



Ramifications of Artificial Intelligence on Organizational Performance in Nigeria

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Article Info	ABSTRACT
<p>Corresponding Author Godspower Onyekachukwu Ekwueme E-mail: og.ekwueme@unizik.edu.ng</p>	<p>Artificial intelligence (AI) has been identified to be very significant in the twenty-first century in almost every discipline, including engineering, science, education, medical, business, accounting, finance, marketing, economics, manufacturing, the stock market, and law. This study examined the impact of artificial intelligence on organizational performance in a microfinance bank. Relevant data were drawn from selected one hundred (100) staff of XYZ Microfinance bank based in Nigeria, using a well-structured questionnaire. The data collected were descriptively analyzed. The results showed that artificial intelligence has positive impact on the organizational performance. The results also revealed that high cost of implementation, anxiety among workers, role displacement, ethical issues, significant investment in technology and training, among others are the challenges affecting the adoption of artificial intelligence in the business organization in Nigeria. The study recommends that Businesses must take proactive measures to address the obstacles to AI adoption if they want to optimize the technology's beneficial effects on organizational performance.</p> <p>Keywords: Artificial intelligence, organizational performance, business organizations, technology, Nigeria</p>

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INTRODUCTION

Artificial intelligence refers to systems that are designed to think and act similarly to how human intelligence performs jobs. Artificial intelligence (AI) has been identified to be very significant in the twenty-first century in almost every discipline, including engineering, science, education, medical, business, accounting, finance, marketing, economics, manufacturing, the stock market, and law, to name a few (Lohr 2017). According to Gurpartap (2017), it is an intellectual capacity of machines to comprehend, interpret, or rationalize and react to external stimuli similarly to living beings. It is a relatively new area of automation and computing that builds machines that can do tasks that previously required human abilities. Artificial intelligence is capable of mimicking human intelligence in a variety of tasks that call for learning and analytical thinking, problem-solving, and decision-making (Shabbir & Anwer, 2015). AI has a reputation for effectively completing cognitive activities, but it also significantly increases people's dependence on the technology. Large data sets can be

processed by artificial intelligence (AI) systems, which can also collect and analyze data at supersonic speed.

Lohr (2017) posits that Artificial intelligence (AI) technology is being adopted by many companies in an effort to save operating costs, boost productivity, boost sales, and enhance customer satisfaction. Businesses consider integrating the entire spectrum of smart technologies—such as robots, machine learning, data mining, the Internet of Things (IoT), and natural language processing—into their operations and goods in order to reap the biggest benefits. Alrfai et al. 2023 explore dimensions of AI, including the evolution in expert systems and genetic algorithm adoption with enlarging Accounting Information System (AIS) efficiency. Al Mansoori et al. (2020) shed light on the positive impacts of AI that facilitate and contribute to knowledge management. Li et al. (2020) asserted that firms that managed to incorporate AI achieved more efficient and accurate decision-making, leading to an increase in performance quality. In the study made by Wang et al. (2019), predictive analytics powered by artificial Intelligence looks promising in terms of supporting effective strategic planning due to rather precise market trends and consumer behavior information for a few coming years.

Various studies have highlighted the profound impact of artificial intelligence (AI) on organizational productivity across diverse sectors (Smith and Johnson, 2018; Sukumar et al., 2018; Chen et al., 2019; Li et al., 2020; Trunk et al., 2020; Ani et al., 2025; Onwurah et al., 2025). In manufacturing, Smith and Johnson (2018) found that implementing AI in manufacturing significantly increased productivity through optimized processes and error reduction. Li et al. (2020), in their meta-analysis, revealed a statistically significant correlation between AI adoption and increased productivity in various industries, leveraging technologies like machine learning and natural language processing. Ani et al. (2025) and Onwurah et al. (2025) demonstrated the relevance of AI techniques in identifying and predicting machine vibrations in the cement manufacturing industries. Snell and Youndt (2019), in their study on fifty-six (56) general managers of manufacturing companies in Port Harcourt, found that artificial intelligence has a positive significant effect on organizational performance in manufacturing companies in Port Harcourt, Nigeria. In health care, Sukumar et al. (2018) showed that AI-based systems can increase operational efficiency, eliminate medical errors, and maximize quality of service. Similarly, Chen et al. (2019) demonstrated AI's positive effect on healthcare productivity, enhancing diagnoses and clinical outcomes. Trunk et al. (2020) illustrated AI's role in data gathering and logistics planning, streamlining operations for strategic decision-making. Damioli et al. (2021) emphasized AI's productivity gains in SMEs and the service sector, automating processes for operational efficiency.

Though, many studies have been carried out on the impacts of artificial intelligence on the organizational performance, more are still needed on how deployment of AI impacts important outcomes – overall performance, productivity, and effectiveness within organizations. This study keyed into this area by assessing the impact of artificial intelligence on organizational performance at a microfinance bank in Lagos Nigeria. This study is significant as findings will help broaden perspectives on how artificial intelligence affects organizational performance. Similarly, the findings would aid commercial organizations by providing them with information on how to use artificial intelligence effectively to improve organizational performance.

This study aims at examining the impact of artificial intelligence on organizational performance. The following objectives were pursued: (1) to examine the impact of artificial

intelligence on organizational efficiency in Nigeria, (2) to examine the impact of adoption of artificial intelligence on organizational performance of business organizations in Nigeria, and (3) to outline the challenges of adoption of artificial intelligence on business productivity in Nigeria.

RESEARCH METHODOLOGY

Sampling Technique and Sample Size

The population of this study is the staff of XYZ Microfinance bank in Nigeria. Simple random sampling technique was utilized in the selection of the sample size used in this study. Simple random sampling was employed due to its effectiveness in eliminating biasness and offering a better representation of the population. As a result of the inability of the researcher to effectively study the whole organization under study, a representative number was chosen as the sample size population. One hundred (100) respondents from the 133 XYZ Microfinance bank population were used as the sample size. The sample size was calculated using the Taro Yamani scientific formula which is given as:

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

Where:

N is the Population

e is the degree of error expected (taking to be 5%)

n is the sample size

From the equation (1):

$$n = \frac{133}{1+133(0.05)^2}$$

$$n = 100$$

Sources of Data

Data for this study came from the primary and secondary data sources. The primary data was generated through the field survey using structured questionnaire as a major research instrument. The secondary data on the other hand were obtained from relevant literatures ranging from textbooks, journals, articles, periodicals, seminar paper dissertation.

Data Collection Instrument

In this study, a structured questionnaire was used as a research instrument for data collection. The structured questionnaire was the main research instrument used to gather necessary data from the sampled respondents. The items in the structured questionnaire were prepared to determine the respondents' views on impact of artificial intelligence on the organizational performance. The questionnaire was structured in such a way that it addressed the research objectives and provided answers to the research questions. The questionnaires were administered to the selected XYZ Microfinance bank staff.

This instrument was divided into sections A and B. Section A deals with the personal data of the respondents while Section B contains research statement postulated in line with the research objectives. Options or alternatives were provided for each respondent to pick or tick one of the options.

Validity and Reliability of the Instrument

Validity is the extent to which a measuring instrument on application performs the function for which it was designed (Onwumere, 2015). Validity is determined by the degree of provision of correct response from sample objects by the relevant research design or research instrument. To ascertain the validity of the instrument, content validity was adopted, in which the researcher subjected the instrument to face validity by giving it to two research experts in Nigeria, who examined the items and made sure they were in line with the objectives of the study. The structure and language of the questionnaire were modified in the light of their corrections. The instrument was structured in such a way as to minimize the effect of errors like inconsistency and ambiguity.

Reliability refers to the ability of a particular measuring instrument to yield similar result when applied to the same situation at different times (Anyanwu, 2010). The reliability of the instrument was determined by a reliability test through the use of Cronbach's Alpha to check the consistency of the intended measure. The Cronbach's Alpha coefficients for most of the constructs in the pilot study had an acceptable level of internal consistency based on the suggestion of Nunnally and Bernstein (2014). To solidify the reliability of the instruments, a pilot study of 20 questionnaires was carried out to evaluate the internal consistency of the instruments. This was further carried out to evaluate the feasibility, time, cost and adverse events. The study was concluded with the acceptability of the instruments. As shown in Table 1, the computed Cronbach's alpha is 0.841, which shows that the questionnaire was reliable.

Table 1: Reliability Statistic

Cronbach's Alpha	No. of Items
0.841	12

Method of Data Analysis

The descriptive statistical method of data analysis was utilized to analyze the data obtained in this research. The descriptive involved the use of tables and frequency distribution. The data collected were analyzed using statistical package for social sciences (SPSS Version 20.0).

RESULTS AND DISCUSSION

This section presents results obtained from the analysis of the data obtained using the questionnaires. The data gathered were presented according to the order in which they were arranged in the research questions, simple percentage and pie graphs were used to analyze the demographic information of the respondents while frequency distribution and percentage were used to rank the responses.

Bio Data of the Respondents

Table 2 above shows the age grade of the respondents used for this study. 15 respondents which represent 15% of the population are 17 years and below. 15 respondents which represent 15% of the population are between 18-20years. 40 respondents which represent 40% of the population are between 21-30years. 10 respondents which represent 10% of the population are between 31-40years. 10 respondents which represent 10% of the population are between 41-50years while 10 respondents which represent 10% of the population are over 50years.

Table 2: Age grade of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 17years	15	15.0	15.0	15.0
	18-20years	15	15.0	15.0	30.0
	21-30years	40	40.0	40.0	70.0
	31-40years	10	10.0	10.0	80.0
	41-50years	10	10.0	10.0	90.0
	above 50years	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

Table 3 above shows the marital status of respondents used for the survey. 60 respondents representing 60% of the population are single. 30 respondents representing 30% of the population are married. 5 respondents representing 5% of the population are divorced while 5 respondents representing 5% of the population are widowed.

Table 3: Marital status of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	60	60.0	60.0	60.0
	Married	30	30.0	30.0	90.0
	Divorced	5	5.0	5.0	95.0
	Widowed	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Artificial Intelligence and Organizational Efficiency in Nigeria

The Impact of Artificial Intelligence on Organizational Efficiency

In order to address the objective 1, which is to examine the impact of artificial intelligence on organizational efficiency in the XYZ microfinance bank in Nigeria, the respondents were asked questions on the perceived impacts of artificial intelligence on significantly enhancing operational efficiency of organizations, with expected responses ranging from strongly agree to strongly disagree. Table 4 shows the responses of respondents that Artificial Intelligence has the potential to significantly enhance operational efficiency. 50 respondents representing 50% strongly agree that Artificial Intelligence has the potential to significantly enhance operational efficiency. 25 respondents representing 25% agree that artificial intelligence has the potential to significantly enhance operational efficiency. 5 respondents representing 5% were undecided. 10 respondents representing 10% disagree that artificial intelligence has the potential to significantly enhance operational efficiency. 10 of the respondents representing 10% strongly disagree that artificial intelligence has the potential to significantly enhance operational efficiency.

Table 4: Artificial intelligence has the potential to significantly enhance operational efficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	50	50.0	50.0	50.0
	Agree	25	25.0	25.0	75.0
	Undecided	5	5.0	5.0	80.0
	Disagree	10	10.0	10.0	90.0
	Strongly disagree	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on the Personalization of Products and Services

Table 5 shows the responses of respondents that Artificial Intelligence also facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency. 40 respondents representing 40% strongly agree that artificial intelligence also facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency. 50 respondents representing 50% agree that artificial intelligence also facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency. 2% were undecided. 3 respondents representing 3% disagree that artificial intelligence also facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency while the remaining 5 of the respondents representing 5% strongly disagree that Artificial Intelligence also facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency .

Table 5: Impacts of artificial intelligence on the personalization of products and services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	50	50.0	50.0	90.0
	Undecided	2	2.0	2.0	92.0
	Disagree	3	3.0	3.0	95.0
	strongly disagree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on Cost Reduction and Resource Optimization

Table 6 shows the responses of respondents that artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability. 40 respondents representing 40% strongly agree that artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability. 50 respondents representing 50% agree that artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability. 2 respondents representing 2% were undecided. 5 respondents representing 5% disagree that artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability while the remaining 3 of the respondents representing 3% strongly disagree that artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability.

Table 6: Contributions of artificial intelligence to Cost Reduction and Resource Optimization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	50	50.0	50.0	90.0
	Undecided	2	2.0	2.0	92.0
	Disagree	5	5.0	5.0	97.0
	strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on Operational Process in Business Organization

Table 7 shows the responses of respondents that artificial intelligence has an impact on operational process in business organization. 50 respondents representing 50% strongly

agree that artificial intelligence has an impact on operational process in business organization. 30 respondents representing 30% agree that artificial intelligence has an impact on operational process in business organization. 5 respondents representing 5 percent were undecided. 10 respondents representing 10% disagree that artificial intelligence has an impact on operational process in business organization while the remaining 5 of the respondents representing 5% strongly disagree that artificial intelligence has an impact on operational process in business organization.

Table 7: Impacts of artificial intelligence on the Operational Process in Business Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	50	50.0	50.0	50.0
	Agree	30	30.0	30.0	80.0
	Undecided	5	5.0	5.0	85.0
	Disagree	10	10.0	10.0	95.0
	strongly agree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Impacts of Adoption of Artificial Intelligence on Organizational Performance of Business organizations

Artificial Intelligence as a Catalyst for Growth and Innovation

Table 8 shows the responses of respondents that Artificial intelligence has proven to be a catalyst for growth and innovation. 40 respondents representing 40% strongly agree that Artificial intelligence has proven to be a catalyst for growth and innovation. 30 respondents representing 30% agree that Artificial intelligence has proven to be a catalyst for growth and innovation. 15 respondents representing 15.0 percent were undecided. 10 respondents representing 10% disagree that Artificial intelligence has proven to be a catalyst for growth and innovation while the remaining 5 of the respondents representing 5% strongly disagree that Artificial intelligence has proven to be a catalyst for growth and innovation.

Table 8: Artificial Intelligence a proven catalyst for growth and innovation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	30	30.0	30.0	70.0
	Undecided	15	15.0	15.0	85.0
	Disagree	10	10.0	10.0	95.0
	strongly disagree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on Organizational Agility, Innovation, and Competitiveness

Table 9 shows the responses of respondents on the impacts of Artificial intelligence on organizational agility, innovation, and competitiveness. 40 respondents representing 40% strongly agree that artificial intelligence has enabled companies to become more agile, innovative, and competitive. 50 respondents representing 50% agree that Artificial intelligence has enabled companies to become more agile, innovative, and competitive. 2 respondents representing 2% were undecided. 5 respondents representing 5% disagree that Artificial intelligence has enabled companies to become more agile, innovative, and competitive while the remaining 3 of the respondents representing 3% strongly disagree that

Artificial intelligence has enabled companies to become more agile, innovative, and competitive.

Table 9: Impacts of artificial intelligence on organizational agility, innovation, and competitiveness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	50	50.0	50.0	90.0
	Undecided	2	2.0	2.0	92.0
	Disagree	5	5.0	5.0	97.0
	strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on Organizational Performance

Table 10 shows the responses of respondents on the impact of artificial intelligence on organizational performance. 50 respondents representing 50% strongly agree that there is an impact of artificial intelligence on organizational performance. 25 respondents representing 25% agree that there is an impact of artificial intelligence on organizational performance. 5 respondents representing 5% were undecided. 10 respondents representing 10% disagree that there is an impact of artificial intelligence on organizational performance. 10 of the respondents representing 10% strongly disagree that there is an impact of artificial intelligence on organizational performance.

Table 10: Impacts of artificial intelligence on organizational performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	50	50.0	50.0	50.0
	Agree	25	25.0	25.0	75.0
	Undecided	5	5.0	5.0	80.0
	Disagree	10	10.0	10.0	90.0
	Strongly disagree	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

Impacts of Artificial Intelligence on the Easiness of Business Operations

Table 11 shows the responses of respondents that Artificial intelligence on the easiness of business operations. 50 respondents representing 50% strongly agree that Artificial intelligence aids in making business operations easier. 25 respondents representing 25% agreed that Artificial intelligence aids making business operations easier. 5 respondents representing 5% were undecided. 10 respondents representing 10% disagree that artificial intelligence aids in making business operations easier. 10 of the respondents representing 10% strongly disagree that artificial intelligence aids in making business operations easier.

Challenges of Adopting Artificial Intelligence in Business Organizations in Nigeria

High Cost of Implementation as a Challenge in Adoption of Artificial Intelligence in the Business Organizations in Nigeria

Table 12 shows the responses of the respondents on the high cost of implementation as one of the challenges in adopting artificial intelligence in the business organizations in

Nigeria. 40 respondents representing 40% strongly agree that the high cost of implementation is a challenge in adopting artificial intelligence in the business organizations in Nigeria. 50 respondents representing 50% agree that the high cost of implementation is a challenge in adopting artificial intelligence in the business organizations in Nigeria. 2% were undecided. 3 respondents representing 3% disagree that the high cost of implementation is a challenge in adopting artificial intelligence in the business organizations in Nigeria while the remaining 5 of the respondents representing 5% strongly disagree that the high cost of implementation is a challenge in adopting artificial intelligence in the business organizations in Nigeria.

Table 12: High cost of implementation as a challenge in adoption of artificial intelligence in the business organizations in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	50	50.0	50.0	90.0
	Undecided	2	2.0	2.0	92.0
	Disagree	3	3.0	3.0	95.0
	strongly disagree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Job Displacement and Workers Anxiety as a Challenge in Adoption of Artificial Intelligence in the Business Organizations in Nigeria

Table 13 shows the responses of respondents that AI adoption can create anxiety among workers who fear job displacement or changes to their roles. 40 respondents representing 40% strongly agree that AI adoption can create anxiety among workers who fear job displacement or changes to their roles. 50 respondents representing 50% agree that AI adoption can create anxiety among workers who fear job displacement or changes to their roles. 2 respondents representing 2% were undecided. 5 respondents representing 5% disagree that AI adoption can create anxiety among workers who fear job displacement or changes to their roles while the remaining 3 of the respondents representing 3% strongly disagree that AI adoption can create anxiety among workers who fear job displacement or changes to their roles.

Table 13: Job Displacement and Workers Anxiety as a challenge in AI adopting in the business organizations in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	50	50.0	50.0	90.0
	Undecided	2	2.0	2.0	92.0
	Disagree	5	5.0	5.0	97.0
	strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Significant Investment in Technology and Training as a Challenge in the Adoption of Artificial Intelligence in the Business Organizations in Nigeria

Table 14 shows the responses of respondents on effect of significant investment in technology and training as a challenge in the adoption of artificial intelligence in the business organizations in Nigeria. 50 respondents representing 50% strongly agree that the adoption

of AI solutions in business can be expensive, requiring significant investment in technology and training. 30 respondents representing 30% agree that the adoption of AI solutions in business can be expensive, requiring significant investment in technology and training. 5 respondents representing 5 percent were undecided. 10 respondents representing 10% disagree that the adoption of AI solutions in business can be expensive, requiring significant investment in technology and training while the remaining 5 of the respondents representing 5% strongly disagree that the adoption of AI solutions in business can be expensive, requiring significant investment in technology and training.

Table 14: Significant investment in technology and training as challenge in adoption of AI in the business organizations in Nigeria.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	50	50.0	50.0	50.0
	Agree	30	30.0	30.0	80.0
	Undecided	5	5.0	5.0	85.0
	Disagree	10	10.0	10.0	95.0
	strongly agree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Ethical Concerns Related to Data Privacy, Bias, and Transparency as Challenges affecting Artificial Intelligence Adoption in the Business Organizations in Nigeria

Table 15 shows the responses of respondents that AI use in business opens the door to major ethical concerns related to data privacy, bias, and transparency. 40 respondents representing 40% strongly agree that AI use in business opens the door to major ethical concerns related to data privacy, bias, and transparency. 30 respondents representing 30% agree that AI use in business opens the door to major ethical concerns related to data privacy, bias, and transparency. 15 respondents representing 15% were undecided. 10 respondents representing 10% disagree that AI use in business opens the door to major ethical concerns related to data privacy, bias, and transparency while the remaining 5 of the respondents representing 5% strongly disagree that AI use in business opens the door to major ethical concerns related to data privacy, bias, and transparency.

Table 15: Major ethical concerns related to data privacy, bias, and transparency as challenges in AI adoption in business organizations in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	40	40.0	40.0	40.0
	Agree	30	30.0	30.0	70.0
	Undecided	15	15.0	15.0	85.0
	Disagree	10	10.0	10.0	95.0
	strongly disagree	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Discussion

From the findings of this study, majority of the respondents agreed with the fact that there is an impact of artificial intelligence on organizational efficiency in organizations in Nigeria. The findings agree with the submission of Levin (2019) that examined the impact of artificial intelligence and block chain technology on entrepreneurship performance and success in Nigeria. Also, majority of the respondents agreed on the impact of adoption of

artificial intelligence in the business organizations in Nigeria. This finding from this study also agrees with the submission of Cheung & Messom (2018). Furthermore, majority of the respondents outlined the challenges of adoption of artificial intelligence in business organizations in Nigeria. These challenges include the high cost of implementation, AI adoption can create anxiety among workers, and the adoption of AI solutions in business can be expensive, requiring significant investment in technology and training among others.

CONCLUSION

The impact of artificial intelligence on the organizational performance has been examined in this study using XYZ Microfinance bank as a case study. A structured questionnaire was administered to 100 respondents and their responses were analyzed in order to achieve the objectives of interest in the study. The findings revealed the following: Artificial intelligence has the potential to significantly enhance operational efficiency. 50% of the respondents strongly agreed that artificial intelligence has the capacity to enhance operational efficiency. Artificial intelligence facilitates the personalization of products and services, creating more tailored customer experiences to enhance efficiency. 40% of the respondents strongly agreed that artificial intelligent enhance the personalization of products and services. Artificial intelligence contributes to cost reduction and resource optimization, which are essential for maintaining profitability. 40% of the respondents strongly agreed that artificial intelligence is useful tool for reduction of operational cost and resource optimization. Artificial intelligence has an impact on operational process in business organization. 50% of the respondents strongly agreed that artificial intelligence can contribute positively to the operational process in business organization. Adoption of artificial intelligence impacts positively to the organizational performance in the business organizations in Nigeria. The challenges affecting adoption of AI in the business organizations in Nigeria include: high cost of implementation, AI adoption can create anxiety among workers, and the adoption of AI solutions in business can be expensive, requiring significant investment in technology and training among others. This study recommends that businesses must take proactive measures to address the obstacles to AI adoption if they want to optimize the technology's beneficial effects on organizational performance.

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