Information Technology Roles in Society: Pivotal for Smooth Business Operations in Bayelsa State

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Abstract

The article aims to increase understanding by examining the social functions that information technology plays and how important they are to Bayelsa State's commercial operations. In an effort to determine the relationship between IT and company operations in Bayelsa State, this study uses a descriptive survey research design. Data was gathered from 20 employees of 20 private companies that are compliant with information and communication technologies using the basic random sampling technique. According to the study, in Bayelsa, connection promotes timely task completion. The study also found that in Bayelsa State, there is a strong correlation between information exchange and task completion timeliness. The research states that, in lieu of the findings, IT has a favourable and significant relationship with Bayelsa State's seamless corporate operations. To better accomplish development objectives, the report advised maximising the use of IT across every facet of the economy.

Keywords: *IT, Production Process, Marketing, E-Governance, E-Banking, E-Health/M-Health*

1.1.Introduction

Like the rest of the globe, Nigeria realised the importance of information and communication technology (ICT) and globalisation in order to fulfil the increasing demands of business, labour, and services across many economic sectors. Computers, multimedia devices, assistive technology devices for exceptional people, and other technological gadgets are examples of ICT tools (Williams & Ed., 2011). Information technology (IT) is essential for bringing about significant changes in the economics and cultures of the world by increasing income opportunities, facilitating information access, improving efficiency, and uniting people throughout the globe (Williams & Ed., 2011).

The information technology sector has greatly expanded the realms of electronics and print media, computers, human resources management, telecommunications, and e-business. According to Saha and Majumder (2017), it is now a structural component of businesses and organisations.

Information technology (IT) performs a vital role in commercial organisations, even if there is constant discussion over it. In terms of delivering top-line value and company transformation, it is taking the lead. Emerging IT capabilities point a company's strategic direction, such as wireless and e-business. Business value is delivered through IT strategy. IT strategy ranks among the top business concerns for CIOs and other executives (Luftman & Mclean, 2004). IT and business strategy work well together and assist one another.

Both business and IT value are pursuing the same objectives concurrently (Luftman & Mclean, 2004). Businesses can increase their efficacy and efficiency and possibly obtain a competitive advantage by utilising information technology (IT). Any nation's economic progress greatly benefits from information technology. According to Saha and Majumder (2017), information technology, especially the internet, is significantly affecting how businesses of all sizes operate and is necessary for the survival and expansion of national economies. When compared to old business methods, new technologies offer cheaper business transactions, more flexibility, enhanced communication, and better customer and business partner interconnections.

1.2.Statement of the Problem

The modern world has seen significant changes thanks to technology, but societal use of ICT technologies has lagged behind. The populace hasn't received extensive instruction on how to use technologies for communication and information (ICT). The availability of ICT tools in society, a steady supply of electricity, and the training and retraining of indigenous people to enable them to use revolutionary, contemporary ICT tools are some of the initiatives being put out to address these issues (Ojohwoh, 2014). While each of these is significant, the availability of a steady power source is the most critical (Egbokhare, 2011). The latter is significant because people cannot operate effectively or proficiently without a steady supply of fuel.

Egbokhare (2011) also highlighted that, despite the enormous advantages of contemporary technology, IT users continue to confront difficulties. The reasons for this include a shortage of funds to buy ICT equipment, which results in insufficient availability of the equipment. This leads to a deficiency in the acquisition of modern equipment, with the addition of antiquated ICT tools. A corporate organisation's work is therefore not performed at its highest potential. As previously said, these information and communication technology (ICT) supplies require a steady power source to function. This article aims to investigate the role of IT in society as essential to the efficient functioning of business operations in Bayelsa State, in opposition to these disadvantages.

1.3. Objectives of the Study

The broad objective of the paper is to determine the effect of information technology roles in society as pivotal for smooth business operations in Bayelsa State.

The specific objectives of the study are to:

1. Determine how much connectivity affects timeliness in task completion.

2. Determine the connection between knowledge sharing and timeliness in task completion.

1.4.Research Questions

The study will address the following questions in order to meet the objectives:

1. What is the relationship between information sharing and timeliness in task completion?
2. What is the relationship between connectivity and timeliness in task completion?

1.5. Research Hypothesis

Ho_1: There is no significant connection between knowledge sharing and timeliness in task completion.

Ho_2: There is no discernible correlation between connectivity and timeliness in task completion.

2.0. LITERATURE REVIEW

2.1. Conceptual Framework

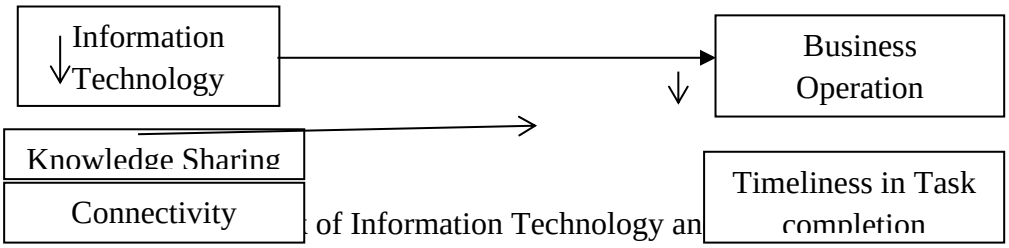

Fig. 1: of Information Technology an

Source: Research Desk (2024)

2.1.1. Information Technology (IT)

The field of IT encompasses the processes and tools that make it possible to create, collect, process, store, present, and disseminate information. Our collective and individual incapacity to adjust to information technology is having an impact on society. The foundation of information technology is the computer's hardware and software, as well as the communications network (Dominic, 2009).

Technology related to information is so ubiquitous that it will impact nearly every occupational category, particularly those that handle paper-based data. Many authors have defined information technology. Information technology, according to Hag and Dawkins (2002), is the result of fusing the technologies of computing and communication.

Information technology was characterised by Adeniyi and Awoyemi (2008) as the administration of computer-based information systems, specifically software and computers used for information conversion, storing, processing, protecting, transmitting, and securely retrieving.

Information technology is defined by Montgomeric (2004) as the processing of utilised, visual, written, and numerical data using micro-electronic technology in a manner that combines computation and communication. This underlines unequivocally the need to use technology to deliver services.

Information technology (IT), on the other hand, is defined by Oliver and Chapman (2007) as the methods, leadership team, and application that support the creation, storage, manipulation, and transfer of information. Data can therefore be thought of as the broad kind of technology required to enable systems of data.

2.1.2. Knowledge Sharing

Thus, an organisation can expand its knowledge base and boost its competitiveness with an efficient sharing procedure (Gupta & Govindarajan, 2000). The knowledge-centred view of the firm is primarily concerned with the nature of knowledge coordination inside the firm, as opposed to studies that concentrate on individual characteristics (Kuo-Chien, 2005). Organisations using this strategy prioritise managing and using knowledge since it is fundamental to velocity and value people's knowledge and skills. A company's ability to apply and integrate knowledge is closely related to its level of agility (Kang, Morris, & Snell, 2003). An organisation must continuously find, disseminate, absorb, and use new knowledge more efficiently than its rivals in order to develop strategic agility.

Research has indicated that two essential competencies for workforce agility are cross-functional cooperation among employees and efficient information transfer (Gupta & Govindarajan, 2000). Understanding networks is gaining popularity because they incorporate the dynamism required for the creation and systematic sharing of collective and systematic knowledge assets. Knowledge networks comprise relationships among entities (individuals, teams, and organisations) cooperating towards a common goal.

The knowledge-based view of the firm is primarily concerned with the nature of knowledge coordination inside the firm, as opposed to studies that concentrate on individual characteristics (Kuo-Chien, 2005). Organisations using this strategy prioritise managing and using knowledge since it is fundamental to agility and values people's knowledge and skills. A company's willingness to apply and integrate knowledge is closely related to its level of agility (Kang, Morris, & Snell, 2003). An organisation must actively find, disseminate, absorb, and use fresh information more efficiently than its rivals in order to grow its strategic agility. Research has indicated that two essential competencies for workforce agility are cross-functional cooperation among professionals and efficient information transfer (Gupta & Govindarajan, 2000).

Knowledge connections are gaining popularity because they incorporate the dynamism required for the creation and systematic sharing of collective and systematic knowledge assets. Knowledge networks comprise relationships among entities (individuals, teams, and organisations) working towards achieving a shared objective.

2.1.3. Connectivity

In this context, "connectivity" corresponds to the internet, which has enabled machines to share information by enabling communication between them from distant locations. According to Grant, Hurley, and Hartley (2000), combining internet technology with traditional commercial problems has the potential to disrupt every industry and is merely the most recent development in this ongoing evolution. The advent of digital marketing, internet banking, e-commerce business models, and other devices that facilitate information sharing on the go has improved the significance of connectivity to business. In today's world, corporate communication can

greatly benefit from the internet (Vijay, 2016). Furthermore, in the current era, internet connectivity plays a major role in achieving enormous commercial success.

The World Wide Web revolutionised communication, education, and the exchange of data. The online world offers organisations excellent data management resources to introduce innovative and creative client solutions (Vijay, 2016). According to Karehka (2017), connection makes it feasible for businesses to obtain pertinent information to grow their operations and establish new production lines after conducting the necessary research to stay current. This, in turn, fosters individual and business creativity.

A set of computers that are connected to one another via satellite lines, fibre optics, phone lines, or other transformative environments is called a connected set. They lack both ownership and supervisory authority.

The rise of electronic marketing, particularly in industrialised nations, depends on interaction. According to Avlonitis and Karayanni (2014), connectivity is an information technology (IT) that is spreading among business-to-business organisations at exponential rates. Connectivity is an effective medium for information access, organisation, and discussion; it should be seen as a route for distribution, trade, and communication (Avlonitis & Karayanni, 2014). Additionally, it facilitates the inexpensive storage of data, the quick and inexpensive collection of information, the interactive provision of data in response to customer requests, and, when compared to printed marketing materials, it provides a more immersive sensory experience and can function as a medium for trade. The main benefit of connectivity is its enormous capacity for integrated, rapid, efficient, and interactive information exchange. As a consequence, connectivity makes it easier for businesses to share information about things like new client wants, developments in the market both locally and internationally, competitive strategies, collaboratively developing goods, combined selling initiatives, etc. (Avlonitis and Karayanni, 2014).

2.1.4. Timeliness in Task Completion

With the development of information technologies, the majority of regular tasks completed by employees have been computerised with the goal of increasing efficiency through the timely completion of tasks or responsibilities with little to no effort. Furthermore, Fry, Ketteridge, and Marshal (2009) observed that the advent of information technology has made laborious, frequently carried out operations concerning the creation, replication, storage, and retrieval of information easier nowadays. According to Ma'aji, Adamu, and Istifanus (2020), employees may now send and receive messages more easily by using technical resources like social media accounts, group collaboration software, and email. This allows them to plan their work more efficiently and on schedule.

Due to the introduction of information technology, tasks that formerly would have taken many workdays can now be completed in hours (Mumini & Hawa, 2014). Lesi (2020) asserts that time is a crucial organisational resource that has the potential to impede the advancement of business. But now that he has access to information technologies, the worker is more proficient in managing his time by finishing assignments on time and making well-informed judgements.

2.2. Theoretical Framework

The theoretical foundation is based on media dependency theory. A notion supported by Ball-Rokeach and DeFleur and modified by Joo-young (2018) holds that organisational objectives are realised through their contact with the market, but the target market depends on media information to meet demands. Stated differently, this idea emphasises how intertwined industrial and information societies are as resources and media to meet a range of demands. The study believes that using information technology tools, such as computers, smartphones, internet networks, commercial software middleware, and audio-visual systems that enable access, storage, and transmission, can improve business operations, which makes this theory applicable to current research.

2.3. Empirical Review

In the view of Don-Solomon & Ayawei (2020), information technology is the answer to increasing staff productivity. The literature review discusses computers and connectivity as infotech dimensions, but innovativeness and promptness in task fulfilment operationalized worker productivity. A questionnaire was used to compile data from 63 employees who were chosen from 17 different private companies. The null hypotheses that were presented were statistically examined using the Pearson Product Moment Correlation Coefficient. The results indicate a strong positive association between computing, timeliness, innovativeness, and info-tech connectivity. This suggests that information technology in the studied area has increased employee efficiency by enabling him to complete daily or monthly tasks on time and by fostering his creativity.

Consequently, the study suggests that in order for an organisation to function at its best and stay relevant, its information staff members need to undergo frequent retraining in info-tech applications. When an organisation lacks the resources, employees should turn to improving themselves.

In the Malaysian manufacturing industry, Baskaran, Lay, Ming, and Mahadi (2020) examined the connection between employee job performance and the drivers of technology adoption. 370 respondents completed an organised online survey to provide data for the study, which used a quantitative research design. The results showed that motivation and job satisfaction were statistically significant; nonetheless, the research was unable to sustain the workload. Furthermore, the research yielded little statistical support for the notion that employment uncertainty acts as a mediating factor.

In two universities in Oyo State, Nigeria, Kayode, Irele, Agunbiade, and George-Kayode (2019) examined the impact of ICT on staff job performance and effectiveness. To get the necessary data, a descriptive survey study design was used. The statistical measures of mean, standard deviation, and Pearson product moment correlation were used to analyse the acquired data. For this study, nine hundred and four administrative personnel from the two universities were involved. The total number of participants for this study was intentionally limited to 228. A well-structured survey was employed. Using Cronbach's alpha, the overall dependability coefficient was determined to be 0.76. The analysis methods for the gathered data included mean, percentage scores, frequency counts, and Pearson product moment correlation analysis. Based on the study, there was a substantial relationship between the personnel's job performance and the efficacy of ICT use in the two institutions, as well as the availability of ICT facilities, in-service training, and restraints. The workers should receive ongoing ICT

training, according to the recommendation, in order to provide them with the new skills they need to operate ICT devices. Authorities should set up the infrastructure that employees need to conduct their jobs effectively and efficiently, including power outlets, WiFi for internet access, and conducive environments. The above would encourage employees to advance their ICT proficiency.

3.0. Methodology

The overall design of the research was a descriptive survey. The main source of data for the study was a well-structured questionnaire programme that the researcher used. Strongly agreed, agreed, disagreed, and strongly disagreed are the four points on the Likert scale that served as the basis for building the instrument. Data originated from 20 employees of 20 private companies that are compliant with information and communication technologies using the basic random sampling technique. employ IT in their day-to-day operations. The study items were analysed using the mean, the respondents' demographic data were analysed using simple percentages, and Chi-Square was used to examine the statistical significance of a connection between the variables.

4.1. Analysis of Results and Discussion

Demographic Data of the Respondents

This component of the research examines the demographic traits of the research population's questionnaire participants.

Table 1: Demographics of Respondents

Designations	**No.**	%
Gender		
Male	14	70
Female	6	30
Total	**20**	**100**
Qualification		
B.Sc.	16	80
M.Sc.	4	20
Total	**20**	**100**
Years of Operation		
1-4 years	2	10
5-9 years	10	50
Above 10 years	8	40
Total	**20**	**100**

Source: Survey Data, 2024

According to table 1 above, there were 14 male responses and 6 female respondents, representing 70% and 30% of the total. In the same manner, 16 people held B.Sc. degrees and 4 held M.Sc. degrees, approximately 80% and 20% of the total. In conclusion, two respondents have operated for 1-4 years, ten for 5–9 years, and eight for 10 years and more.

Test of Research Hypotheses

Hypothesis One

Ho_1: There is no significant relationship between knowledge sharing and timeliness in task completion. Bayelsa State

Table 2. Chi-square analysis of the relationship between knowledge sharing and timeliness in task completion in Bayelsa State

Option	O	E	O –E	(O-E)2	(O-E)2/E	X^2 table	DF	Decision
SA	47	11.75	35.25	1242.56	105.75			
A	10	2.5	7.5	56.25	22.5			
D	3	0.75	2.25	5.06	6.75			
SD	0	0	0	0	0			
					135	7.815	3	Significant

Source: Survey Data, 2024

$X^2cal = 135$

The X^2 table value with a degree of freedom of 3 and a 5% level of significance gives 7.815.

The calculation of the chi-square as presented in Table 2 shows that the calculated chi-square (x^2cal) is greater than the chi-square (x^2crit) at DF 3 and at the 5% level of significance.

Thus, X^2cal =135, X2crit = 5%, and DF 3 = 7.815. Therefore, the null hypothesis (H_o) is rejected and the alternative hypothesis (H_1) is upheld. The analysis's conclusion is that there is a significant relationship between knowledge sharing and timeliness in task completion in Bayelsa State. This result is consistent with the findings of Fry, Ketteridge, and Marshal (2009), who found that the advent of information technology has made laborious, often performed processes involving the production, replication, storing, and retrieval of information easier today.

Hypothesis Two

Ho_2: There is no significant relationship between connectivity and timeliness in task completion in Bayelsa State.

Table 3: Chi-square analysis of the relationship between connectivity and timeliness in task completion in Bayelsa State

Option	O	E	O–E	(O-E)2	(O-E)2/E	X^2 table	DF	Decision
SA	53	13.25	39.75	1580.06	119.25			
A	6	1.5	4.5	20.25	13.5			
D	1	0.25	0.75	0.56	2.24			
SD	0	0	0	0	0			
					135	7.815	3	Significant

Source: Survey Data, 2024

X^2cal = 135

The X^2 table value with a degree of freedom of 3 and a 5% level of significance gives 7.815.

The calculation of the chi-square as presented in Table 8 shows that the calculated chi-square (x^2cal) is greater than the chi-square (x^2crit) at DF 3 and at the 5% level of significance.

Thus, X^2cal = 135, X2crit = 5%, and DF 3 = 7.815. Therefore, the null hypothesis (H_o) is rejected and the alternative hypothesis (H_1) is upheld.

This result correlates with Avlonitis & Karayanni's (2014) findings that, in contrast to printed marketing materials, IT helps to retain data in an affordable manner, collect information quickly and cheaply, and offer information interactively in accordance with client requirements.

5.1. Conclusion

In order to ensure effective business operations in Bayelsa State, the article aims to establish the responsibilities that information technology plays in society. In order to determine the relationship between IT and company operations in Bayelsa State, this study uses a descriptive survey research design. Data was gathered from 20 employees of 20 private companies that are compliant with information and communication technologies using the basic random sampling technique. According to the study, in Bayelsa, connectivity promotes timely task completion. The study also found that in Bayelsa State, there is a strong correlation between the sharing of information and task completion timeliness.

5.2. Recommendations

The research paper suggested a number of things in conjunction with the empirical discoveries:

1. The State should concentrate its efforts on the beneficial advancement, accessibility, and application of IT in both urban and rural areas, where the bulk of the impoverished live.
2. Utilising ICT to its full potential across the board will help achieve developmental goals.
3. For individuals to improve their social networking abilities, it is important to prioritise connectivity and knowledge exchange.
4. To help small-scale businesses grow, the government should allocate sufficient funds to encourage their acquisition of cutting-edge technologies.
5. Millennials and proprietors of companies should be the target of extensive education and awareness campaigns that highlight the benefits of IT and how it may increase productivity.

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