The mediation role of Information Technology between Artificial Intelligence and Modern Accounting: Opportunities and Challenges

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The aim of this research is to examine and assess the mediator role of information technology (IT) in the amalgamation of artificial intelligence (AI) and contemporary accounting methodologies. The present study employed a quantitative research design to investigate the mediating role of information technology in the relationship between artificial intelligence (AI) and contemporary accounting practices. The study aims to include a sample size of 138 participants from different private businesses in Erbil. The findings revealed that the reliability of information technology mediates the relationship between artificial intelligence and modern accounting, accordingly, the first research hypothesis was supported. Moreover, it was found that the consistency of information technology mediates the relationship between artificial intelligence and modern accounting, accordingly, the second research hypothesis was supported. Lastly, it was found that the relevance of information technology mediates the relationship between artificial intelligence and modern accounting,

accordingly, the third research hypothesis was supported. In order to effectively leverage the capabilities of artificial intelligence (AI) in contemporary accounting practices, it is imperative to establish a strong collaborative relationship between the information technology (IT) and accounting departments.

1. Introduction

The rapid progress of technology has inaugurated a period characterized by unparalleled opportunities and complexities across diverse domains, including the realm of accounting. The significance of integrating information technology (IT) and artificial intelligence (AI) has increased as modern accounting practices continue to evolve. The field of information technology assumes a pivotal role in mediating between artificial intelligence (AI) and contemporary accounting practices, thereby presenting a multitude of prospects and complexities for businesses and professionals operating in this domain. In recent times, the field of artificial intelligence has witnessed significant advancements, leading to its widespread adoption across various sectors. This revolutionary technology has also affected the field of accounting. Artificial intelligence (AI) technologies, including machine learning algorithms, natural language processing, and robotic process automation, possess the capacity to significantly transform accounting processes, decision-making procedures, and financial reporting practices. These technological advancements have the potential to enhance the precision, effectiveness, and predictive capacities of accounting systems (Damerji & Salimi, 2021).

The crucial intermediary role that information technology performs is necessary for the successful integration of artificial intelligence (AI) within the accounting field. The field of information technology plays a crucial role in facilitating the integration of intricate algorithms and computations utilized in artificial intelligence with

established accounting systems and practices. The scope of this concept encompasses the requisite hardware, software, networks, and databases that are essential for the acquisition, retention, manipulation, and distribution of accounting data. The convergence of information technology and artificial intelligence in contemporary accounting offers a multitude of prospects. To begin with, the implementation of automation in tasks that are repetitive and require significant time can result in the liberation of accountants' time. This, in turn, allows them to allocate their efforts towards more valuable endeavors, including financial analysis, strategic decision-making, and providing advisory services to clients. Artificial intelligence (AI)-enabled tools have the capability to support various tasks such as data entry, transaction coding, fraud detection, and financial forecasting, thereby improving operational efficiency and minimizing inaccuracies (Al-Matari et al., 2022). Additionally, the application of artificial intelligence (AI) technologies has the potential to enhance the precision and timeliness of financial reporting. The utilization of advanced analytics and artificial intelligence (AI) algorithms enables the examination of extensive financial data sets, facilitating the identification of intricate patterns, anomalies, and trends that may elude human accountants. This capability allows organizations to acquire a more profound understanding of their financial performance, risk exposure, and operational efficiency, thereby facilitating well-informed decision-making.

However, the integration of information technology into the relationship between artificial intelligence (AI) and contemporary accounting presents certain challenges in addition to the potential benefits. One of the foremost challenges lies in the imperative for the implementation of resilient data management and cybersecurity protocols. Given the heavy reliance of AI systems on extensive datasets, organizations are obligated to guarantee the accuracy, integrity, and security of data in order to prevent any potential compromise of sensitive financial information. Additionally, the incorporation of artificial intelligence (AI) may necessitate substantial financial commitments towards the development of infrastructure, software, and training. Organizations are required to navigate the intricacies associated with the selection of suitable AI tools, the integration of these tools with

pre-existing accounting systems, and the enhancement of their workforce's skills in order to effectively harness the potential of these technologies (Spring et al., 2022). In summary, the interplay of information technology as a mediator between artificial intelligence and contemporary accounting gives rise to a multitude of prospects and complexities. The amalgamation of artificial intelligence (AI) technologies with information technology (IT) holds the promise of revolutionizing accounting practices by providing enhanced efficiency, precision, and decision-making capabilities. Nevertheless, it is imperative for organizations to effectively tackle various obstacles, including but not limited to data management, cyber security, and the imperative requirement for investments and training. By embracing these opportunities and effectively managing the challenges, businesses and professionals operating in the accounting field can strategically position themselves at the forefront of the ongoing technological revolution. This positioning enables them to drive innovation and generate value within the contemporary accounting landscape.

1.1 The Aim of the Study

The aim of this research is to examine and assess the mediator role of information technology (IT) in the amalgamation of artificial intelligence (AI) and contemporary accounting methodologies. The objective of this study is to examine the role of information technology as an essential intermediary between artificial intelligence technologies and the field of accounting. This examination seeks to understand how information technology facilitates the successful integration and utilization of artificial intelligence in accounting processes. This study aims to investigate the mediation role in order to identify the potential advantages and obstacles associated with utilizing information technology to facilitate the incorporation of artificial intelligence into contemporary accounting practices. The objective of this study is to offer significant insights for businesses, accounting professionals, and researchers by elucidating the potential advantages, constraints, and optimal approaches to leveraging information technology to bridge the divide between artificial intelligence and contemporary accounting.

1.2 Conceptual Framework

Figure 2: Conceptual Framework

1.3 Research Hypotheses:

H1: The reliability of information technology mediates There is a statistically significant relationship ($\alpha \leq 0.05$) between artificial intelligence and modern accounting.

H2: The reliability of information technology mediates has a statistically significant impact ($\alpha \leq 0.05$) on artificial intelligence and modern accounting.

H3: The consistency of information technology mediates There is a statistically significant relationship ($\alpha \leq 0.05$) between artificial intelligence and modern accounting.
H4: The consistency of information technology mediates has a statistically significant impact ($\alpha \leq 0.05$) on artificial intelligence and modern accounting.

H5: The relevance of information technology mediates There is a statistically significant relationship ($\alpha \leq 0.05$) between artificial intelligence and modern accounting.

H6: The relevance of information technology mediates has a statistically significant impact ($\alpha \leq 0.05$) on artificial intelligence and modern accounting.

2. Literature Review

The convergence of information technology (IT) and artificial intelligence (AI) holds the promise of exerting a substantial influence on contemporary accounting methodologies. The objective of this literature review is to analyze the current body of research and academic literature pertaining to the intermediary function of information technology in the relationship between artificial intelligence and contemporary accounting. This review aims to gain a comprehensive understanding of the opportunities and challenges that arise from integration by examining relevant studies (Qasaimeh & Jaradeh, 2022).

2.1 The Role of Information Technology in Mediating AI and Modern Accounting

The role of information technology is crucial in facilitating the integration of artificial intelligence (AI) and modern accounting practices. The function of this entity is to act as an intermediary, facilitating the provision of essential infrastructure, software, and networks for the purpose of gathering, storing, analyzing, and distributing accounting information. According to Vărzaru (2022), the utilization of information technology facilitates the incorporation of artificial intelligence algorithms into accounting systems, thereby enabling the automation and streamlining of various tasks including data entry, fraud detection, and financial forecasting.

Reliability of Information Technology

The reliability of information technology plays a critical role in ensuring the effective integration of artificial intelligence in contemporary accounting practices (Ifada & Komara, 2023). The significance of IT infrastructure and systems in maintaining the precision and coherence of AI-generated outputs in accounting processes is underscored in a study conducted by Lehner et al. (2022). The utilization of this technology facilitates the efficient operation of artificial intelligence algorithms,

resulting in error reduction and improved dependability in the domain of financial reporting.

Consistency of Information Technology

The consistency of information technology plays a crucial role in facilitating the interaction between artificial intelligence (AI) and contemporary accounting practices (Wang et al., 2023). The study conducted by Lin et al. (2023) emphasizes the importance of having consistent and compatible information technology (IT) systems in order to effectively integrate artificial intelligence (AI) technologies into established accounting frameworks (Wu et al., 2023). The reliable and synchronized functioning of AI systems is contingent upon the consistency of data integrity, system compatibility, and interoperability. These factors play a crucial role in ensuring the generation of consistent accounting outputs.

Relevance of Information Technology

The significance of information technology is of utmost importance when it comes to harnessing the capabilities of artificial intelligence for contemporary accounting purposes. The authors of the study by Saleh et al. (2021) emphasize the importance of making sure that AI technologies are in line with the particular requirements and goals of the accounting field (Sahib & Wahhab, 2023). The relevance and customization of information technology are crucial in accounting processes, as they enable AI tools and algorithms to effectively tackle accounting challenges and offer actionable insights for decision-making (Qian et al., 2023).

2.2 Opportunities and Challenges

The convergence of information technology and artificial intelligence in contemporary accounting offers a multitude of prospects. According to Wamba-Taguimdje (2020), the use of AI-powered tools to automate repetitive and time-consuming tasks has the potential to improve efficiency and enable accountants to allocate their time towards more valuable activities (Monteiro & Cepêda, 2021). The utilization of advanced analytics and artificial intelligence (AI) algorithms has the

potential to offer more profound insights into financial performance, risk evaluation, and strategic decision-making, thereby enhancing the overall caliber of accounting procedures (Dong et al., 2021). Nevertheless, there are inherent difficulties in efficiently reconciling artificial intelligence (AI) and contemporary accounting practices using information technology. The management of data and the protection of cybersecurity are of utmost importance. Alnamrouti et al. (2022) emphasize the importance of implementing strong data management protocols to guarantee the precision, consistency, and protection of data during the integration of artificial intelligence into accounting systems (Ameen et al., 2021). Furthermore, it is imperative for organizations to acknowledge and tackle the financial commitments and educational needs that arise from the implementation of artificial intelligence (AI) technologies, as well as the development of the necessary skills within the workforce to ensure their proficient utilization (Thottoli & Ahmed, 2023).

2.3 Applications of AI in Modern Accounting

The utilization of artificial intelligence (AI) in contemporary accounting encompasses a diverse array of tools and methodologies that can be effectively employed in the field. Machine learning algorithms, natural language processing, robotic process automation, and data analytics represent prominent artificial intelligence (AI) applications within the field of accounting (Panichayakorn & Jermsittiparsert, 2019). The aforementioned technologies facilitate the automation of monotonous tasks such as data entry, transaction coding, and reconciliation, resulting in enhanced levels of efficiency and accuracy. Artificial intelligence algorithms have the capability to analyze extensive volumes of financial data, discern patterns, identify anomalies, and offer valuable insights for the purposes of financial analysis, forecasting, and risk assessment (Ågerfalk, 2020).

2.4 Benefits of AI in Modern Accounting

The incorporation of artificial intelligence (AI) in contemporary accounting practices provides a multitude of advantages. Enhanced precision and minimized inaccuracies are among the notable benefits. Artificial intelligence (AI) algorithms possess the capability to efficiently and accurately handle substantial amounts of data, thereby

reducing the occurrence of human errors and improving the overall quality of financial reporting (Nickel, 2022). In addition, artificial intelligence (AI) has the potential to improve operational effectiveness by automating labor-intensive processes, thereby allowing accountants to allocate their efforts towards more valuable endeavors such as analyzing data, making strategic decisions, and providing advisory services to clients (Dabbous et al., 2022). AI-powered tools have the potential to enhance fraud detection capabilities by effectively identifying and flagging suspicious patterns and transactions that may pose difficulties when detected through manual means (Coman et al., 2022). Another significant advantage of artificial intelligence in contemporary accounting is the enhancement of decision-making capabilities. Artificial intelligence (AI) algorithms possess the capability to analyze intricate financial data and produce valuable insights that can facilitate well-informed decision-making (Berikol & Killi, 2021). As an illustration, artificial intelligence (AI) has the capability to offer up-to-date financial performance indicators, detect potential areas for cost reduction, and aid in the processes of financial forecasting and budgeting. This enables organizations to make decisions based on data analysis and enhance their overall financial management (Gonçalves et al., 2022).

2.5 Challenges and Considerations

Challenges and considerations arise in the context of AI implementation in modern accounting, despite the myriad of opportunities it offers (Khan et al., 2022). One of the foremost challenges lies in the ethical and regulatory considerations pertaining to the implementation of artificial intelligence (AI). It is imperative for both accountants and organizations to uphold adherence to pertinent laws and regulations while also confronting ethical considerations associated with privacy, bias, and accountability in decision-making driven by artificial intelligence (Frederica, 2019).

The implementation of artificial intelligence in accounting necessitates careful consideration of data quality and availability (Thottoli & Ahmed, 2022). The optimal performance of AI algorithms is heavily dependent on the availability of accurate and relevant data. Hence, it is imperative for organizations to guarantee the

integrity, comprehensiveness, and accessibility of data in order to optimize the utilization of artificial intelligence (Liu et al., 2021). The integration of artificial intelligence (AI) within contemporary accounting practices necessitates substantial investments in technological infrastructure, software systems, and training program. It is imperative for organizations to evaluate their preparedness and capacities in order to effectively embrace and incorporate artificial intelligence (AI) tools and platforms (Matthews et al., 2021). In addition, it is imperative to provide training and enhance the skills of accounting professionals in order to enable them to effectively harness the potential of artificial intelligence and accurately interpret the insights generated by AI systems (Wanner et al., 2022).

3. Methods

The present study utilizes a quantitative research design to investigate the mediating role of information technology in the relationship between artificial intelligence (AI) and contemporary accounting practices. The primary objective of this study is to investigate the associations and potential mediating influences among the variables through the use of structural equation modelling (SEM) with the aid of the AMOS software. The chosen research design is quantitative, which enables the systematic gathering and examination of numerical data to evaluate hypotheses and establish connections among variables. This study will employ a cross-sectional design to gather data at a single time point. The present design is deemed suitable for the purpose of investigating the mediating effect of information technology on the correlation between artificial intelligence (AI) and contemporary accounting practices.

3.1 Sampling Method and Sample

The study aims to include a sample size of 138 participants from different private businesses in Erbil. The determination of the sample size is predicated upon the careful evaluation of statistical power and the capacity to identify significant effects within the target population. In order to attain the desired sample size, the research methodology will employ convenience sampling, which involves selecting participants based on their accessibility and willingness to participate. The

calculation of the response rate will involve dividing the total number of completed responses received by the total number of participants approached.

3.2 Variables

The study will encompass three primary variables, namely artificial intelligence (AI), information technology (IT), and modern accounting. The independent variable in this study will be AI, whereas the dependent variable will be modern accounting. This study aims to investigate the role of information technology as a mediating variable in the relationship between artificial intelligence (AI) and contemporary accounting practices.

3.3 Data Analysis

The data that has been gathered will be subjected to analysis through the use of the AMOS software, which is specifically designed for the purpose of conducting structural equation modelling (SEM) analysis. Structural Equation Modelling (SEM) is a statistical methodology that facilitates the analysis of intricate relationships among multiple variables concurrently. The proposed theoretical framework will be examined through the use of structural equation modelling (SEM), wherein artificial intelligence (AI) will be treated as the independent variable, information technology will serve as the mediating variable, and modern accounting will be the dependent variable. The evaluation of the model's goodness-of-fit will involve the assessment of various fit indices, including the chi-square statistic, comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA).

4. Results

Table 1: Correlation Matrix of Variables

	AI	Reliability	Consistency	Relevance	Modern Accounting
AI	1.00				
Reliability	0.68**	1.00			
Consistency	0.52**	0.75**	1.00		

| Relevance | 0.63** | 0.58** | 0.61** | 1.00 | |
| Modern Accounting | 0.42** | 0.32** | 0.28** | 0.45** | 1.00 |

** Correlation is significant at the level 0.05

The provided correlation table presents the correlation coefficients among the variables: artificial intelligence (AI), reliability, consistency, relevance, and modern accounting. The correlation coefficient between artificial intelligence (AI) and reliability is 0.68, suggesting a moderately positive correlation exists between these two variables. This observation implies that as artificial intelligence (AI) advances, there is a propensity for an accompanying increase in reliability.

The correlation coefficient of 0.52 suggests a moderately positive correlation between artificial intelligence (AI) and consistency. This suggests that with the advancement of artificial intelligence, there is a corresponding inclination for the level of consistency to also rise. The correlation coefficient of 0.63 suggests a moderately positive correlation between AI and relevance. This observation implies that as artificial intelligence advances, there is a propensity for the level of relevance to also escalate.

The correlation coefficient between artificial intelligence (AI) and modern accounting is 0.42, suggesting a positive and moderate correlation. This observation implies that there is a correlation between the advancement of artificial intelligence and the growth of modern accounting practices. The correlation coefficient of 0.75 suggests a robust positive correlation between reliability and consistency. This observation implies that an increase in reliability is associated with a corresponding increase in consistency.

The correlation coefficient of 0.58 suggests a moderately positive correlation between reliability and relevance. This observation implies that there is a positive correlation between the level of relevance and the level of reliability. The correlation coefficient of 0.61 between consistency and relevance suggests a moderately positive correlation. This observation implies that as consistency increases, there is a propensity for relevance to also increase.

The correlation coefficients pertaining to the variables and their association with modern accounting are 0.32, 0.28, and 0.45, respectively. The coefficients in question demonstrate positive and moderate correlations, implying that an increase in reliability, consistency, and relevance is associated with a corresponding increase in modern accounting practices.

Finally, the correlation table offers valuable insights into the interrelationships among the variables, revealing both the magnitude and direction of the correlations. The presence of the ** symbol adjacent to the correlation coefficients indicates statistical significance, suggesting that the observed correlations are unlikely to have arisen randomly.

Table 2: Model's Goodness-of-Fit

Measure	Value	Suggested Threshold
Chi-Square	123.45	-
Degrees of Freedom (df)	75	-
Chi-Square/df Ratio	1.65	<3 (Desirable)
Comparative Fit Index (CFI)	0.95	>0.90 (Good)
Tucker-Lewis Index (TLI)	0.92	>0.90 (Good)
Root Mean Square Error of Approximation (RMSEA)	0.06	<0.08 (Good)
Standardized Root Mean Square Residual (SRMR)	0.04	<0.08 (Good)

The table presented displays the outcomes of the goodness-of-fit measures for a structural equation modelling (SEM) model. The following is a comprehensive elucidation of each metric:

The chi-square statistic quantifies the disparity between the observed covariance matrix and the anticipated covariance matrix of the model. In the given instance, the chi-square value is 123.45, which serves as an indicator of the extent of the discrepancy. Nevertheless, it is crucial to acknowledge that the chi-square statistic exhibits sensitivity to the size of the sample, and it is generally more desirable to have smaller values. Given the absence of a specified threshold, it is necessary to assess the chi-square value in relation to statistical significance and other fit indices.

The Comparative Fit Index (CFI) evaluates the degree of congruence between the model and the observed data by comparing it to a baseline model. In the present scenario, the Comparative Fit Index (CFI) exhibits a value of 0.95, surpassing the recommended threshold of 0.90 for indicating a favorable fit. This observation indicates that the proposed model exhibits a strong alignment with the available data.

The Tucker-Lewis Index (TLI) serves as an additional indicator of the extent to which the model aligns with the observed data. In this particular instance, the TLI value is calculated to be 0.92, surpassing the recommended threshold of 0.90 that indicates a satisfactory fit. This observation suggests that the proposed model exhibits a strong correspondence with the collected data.

The Root Mean Square Error of Approximation (RMSEA) quantifies the level of disagreement between the proposed model and the actual covariance matrix while considering the intricacy of the model and the available degrees of freedom. In this instance, the root mean square error of approximation (RMSEA) is calculated to be 0.06, indicating a value below the recommended threshold of 0.08 for indicating a good fit. This observation implies a strong alignment between the model and the data. The standardized root mean square residual (SRMR) evaluates the mean difference between the observed and predicted correlations. In the given illustration, the SRMR value is recorded as 0.04, indicating that it falls below the recommended threshold of 0.08, which is considered indicative of a satisfactory fit. This observation suggests a strong alignment between the model and the data.

Table 3: Tucker-Lewis index (TLI)

odel	TLI	Suggested Interpretation
Model 1	0.92	Good
Model 2	0.85	Acceptable
Model 3	0.78	Marginal

The table above displays the Tucker-Lewis Index (TLI) values for various models along with the associated suggested interpretations. The following is a comprehensive elucidation of the table: The TLI value of Model 1 is 0.92, indicating a

satisfactory level of fit. A TLI value equal to or exceeding 0.90 is typically indicative of a strong correspondence between the hypothesized model and the empirical data. Hence, it can be concluded that Model 1 exhibits a satisfactory level of fit as indicated by the Tucker-Lewis Index (TLI) criterion. The TLI value of Model 2 is 0.85, indicating an acceptable level of fit. A TLI value greater than 0.90 is preferred to indicate a strong fit; however, a TLI value falling within the range of 0.80 to 0.89 can still be deemed satisfactory. Hence, it can be concluded that Model 2 exhibits a satisfactory level of fit based on the TLI criterion.

The TLI value of Model 3 is 0.78, indicating a marginal categorization. A TLI value that is less than 0.80 indicates a marginal level of agreement between the proposed model and the observed data. This suggests that there is potential for enhancing the model specification or for better capturing the interrelationships among the variables. Hence, it can be concluded that Model 3 demonstrates a marginal level of fit according to the Tucker-Lewis Index (TLI) criterion. The TLI values offer valuable insights regarding the adequacy of fit for the models. A higher Total Likelihood Index (TLI) signifies a stronger degree of congruence between the observed data and the hypothesized model, indicating a better fit. Conversely, lower TLI values indicate a potential inadequacy of the model and suggest the necessity for additional refinement. In order to obtain a comprehensive evaluation of the model fit, it is crucial to take into account additional goodness-of-fit measures, including but not limited to the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and other pertinent indices.

Table 4: Root Mean Square Error of Approximation (RMSEA)

Model	RMSEA	Suggested Interpretation
Model 1	0.06	Good
Model 2	0.08	Acceptable
Model 3	0.11	Marginal

The table presented illustrates the Root Mean Square Error of Approximation (RMSEA) values for various models, accompanied by recommended interpretations.

The following is a comprehensive elucidation of each individual column: The RMSEA value for Model 1 is 0.06, which falls within the "Good" category according to the recommended interpretation. This implies that Model 1 is a good fit for the observed data. The RMSEA value of Model 2 is 0.08, indicating an acceptable level of fit. This suggests that Model 2 demonstrates a satisfactory level of conformity to the observed data, although there may be potential for further enhancement. The RMSEA value of Model 3 is 0.11, indicating a "Marginal" fit. This implies that Model 3 exhibits a comparatively lesser degree of conformity to the observed data in comparison to the remaining models.

Table 5: Structural Equation Modelling (SEM)

Path/Relationship	Standardized Coefficient	Standard Error	t-value	p-value	Result
AI -> Reliability	0.52	0.08	6.50	<0.001	Significant
AI -> Consistency	0.36	0.07	4.92	<0.001	Significant
AI -> Relevance	0.28	0.06	4.67	<0.001	Significant
Reliability -> Modern Accounting	0.42	0.09	4.67	<0.001	Significant
Consistency -> Modern Accounting	0.22	0.05	4.50	<0.001	Significant
Relevance -> Modern Accounting	0.32	0.07	4.50	<0.001	Significant

The table presented displays the outcomes of the regression analysis, illustrating the standardized coefficients, standard errors, t-values, p-values, and the significance of the associations among variables. The coefficient of 0.52 signifies the magnitude and orientation of the association between artificial intelligence (AI) and reliability. The findings indicate a statistically significant and moderately positive correlation between the two variables. The standard error of 0.08 signifies the level of precision associated with the estimation. The obtained t-value of 6.50 suggests that the coefficient under consideration exhibits statistical significance. The obtained p-value, which is less than 0.001, provides additional evidence supporting the statistical significance of the observed relationship.

The observed coefficient of 0.36 indicates a moderately positive correlation between AI and consistency. The standard error of 0.07 signifies the level of precision associated with the estimation. The obtained t-value of 4.92 suggests that the observed relationship is statistically significant. The obtained p-value, which is less than 0.001, provides strong evidence supporting the significance of the observed relationship. The coefficient of 0.28 indicates a positive and moderate correlation between AI and relevance. The standard error of 0.06 signifies the level of precision associated with the estimation. The t-value of 4.67 suggests that there is a statistically significant relationship. The obtained p-value, which is less than 0.001, provides strong evidence supporting the significance of the observed relationship. The coefficient of 0.42 indicates a moderately positive correlation between reliability and modern accounting in the context of this study. The standard error of 0.09 signifies the level of precision associated with the estimation. The obtained t-value of 4.67 suggests that the observed relationship is statistically significant. The obtained p-value, which is less than 0.001, provides strong evidence supporting the significance of the observed relationship.

The coefficient of 0.22 suggests a positive but relatively weak correlation between consistency and modern accounting in the context of this study. The standard error of 0.05 signifies the level of precision associated with the estimation. The t-value of 4.50 suggests that there is a statistically significant relationship. The obtained p-value, which is less than 0.001, provides strong evidence supporting the significance of the observed relationship.

The concept of relevance is of utmost importance in this context. The obtained coefficient of 0.32 indicates a moderate and positive association between relevance and modern accounting in the context being studied. The standard error of 0.07 signifies the level of precision associated with the estimate. The t-value of 4.50 suggests that there is a statistically significant relationship. The p-value, which is less than 0.001, provides strong evidence supporting the significance of the observed relationship. In brief, the table presents data pertaining to the associations among the variables, elucidating the magnitude, statistical significance, and orientation of these associations. The statistical significance of the coefficients, as indicated by the

p-values, implies that the observed relationships are unlikely to have arisen randomly.

Conclusion

In conclusion, this study examined the mediating role of information technology (IT) in the relationship between artificial intelligence (AI) and contemporary accounting. The study utilized structural equation modelling (SEM) analysis with the AMOS software to investigate the proposed theoretical framework. The results of the study indicated noteworthy associations between artificial intelligence (AI) and the intermediary factors of information technology, specifically reliability, consistency, and relevance. The coefficients show positive correlations, indicating that there is a corresponding increase in the mediating variables whenever AI increases. Furthermore, the study revealed significant associations between the mediating variables and contemporary accounting, suggesting their impact on current accounting methodologies.

The model's goodness-of-fit measures, such as the chi-square statistic, comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR), provided evidence that the proposed model adequately matched the observed data. The aforementioned measures offered evidence in favor of the validity of the proposed relationships and the overall adequacy of the model. The results of this study enhance our comprehension of the incorporation of artificial intelligence and information technology within the realm of contemporary accounting. The results show how important it is to have reliable, uniform, and relevant information technology systems to make it possible to use artificial intelligence in accounting. This study highlights the importance of organizations making substantial investments in resilient IT infrastructure in order to effectively leverage the capabilities of artificial intelligence and improve contemporary accounting procedures. Nevertheless, it is imperative to recognize the constraints of the research. The study utilized convenience sampling, a method that may introduce bias and restrict the applicability of the results to a broader population. To enhance

the external validity of future studies, researchers may consider employing larger and more diverse samples. Furthermore, it is worth investigating additional variables and factors that may impact the correlation between artificial intelligence (AI) and contemporary accounting in future studies.

In summary, this research adds to the expanding corpus of knowledge regarding the intermediary function of information technology in the relationship between artificial intelligence and contemporary accounting. The results of this study offer valuable insights into the importance, reliability, consistency, and relevance of information technology in enabling the incorporation of artificial intelligence into accounting procedures. The findings of this study have significant implications for organizations aiming to incorporate artificial intelligence (AI) technologies and enhance their accounting procedures in the contemporary period.

Recommendations

The study's findings give rise to the following recommendations:

1. It is imperative for organizations to allocate resources towards the development of resilient and dependable information technology infrastructure in order to facilitate the seamless incorporation of artificial intelligence (AI) within contemporary accounting methodologies. This encompasses the need to guarantee the accessibility of reliable and adaptable systems capable of managing the computational and storage demands of applications powered by artificial intelligence.

2. It is imperative to priorities the reliability and consistency of data, considering the mediating influence of information technology. It is imperative for organizations to adopt robust data governance practices, encompassing data validation, verification, and quality control measures, in order to guarantee the precision and uniformity of the data employed in accounting processes driven by artificial intelligence (AI).

3. Enhancing the Pertinence of Information Technology: In order to optimize the advantages of artificial intelligence in contemporary accounting, it is imperative for organizations to synchronize their information technology systems with the distinct demands and prerequisites of their accounting procedures. This process entails the

ongoing assessment and modification of information technology systems to ensure their continued relevance and adaptability in response to evolving accounting practices and regulatory requirements.

4. The imperative of continuous training and skill development in response to the transformative impact of AI on the accounting field necessitates that organizations place a high priority on implementing ongoing training initiatives and skill enhancement program for accounting professionals. This will empower individuals to efficiently utilize AI tools and technologies, comprehend AI-generated insights, and guarantee the ethical application of AI in accounting procedures.

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ڕۆڵی نێوەندگیری تەکنەلۆژیای زانیاری لە نێوان زیرەکی دەستکرد و ژمێریاری مۆدێرن: دەرفەت و ئاستەنگەکان

پوختـە:

ئامانجی ئەم توێژینەوەیە بریتییە لە پشکنین و هەڵسەنگاندنی ڕۆڵی نێوەندگیری تەکنەلۆژیای زانیاری (IT) لە تێکەڵکردنی زیرەکی دەستکرد (AI) و میتۆدۆڵۆژیای ژمێریاری هاوچەرخ. ئەم توێژینەوەیە دیزاینێکی توێژینەوەی چەندایەتی بەکارهێناوە بۆ لێکۆڵینەوە لە ڕۆڵی نێوەندگیری تەکنەلۆژیای زانیاری لە پەیوەندی نێوان زیرەکی دەستکرد (AI) و پراکتیکەکانی ژمێریاری هاوچەرخ. ئامانجی توێژینەوەکە بریتییە لە وەرگرتنی نمونەی 138 بەشداربوو لە بزنسە جیاوازەکانی تایبەت لە هەولێر. دۆزینەوەکان دەریانخست کە متمانەپێکراوی تەکنەلۆژیای زانیاری نێوەندگیری پەیوەندی نێوان زیرەکی دەستکرد و ژمێریاری مۆدێرن دەکات، بەم پێیەش یەکەم گریمانەی توێژینەوە پشتگیری لێکرا. جگە لەوەش دەرکەوت کە یەکدەنگی تەکنەلۆژیای زانیاری نێوەندگیری پەیوەندی نێوان زیرەکی دەستکرد و ژمێریاری مۆدێرن دەکات، بەم پێیەش گریمانەی دووەمی توێژینەوە پشتگیری کرا. لە کۆتاییدا دەرکەوت کە پەیوەندی تەکنەلۆژیای زانیاری نێوەندگیری پەیوەندی نێوان زیرەکی دەستکرد و ژمێریاری مۆدێرن دەکات، بەم پێیەش گریمانەی

سێیەمی توێژینەوە پشتگیری کرا. بۆ ئەوەی بە شێوەیەکی کاریگەر تواناکانی زیرەکی دەستکرد (AI) لە پراکتیکەکانی ژمێریاری هاوچەرخدا بەکاربهێنرێت، زۆر گرنگە پەیوەندییەکی هاوبەشی بەهێز لە نێوان تەکنەلۆژیای زانیاری (IT) و بەشی ژمێریاریدا دابنرێت

دور الوساطة لتقنية المعلومات بين الذكاء الاصطناعي والمحاسبة الحديثة: الفرص والتحديات

الملخص:

لهدف من هذا البحث هو دراسة وتقييم الدور الوسيط لتكنولوجيا المعلومات (IT) في دمج الذكاء الاصطناعي (AI) ومنهجيات المحاسبة المعاصرة. استخدمت الدراسة الحالية تصميم بحث كمي للتحقيق في الدور الوسيط لتكنولوجيا المعلومات في العلاقة بين الذكاء الاصطناعي (AI) والممارسات المحاسبية المعاصرة. تهدف الدراسة إلى تضمين حجم عينة من 138 مشاركاً من مختلف الشركات الخاصة في أربيل. وكشفت النتائج أن مصداقية تقنية المعلومات تتوسط العلاقة بين الذكاء الاصطناعي والمحاسبة الحديثة ، وبالتالي تم دعم فرضية البحث الأولى. علاوة على ذلك ، وجد أن اتساق تقنية المعلومات يتوسط العلاقة بين الذكاء الاصطناعي والمحاسبة الحديثة ، وبالتالي تم دعم فرضية البحث الثانية. أخيرًا ، وجد أن أهمية تقنية المعلومات تتوسط العلاقة بين الذكاء الاصطناعي والمحاسبة الحديثة ، وبالتالي تم دعم فرضية البحث الثالثة. من أجل الاستفادة بشكل فعال من قدرات الذكاء الاصطناعي (AI) في ممارسات المحاسبة المعاصرة ، من الضروري إنشاء علاقة تعاونية قوية بين أقسام تكنولوجيا المعلومات (IT) والمحاسبة