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A PROPOSED FORM FOR THE INTEGRATION OF ARTIFICIAL INTELLIGENCE (AI) TECHNOLOGIES WITH COST ACCOUNTING AND ADMINISTRATIVE ACCOUNTING SYSTEMS TO ENHANCE DECISION -MAKING EFFICIENCY IN THE DIGITAL BUSINESS ENVIRONMENT

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Abstract
The research paper suggests a thorough method of deploying AI to combine cost accounting with the purpose of administrative accounting to make the business decision-making process efficient in the digital realm of business, namely, mid-to-large-sized corporations within the Iraqi economy. Such companies are supposed to have a manufacturing, service and financial aspect. The research questions to be addressed in the study include examining how AI can improve the quality, speed, and strategic value of accounting data that could help make more informed financial and administrative decisions. By identifying viable solutions to the areas of AI integration, the study will discuss the current issues related to the accounting processes and aims at developing a potent model that would enable organizations to apply AI to enhance the efficiency of the accounting processes and make the decision in the contemporary business context. The research surveyed about 90 accounting and finance professionals with experience in using AI-powered technology such as automated invoices, predictions, and AI-based reporting alongside their accounting systems based on a quantitative research design based on the Institutional Theory. The stratified sampling technique gave an array of views which included both the technical choices and the managerial outcomes in the Iraqi digital business climate. According to the results, the suggested type of AI integration influences the efficiency of the decision-making process greatly because it automates routine and repetitive accounting operations, delivers real-time, granular data in terms of costs and profitability, and improves the predictive power of analytics. These improvements enable organizations with the capacity to establish informed, data-driven decision making, predict market dynamics, and proactively address business issues among other things, adding to the strategic value of accounting in the digital transformation of business. The study recommends that companies in Iraq should choose more resources to the development of AI in order to modernize their accounting systems and provide instructional content that is targeted towards those involved in accounting in order

to maximize the benefits of AI. It focuses on the crucial role of AI in improving the efficiency of competition in the business environment and decision making.

Keywords: Cost accounting, administrative accounting systems, AI technologies, , digital business environment, decision -making efficiency.

Introduction

The evolution of digital technology is having a significant effect on business operations, with AI becoming a significant part of the disruption. This fact can be traced to Zheng (2018) who observes that the administrative accounting systems and cost accounting are on the verge of a major change. Computers that have AI can therefore offer strategic thinking and it has never been seen before such improvements to data processing and accuracy. According to Losbichler and Lehner (2021), AI integration with conventional accounting technology has the potential to overcome the drawbacks of conventional approaches, costs modeling, and detect the actual real-time costs and waste resources in the most efficient way. According to Odonkor et al. (2024), the more companies traverse unstable markets and complicated environments, the more the firms will be.. The importance of agile and informed decision-making is paramount to the necessity of AI in the accounting profession. Elmegaard (2024) recognizes that although the potential is evident, the systematic integration of AI into cost and administrative accounting has not been fully explored, particularly in regards to structured frameworks that align technological abilities with decision efficiency. Today's approaches often lack a comprehensive design, which leads to fragmented implementations that do not use the power of AI.

To improve the efficiency and precision of financial transactions used in the operation of factories, the artificial intelligence is increasingly being employed to combine accounting processes with other methods. Ahmad et al. (2021) state that the world economy has recently achieved its maximum, and to maintain competitive advantages and additional benefits. For businesses to have economic growth, they must follow the most recent artificial intelligence-based technology. This is also true of accounting systems, which are driven by the market's demands to execute the most recent technology as well as the most recent methods of technology. Aziz and Andriansyah (2023) state that artificial intelligence can be employed to automatically gather and combine information from multiple sources, including the customer relationship management, enterprise planning that is necessary for the operation, and other practical systems. Peng et al. (2023) advocate that AI can map and aggregate the data from several sources in a normalizing manner using machine learning methods. This guarantees the smoothness of the system's interoperability and integration. Optical character recognition and other features by the Internet of Things and artificial intelligence.

Through the use of artificial intelligence, data can be used to automate entrance exams and lower the cost of admission, all of which are considered a necessity in any college's human data input. This reduces the complexity of the combination of accounting information with other systems. Bose et al. (2023) acknowledged that the AI's capacity to repeatedly process and analyze financial information enables immediate reporting and analysis possible.

Organizations can demand immediate access to financial patterns, inconsistencies, and performance indicators via the combination of accounting systems with artificial intelligence, analytics tools. This facilitates more informed decision-making and strategy development. Saleh et al. (2021) discuss the various approaches. They conclude that by studying and recognizing the patterns and trends of past monetary data, artificial intelligence (AI) can enhance forecasting skills. Organizations can prepare for the upcoming financial report with more precision by combining accounting with computer-aided, powered by intelligence. Predictive Analytics is a powerful tool for decision-making. This assists them in their preparation and planning with a more extensive degree of resolution. Informed financial decisions. Larsson and Heintz (2020) state that AI can automate the typical execution of accounting procedures and processes, including the reconciliation of accounts and the payment of financial transactions. Organizations should reduce mistakes, have a higher degree of strategic importance, improve the effectiveness of their operations, and release important personnel from their freelance position. The procedure of automation is used to combine computer-aided automation with accounting software.

The study aims to fill the gap by proposing a comprehensive method of integrating AI into cost and administrative accounting systems that is specific to these types of systems. By taking a linear approach to technology adoption, the purpose of the study is to enhance the efficiency of digital decision making in the business environment. This can promote more durable and evolving methods of accounting in the context of Industry.

Research Problem

The complexity of integrating AI with the cost management or administrative management to increase the effectiveness of decision-making within the digital environment is the statement of the research of this study. The conventional accounting methods are mainly manual based time-consuming processes that hinder proper and prompt decision making. AI enhances these methods offering improved data analysis, automation and preemptive functionality which can transform the process by which these methods are implemented. Nevertheless, a lack of an extensive, fully practical protocol that would guide the integration of AI into these accounting specializations in order to experience all the gains would be a disadvantage. The present research is expected to fill the gap by suggesting a formal approach to the implementation of AI in accounting that would enhance the effectiveness, precision, and strategic usefulness of accounting data to enhance decision-making in digital businesses.

Research Objectives and Question.

This paper aims at suggesting a way of integrating AI with cost administrative management and management to enhance efficiency in decision making in the digital business workplace. It attempts to explore whether AI can be used to enhance the speed, accuracy, and strategic value of accounting information to enhance administrative and financial decision-making. Moreover, the paper tries to explore viable ways of applying AI to accounting that are associated with current issues in accounting matters. Consequently, it attempts to offer a platform where it can leverage AI to enhance the effectiveness of accounting operations and make decisions in the contemporary business. The research question is the following: What

is the most effective way to introduce AI into cost administrative accounting and accounting to improve the efficiency of making decisions at the digital workplace?

Research Significance

The importance of this study lies in its ability to increase the connection of AI to administrative-critical accounting systems and cost-effective which could address the impact of digital decision-making in business relations. The study also responds to the growing need of automation, real-time data processing, and greater depth of the accounting processes by suggesting a formal way of incorporating AI into accounting, which is essential to make the decision about the business scenario in a timely and strategic way. The study can contribute greatly to solving the problems such as interoperability of systems, data integration, and the complexity of AI implementation, which are all intended to offer viable advice to individuals in the field of accounting and to companies that would like to exploit the capabilities of AI. Consequently, this study supports the transformation of accounting activities into more strategic roles that have the potential to result in productivity, creativity, and a big competitive edge in new digital firms.

Literature Review

Theoretical Framework

The theoretical context of the present study is related to administrative accounting and a suggested approach to the combination of artificial intelligence and cost accounting as the way to enhance the efficiency of decision-making on the technological business topics. The theoretical framework of the proposed study on integrating AI with administrative accounting and cost accounting to enhance efficiency in decision-making is motivated by the transformative character of AI on the conventional accounting practices. El-Mousawi (2023) argues that AI-based applications have played a major role in accounting by making fewer errors, making the data more accurate, and giving instantaneous data on finances, which is crucial in making a decision within digital environments that prove to be effective. This shift of manual and labor-intensive accounting to digital processes that are backed by AI makes it easier to forecast and make future predictions. According to Artene et al. (2024), the connection between AI and the current accounting systems through the advancement of technologies, such as natural language processing, machine learning, and optical character recognition, is one of the aspects of this topic. As Yathiraju (2022) puts it, the detection of any malicious activity that is identified by noting irregularities or suspicious activity in financial transactions can be simplified by artificial intelligence. According to Gupta et al. (2021), by integrating the artificial intelligence-based systems of fraud detection with the accounting systems, an entity is able to improve its risk mitigation plans and guarantee the correctness and security of their monetary and fiscal information. These technologies enable the uninterrupted combination of divergent data sources and enhance interoperability and enable continuous processing of financial data. This integration promotes the real-time reporting and detection of anomalies; these are crucial to making informed decisions.

Traditionally, literature has suggested that multiple types of accounting functions are supplanted by AI and other technologies; however, recent years have seen a growing

acceptance that accounting can use AI to augment the value of organizations. Mihret (2017) mentions that the commentators have emphasized the necessity of increased research pertaining to accounting and artificial intelligence, and that accounting scholars should consider the need for multiple disciplines in this area. Stafie and Grosu (2022) state that the development of technology is altering the way people live their lives. They live in a period of significant change that expects that in the future, every aspect of human life can affect by artificial intelligence. The phenomenon of robots is large in scope, and has a popular nature in all fields of activity, as the global economy becomes more internationalized, the Internet is growing at a rapid rate, and information flow is increasingly flexible, which results in a rapid digitalization of the entire society. Accounting professionals must convert innovative technologies like artificial intelligence and automation into benefits (not risks). New technologies can simplify life. Vărzaru (2022) states that blockchain is a new form of information technology that is used in the Internet age. This technology is characterized by decentralization, immutability, and transparency. The use of the blockchain in accounting is an issue of serious consideration. The reason is that it is the universal way of tracking finances, and it is predictable that the introduction of this practice affects the work of accountants rather importantly.

The paper also uses the Technology-Organization-Environment (TOE) model to comprehend the reasons behind the use of AI in accounting. The TOE argues that on top of the level of technological maturity, organization fit and environmental aspects such as regulatory compliance and safety issues, the success of AI application in the auditing field and accounting significantly relies on the above. Haddad (2021) claims the incompatibility of the new system with the existing infrastructure and the possibilities of cloud computing resources can address the problems of integration, whereas security is a key element that is addressed at maintaining the confidentiality of the financial data, which is paramount. Hamza et al. (2024) acknowledge the fact that the process of prioritizing the need to implement AI resembles some core principles of professional accounting such as integrity, trust, transparency, and accountability. The strategic value of AI is to improve the impact of the decision-making process by automating repetitive tasks and providing opportunity of making both complex predictions and risk management. The ability of AI to process massive amounts of data and identify trends enhances the correct forecasting of finances and fraud detection, both of which may elevate the financial planning and operational planning effectiveness.

Empirical Studies

The content of this study is supported by the following empirical studies. Artene et al. (2024) published research concerning the publication of business value through AI-based decision-making in the financial reporting system. The article under research investigates the relationships between AI, DT, and financial reporting systems within the business setting. The main message dwells upon the idea that organizations ought to increase the quality of their decision-making processes that rely on the use of AI along with digital transformation efforts, especially in the financial domain.

What is needed is to understand how the aggregation of these compound systems can result in the benefits of big business, initiate strategic innovation, and add value to the financial

analysis by using the intelligent and data-dependent methods. Companies are able to navigate the rough terrain of a complex, dynamic business landscape by means of automation, progressive analytics, and adaptive decision support, which neural networks can play an important role in accounting environment, they are able to process complex financial data effectively, identify patterns, and predict. This is a period of new transformative opportunities. The fact that a game theory payoff matrix is used in this component to the benefit of AI makes the tool more strategic in nature. It examines relations among the decision makers and considers the results of dynamic competitive situations and strategy effects.

The article by Hamza et al. (2024) examines the effects of AI on the accounting system of Saudi Arabian companies. Being one of the most influential countries in the world, Saudi Arabia has experienced the growth of using AI technology in the business world considerably. In this research, it is possible in particular to investigate the particular impact of AI on the specifics of Saudi accounting. It delves into the impacts of AI on the accounting profession in details by conducting a thorough examination of the existing body of information. It explores how automation, data analysis, and decision-making influence the traditional accounting approaches in the Arabian realm. The experiences and views of the individuals who are directly involved in the implementation of AI in the Saudi Arabia accounting systems are captured in the study through a questionnaire that will be administered to key stakeholders, such as technology analysts, accountants, and business executives. Another aspect this research explains is how the introduction of AI technology in the accounting processes can influence the required skills, the workforce dynamics, and the entire organization. Among the biggest outcomes of research is the possibility of AI to detect large volumes of information within a short period of time and with certain precision. This helps increase risk assessment, financial analysis, and predictions. This facilitates more intelligent and strategic business decisions. AI decreased the necessity of human labor in accounting and simplified the process of accounting. Both of which were considered beneficial to the Saudi economy. As a result, resources were allocated in an optimized manner, and the financial performance was improved.

Odonkor et al. (2024) investigated the impact of AI on accounting methods. Their research explores the way that artificial intelligence changes the financial reporting and traditional methods of accounting. This study discusses the impact of AI on traditional accounting methods. It focuses on the specific role of AI in the creation of financial reports, auditing, and decision-making. The study examines manual methods of accounting in the transition from labor-intensive, AI-based methods that are being replaced by quick technological advancements. The purpose is to evaluate the way that AI is changing the accounting profession while discussing the drawbacks and benefits of it. The study thoroughly examines articles that are evaluated by cases, other students, and industry documents from the previous years using a systematic literature review and bibliometric approach.

The approach can be used to get a complete picture of the impacts of AI on accounting, the advantages of implementing AI in the accounting practice, and the consequences of AI on companies and practitioners. The analysis results show that AI can greatly influence the quality and efficiency of the financial reporting, automatize the daily processes, and predict

the analysis to make the strategic decisions in advance. Nevertheless, such constraints as the need to have experienced staff in AI, data security, and the excessive cost of AI deployment have considerable weight. The research paper has outlined the complexity that goes with behavior change as a major challenge to the adoption of AI in accounting. Consequently, the article proposes a moderate strategy towards the adoption of AI within the accounting industry, which considers the need to adapt, learn continuously and plan. It promotes the growth and the education of AI to understand the importance of legal regulations and ethical issues. The results of the study prove the fact that although AI is a threat, its ability to transform accounting cannot be doubted. It provides new methods of generating revenue and developing in the digital workplace.

El-Mousawi (2023) investigated the influence of AI on the auditing and accounting profession. Today, AI technology is evolving quickly and has an important effectt on every field of the world. From simple changes to the way humans are changed to a computerized version of life, it is now clear. AI is the capacity of a computer or other computerized system to process information and generate results that are similar to human learning, solving problems, and decision making. Accounting and auditing professionals have participated in the automation trend, which would improve the effectiveness of their profession. This essay attempts to deduce the influence of artificial intelligence on the accounting and auditing profession as perceived by the Lebanese Certified Public Accountants (LCPAs) and the difficulties associated with the profession as a whole. The researchers employed the quantitative method, which involves conducting a questionnaire as a means of exploring the subject, and it was distributed to 350 LCPAs, of which 337 were completed and were therefore appropriate for testing. The study produced some significant findings, the majority of which were derived from the use of AI in financial data reliability assessment. Using AI technology helps to find solutions to the difficult auditing and accounting process. However, some issues have to be addressed in order to implement AI.

Mirzaei's team (2022) investigated the potential for artificial intelligence to enhance the quality of various criteria associated with auditing Iran. Taking into account the large volume of data and the increasing popularity of artificial intelligence in all fields, traditional auditing methods are considered insufficient; as a result, using artificial intelligence in the field of auditing has gained special significance. The study was conducted to observe the influence of artificial intelligence on the quality of audit services in Iran. The causes of the lack of interest of Iranian auditors in utilizing artificial intelligence have been documented. Data has been gathered through questionnaires distributed to 150 auditors and managers who were considered for inclusion on the basis of acceptance. Four hypotheses about research have been evaluated through statistical procedures. The research results demonstrated that the combination of artificial intelligence and financial data analysis regarding items in financial statements, the detection of fraud, and a reduction of auditing costs had a positive effect on the enhancement of the quality of auditing work. Thus, it is recommended that the following points should be considered when developing artificial intelligence in the field of auditing. The research can be beneficial to researchers and companies that want to implement artificial intelligence.

Chapter 2's conclusion of theoretical studies and previous projects highlights the transformative nature of combining AI with cost accounting and administrative accounting in order to enhance the efficiency of digital business decision-making. Automation based on AI and advanced data analytics has a significant effect on accuracy, it diminishes the need for manual labor, and enables real-time financial reporting, which supports more informed and pertinent managerial decisions. The literature also implies that AI has the ability to integrate accounting systems with other enterprise software, including ERP stands for enterprise resource planning (ERP) and customer relationship management (CRM), which may help to achieve a consistent and efficient data aggregation and use. Nonetheless, the effective implementation of AI will presuppose the need to overcome the problem of data security, regulatory standards, the compatibility of systems, and the growing professionalism of an accountant to enjoy the strategic value of AI in full.

Research Methodology

The research mythology includes research design, questionnaire, data collection method, and data analysis.

Research Design

This study intends to create a proposed methodology for combining AI with cost accounting and administrative accounting in order to enhance the efficiency of decision-making in the digital business environment. This study used the quantitative approach. Bhandari (2023) describes quantitative research as the collection and analysis of numerical data. It's possible to use it to locate patterns and averages, which would allow predictions to be made, tests to be conducted for causal relationships, and the generalizability of results to a larger population. It's the direct opposite of qualitative research, which is dedicated to the collection and analysis of numerical information in addition to the collection of additional, non-mathematical information. This is typically employed in the natural and social sciences.

The independent variables are two. The first one is the integration of artificial intelligence technologies. The degree to which AI tools, such as machine learning, predictions, and natural language processing, are incorporated into cost accounting and administrative accounting systems. The second independent variable is the specifics of cost and administrative accounting systems. The unique attributes or abilities of the accounting systems that are augmented by AI. The dependent variable is the efficiency in making decisions. The effectiveness and efficiency of digital business processes regarding decision making, measured by the improvement of accuracy, speed, cost savings, or the quality of decisions. This demonstrates the priority of the research on how to incorporate AI into accounting systems in order to enhance the effectiveness of administrative and managerial decisions (**See it at the end of this research**).

Data Collection Methods and Analysis

After designing and validating the questionnaire with a group of professors who have a similar academic passion, the participants employed WhatsApp and email to distribute it to their social media followers. After receiving the responses from the participants, the

responses were analyzed using the SPSS program. Various statistical analyses that were necessary to produce the results, such as the Frequency Descriptive Test and the One-Sample T-Test, were then conducted. After obtaining the results, additional analysis was conducted to arrive at a conclusion. Future planned studies were also suggested. As Tong (2006) explains, the Stratified Sampling Method is a probability-based method for selecting. It's used in scientific experiments that have a quantitative component. The first step is the categorization of the population into separate classes or groups. Common traits that are designated should be possessed by every member of each layer. A random sample is then selected from each of these categories by the researchers. This suggests the presence of specific individuals in the sample.

Population and Sample

The population of this study included all professionals in accounting and finance, including cost accountants, administrative accountants, and financial managers. They were questioned relating the 9 items of the questionnaire. The study targeted companies in the middle to large size category of Iraqi industry that operated in fields like manufacturing, services, and finance, that had implemented or were in the process of taking digital account of their transactions. A sample of around 90 accountants and financial professionals, including cost accountants, administrative accountants, and financial managers, was interviewed. Participants had experience utilizing or combining artificial intelligence with tools for automation (such as the processing of invoices, the management of expenses, predictions, or the processing of reports) within their accounting systems. This sample attempted to gather diverse opinions on how AI affects the efficiency of decision-making in the digital context of Iraq, while taking into account both technical decisions and managerial results.

Research Tool

To conduct this research, the researcher developed a questionnaire that followed the research question of the study. This questionnaire is considered legitimate because it was judged by a jury of experienced experts that shared the same primary goal (see Appendix A). Some of the items were removed, augmented, or revised by the judging panel. The 9 items are intended to propose a methodology for combining AI with cost management and administrative management in order to improve the efficiency of decision making in the digital business environment. The questionnaire was completed by the participants (90 accountants who work for companies, 30 accountants who work for the state, and 30 financial managers). Their responses were then evaluated statistically. On a 3-part scale, their responses are categorized as either 'agree', 'neutral', or 'disagree'. A Likert scale is defined by a measurement of attitudes, beliefs, or behavior, according to Batterton and Hale (2017). Typically, a statement is released that requests individuals to demonstrate their agreement or disagreement regarding any one of three or five potential options.

Research Results

The research question of the study is: How can AI technologies be effectively combined with cost accounting and administrative accounting to enhance the efficiency of decision-making

in the digital business environment? There were two statistical analysis tests that were conducted to answer the research question. The 'Frequency Descriptive Test' is the first statistical test, and the 'One Sample T-Test is the second one. The first test investigates the responses of cost accountants, administrative accountants, and financial to the 9 items of the questionnaire **(See it at the end of this research).**

Table 1 shows that the average percentage of the 9 items is nearly 79.6 %. Besides, the average Mean of these items (**See Appendix 1**) is 2.8371 with an average Standard Deviation (SD) of 0.37529. The average variance of these 9 items is nearly 0.138. The Mean and the percentage of these 9 items are nearly high. According to the participants' responses, AI can positively automate mundane and repetitive tasks that are associated with accounting. AI-led platforms for cost accounting provide immediate, specific information about costs and profitability. The integration of AI in the management and administration of accounting positively increased the capacity for predictions. AI-powered systems significantly enhanced the accuracy of financial data processing and reporting by reducing human error while recognizing anomalies. Automated reporting and data processing in real time, facilitated by AI, reduced the cycle of financial reporting. AI can facilitate the optimization of resource allocation and cost control by analyzing the behavior of costs. AI-based decision support systems diminish the bias of humans by utilizing objective, data-based analysis. AI technologies facilitate the combination and analysis of large, complex datasets from multiple sources, and AI supports the regulatory goal of efficiency and contributes to effective and efficient decision-making in the digital environment.

Table 2 shows the second statistical test (One Sample T-Test). It gives the final result of the main research question regarding a proposed form for the integration of artificial intelligence technologies with cost accounting and administrative accounting systems to enhance decision -making efficiency in the digital business environment. According to the sample responses, which are stated in Table 2, the average Standard Mean (SM) of their responses is 2.8371. Besides, the average percentage of the families' responses is 79.6 %. The 2-tailed significance (Alpha) is 0.000.

It means that Alpha is lower than 0.05. This implies that the suggested approach in adopting the use of artificial intelligence with cost accounting and administrative accounting raised the effectiveness of online decision-making in the business environment.

Discussion

The results of the study proved that cost management in addition to administrative management combined with AI enhances the impact of a digital decision making in business affairs. This finding is consistent with the study of Khaled AlKoheji and Al-Sartawi (2022) which shows the usefulness of AI in automating simple accounting functions, including invoices processing, data entry, and expense management. This will allow accountants to spend more of their time in more critical and strategic endeavors. This automation will enable organizations to minimize the frequency of human errors and instead focus their time in challenging decisions and making judgments on the part of the profession. This leads to a rise in effectiveness and influence in financial management.

These were the results that Losbichler and Lehner (2021) gave, suggesting that AI-generated platform has instant, granular data on costs and profitability, which is significant to the agile approach to decision making based on data in digitally evolving markets. The capability of AI tools to avail situation planning, immediate analysis, and competing within an industry allows firms to decrease wasted effort, optimize the use of resources, and possess control over wastage. Research has also made it clear that websites such as Lucid Financials have been able to process financial information 10 times faster than the conventional methods. This ensures that there is constant circulation of relevant information and tips and tricks that may assist organizations to identify trends and act or avoid risks.

Adding AI to the management and administrative accounting systems enhances the prediction capacity. Companies are now able to foretell future modifications in the market, envisage changes in the market and take precautionary measure against issues in business. According to Odonkor et al. (2024), the findings of artificial intelligence and the preemptive models reduce the error rate of humans and enhance more objective and forward-thinking decisions, both in the strategic plan and operational tasks. This transformation captured by prominent scholars and players puts AI as a source of efficiency as well as a strategic asset that changes the manner in which accounting is used to support sustainable business development and competitiveness in the digital arena.

The theoretical basis of institutional Theory, especially the management accounting system being used by Scapens (2012), is a substantial one, in the form of the association between cost management and AI in the digital business setting of Iraq. According to this theory, institutional forces can influence the manner in which the organizations adopt technological innovations and increase their effectiveness in decision making through the application of AI. AI promotes the enhancement of decision making, it also complies with the current expense and accounting processes, and addresses the possible resistance of these processes. The Institutional Theory proposes that organizations must use practices such as AI in their activities alongside being effective and legitimate. Content in the context of Iraq, automation of accounting by the use of AI would make the country look modern, which will be attractive to investors and other stakeholders. This would be felt more than mere useful gains. It examines how the conventional approaches to historical accounting encourage or deter innovations.

Conclusion

This research thus managed to incorporate the combination of AI with management in the digital aspect of business administration and cost management. This proved that the proposed methodology affects the effectiveness of decision-making in the digital business environment of Iraq to a great extent. The research indicated that AI is capable of improving the fidelity, speed and strategic value of financial information. The information helps in making better financial and managerial decisions. Being able to identify the practical methods of AI implementation, the study offers a potent framework to tackle the current issues in accounting and promote the use of AI in organizations to make the process more efficient, data-driven, and knowledge-informed. These results indicate the revolutionizing effect of AI on the

modernization of accounting operations and enhancing business competitiveness in the digital era.

Recommendations

It is advisable that firms in Iraq invest in and engage in artificial intelligence so as to upgrade their systems of accounting costs and expenses. They need to educate accounting specialists on how AI can be successfully used and assume the most significant impact on decision-making. Companies and policymakers are to work together to develop regulations and laws that are supportive of successful integration of AI into accounting tasks.

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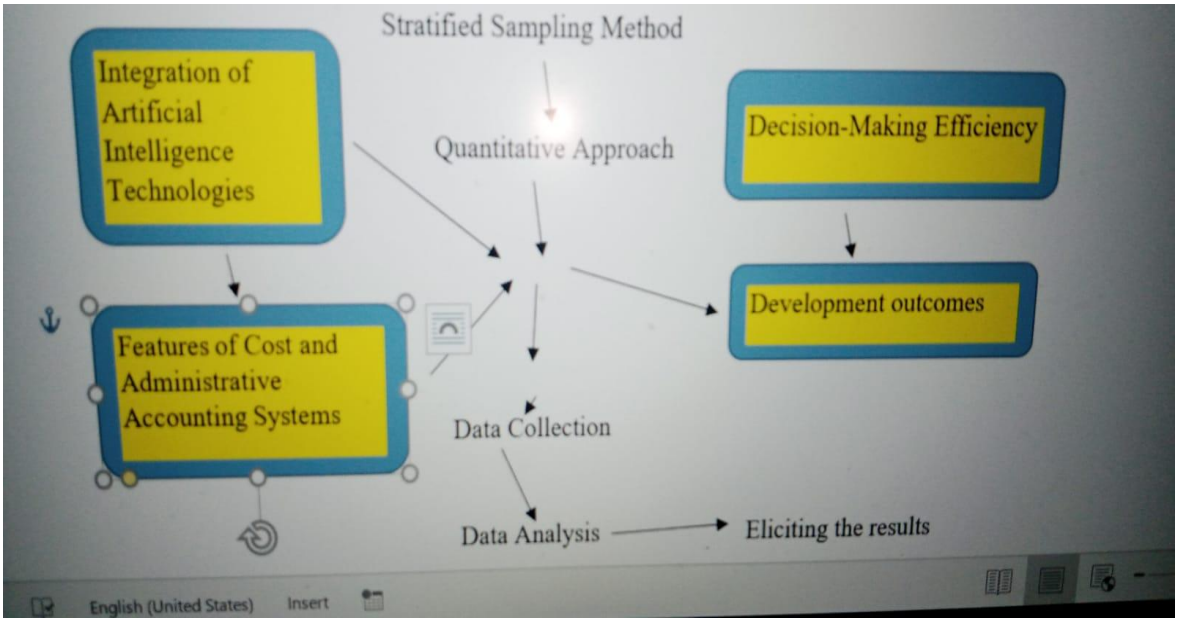

Figure 1: Research Design

Appendix A

Dear administrative accountants, cost accountants, and financial managers

This research aims to propose a method of combining AI with financial accounting and administrative accounting in order to improve the efficiency of decision-making in the digital business environment in Iraq.

Please read the following items and discuss your thoughts by selecting the appropriate option. Your responses are greatly appreciated for taking this initiative.

No.	Item	Agree	Neutral	Disagree
1.	AI can automate routine tasks associated with accounting, such as processing of invoices, data entry, and managing expenses. This facilitates the accounting profession's concentration on more significant requirements, which in turn increases the impact of decision making.			
2.	AI-powered platforms for cost accounting provide specific and immediate information about profitability and costs. This information enables businesses to make intelligent, data-driven decisions in complex markets that have a changing composition.			
3.	The combination of accounting management and AI increases the capacity for predictions. Organizations can predict upcoming changes in the market and address business issues. and anticipate shifts in the market.			
4.	AI-powered systems can increase the accuracy of financial data processing and reporting by reducing human error while recognizing			

	irregularities. This can increase the reliability of the information used for decision making.			
5.	Automated reporting and data processing in real time, facilitated by AI, reduced the cycle of financial reporting, which led to timely and actionable information that supported more effective and informed management decisions.			
6.	AI can facilitate the optimization of resource allocation and cost control by analyzing the behavior of costs, recognizing inefficiencies, and providing recommendations for cost optimization and waste reduction.			
7.	AI-based decision support systems diminish the bias of humans by utilizing objective, data-based analysis, which results in more rational and consistent administrative and financial decisions.			
8.	AI technologies facilitate the combination and analysis of large, complex datasets from multiple sources, which discovers patterns and associations that have the potential to inform strategic planning and practical improvements.			
.9	By automating processes associated with compliance and enhancing the audit trail, AI supports the regulatory goal of efficiency and contributes to effective and efficient decision-making in the digital environment.			

Table 1: Responses to the 9 items that relate to the cost accountants, administrative accountants, and financial managers

No. of items	**No. of participants**	**Frequency (00.0 %)**	**The Mean**	**Standard Deviation (SD)**	**Variance**
1.	90	68.9 %	2.6889	0.46554	.217
2.	90	85.6 %	2.8556	0.35351	.125
3.	90	71.1 %	2.7111	0.45579	.208
4.	90	75.6 %	2.7556	0.43216	.187
5.	90	83.3 %	2.8333	0.37477	.140
6.	90	82.2 %	2.8333	0.37477	.140
7.	90	81.6 %	2.8222	0.38447	.148
8.	90	84.6 %	2.8444	0.36446	.133
9.	90	83.7 %	2.8556	0.36446	.125

Table 2: One Sample T-Test that shows the final result of the study

	No. of partici-pants	**Average T-Test**	**Average Mean**	**Average Std. Devia-Tion**	**Sig. (2-tailed) for both groups**	**Average percentage**
Items: 1-9	90	73.139	2.8371	0.37529	0.000	79.6 %
Total	90					