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Automation and AI in Accounting: Comparative Impact of Chat-bots and Deep Learning Machine of Accounting Officer's Work Effectiveness in Business Organizations in Anambra State

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Abstract: This study investigated the comparative impact of chat-bots and deep learning of accounting officers' work effectiveness in Anambra State. A correlation research design was adopted, and a structured questionnaire was administered using Artificial Intelligence Questionnaire (AIQ) and Work Effectiveness Questionnaire (WEQ) to 221 accountants in business organizations. The study found a moderate positive relationship between automated chat-bots and work effectiveness (r = .465, N = 221) and a low positive relationship between deep learning machines and work effectiveness (r = .305, N = 221). The study also revealed significant relationships between both automated chat-bots and deep learning machines with work effectiveness. The findings have implications for business organizations, highlighting the need to adopt AI technologies to enhance financial management capabilities, productivity, and efficiency. The study recommends that business organizations adopt automated chat-bots and deep learning machines to improve accounting practices and provide training and development opportunities for accounting officers. This study contributes to knowledge theoretically, practically, and methodologically, providing insights into the relationship between AI technologies and work effectiveness in accounting.

Keyword: Artificial Intelligence, Chat-bots, Deep Learning Machine, Work Effectiveness, Accounting Officers.

INTRODUCTION

The emergence of automation and artificial intelligence (AI) in accounting has transformed the field as it allows accountants to concentrate on high value-added work and can utilise technology to be more efficient and accurate. This research will investigate the relative effectiveness of chatbots and deep learning technologies on business accountants in Anambra state, Nigeria. This study seeks to generate information regarding the potential of these technologies to revolutionize accounting practices, improve productivity, and offer the direction of professional development in the region by exploring its advantages and drawbacks (Zafar et al, 2025). Moreover, increased business complexity as well as the

demand of verifiable financial reporting has necessitated an urgent need of a reformation or change of financial reporting by business establishments. The above mentioned complex and demanding tasks have waken the interest to the accounting officers in the business organisations to venture to know the possible ways to automate the routine work in accounting, financial analysis, and decision making using the ICT facilities, in order to streamline the work, to provide real time financial accounting and to make use the ICT facilities, which, to a great extent make their work easy and would enhance the routine work (Basiru et al, 2023).

ICT facilities integration in accounting practices is a revolution that has seen accounting offices accomplish their duties more effectively and efficiently. Automating routine tasks will allow focusing on more advanced functions that are financial analysis, budgeting, and forecasting. The shift coincides with what Mbuba (2022) states, which directly relates to the significance of human capital development in public organizations such as the Ministry of Information in Awka, and productivity among employees. Moreover, ICT tools can provide access to real-time financial data that facilitates informed decision-making, minimizes errors, and supports job satisfaction, all of which can be explained by the factors identified in an article by Mbuba (2016) that focused on organizational growth and conflict management. By automating workflows and responding to altered circumstances, artificial intelligence also increases accounting performance in terms of higher operational efficiency. The regulatory role of Mbuba (2018a) also focuses on the importance of the use of modern tools to enhance an institution. Whereas Mbuba (2021a) exemplified the federal character principle in Nigerian federalism, the research reaffirms the significance attained by fair accessibility and administrative fairness in institutional enhancements to amplify their work productivity-principles reinforced in effective integration of ICT in both government and business in work effectiveness.

Work effectiveness can be understood as the extent to which the efforts of an individual or organization attain his goal, objectives, and outcomes. It is all about being effective, productive and successful in what we have to do. Work effectiveness is a complex phenomenon that touches on the attainment of goals, propounding quality work and embracing changing situations by utilizing maximum productivity and optimal performances. Armstrong and Taylor (2018) referred to work effectiveness as an efficiency at which an organization attains its goals by successfully managing its resources. Another aspect of work effectiveness is the extent to which organization creates a positive influence on either organization, customers or society. Accounting officers are effective in work; hence, delivering higher quality work that satisfies or even surpasses standards.

The work effectiveness of accounting officers is the capacity of the accounting officers to effectively and accurately execute their functions, which include financial reporting, budgeting, and financial analysis, in order to facilitate the functioning of organizations in decision-making and in attaining business goals (KPMG, 2017). Qualities of good accounting officers include, good analytical skills/ Problem solving skills, Adaptability to the changing technology and regulatory demands, Attention to details and organizational skills. Accenture (2018) surmises that AI has the potential to raise output by as much as 30 percent and cut mistakes by nearly 90 percent. Meanwhile, another McKinsey study (2018) discovered that 86 percent of accounting jobs may be automated. The application of AI in accounting can be a significant boost to the effectiveness of the work of accounting officers in their workplace.

The accounting officers will have to acquire new skills, including data analysis, interpretation, and communication to be able to work with AI-Powered tools. The introduction of AI will help accountants collaborate more with machines as human and technology power can be combined to create high-quality services. The AI in the accounting domain is still very dynamic and requires the accounting officers to be in perpetual education

and professional development in order to be aligned with the emerging technology and trends. AI has the potential to streamline recurrent accounting work that includes data entry, invoices, and reconciliations and enable accountants to concentrate on more crucial work (KPMG, 2017). As another example, AI-based tools can extract data automatically in invoices and other financial statements, eliminating the necessity of manual data input (Deloitte, 2019).

The current bulk data and enhanced statistical requirements and machine learning algorithms can disclose patterns in the data of organizations that are not otherwise possible with traditional ways of analysis. The explosion of information and data in and out of commercial /financial organisations and government establishments has led the organizations management to begin seeking ways of decreasing the pressures and the boredom that is being caused by the excessive calculations and documentations. Throughout the history, innovation has been the primary driver of a higher standard of life. Nevertheless, innovation process (internet) is very disruptive since it renders ancient technologies obsolete.

The new technologies that can make someone a winner and loser in the world include Internet of things (IoT), data science & big data, cloud computing, artificial intelligence (AI), and block chain. Even one of these technologies' dates back at least two and a half decades, had not demonstrated itself as a routine technology even earlier. On the contrary, nowadays, it is impossible to find any sphere, in which a person or set of more than two of these technologies have not been used. This is due to lots of reasons which include the computer technology advances (high-performance computing, grid and cloud computing), or the amplified transparency (code sharing such as services offered by Github, Gist and GitXiv) and an enormous amount of open-source software. The new generation of technologies can contribute a lot into the lifestyle and living standard of human beings and the business processes of corporations in the whole world and business organizations. That is enhancing the performance of workers in performing their responsibilities. An Artificial Intelligence (AI) is one of these alternatives.

The primary factor contributing to the organization of a sustainable and competitive development is AI. Omar, et al (2017) believed that AI is widely acclaimed due to its time saving and cost saving capabilities, as well as high productivity benefits, Pavaloiu, (2018) however has emphasized that organizations, in the present business age, have no option but to integrate the AI technology into their business operations to enable them to remain sustainable. The business operations can be said to experience escalating trends of AI technology as proven by the study conducted by Sutton, (2016). Artificial Intelligence (AI) or what is also known as the machine intelligence is the kind of intelligence seen in machines opposed to the natural intelligence that is seen in the people. Artificial intelligence is a term that is commonly applied to indicate an experience where machines. Machines that humans related to the human mind are known as learning and problem solving. Artificial intelligence refers to the capacity of a computer or a machine to reproduce around acquiring and using knowledge and skills that are natural. Artificial intelligence is the ability of a computer machine to think like a human being. The power of smaller entities along with financial service providers to compete with the larger institutions has been changed by artificial intelligence and advanced analytics driven decision making. Artificial intelligence (AI) is the driving force of the Industry Revolution (IR) explosion of the digital era. It causes the machine to learn through experience, adapt to new input and do human-like activities. Patterns in the data become more identifiable as large scales of data may be processed due to the existence of these technologies (Miller, 2019). This was also noticed by Frisk and Bannister (2017), who stated that digital technologies enable the skillful usage of data analytics, and for big data to radically improve a company's performance. In this competitive and dynamic market, all business entities need to have its competitive edge in order to stay sustainable.

Within the past 10 years, AI technologies have come a long way, and they influence business organization. According to Smith (2020), most people interpret AI to be machines that react to simulating as is comparable with how humans react, based on the human ability to think, to judge, and to will. The idea behind the creation of AI is to reproduce the human mind and render it more efficient, which begs the question as to whether it was built to support or eliminate the human, specifically by providing business organizations with the capacity to realize their business goals. AI is not about robotics or computer science anymore. As the world advances in its discoveries, AI is slowly penetrating the finance and business institutions, but to a greater extent, human interference is minimal. (Greenman, 2017). But the computing power of today and other types of software generate and exhibit smartness. Greenman (2017) believed that accountants were unnecessary as so much could be accomplished with a single mouse-click. The capability of AI to automate routine accounting processes helps the organizations to become more precise, efficient, and able to reveal an untapped wealth of insights and trends that can affect the businesses of the respective clients (Aguirre and Rodriguez, 2017).

The early roots of modern AI are in need of classical philosophers to model human thought as a symbolic system. However, the formal discipline of AI did not emerge until 1956, at a meeting organized by Dartmouth college, in Hanover, New Hampshire, where the term artificial intelligence" was first coined. Two papers reviewed in this conference stood out among others, which influenced the concept of AI. In 1950, a man named Alan Turing published a paper in which he proposed how to test a thinking machine. In his view, in case a machine was able to hold a conversation through a tele-printer, simulating a human being, without any visible differences, the machine could be said to be thinking. In 1952, the Hodgkin-Huxley model of the brain as a collection of neurons in an electrical network was proposed, in which the neurons were all-or-nothing (on/off) pulse generators. A combination of these events, which have been discussed by the conference, contributed to the beginning of the idea of artificial intelligence (Keith D. Foote, 2022). However, it was not as easy to reach an artificially intelligent being. Following a number of AI critics, government investment and research died away in AI, the so-called 1974-80s, or the AI winter. The area since then arose again in the 1980s, the British government resumed financing it partly in an attempt to compete with the Japanese. Another great winter hit the field in 1987 to 1993 when the market for early general-purpose computers crashed, and government funding was diminished. However, the investigation started gaining momentum once again and in 1997, deep blue, a product of IBM, was the first computer to beat a chess champion, as it took on Russian grandmaster Garry Kasparov (Tanya Lewis, 2014).

Artificial Intelligent (AI) is one of the most significant achievements of our era. The perimeter of the possibilities that AI appears to be holding in the context of accounting, auditing and financial services industry, is large. It is changing rapidly within the last decades in the business organizations in Nigeria. Artificial Intelligent is a broad term underpinned in computer science and deals with the designing of intelligent machines that can perform activities usually only accessible by the brain. The agent that acquires precepts of the environment and behaves (Russel and Norvig, 2010). It means that a computer can learn and use knowledge without intervention of the programmer. In other words, AI is a system that is able to perceive the world around, analyse and understand information coming in, act based on the understanding, learn about what has occurred, and use those lessons to improve its functioning. The technology, AI, will increase the abilities of humans, and machines far past those that each can accomplish alone, by empowering machines to connect more naturally to the world around them, to other people and to data."

Artificial Intelligence (AI) is something that has disrupted the world of accounting by introducing great advantages such as fewer hours spent processing and increased productivity. Various AI-based components can assist the accounting officers in augmenting

their work efficiency. This section explores the implementation, risks, and countermeasures to these AI-enabled applications. The components include:

1. Automated chat-bots utilize natural language processing (NLP) to simulate human-like conversations, providing timely support to clients and stakeholders. Accounting officers can deploy chat-bots to address routine queries, freeing up time for more complex tasks.
2. Deep learning machines employ intricate artificial neural networks to analyze and interpret data. In accounting, these machines can be applied to tasks such as data entry, compliance, and risk management. However, their complexity can pose challenges, including data quality issues and the need for specialized expertise. However, their complexity can pose challenges, including data quality issues and the need for specialized expertise.

That is why the researcher is undertaking this study, building on the premise that the potential for AI to transform accounting officers' operations is vast. The opportunities for the application of AI in the accounting officer's workplace are immense, and we expect the impact to grow significantly over the next few years. According to research by the International Data Corporation, AI solutions globally will continue to attract significant corporate investment. Hence, there is a need for this study to investigate Automation and AI in Accounting: The Comparative Impact of Chat-bots and Deep Learning on Accounting Officers' Work Effectiveness in Anambra State.

Statement of the problem

The accounting profession in Anambra State is confronted with a significant challenge: the limited awareness and adoption of artificial intelligence (AI) technology among accounting officers. This deficiency in necessary skills and competencies has resulted in inefficient and ineffective business operations, ultimately hindering the attainment of organizational objectives. Despite the potential benefits of automation and AI, there is a notable knowledge gap regarding the comparative impact of these technologies on accounting officers' work effectiveness in Anambra State. Specifically, the effects of chat-bots and deep learning on accounting officers' productivity, accuracy, and overall performance remain poorly understood. This study seeks to investigate the relationship between automation and AI in accounting, with a particular focus on the comparative impact of chat-bots and deep learning machine on accounting officers' work effectiveness in business organizations in Anambra State, thereby identifying the benefits and challenges of AI adoption and its impact on accounting practices.

Purpose of the Study

The purpose of this study is to compare the impact of chat-bots and deep learning on accounting officers' work effectiveness in Anambra State, with a view to providing insights and recommendations for accounting professionals, organizations, and policymakers. Specifically, the study sought to:

1. To investigate the differences in the impact of chat-bots and deep learning machine on accountants' productivity and accuracy in Anambra State.
2. To explore the perceptions of accountants in Anambra State regarding the benefits and challenges of adopting chat-bots and deep learning technologies in their work.

Research Questions

The following research questions guided the study:

1. What is the relationship between automated chat-bots and the work effectiveness of accountants in business organizations in Anambra State?
2. What is the relationship between deep learning machines and the work effectiveness of accountants in business organizations in Anambra State?

Hypotheses:

The following null hypotheses were formulated and tested at 0.05 level of significance to guide the study.

1. There is no significant relationship between automated chat-bots and work effectiveness of accountants in Anambra State.
2. Deep learning machines have no significant relationship with work effectiveness of accountants in Anambra State.

METHOD

The study adopted a correlation research design to investigate the comparative impact of chat-bots and deep learning on accountants' work effectiveness in Anambra State. This design is suitable for examining the relationships between variables. The design was considered appropriate for this study because the study was a correlational study that sought to establish a relationship between AI and work effectiveness of accountants in business organizations in Anambra State.

The study was carried out in Anambra State, one of the 36 states in Nigeria, located in the Southeast of Nigeria. The population of the study comprised all the 221 accountants from 59 business organizations in five (5) urban centres in Anambra State, which is Awka, Onistsha, Nnewi, Ekwulobia and Ihiala that utilize Automation and AI for work effectiveness.

The instrument used for the study was a structured questionnaire developed by the researcher from the literature reviewed, which included two sections: Artificial Intelligence Questionnaire (AIQ) and Work Effectiveness Questionnaire (WEQ). The questionnaires had multiple sections: Section A contained the location of the respondents. Section B had items on Artificial Intelligence with a 4-point Likert scale: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. Section C had 20 items on Work Effectiveness with a 4-point scale: Exactly True (ET), Moderately True (MT), Hardly True (HT), and Not True at all (NTA).

The instrument was subjected to face and content validity by two experts from the Vocational Education Department, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The experts made criticisms and suggestions that were incorporated into the final version. The Cronbach Alpha reliability method was used to ascertain the reliability of the instrument.

A total of 221 copies of the questionnaires were administered to the respondents personally by the researcher. The researcher analyzed and computed the data collected using the Statistical Package for Social Sciences (SPSS) version 23. Correlation analysis was used to answer the research questions and test the hypotheses at a 0.05 level of significance. The decision rule for hypothesis testing was based on the p-value; if the p-value was less than 0.05, the null hypothesis was rejected; otherwise, it was not rejected.

RESULTS AND DISCUSSION

Research Questions 1

What is the relationship between automated chat-bots and the work effectiveness of accountants in business organizations in Anambra State?

Table 1. Pearson moment correlation (r) of the relationship between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State?

Variables		Accountants Use of Automated Chat-bots	Work Effectiveness	Remarks
Accountant's Use of Automated Chat-bots	Pearson (r)	1.00	.465xx	Moderate Positive Relationship
	N	221	221	
Work Effectiveness	Pearson (r)	.465xx	1.00	
	N	221	221	

xx r (.465) = moderate positive relationship

Pearson moment correlation (r) displayed in Table 1 revealed moderate positive relationship between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State. The result of Table 1 revealed that Pearson (r) value of .465 was obtained. This implied a moderate positive relationship (r = .465, N = 221) between automated chat-bots and work effectiveness of accountants in business organisations in Anambra State.

Research Question 2

What is the relationship between deep learning machines and the work effectiveness of accountants in business organizations in Anambra State?

Table 2. Pearson moment correlation (r) of the relationship between deep learning machine and work effectiveness of accountants in business organizations in Anambra State.

Variables		Accountants' Use of Deep Learning Machine usability	Work Effectiveness	Remarks
Accountants' Use of Deep Learning Machine usability	Pearson (r)	1.00	.305xx	Low Positive Relationship
	N	221	221	
Work Effectiveness	Pearson (r)	.305xx	1.00	
	N	221	221	

xx r (.305) = Low positive relationship

Finding from Table 2 indicated the Pearson moment correlation (r) between deep learning machine usability and work effectiveness of accountants in business organizations in Anambra State was .305. This value indicated that the relationship between deep learning machine usability and work effectiveness of accountants had a low positive relationship (r = .305, N = 221). This deduced a low positive relationship between deep learning machine usability and work effectiveness of accountants in business organisations in Anambra State.

Testing of Null Hypotheses

Hypotheses 1:

There is no significant relationship between automated chat-bots and work effectiveness of accountants in Anambra State.

Table 3. Test of significance of correlation between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State.

Variables		Accountants' Use of Automated Chat-bots	Work Effectiveness	Decision
Accountants' Use of Automated Chat-bots	Pearson (r)	1.00	.465xx	Moderate Positive
	Sig (2-tailed)		.003	Relationship
	N	222	222	Significant
Work Effectiveness	Pearson (r)	.465xx	1.00	
	Sig (2-tailed)	.003		
	N	221	221	

xx Correlation is significant at 0.05 level (2-tailed)

Table 3 reported that the test of significance of correlation between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State was .465 with relationship probability value of .003 which was less than 0.05 level of significance. Thus, the P-value of .003 was less than 0.05 level of significance, the null hypotheses was rejected. Invariably, this implied that there was a significant relationship between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State.

Hypotheses 2:

Deep learning machines have no significant relationship with work effectiveness of accountants in Anambra State.

Table 4: Test of significance of correlation between deep leaning machine and work effectiveness of accountants in business organizations in Anambra State.

Variables		Accountants' Use of Deep Learning Machine	Work Effectiveness	Decision
Accountants' Use of Deep Learning Machine	Pearson (r)	1.00	.305xx	Low Positive
	Sig (2-tailed)		.001	Relationship
	N	221	221	Significant
Work Effectiveness	Pearson (r)	.305xx	1.00	
	Sig (2-tailed)	.001		
	N	221	221	

xx Correlation is significant at the 0.05 level (2-tailed)

Result from Table 4 deduced that the correlation between deep learning machine and work effectiveness of accountants in business organizations in Anambra State was .305 with relationship probability value of .001 which was less than 0.05 level of significance, the null hypothesis was rejected.

Furthermore, this implied that there was a significant relationship between deep learning machine and work effectiveness of accountants in business organizations in Anambra State.

SUMMARY OF THE FINDINGS

From the analysis and interpretation of results, the following findings emerged:

1. There was a moderate positive relationship (r = .465, N = 221) between automated chat-bots and work effectiveness of accountants in business organizations. Invariably, there was a significant relationship between automated chat-bots and work effectiveness of accountants in business organization in Anambra State.

2. There was a low positive relationship (r = .305, N = 221) between deep learning machine and work effectiveness of accountants in business organizations. Furthermore, the study implied that there was a significant relationship between deep learning machine and work effectiveness of accountants in business organizations in Anambra State.

Discussion of the Findings

Discussion of the findings was carried out under the following sub-headings:

1. Relationship between Automated Chat-bots and Work Effectiveness of Accountants in Business Organizations in Anambra State.
2. Relationship between Deep Learning Machines and Work Effectiveness of Accounting officers in Business Organizations in Anambra State.

Relationship between Automated Chat-bots and Work Effectiveness of Accountants in Business Organizations

The result of the analysis presented in Table 1 reveals a moderate positive relationship between automated chat-bots and work effectiveness of accountants in business organizations. This suggests that the integration of automated chat-bots can significantly enhance the productivity and efficiency of accounting accountants in business organizations in Anambra State.

The accounting officers' responses align with Morgaji's (2021) assertion that business organizations utilize AI-powered chat-bots to personalize customer experiences and streamline e-commerce operations. Additionally, IT and HR teams leverage chat-bots to enable employee self-service, further supporting the notion that automated chat-bots can improve work effectiveness.

The findings were also consistent with Hindle et al.'s (2018) emphasis on the ability of automated chat-bots to minimize errors and inconsistencies, resulting in more accurate financial data and reports. Furthermore, Manyika et al.'s (2017) suggestion that investing in automated chat-bots technology can positively impact accountants' performance in business organizations reinforces the study's results.

The findings from the research question 1 indicate a moderate positive relationship (r= .465, N= 221) between automated chat-bots and work effectiveness of accountants', suggesting that as accountants' use of automated chat-bots increases, their work effectiveness also tends to increase (Tabachnick & Fidell, 2019). This relationship highlights the potential benefits of integrating automated chat-bots into accounting practices, including improved productivity, efficiency, and accuracy.

Moreover, the findings from the hypotheses testing reveal a significant relationship between automated chat-bots and work effectiveness of accountants in business organizations in Anambra State (p-value = .003 < 0.05) (Cohen et al., 2018). The test of significance of correlation showed that the null hypotheses were rejected, implying that the relationship between automated chat-bots and work effectiveness of accountants is statistically significant, and the use of automated chat-bots can lead to improved work outcomes.

Relationship between Deep Learning Machines and Work Effectiveness of Accounting Officers in Business Organizations

The analysis of the result presented in Table 2 provided answer to Research Question 2 which indicated a significant positive correlation between accountants' utilization of deep learning machines and their work effectiveness in business organizations in Anambra State. This implies that incorporating deep learning machines can boost the productivity and efficiency of accounting professionals in business organizations. The study's results align with Goodfellow et al.'s (2016) assertion that deep learning machines can learn from large datasets and improve their performance over time. This capability can enable accountants to analyze vast amounts of financial data, identify trends, and make predictions, ultimately leading to improved work effectiveness.

The findings from the research question 2 indicate a low positive relationship (r= .305, N= 221) between deep learning machine usability and work effectiveness of accountants in business organizations in Anambra State. This suggests that as accountants' use of deep learning machine usability increases, their work effectiveness also tends to increase. The positive correlation between the two variables is consistent with the notion that automation and machine learning can improve productivity and efficiency in accounting tasks (Kumar & Goyal, 2019).

Moreover, the findings from the hypotheses testing reveal a significant relationship between deep learning machine and work effectiveness of accountants in business organizations in Anambra State (p-value = .001 < 0.05). The null hypotheses were rejected, implying that the relationship between deep learning machines and work effectiveness of accountants is statistically significant. This finding is consistent with the idea that deep learning machines can have a significant impact on work effectiveness in accounting practices (Chen et al., 2020).

The findings are consistent with Zhang et al.'s (2020) study, which highlights the potential of deep learning machines to automate complex tasks, such as financial forecasting and risk analysis. The positive relationship between deep learning machines and work effectiveness of accountants' is also supported by Chen et al.'s (2020) study, which found that deep learning machines can help accountants detect financial irregularities and prevent fraud.

CONCLUSION

The integration of artificial intelligence (AI) in business organizations significantly enhances work effectiveness. By harnessing the power of AI, organizations can bolster their financial management capabilities, improve decision-making processes, and mitigate the risk of financial losses resulting from fraud and cyber threats. In today's rapidly evolving business landscape, investing in AI technologies is crucial for organizations seeking to maintain a competitive edge.

As accountants continue to advance and improve their potentials in transforming accounting practices and enhance work effectiveness, embracing AI technologies, business organizations will gain competitive advantages and achieve their financial stability more effectively. Ultimately, the strategic adoption of AI can drive financial business success, management and sustainability in an increasingly complex and dynamic environment.

Implications of the Findings

The findings of the study have significant implications for business organizations in Anambra State and beyond. By adopting AI technologies such as automated chat-bots, deep learning machine, business organizations can benefit from:

1. Improved Financial Management Capabilities: AI technologies can enhance financial management capabilities, including financial data analysis, forecasting, and risk management. This can lead to better financial decision-making and reduced risk of financial losses
2. Competitive Advantage: Business organizations that adopt AI technologies can gain a competitive edge in the market. This can enable them to respond more quickly to changing market conditions and customer needs, ultimately driving business success.

By leveraging these AI technologies, business organizations can improve their financial management capabilities, productivity, and efficiency, while also enhancing their cyber security and fraud detection capabilities. This can lead to improved decision-making, reduced risk, and increased competitiveness in the market.

Recommendations

Based on the findings and conclusions, the following recommendations were drawn:

1 Business organizations should consider adopting automated chat-bots technology to enhance the productivity and efficiency of accounting officers. So as to help streamline accounting processes, improve accuracy, and reduce errors.
2 Business organizations should also invest in deep learning machines to boost the productivity and efficiency of accounting professionals. This can help automate complex tasks, improve financial forecasting and risk analysis, and detect financial irregularities.
3 Business organizations should provide training and development opportunities for accounting officers to enhance their skills and knowledge in using AI technologies.

Suggestions for Further Studies

The following research areas could provide valuable insights into the applications and implications of AI in accounting:

1 Integrated of AI technologies into accounting education and their impact on student learning outcomes.
2 Effectiveness of AI-based auditing tools in detecting financial irregularities and improving audit quality.
3 Adoption and impact of AI technologies in SMEs, including the challenges and benefits of implementation.

Contributions to Knowledge

The study contributes to knowledge in three significant ways:

1 Theoretically, this study contributes to the theoretical understanding of the relationship between AI technologies and work effectiveness in accounting, providing insights into the potential benefits of AI adoption.
2 Practically, the study's findings have practical implications for business organizations and accounting professionals, highlighting the need for AI adoption, training, and development to stay competitive.

Methodologically, the study's methodology provides a framework for investigating the relationship between AI technologies and work effectiveness in accounting, informing future research methodologies in the field.

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