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Original Research Article

Digitalization and Organizational Performance of Logistics Firms in Ifako-Ijaye Local Government of Lagos State

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Abstract: This study examined the impact of digitalization on organizational performance in Logistics firms in Ifako-Ijaye LGA of Lagos State. Five research questions and two hypotheses guided the study. In line with the objective of the study, descriptive research design was adopted. The population of the study was staff of 108 logistics firms in Ifako-Ijaye LGA of Lagos State. A sample size of 44 respondents were drawn from the entire population using purposive sampling techniques. The instruments for data collection were a researcher's self-developed questionnaire titled Digitalization and Organizational Performance in Logistics Firms (DOPLF) and a researcher-structured interview. The research questions were answered using mean and standard deviation while the null hypotheses were tested at 0.05 level of significance using the t-test statistics. Findings revealed that respondents strongly agreed on how the adoption of digital transformation has changed the logistics businesses as well as on the extent to which digital technologies and connectivity impact organizational productivity. It was concluded that digitalization to a high extent impacts organization performance and has the capability to generate huge profits when ICT tools are successfully implemented. The study hence recommended the following amongst others that; logistics companies should embrace IT tools and services to gain a competitive advantage and improve service delivery to customers, have more self-service enabled services, and automate all critical processes to improve efficiency, reliability, and control in the organization.

Keywords: Logistics, Innovation, Digitalization, 21st century business environment, Organizational performance.

INTRODUCTION

ICT has influenced numerous corporate and government procedures, as well as how people live, work, and interact, as well as the quality of the natural and built environment, in its various forms. Many businesses are turning to technology to help them streamline operations and track supply chain flows. The most important part is to keep information up to date across the chain. ICT provides solutions for managing distribution and supply chains to improve efficiency and reduce waste in time resources and value chains. Over the past few decades, as the internet revolution took the world by storm, everyone's day-to-day lives have become increasingly digital. (World Economic Forum, 2016). With streamlined digital downloads ousting physical products, this could well have dealt a devastating blow to the logistics industry. But as a matter of fact, something extraordinary has happened: more packages than ever before are now being shipped. On any given day, up to 85 million packages and documents are delivered around the world (World Economic Forum, 2016). Logistics has brought about digital innovation at quite a slower rate compared to most other industries. This slower rate of digital adoption brings massive risks that, if left unattended, could be potentially calamitous for even the biggest established organizations in the business. As other industries with close links to logistics such as retail continue to be revolutionized by digital technology, the chances of digital disruption consuming the logistics industry continues to increase (for instance the rise of e-commerce) and has led to new digital competitors in the last-mile delivery market (World Economic Forum, 2016). The rise of new technologies, the growth of electronic business, the arrival of new firms to the service sector, and improved levels of customer service are just some of the factors that attest to the changes in the logistics sector in recent years. In light of these changes, a good business model that is digitalized to suit the new global business environment is essential to the success of any company. New logistics models must therefore take into account this current competitive landscape to create, deliver and capture value.

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Digitization makes information and communication available anywhere, anytime, within any context, and for any user using any device and type of access. Digital business ultimately requires digital supply chains which also includes digitization of logistics. Digitization is a preeminent requirement and it is also revolutionizing the entire process (Schrauf, & Berttram. 2018). Extreme digital transformation is taking place in several areas and is confronting its current position. Innovative uses of technologies in different operations such as the internet of things, data analytics, and the cloud are disrupting existing business models. Many different parties in the supply chain are accelerating at different speeds and challenging expectations and evolutions in the digital transformation economy. Although transportation and logistics management are quite a broad area, there is much progress made that applies to the sector as a whole and in truth lead to the digitization and digital transformation as an essential reaction. In turn, this requires several digital technologies to make this all possible. Going by a revolutionary change in business thought and logistics implementation, digital transformation is perhaps creating the need for a nascent business model to produce smarter, more enabled, efficient, and viable digital logistics. To achieve real-time information exchange among supply chain stakeholders, it is important to adopt useful technologies such as sensor-enabling technology, the Internet of Things, and Cloud-based database systems (Schrauf & Berttram 2018). The integration of these technologies with the supply network gives easy access to customers' needs by effectively sharing and tracking information of product or service deliveries. This technological integration can typically entail high costs with slow diffusion (Korpela et al., 2017). Another objective of business is sustainability. Sustainable digital logistics requires organizations to reconsider their digital business strategies and reorganize the direction of business operations throughout the supply chain towards more sustainability, including balanced, sustainable economic, environmental, and social development, representing complex inter-relationships.

Digital transformation in logistics is key in value creation by the use of digital transformation technologies, strategy take up and processes and the adaptation of service enhancers such as innovation and leadership to aid the purpose fulfillment of objectives by increasing agility, higher productivity, and a more customer-centric platform for logistics. The main motives concerning organizations' investment in logistics are to actualize real-time product visibility, faster innovation, and lower cost of service cum improvement in planning (Salam & Hoque, 2019).

Statement of the Problem

Information and communication technologies have very high update dynamics. Technologies become obsolete quickly and new ones emerge almost immediately. This peculiarity causes market uncertainty and high risks of decision making. The implementation of information technologies requires huge investments as businesses try to maintain profit. Although logistics has influenced certain activities ever since the early years of commercial relationships, the repercussions of the recent global economic crisis, the opening up of more business markets, and strong business competitiveness have all heightened the need for better process planning and faster decision making. In a globalized world characterized by technological change and disruption, the interactivity between economic and social actors is now crucial to taking advantage of market opportunities and maximizing resources. In this context, firms that are unable to adapt quickly to the speed with which information is exchanged and processes managed will find it more difficult to generate added value in their products and services. In developing economies such as Nigeria, there exists the temptation of running businesses in a certain way to make profits and cut cost due to uncertainty, high cost of production and the perennial lack of easy of doing business. In the dynamically competitive environment, many logistics firms such as Alibaba, Amazon, Jumia etc. are adopting ICT in emerging supply chain trends to improve business performance. Considering the need for competitive advantage and global competition, many logistics firms are adopting the latest ICT solutions in their operations However, logistics firms in the economic capital of Nigeria, Lagos which must ensure a steady service flow that must be managed in a coordinated and rational manner in order to deliver customers the goods or services they order in record time, place, quantity and quality, while guaranteeing competitiveness at the lowest possible cost are faced with myriad of challenges ranging from heavy traffic jams which results to loss of productivity time and unreliable delivery deadlines to safety concerns and uncertainties. Hence, the need for these logistics firms to digitalize their business processes and models leveraging on the affordances ICT as the digital logistics ecosystem is based on four key enablers namely; technology, process, organization and knowledge. Integrating technology and applications with good knowledge management across logistics businesses and processes is critical to the success of digital logistics strategies. The digitization in logistics is based on six characteristics: cooperation, connectivity, adaptiveness, integration, autonomous control and cognitive improvement. The full implementation of wide range of digital technologies such as mobile, cloud, sensors, augmented reality, data analytics, and others, in logistics processes enables: integrated planning and execution systems, logistics visibility, autonomous logistics, smart procurement and warehousing, spare parts management, and advanced analytics. It is against this backdrop therefore that this study strives to examine the impact of digitalization on organizational performance in Nigeria with a case study

of logistics firms in Ifako-Ijaye Local Government Area of Lagos State.

Conceptual Framework

This study is concerned with the impact of digitalization on organizational performance of logistics firms.

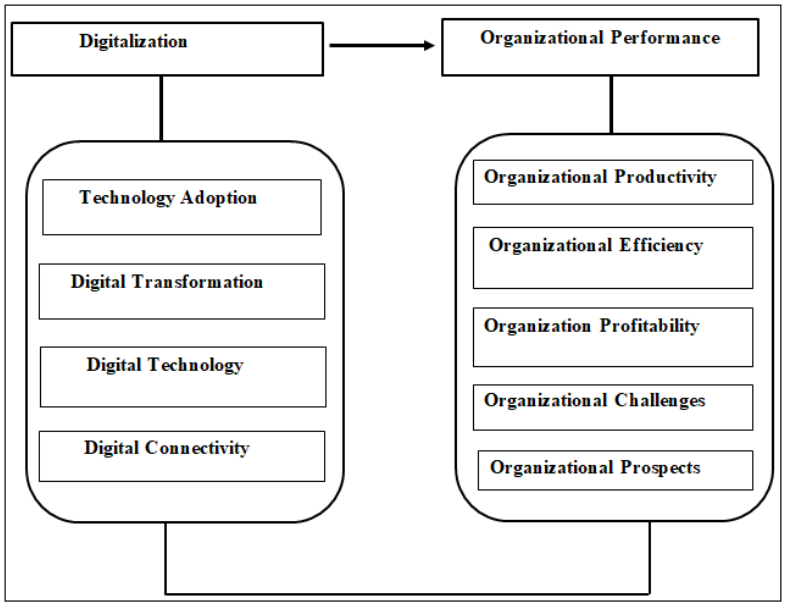

Fig 1: Conceptual Framework of the impact of Digitalization on Organizational Performance
Source: Researcher's Desk 2021

Aim and Objectives of the Study

The aim of this study is to investigate the impact of digitalization on organizational performance in logistics firms in Ifako-Ijaye LGA of Lagos State. Specifically, the study sought to;

1. Investigate how the adoption of digital transformation has changed the logistics businesses.
2. Determine the impact of digital technologies on organizational efficiency in logistics businesses.
3. Examine the impact of digital connectivity on organizational productivity in logistics businesses.
4. Find out the challenges of digital transformation on in logistics businesses
5. Examine the prospects of the adoption of digital technologies on organizational profitability in logistics businesses

Research Questions

The following understated research questions guided this study:

1. How does the adoption of digital transformation change the logistics businesses?
2. To what extent does digital technology impact organizational efficiency in logistics businesses?
3. To what extent does digital connectivity impact organizational productivity in logistics businesses?
4. What are the challenges of digital transformation in logistics businesses?
5. What are the prospects of the adoption of digital technologies on organizational profitability in logistics businesses?

Hypotheses

The following null hypotheses guided this study:

H01: Digital technologies do not have significant impact on organizational efficiency in logistics businesses.

H02: Digital connectivity does not have significant impact on organizational productivity in logistics businesses.

LITERATURE REVIEW

Diffusion of Innovation Theory

Rogers in 1995 proposed the diffusion of innovation theory, which is critical in explaining the necessity for enterprises to embrace technologies and the flow of technology innovation in the social system. It primarily encompasses three points of view: diffusion is the systematic transfer of information through various digital channels within an organization; adoption is the decision-making process that determines the best course of action to take in order to achieve the best results; and innovation is an idea that could improve firm competencies.

According to the theory, innovation is defined as a new concept aimed at changing the way a company's operations are carried out. A specific type of innovation flows and spreads within the social system through the diffusion process (Rogers, 2003). The diffusion of innovation theory identifies additional factors that influence the successful dissemination of technological advancements. These characteristics include observability, trialability, complexity,

compatibility, and the system's relative benefit. The amount to which a new notion or idea is deemed to be more extraordinary than the previous one is referred to as relative advantage (Dodgson & Salter, 2005).

Compatibility is a characteristic that demonstrates how well a given invention aligns with the firm's ideals. The degree to which a certain type of innovation is thought to be too difficult to comprehend and apply is referred to as complexity. The amount to which an idea may be attempted, or rather, experimented on a bounded scale, is known as trialability. Finally, observability refers to how visible and perceptible innovation outcomes and side effects are to others (Rogers, 2003).

When users have good judgments that it is better off and aligned with the broader values, technology advancements tend to spread more quickly and widely (Rogers, 2003). As a result, Dodgson and Salter (2003) believe that before technology improvements can completely take shape in the market, their inputs and outputs must be measurable and agreeable to users. Furthermore, technological innovation should be reasonably simple to use in order to attract users. This means that for innovations to be adopted by their intended consumers, they must be beneficial.

The diffusion of innovation theory is crucial to this research since it describes how technology advancements spread in a commercial organization. It is also critical in allowing the researcher to re-evaluate the reasoning behind each decision prior to the use of technology. Technology advancements, according to Henderson and Divett (2003), result in improved versions of products and services that are cost-effective, hence enhancing business performance. The idea provides for an examination of the technology adoption process and the roles of many actors in assuring the efficient integration of automated procedures within businesses. This theory thus helped in explaining the nature of the adoption of technology within Logistics firms in Ifako-Ijaye Local Government Area of Lagos State.

Digital Transformation

One of the most important goals for firms is to improve business performance. The impact of information technology (IT) on a company's success is one area that continues to draw a lot of attention. Digitalization and interconnection have changed the economy from a primarily physical to a software-controlled economy during the last few decades, and information technology has become a critical component of our business and society. Digitalization, Internet of Things (IoT), big data, robotics, automation, mobility, and other buzzwords abound in this setting; they are discussed on social media, in politics, and in the economics. But what do these terms mean? how are they interlinked with each other? and in which ways do they change our whole work and life environment? Digitization is the process of converting analogue data into digital (computer-readable) data. After the introduction of the transistor and microprocessor in the middle of the twentieth century, digitization technologies enabled the conversion of traditional media such as pictures, paper, sound, video, or signal into bits and bytes (ones and zeros) of computer storage (Press, 2015). Digitalization is characterized as an organizational move to big data, analytics, cloud, mobile, and social media platforms within a company. Organizations can integrate digital technologies into many aspects of their business and engage customers with developing digital innovations through digital transformation.

Organizational Efficiency

Organizations are increasingly turning to information technology to solve business problems, improve decision-making efficiency and effectiveness, increase productivity and service quality, achieve dynamic stability, and compete for new markets. Many corporate functions, operations, goods, and services rely on information technology. Organizations around the world now spend more than half of their new investment funds on information technology and related communications. The way businesses handle these enormous expenditures has a big impact on their efficiency and effectiveness. Many studies have looked into the impact of information technology on the services and performance of enterprises. Although the majority of these studies imply that IT plays a critical role in enhancing the quality and quantity of data, its adoption and innovation potential is frequently questioned (Mano, 2009), Organization Profitability.

Review of Related Empirical Studies

Magutu (2013) conducted a study on supply chain strategy, technology, and performance of large-scale manufacturing enterprises, finding that when ICT tools are successfully applied, the company will benefit from them, allowing it to save money and eventually generate huge profits. Customs management systems, security (tracking and tracing shipments), and information sharing have all improved as a result of numerous modalities such as adoption of ICT solutions in the logistics industry. Many sections of the logistics business, however, continue to rely on outdated or manual processes, which may be due to their ineffectiveness and inefficiency.

Mishra's (2012) research focused on the role of information technology (IT) in supply chain management once again. It also emphasizes IT's role in reorganizing the entire distribution system to achieve improved service levels, lower inventory, and lower supply chain costs. The IT strategy must support broad strategic directions such as increasing the frequency of receipts/dispatch, holding materials further up the

supply chain, and crashing varied lead times. The importance of important IT contributions and implementations is discussed. In today's economy, fundamental changes have occurred. These changes have an impact on our relationships with customers, suppliers, business partners, and coworkers. It also explains how technological advancements have given businesses unprecedented opportunities to gain a competitive advantage. As a result, IT investment is a must-have for every company looking to stay afloat in the market.

Dong *et al*., (2009) conducted research to better understand the value of information technology (IT) in supply chain environments. They established a conceptual model that ties three IT-related resources (back-end integration, managerial skills, and partner assistance) to firm performance improvement, based on resource-based theory and transaction cost economics. The model varies from earlier research in that it suggests that competition has a moderating influence on resource-performance correlations. They found that IT has a major contribution to supply chains, which is generated through the development of digitally enabled integration capabilities and exhibited at the process level along the supply chain, based on data from 743 manufacturing enterprises. However, the technological resource alone does not hold the key to generating IT value. In reality, managerial skills are found to play the most important role in IT value generation, as they enable supply chain process and corporate strategy adjustments to fit the usage of IT.

METHODOLOGY

This study adopted the descriptive research design. The population studied in this research comprised managers of selected logistics firms in Ifako-Ijaye Local Government Area of Lagos State. The population of the study consisted of 108 logistics firms. In making the choice of sample, the researcher adopted purposive sampling technique to select 44 respondents who were selected from the logistics management and ICT departments since they were the ones conversant with the impacts of digitalization in logistics firms. These firms were selected based on the following criteria; duly registered and recognized logistics firm, logistics firms located in urban areas, logistics firms that have a staff strength of forty and above and firms with at least three branches. The instruments for data collection were a researcher's self-developed questionnaire titled Digitalization and Organizational Performance in Logistics Firms (DOPLF) and researcher-structured interview. The questionnaire has two sections – A and B. Section A is structured to collect the demographic data of the respondents. Section B is structured to collect information on the variables of the study. The items are designed on a modified four-point rating scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD) as well as Very High Extent (VHE); High Extent (HE); Low Extent (LE) and Very Low Extent (VLE) and weighed 4, 3, 2 and 1 respectively. The interview was done face to face with managers of the selected logistics firms. The instruments were validated by two experts in the Educational Psychology, Guidance and Counselling and one in Management Sciences in University of Port Harcourt. A reliability coefficient of 0.79 (79 percent reliability) was obtained using PPMC through the test-retest method. The research questions were answered using mean and standard deviation while the null hypotheses were tested at 0.05 level of significance using the t-test statistics. Tables were constructed in respect of the demands of the respective research questions, hypotheses and a criterion mean of 2.50 was used.

RESULTS

Research Question One: How does the adoption of digital transformation change the logistics businesses?

Table 1: Shows Responses on how the adoption of digital transformation changes the logistics businesses

S/N	QUESTIONNAIRE ITEMS	SA	A	D	SD	TOTAL
1	Digital transformation makes company's operations easier and faster	28 (64%)	12 (27%)	3(7%)	1(2%)	44
2	Digital transformation increases the level of company's productivity	32 (73%)	9 (20%)	1(2%)	2 (5%)	44
3	Digital transformation makes deliveries easier doing proper transaction	15 (34%)	24 (55%)	3(7%)	2 (5%)	44
4	Digital transformation reduces stress and paper work	26 (59%)	14(32%)	2(5%)	2(5%)	44
5	Digital transformation brings about flexibility in logistics businesses	20 (45%)	18(41%)	5(11%)	1(2%)	44
6	Digital transformation enhances order and delivery tracking	21 (48%)	19(43%)	1(2%)	3(7%)	44
7	Digitalization enhances end to end visibility and efficiency, logistic processing and back-office operations	24(55%)	17(39%)	2(5%)	1(2%)	44
8	Digitalization enables transparent and efficient solutions	18(41%)	17(39%)	7(16%)	2(5%)	44
9	Digital transformation enhances logistics businesses by saving time and cost	20(45%)	21(48%)	1(2%)	2(5%)	44
10	Digital transformation facilitates service delivery and customer relations	16(36%)	23(52%)	3(7%)	2(5%)	44
	AVERAGE	**22(50%)**	**17(40%)**	**3(6%)**	**2(4%)**	**44**

From table 1, 22 (50%) of the respondents strongly agreed (SA) on how the adoption of digital transformation changes the logistics businesses, 17 (40%) of them agreed (A); 3 (6%) of them disagreed while 2(4%) of the respondents strongly disagreed.

Research Question Two: To what extent does digital technology impact organizational efficiency in logistics businesses?

Table 2: Shows Responses on extent to which digital technologies impact organizational efficiency in logistics businesses

S/N	QUESTIONNAIRE ITEMS	VHE	HE	LE	VLE	TOTAL
11	The use of digital technologies increases worker's productivity in logistics businesses	23(52%)	17(39%)	4(9%)	0	44
12	Employees use digital tools to track and deliver orders efficiently	27(61%)	14(32%)	1(2%)	2(5%)	44
13	Work is done efficiently and effectively as a result of digital technologies	20(45%)	18(41%)	4(9%)	2(5%)	44
14	The use of digital technologies is handy and they bring out the best in employees and guarantees lasting success	19(43%)	23(52%)	1(2%)	1(2%)	44
15	The use digital technologies keep employees connected and enhance the rate of work flow	23(52%)	14(32%)	4(9%)	3(7%)	44
	AVERAGE	**22(51%)**	**17(39%)**	**3(6%)**	**2(5%)**	**44**

From table 2, 22 (51%) of the respondents agreed to VHE on the extent to which digital technologies impact organizational productivity in logistics businesses, 17 (39%) of them agreed to HE; 3 (6%) of them agreed to LE; while 2(5%) of them were on VLE.

Research Question Three: To what extent does digital connectivity impact organizational productivity in logistics businesses?

Table 3: Shows Responses on extent to which digital connectivity impact organizational productivity in logistics businesses

S/N	QUESTIONNAIRE ITEMS	VHE	HE	LE	VLE	TOTAL
16	Digital connections improve communication between members of staff thereby enhancing productivity	33(75%)	7(16%)	3(7%)	1(2%)	44
17	Digital connectivity and tools foster prompt feedback from customers and clients	30(68%)	9(20%)	4(9%)	0	44
18	The use of internet technologies fosters information flow and management within the organization	27(61%)	13(30%)	2(5%)	2(5%)	44
19	Digital connectivity facilitates the resolution of customers challenges and concerns	21(48%)	17(39%)	5(11%)	1(2%)	44
20	Customers track their orders in real-time and improves efficiency and quality service delivery	18(41%)	22(50%)	3(7%)	1(2%)	44
	AVERAGE	**26(59%)**	**14(31%)**	**3(8%)**	**1(2%)**	**44**

From table 3, 26 (59%) of the respondents agreed to VHE on extent to which digital connectivity impact organizational productivity in logistics businesses, 14 (31%) of them agreed to HE; 3 (8%) of them agreed to LE; while 1(2%) of them were on VLE.

Research Question Four: What are the challenges of digital transformation in logistics businesses?

Table 4: Shows Responses on the challenges of digital transformation in logistics businesses

S/N	QUESTIONNAIRE ITEMS	SA	A	D	SD	TOTAL
21	The cost of procurement, installation and maintenance of digital devices hampers the digital transformation in logistics businesses.	25(57%)	15(34%)	1(2%)	3(7%)	44
22	Employees lack the requisite skills and competence to operate digital devices hence they feel comfortable working with manual systems	20(45%)	13(30%)	7(16%)	4(9%)	44
23	Customers are not digitally savvy; hence they struggle to keep up with logistics company services	18(41%)	22(50%)	1(2%)	3(7%)	44
24	Internet fluctuations pose as challenge to the adoptions of digitalization in the logistics businesses	26(59%)	15(34%)	2(5%)	1(2%)	44
25	Epileptic power supply affects the adoption of digitalization in the logistics business	14(32%)	17(39%)	9(20%)	4(9%)	44
	AVERAGE	**21(47%)**	**16(37%)**	**4(9%)**	**3(7%)**	

From table 4, 21 (47%) of the respondents strongly agreed (SA) on the challenges of digital transformation in logistics businesses, 14 (37%) of them agreed (A); 4 (9%) of them disagreed while 3(7%) of the respondents strongly disagreed.

Research Question Five: What are the prospects of the adoption of digital technologies on organizational profitability in logistics businesses?

Table 5: Shows Responses on the challenges of digital transformation in logistics businesses

S/N	QUESTIONNAIRE ITEMS	SA	A	D	SD	TOTAL
26	The adoption of digital technologies in the logistics business has the capability of improving productivity	23(52%)	17(39%)	4(9%)	0	44
27	Employees feel satisfied when digital technologies are utilized in the discharge of their duties	14(32%)	20(45%)	6(14%)	4(9%)	44
28	Adoption of digital technologies enhances organizational growth	18(41%)	19(43%)	4(9%)	3(7%)	44
29	The utilization of digital technologies fosters efficiency and quality service delivery	25(57%)	15(34%)	3(7%)	1(2%)	44
30	The adoption of digital technologies has the capacity of revolutionizing the logistics and supply chain sectors	17(39%)	23(52%)	4(9%)	0	44
	AVERAGE	**19(44%)**	**19(44%)**	**4(10%)**	**2(4%)**	

From table 5, 19(44%) of the respondents strongly agreed (SA) on the prospects of the adoption of digital technologies in logistics businesses, 19 (44%) of them agreed (A); 4(10%) of them disagreed while 2(4%) of the respondents strongly disagreed.

Hypothesis One: Digital technologies do not have significant impact on organizational efficiency in logistics businesses.

Table 6: Summary of t-test on difference in mean scores of respondents on the impact of Digital technologies on organizational efficiency in logistics businesses in Lagos State

Categories	n	$\overline{X}$	SD	df	t-cal	t-crit	p	Decision
Digital Technologies	44	2.69	0.18	43	11.4	1.60	0.05	**$H0_1$ Rejected**
Organizational Efficiency	44	2.87	0.20					

Table 6 above showed that the t calculated value of 11.4 is greater than the t critical value of 1.60 at 0.05 level of significance with the degree of freedom of 43. The null hypothesis was rejected. Hence, digital technologies have significant impact on organizational efficiency in logistics businesses.

Hypothesis Two: Digital connectivity does not have significant impact on organizational productivity in logistics businesses.

Table 7: Summary of t-test on difference in mean scores of respondents on the impact of Digital connectivity on organizational productivity in logistics businesses in Lagos State

Categories	n	$\overline{X}$	SD	df	z-cal	z-crit	p	Decision
Digital Technologies	44	2.92	0.17	43	8.67	1.22	0.05	**$H0_2$ Rejected**
Organization Productivity	44	3.05	0.15					

Table 7 above showed that the t calculated value of 8.67 is greater than the t critical value of 1.22 at 0.05 level of significance with the degree of freedom of 43. The null hypothesis was rejected. Hence, digital connectivity has significant impact on organizational productivity in logistics businesses in Lagos State

DISCUSSION OF FINDINGS

The majority of respondents strongly agreed on how digital transformation has changed logistics firms, according to the findings of the first research question. They all agreed that digital transformation improves the productivity of logistics companies. This finding is consistent with Casals, Davis, and Nemet (2001), who found that enterprises are implementing technologies throughout the supply chain, making them more productive and allowing them to manufacture a wider range of consumer items. Once technology such as low-cost computing is incorporated, adoption of corporate internet, and innovative software development are implemented, it allows the

organizational actors to work together efficiently so as to meet the needs of the demanding customers.

Findings also revealed that respondents agreed to very high extent on the extent to which digital technologies impact organizational efficiency in logistics businesses. The findings also indicated that firms had seen an increase in the availability of technological infrastructure within the logistics business. Similar observations were made by Vitorino, Filho, and Moori (2018), who stated that digitization of company operations, as well as boosting technological aptitude and innovativeness, are crucial to the adoption of IT systems. It also revealed that most companies in the logistics business have increased technical development as a result of the influence it has on organizational performance and productivity. Rahayu and Day (2015) also highlighted that digitization requires technological preparedness and IT skills. Also, according to Sandberg, Kihlen, and Abrahamsson (2011), logistics has evolved from a cost-cutting tool to a complement to a company's full product and service offering, and the impact of logistics and supply chain management on total firm performance has been well documented.

Research finding showed the respondents agreed to very high extent also on extent to which digital connectivity impact organizational productivity in logistics businesses. This finding is in line with the recommendations of Christensen *et al*., (2011) and Wieland and Wallenburg, (2012), who recommended for a new business model based on a facilitated network connecting global suppliers and consumers. This vast network of suppliers and customers who use digitally connected platforms is dependent on IT infrastructure to organize digital data flows. The study findings are in line with Scott, (2001), who found that IT is a means of facilitating communication and the exchange of information between various departments and functions in the organization and in this light IT acts as an enhancer of collaboration and networking tool amongst employees, customers and partners because it removes the barriers to real-time communication and effective information sharing.

Finding on research question four showed that respondents strongly agreed on the challenges of digital transformation in logistics businesses. Majority of participants responded that the cost of procurement, installation and maintenance of digital devices hamper the digital transformation in logistics businesses. Bharadwaj *et al*., (2007) backed up this finding, claiming that obstacles may occur as a result of the underlying human and organizational variables that influence the use of IT as a strategic resource to gain a competitive edge in the logistics industry. This has to do with the various organizational strategies that influence what technology will be used and how it will be used.

Finally, the findings suggested that respondents were quite optimistic about the use of digital technology in the logistics industry. This finding is in line with Magutu (2013), who conducted a study on supply chain strategy, technology, and performance of large-scale manufacturing enterprises. His findings revealed that when ICT tools are successfully implemented, they have the ability to improve the company, allowing it to save money and eventually generate huge profits**.**

CONCLUSION

Organizations are increasingly turning to information technology to solve business problems, improve decision-making efficiency and effectiveness, increase productivity and service quality, achieve dynamic stability, and compete for new markets to meet the demands of the digitized society. This study focused on the impact of digitalization on organizational performance in logistics firms. It was found that digitalization to a high extent impacts organization performance through increased efficiency and profitability and has the capability to generate huge profits when ICT tools are successfully implemented.

RECOMMENDATIONS

Based on the findings and conclusion of this study, the following recommendations are proffered;

1. Logistics companies should embrace IT tools and services to gain a competitive advantage and improve service delivery to customers, have more self-service enabled services, and automate all critical processes to improve efficiency, reliability, and control in the organization.
2. Logistics companies should also develop internal capacity to deal with IT system policies and procedures in order to retain IT staff and develop backup plans.
3. Logistic firms should examine international logistics firms' best practices in selecting the best IT infrastructure that is compatible with local operations.
4. Logistics companies should invest more in IT systems like tracking systems, inventory management systems, and fleet management systems that can help them digitalize their services.
5. Logistics companies should assess their internal communication systems to ensure that information is easily shared across the organization, as this is critical for new technology acceptance.

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