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.
- iii) There is a significant relationship between technological innovation and business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja. This implies that technological innovation contributes significantly to business sustainability (business survival) of Guaranty Trust Bank Plc, Area 3 Branch, Abuja.

The study, therefore, recommends that:

- i) Guaranty Trust Bank Plc, Area 3 Branch, Abuja should continue in adopting process innovation by investing more on commercial activities, research and development, new skills and methods of serving the customers since it statistical significant to achieved business sustainability in the organisation.

- ii) Guaranty Trust Bank Plc, Area 3 Branch, Abuja should continue to apply the concept of organisational innovation by introducing new organisational structure, modifying the behaviour of staff, new organisational strategies, matching staff position to new areas, changing staff salaries and modifying organisational ideas since it is statistically significant to enhance business sustainability.
- iii) Guaranty Trust Bank Plc, Area 3 Branch, Abuja should continue to use technology innovation such as mobile phone banking, ATM, internet banking, ICT since it is statistically significant to enhance business sustainability.

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