DIGITAL BUSINESS PROCESS AND BUSINESS TRANSFORMATION OF BANKS IN OWERRI

Onwuchekwa Faith
Department of Business Administration,
Nnamdi Azikiwe University, Awka Anambra State
faithcchekwas@yahoo.com
08035460230

Emele, Eze A.
Department of Business Administration and Management,
Federal Polytechnic Nekede, Owerri Imo State.
aemele@fpno.edu.ng
08067205509

&
Onyinye Maria-Regina Eneh
Department of Accountancy,
Nnamdi Azikiwe University, Awka Anambra State
o.eneh@unizik.edu.ng

Abstract
Many businesses in Nigeria are still held back by their traditional ways of engaging business processes in a business world evolving with artificial intelligence. The business leader's ways of doing business makes it difficult to grow new business and not effectively managing business process transition. The major objective of the study is to investigate the relationship between digital business process and business transformation, while the specific objective is to examine the relationship between the artificial intelligence and business process reengineering. The study was anchored on Knowledge-based theory of the firm. Correlation survey design was employed for the study so as to show the type of relationship between the dependent and independent variables. The population of the study is made up of the management and operations staff of the selected banks (Access Bank and Fidelity Bank Owerri) The total sample size of 120 was adopted. The validity of the instrument was performed on the surface level using face validity while Cronbach's Alpha estimate was used to measure the reliability of the questionnaire with the aid of SPSS version 23 Again. Pearson's Product Moment Correlation Coefficient was used in analyzing the data with the aid of Software Package for Social Sciences (SPSS v.23). The study revealed that there is significant relationship between Artificial Intelligence (Digital leadership) and Business process re-engineering (work flow design). The study recommended that business organizations should deem it fit that their leaders are digitally compliant to utilize available IT innovations or knowledge to cause changes that can help the organization attain its set objective. Also, a synergy should be created among the business elements for creating reengineering to get the best and utmost result.

Keywords: Digital process, digital transformation, reengineering, artificial intelligence.

Introduction

Currently, businesses world over are facing challenging times given the advent of Covid'19 pandemic which poses unprecedented threat to their growths and survival. The pandemic challenge in Nigeria has caused many businesses severe strategic and operational blow which has left many of the organizations fighting hard for their breath in the midst of the turbulence. Many businesses are in dear search for newer ways to create competitive edge through the prudent management of their human, financial, material, and technological resources to innovate and calve a niche for themselves.

While many organizations are experimenting with digital transformation, recent studies of success stories have shown that the enhanced competitive positioning of successful firms does not depend solely on the technologies they utilize but, more importantly, rely on the strategies that their managers put to work. yet, there is still a lacuna between managers' intentions and the attainment of successful digital transformation initiatives and the resultant need to demonstrate the underlining strategic considerations. Greenbaum (2013), posited that business transformation in the 21st century is neither a luxury nor a fad: companies that want to succeed in today's business climate need to be brainstorming about – and acting on – the dynamic conditions that explains success across a various types and levels of industries

Cisco (2016) defined Digital Business Transformation (DBT) as the application of technology to build new business models, processes, software and systems that results in more profitable revenue, greater competitive advantage, and higher efficiency. Cisco further explained that organizations achieve this by changing the ways business is done and business models, empowering personnel efficiency and innovation, and maintaining customized customers and stakeholders' experiences. Currently, the business world is experiencing the greatest expansion of information technology into business processes ever seen.

RTInsights (2017) reported that entire new businesses running solely on the cloud, employing data in new and ingenious ways are disrupting the corporate world to the point where even the largest organizations are fearing for their relevance. Consumers today are digitally equipped, not just with devices, but also a lot of online materials and resources. It further stated that for startups, the equation is simple: devise a business model, surround it with relevant technology, and get the idea to market as quick as possible.

Deloitte (2016) sees business transformation as the opportunity to define a bold ambition that goes beyond incremental change the opportunity to rethink your business and operating models to deliver breakthrough value. It involves strategic decisions that affect where you'll grow, how your organization operates, and what kinds of performance improvements you can expect. Wikipedia (2018) defined Business Transformation (BT) as the process of fundamentally changing the systems, processes, people and technology across a whole business or business unit, to achieve measurable improvements in efficiency, effectiveness and stakeholder satisfaction. therefore, a business transformation program will possibly include a number of change management projects, each concentrating on a particular process, technology, system, department, team or unit

Efficient execution of business processes is vital to the success of any business especially in this challenging period posed by the pandemic. Many businesses in Nigeria are still held back by their traditional ways of engaging business processes in a business world evolving with artificial intelligence. The business leader's ways of doing business makes it difficult to grow new business and not effectively managing business process transition. Many businesses are finding it difficult to revamp their business model and redesign their operating model to boost a digital strategy to overcome the present business harsh realities and take advantage of growing consumer demand. Due to the traditional method of engaging business transformation, the businesses have been unable to stay afloat and take advantage of business growth opportunities. Should this trend continue with many businesses not reengineering their business processes, the resultant effect could be crashing of many businesses, loss of jobs, less economic productivity, and lack of competitiveness in the global scale.

The major objective of this study therefore is to investigate the relationship between digital business process and business transformation, while the specific objective is to examine the relationship between the artificial intelligence and business process reengineering.

Research Hypothesis

Ho: There is no relationship between the application of artificial intelligence and business process reengineering.

Conceptual Review

Digital Business Process

Digital transformation impacts many units of an organization, and many stakeholders in such areas as marketing, product development, information technology, and human resource are involved in defining, designing, and implementing transformation strategies. All these functions

require a common understanding of the priorities of digital transformation activities Leeflang, Verhoef, Dahlström, and Freundt, (2014). Therefore, strong leadership is required for digital transformation success. Westerman, Bonnet, and McAfee, (2014) emphasizes that a top-down approach is required for digital transformations in their book "Leading Digital". Depreciating cost of technology, making digital technology accessible to small and medium enterprises and large organizations, combined with the increase in terms of capabilities and simplified methodologies in the use of digital resources or appliances creates a balancing force for businesses to access great opportunities.

RTInsights (2017) digital transformation consists of building new applications and next-generation architectures on today's open standards, using on-demand resources. Digital transformation means getting the best out of existing systems and business application resources by integrating, replacing, or converting key parts of their infrastructures into services. Fundamentally, digital business transformation should not just be about technology but about strategy. Although it may require upgrading your IT infrastructure, the more important upgrade is to your strategic thinking" Rogers, (2016).

Digital transformation is a change induced by technology on different levels of an organization like the use of digital technologies to improve existing business processes, and the exploration of digital innovation, which can potentially transform the business model. Digital innovation involves transformational changes in processes, strategy, and products and thus requires the company to rethink its organizing logic. It is a re-combination of digital technologies and physical components to create novel digital products as presented in the table below.

1.	Driving business innovation	Aligning IT initiatives with business goals (64%)
2	Leading change efforts	Improving IT operations/systems performance (61%)
3	Aligning IT initiatives with business goals	Leading change efforts (57%)
4	Simplifying IT	Implementing new systems and architecture (45%)
5	Improving IT operations/systems performance	Driving business innovation (42%)
6	Cultivating the IT/business partnership	Cultivating the IT/business partnership (41%)

Table 1: Priority of IT related factor by UK CIO Survey
Source: UK CIO Survey.

Artificial Intelligence in Business

We are in what may be the most interesting time in human chronicle. Skilton (2017) artificial intelligence (AI) defined as the ability of computer systems to exhibit intelligence; it is being used to improve the quality and efficiency of systems and operations in different sectors and sub-sectors ranging from education, governance, health, transport and energy. Amina, Anjali, and Merrick (2017) defines Artificial Intelligence as the development of computer systems that are able to perform tasks that would require human intelligence. Examples of these tasks are visual perception, speech recognition, decision-making, and translation between languages.

AI is the key driver of what is known as the fourth industrial revolution – the development of new technologies that bridge the physical, digital and biological worlds. It has made huge strides in recent decades and will have an increasing impact on business, the economy and society in coming years. Technological advancements are influencing the world and the way we businesses are done. Many technological innovations like the self-driving vehicles, speaking robots and artificial intelligence are no longer technologies for the future but are in use today. Phil, Susan, and Kazuo (2018), stated and examined the five pillars of a successful AI-based transformation in business. These are demonstrating business innovation, creating new value propositions, enhancing customer engagement, improving the operational environment, evolving the core architecture.

Demonstrate effective digital leadership: Leaders poised with intention to create new value channels from Artificial Intelligence must integrate units like R&D and IT, but also

recognize that the digital vision ultimately flows from the top down through the rest of the organization. One secret to success is to focus not on the technologies but rather on a vision for the outcomes that the technologies can facilitate. With the vision, businesses can go ahead to developing the necessary capabilities needed to integrate individual high-value use cases into a new value channels that can not only change a business or industry, but also play a key role in creating a super smart society.

Senior managers should lead the effort to find more smooth methods for integrating business specific priorities with the organization's capabilities and needs, as well as its connecting processes and systems. This effort requires constant vigilance and support to maintain the necessary alignment and may well require the organization to adopt leaner and more agile work practices. Senior managers must pilot the new methods of doing work, finance them well and encourage the use of new concepts. Small-scale testing helps keep the cost of the transformation manageable and allows the organization to prove concepts before investing to scale them up.

Create new value propositions: The heart of this pillar is the belief that, by realizing its digital vision, an organization can create new forms of competitive advantage. To do so, senior executives must lead the organization in a re-examination of the ways in which it delivers value to customers and other stakeholders. That means continually reassessing every dimension of the strategic value model. The following four important questions can help direct this assessment:

- How can we ensure that we continue to deliver our overriding and enduring value and that someone else don't deliver it better or sooner?
- How can we deliver our value in new ways or deliver it to new people or both?
- How can we augment and speed up this value in new directions, through new streams and models?
- How can we manage the Artificial Intelligence journey for the workforce so that people think and behave in new ways?

Enhance customer engagement: here, the customers are made the center of attention in the implementation of Artificial Intelligence vision and creating the needed capacity and resources required to get closer to customers, end-users, suppliers and investors. To aid the pilot of the use of digital resources to generate opportunities for delivering value to customers, business organizations should pose the following questions to themselves:

- How can digital processes and technologies close the gap between ourselves and our customer base and enable customers to engage with us through the channel of their choice?
- How can we use data and AI to better understand customers and more accurately predict their actions and needs?
- How can we use AI and other digital technologies to offer the same processes, options and services across all channels while delivering a better, more efficient experience?
- How do we nudge people toward the most efficient and cost-effective ways to engage with us?
- What is the best possible experience for our customers and suppliers?

Improve the operational environment: Organizations must identify where digital-driven, data-intensive disruptions are occurring since AI and other digital resources allow organizations to perform faster, smarter and more cohesively, with very high levels of clarity and precision. The disruptions may be taking happening in areas as the product and service design unit, supply chain, internal operations, and customer engagement. Then they should determine which of those areas has a direct impact on the organization's core competencies and capabilities, and which ones offer opportunities for business improvement that are directly connected to the top and bottom lines. Artificial Intelligence gives people the platform to interact with technology to raise and augment their abilities, improve the speed, accuracy and quality of decisions, and find new methods to convert data into action. Properly deployed, AI resources can increase the efficiency of processes, improve behaviors and advance operational performance

Evolve the core architecture: An important part of digital transformation using Artificial Intelligence is transforming the core architecture. Streamlined, secure and all-inclusive Information Technology dictates the digital enterprise, creating a more responsive digital core that

provides and offers a quick and ready access to business data/information and applications that can lead to greater efficiency and effectiveness. Transforming the digital core is a challenge to many established businesses, which face increasing pressure to keep pace with digital native rivals. Established businesses can respond to that competitive challenge by adopting and embedding new technical capabilities and IT systems, while continuing to maximize the benefits of core systems. They can conceive and generate these new IT capabilities either by transforming their systems or by studying them to open up their data and make them function in more smooth and user-friendly manner.

Giving these five pillars well articulate and created, organizational managers can move on to an important phase in the AI program: identifying the highest-value use scenarios and central and foundational competencies that must be digitalized.
Leaders can then seek industry and product adjacencies to extend the coverage of the change. This undertaking will involve working with other business units to fashion new service offerings and create value stream mapping and data asset analysis, followed by operational assessment of key performance indicators and benchmarking.

Business Process Re-engineering
Business process re-engineering (BPR) is a business management strategy, originally pioneered in the early 1990s, focused on the analysis and design of workflows and business processes within an organization setting. BPR targets to aid organizations rethink the way they do their work in order to dramatically and systematically cut operational costs, improve customer service, and become world-class competitors.

Business process re-engineering aims to assist business organizations to drastically restructure their systems by putting focus on the bottom-up design of their business processes. According to Davenport (1990), a business process is a set of logically connected tasks performed to attain a defined business target. Re-engineering place importance on a total focus on business objectives and how processes related to them, encouraging total recreation of processes rather than iterative optimization of sub-processes. Business process reengineering is also known as business transformation, business process redesign, or business process change management.Pedram, Seyyed, and Akbar (2015), highlighted different business process reengineering methods organizations use, they presented two methods for understanding of a BPR methodology.

Hammer and Champy Methodology
Hammer and champy's methodology for BPR consists of six steps.
1. Introduction into business reengineering
2. Identification of business processes
3. Selection of business processes:
4. Understanding the selected business processes
5. Redesign of the selected business processes
6. Implementation of redesigned business processes:

Davenport methodology
1. Visioning and goal setting
2. Identification of business processes
3. Understand and measure
4. Information technology
5. Process prototype.
6. Implementation

Business Process Reengineering; Leadership and employee involvement
Reengineering was originally viewed as a form of work design that had to be completely top-down, because the process being worked on is usually wide in scope, and only a small group of high-level process designers can interpret its entire scope. It was thought that only those overlooking multiple functions may be able to see opportunities for innovation. High level design had to be done by a small design team that studies the process in its entirety and considers relevant enablers and benchmarks in its design Davenport & Stoddard, (1994). However, in recent years more attention has been paid to participatory mechanisms of doing BPR. It is acknowledged that the design of more detailed process activities and flows can be done by those who do the work. In the first place they have experience performing certain procedures and secondly, they acquire ownership of the reform. Davenport, in his article, warns that part of the issues with reengineering is that it ignores much of the proven merits of participative work design and gave the example of several post-reengineering work teams who paid little attention to the prescribed process design because they had no hand in its creation.

Although employee participation in BPR is perceived as an important factor in the success of

the process, many literatures have argued that the top-down have its own deficiency. They argued that employee participation can be marred by lack of communication of a clear vision of the project, lack of staff participation and ownership, lack of involvement from staff at different levels, failure to instil a re-engineering culture, and lack of project organization and planning.

Theoretical Review

Knowledge-based theory of the firm

The knowledge-based theory considers that the most strategically significant resource of a firm of is knowledge. Its proponents opined that because knowledge-based resources are typically challenging to replicate and socially complex, the major determinants of sustained competitive advantage and superior corporate performance are heterogeneous knowledge bases and capabilities among firms. The proponents are of the opinion that Information technologies can play a vital role in the knowledge-based view of the firm because information systems can be utilized to synthesize, enhance, and expedite large-scale intra- and inter-firm knowledge management Alavi and Leidner (2001).

Although the resource-based view of the firm acknowledges the important role knowledge plays in a firms in achieving a competitive advantage, theorists of the knowledge-based view opined that the resource-based perspective does not go far enough. Specifically, the resource-based view approaches knowledge as a generic resource, rather than having special characteristics. It therefore does not distinguish between different types of knowledge-based capabilities.

Empirical Review

Livia (2016) conducted an empirical research aimed at uncovering opportunities for Romanian SMEs to break apart and benefit from the diverse tools that are now within their reach in order to become successful on the global and European markets. The research survey covered over 160,000 Romanian SMEs and gathered 598 unique responses, representing the view of digital by Romanian SMEs covering 7 industries. It concludes that, despite their high awareness of the phenomenon of digital disruption, Romanian SMEs are yet to employ strategies of digital transformation that will bring them to the next level of competitiveness.

In the study carried out by Timo (2017), "Strategizing for Digital Transformation: A Case Study of Digital Transformation Process in the Construction Industry." The study aimed to through a qualitative single case study understand the process of digital transformation in a traditional industry. Specific focus was set on the challenges that the organization facilitating digital transformation is likely to face, and the digital strategy that can be utilized to advance and benefit from digital transformation. The study arrived at two theoretical contributions which are i) the new framework concerning digital transformation challenges and ii) the detailed description of a digital transformation process and the different managerial tools utilized in different phases of the transformation process. These contributions have managerial relevance as they can be used to evaluate and plan a digital transformation process. The empirical evidence of this study suggested that the available digital strategy literature might focus too much on individual transformative digital initiatives and overlook the importance of digitizing the traditional business processes in order to create a solid foundation for digital innovating. Furthermore, the existing literature laid much emphasis on internal transformation challenge, whereas the most important and difficult challenges in the empirical case considered the rigid institutional environment of the organization

Schweitzer (2017) in his work, digital transformation of business, explained that opportunities of digital transformation of business as a changes associated with the application of digital technology in all aspects of business. A research of digital business found that maturing digital businesses are focused on integrating digital technologies, such as mobile, social, cloud and analytics/big data, in the service of transforming and reinventing how businesses work. The capability to digitally transform the business is determined to a large extent by a clear and concise digital strategy supported by leaders who foster a culture or system able to change and invent the new. Among firms where big data, cloud, mobile, and social technologies are essential parts of the infrastructure, these technologies are, or will soon be profitable on average, had higher revenues, and achieved a bigger market valuation than competitors without a strong vision. As with any emerging technology, however, there are significant problems or challenges associated with cloud,

mobile, social, and big data initiatives. The survey suggests that the primary risks preventing their wider adoption are data security issues, lack of interoperability with existing IT systems, and lack of control.

Julia and Linnéa (2017) carried out a study on "Digital Transformation, a Question of Survival? - Exploring the Possibility for a Swedish Car Rental Company to Digitally Transform into a Mobility Service Provider" The purpose of the study was to contribute to the identification of necessary internal and external elements that firms need to put into consideration in order to digitally transform their services. Further, the study aims to provide guidelines for firms aspiring to transform their service to become a Mobility Service Provider. The study adopted a qualitative research strategy and the design of a single case study of a car rental company, semi-structured interviews were conducted within related fields. The study concludes that contributed with guidelines regarding possible strategies a traditional car Rental Company could implement in order to transform its business to become a Mobility Service Provider.

Sabine and Andrea (2016), investigated "Back Stages in Digital Business Transformation: Results of an Empirical Maturity Study" and observed that managers and decision makers need to transform their organizational routines and structures to meet the dynamics of the digital age. The research determined important stages in a digital business transformation process from empirical data. A nine dimensions of the digital maturity model (DMM) was adopted to provide a more profound understanding of the important levers for managing digital transformation. A survey of 547 individuals from 417 organizations in Switzerland and Germany with the DMM was implemented. Based on the survey data, the researchers adopted the Rasch-algorithm and cluster analysis to derive five maturity stages. The findings showed that a strategically planned transformation and usage of advanced data analytics in business processes are less common while digital affinity and experimenting with digital technology are already prevalent in companies, The results from the study yield insights into how activities in digital business transformation are currently tackled and prioritized and thus contribute to the body of knowledge about organizational transformation.

In the work of Eun and Min (2017) titled "Critical Factors on Firm's Digital Transformation Capacity: Empirical Evidence from Korea". They observed that digital transformation affects many areas within an organization, and many stakeholders such as marketing, IT, product development, strategy or HR are involved in defining transformation strategies. This study suggests that related factors with human, technology, strategic linkage of IT and business, and digital leadership of CEO are influential factors of IT governance, and establish research model based on this relationship. It aimed to propose a method to increase the capability of digital transformation by testing hypotheses. In order to accomplish the purpose of research, the causal relationship was empirically analyzed and a research model and hypotheses were formulated. a survey was carried out on firms' employees and use empirical analysis using structural equation model based on data collection were adopted. The findings revealed that human factors and technological factors are influential factors of IT governance.

Gap in Literature

There have been numerous studies on utilizing information technology in transforming business organizations, and recent trend of deploying artificial intelligence to create unique products. Nevertheless, the recent challenge posed to businesses by the Covid'19 pandemic has given a different dynamic to the study of IT and AI in reshaping business organizations to sustain them and keep them highly competitive by innovative use of IT and AI, which therefore necessitates a different route of study into IT and AI to creating unique business product, processes, and strategy.

Methodology

Research Design

This study employed descriptive research survey design. The primary data was gathered with the use of a structured questionnaire with selected banks in Owerri, Imo State. The banks selected are, Access bank Plc and Fidelity bank Plc both in Owerri. Digital business transformation represents the independent variable while business process represents the dependent variable. These two financial institutions were chosen because they have been observed to be foremost businesses that integrate digital processes into their operations.

Population and Sample Size Determination

The population of the study involved all the operational staff and managers of the selected banks (Access bank Plc and Fidelity bank Plc. Owerri). A complete enumeration-based survey was adopted to cover the operational staff and managers of the selected banks.

Table 2: Population size of the selected banks

S/N	Bank	Rank/position	Population
1	Access Bank Nig. Plc, Owerri	Manager/Operational Staff	94
2	Fidelity Bank Nig Plc Owerri	Manager/Operational Staff	83
Total			177

Source: Field Survey, 2018.

Sample Size was determined with the aid of the Taro Yamane formula, at 5% level of significance and stated thus;

$n = N/1+N (e)^2$,$n = 177/1+177(0.05)^2$

Therefore n = 123.

Sampling Technique

The researcher adopted the simple random sampling technique, this was adopted to give all the elements of the total population an equal chance to be selected for the sample size.

Method of Data Collection

Data for the research was collected from primary source. Copies of a structured questionnaire was administered, and the participants were placed on objective response for each statement on a five point Likert scale. The response scoring weights represent the following; Strongly Agree – 5 points, Agree – 4 points, Undecided/Neutral – 3 points, Disagree – 2 points, and Strongly Disagree – 1 point. The data were analyzed using Multiple Regression Model with the aid of Software Package for Social Science (SPSS) Version 23.

Table 3: Summary of Questionnaire Administered and Returned.

Number of Questionnaires Administered	Number of Questionnaires Returned	% of Questionnaires not Returned
123	120	3 (2%)

Validity of the Instrument

The validity of the instrument was performed on the surface level using face validity. This helped the researcher to evaluate whether or not the conceptual variables were poorly measured at the face or surface level. For the purpose of this study, face validity were performed with the help of an expert who read through the questionnaire and offered corrections and the corrections were effected accordingly. Again, while administering the questionnaire, the feedback given by the respondents of Access Bank and Fidelity Banks Owerri were given consideration to ensure that the variables measured what it is supposed to measure.

Reliability of the Instrument

Reliability is the degree to which research instruments yields consistent results when administered to a number of times. Saunders, Lewis, and Thornhill (2007). An instrument is reliable when it measured a variable accurately and consistently under similar conditions. Reliability of a questionnaire is concerned with the consistency of responses to the researcher's questions. Cronbach's Alpha estimate was used to measure the reliability of the questionnaire with the aid of SPSS version 23 Again, when Alpha reliability test result value ranges between 0 – 0.6 and above, such result is deemed acceptable and reliable. In the study, the result of the Alpha reliability test in table 3 below is 0.923 which is greater than 0.6 at 5% level of significance. This shows that the instrument is reliable and there is no error in the test result. This further implies that the test result is reliable and acceptable.

Table 4: Reliability Test Statistics

Cronbach's Alpha	No. of Items
0.923	5

Data Presentation and Interpretation of Results

Data Presentation

In harmony with the hypothesis formulated, data were presented and analyzed using appropriate testing statistic. The meanings of the abbreviations used in the table are given below:

SA =Strongly Agreed, A = Agreed, D =Disagreed, SD = Strongly Disagreed, and UD = Undecided. To accept, the mean response must be greater than mean weights (μ), otherwise, the item is rejected.

μ =3, Di = Decision, Ai =Accept, R =Reject, n= Number of analyzed questionnaire
X = Mean

Table 5: Questionnaire Responses

S/N	Question Item	Responses							
	Artificial Intelligence (Digital leadership)	**SA 5**	**A 4**	**UD 3**	**D 2**	**SD 1**	**N**	**$\bar{X}$**	**Di**
1	Our management have demonstrated effective digital leadership	42	33	10	20	15	120	3.550	Ai
2	Our digital transformation process have helped to create new value propositions	58	36	6	17	3	120	4.075	Ai
3	The adoption of digital process have enhanced customer engagement	35	52	3	18	12	120	3.667	Ai
4	Digital process have helped to improve our operational environment	33	38	6	23	20	120	3.342	Ai
5	Our core business process core architecture have evolved with the application of digital process	40	31	5	31	13	120	3.450	Ai
	Business process re-engineering (work flow design)								
1	Our existing processes are defined and analyzed and processes are redesigned where necessary	38	35	5	23	19	120	3.417	Ai
2	The organizational structure is defined, tasks inherent to the processes are regrouped and functions are identified	42	33	9	21	15	120	3.550	Ai
3	The functions every element in the BPR are defined and weighted	40	32	3	19	26	120	3.342	Ai
4	The implementation plan for the execution of the BPR process modifications is elaborated,	36	40	1	23	20	120	3.408	Ai
5	Our staff are designated in their new functions and the digital support of staff during this process is guaranteed	47	31	4	22	16	120	3.592	Ai

Source: Field Survey, 2018

Hypothesis Testing

Ho: There is no significant relationship between the application of artificial intelligence and business process reengineering.

H_A: There is significant relationship between the application of artificial intelligence and business process reengineering.

Table 6: Correlation Analysis

Correlations

		Artificial Intelligence (Digital leadership)	Business process re-engineering (work flow design)
Artificial Intelligence (Digital leadership)	Pearson Correlation	1	.956**
	Sig. (2-tailed)		.004
	N	120	120
Business process re-engineering (work flow design)	Pearson Correlation	.956**	1
	Sig. (2-tailed)	.004	
	N	120	120

**. Correlation is significant at the 0.01 level (2-tailed).

From Table 6, the SPSS output showed that the correlation is significant at 0.01 level of significance at r = 0.077, this means that there is significant relationship between Artificial Intelligence (Digital leadership) and Business process re-engineering (work flow design). Thus, the deployment of artificial intelligence has helped to create a smooth business process redesign and thus a competitive work flow system.

Conclusion and Recommendations

There is significant relationship between the application of artificial intelligence and business process reengineering. Therefore, business managers' adoption of artificial intelligence in their businesses is paramount to the reorganization of their business process and operation to wade through the present business challenge and dynamics.

Sequel to the findings of this study, the following recommendations are made:

i. Business organizations must deem it fit that their leaders are digitally compliant to utilize available IT innovations or knowledge to cause changes that can help the organization attain its set objective.
ii. A synergy should be created among the business elements for creating reengineering to get the best and utmost result.

References

Alavi, M. & Leidner, D.E. (2001). Review: Knowledge management and knowledge management systems. *MIS Quarterly*. *25* (1): 107–136.

Amina, I. Anjali,P. i Merrick, W. (2017). *Artificial Intelligence (AI).* USA: Bic Inc.

Christensen, C. (2013). *The innovator's dilemma: When new technologies cause great firms to fail (Management of Innovation and Change).* Boston: Harvard Business Review Press.

Cisco (2016). *Digital business transformation*. San Jose CA: Cisco System Inc.

Deloitte (2016). *Thinking big with business transformation*. USA: Deloitte Development LLC.

Eun, H. K. and Min, J. P. (2017). Critical factors on dirm's Digital transformation capacity: Empirical evidence from Korea. *International Journal of Applied Engineering Research*, *12*, (22); 12585-12596.

Greenbaum, J (2013., *Business transformation and business content: Driving the next wave of innovation*. www.eaconsult.com.

Julia, E. & Linnéa, S. (2017). *Digital transformation: A question of survival.* Sweden: Linköping University

Livia, T. (2016). Empirical research regarding the importance of digital transformation for Romanian SMEs. *Management and Economics Review. 1* (2), 101 – 107.

Pedram, B, Seyyed, M. S & Akbar, N. (2015). A method for business process Reengineering based on enterprise Ontology. *International Journal of Software Engineering & Applications, 6* (1), 75-79.

RTInsights (2017). *Digital business process management: A transformational force*. RTInsights.com

Sabine, B. & Andrea, B. (2016). Stages in digital business transformation: Results of an empirical maturity study. *Mediterranean Conference on Information Systems Proceedings.*

Schweitzer, K (2017). Digital transformation of business. *Trakia Journal of Sciences*, *15* (1), 388-393.

Skilton, M. (2017). *The impact of artificial intelligence on business*. warwick.ac.uk/fac/soc *https://en.wikipedia.org/wiki/Business_transformation.*