Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Investigating the role of CEO Chreactersics and Environmental Factors on Cloud Accounting Information System

[1*]Nashat Ali Almasria [2]Ishraq Bataineh [3]Hassan Aldboush [4]Amer Almajali
[1]College of Business Administration, A'Sharqiyah University, Oman*
nashat.almasria@asu.edu.om
https://orcid.org/0000-0003-2439-4115
[2]Tunku Puteri Intan Safinaz School of Accountancy College of Business Universiti Utara Malaysia
Email: Eshrakbataineh@yahoo.co
[3]Al-Balqa' Applied University, Faculty of Business Department of Banking and Finance
ORCID ID: https://orcid.org/0000-0002-2366-987X
Email: h.aldboush@bau.edu.jo
[4]The university of New Orleans,LA
aalmaja1@uno.edu
https://orcid.org/0009-0001-4740-2416

ARTICLE INFO

Received: 29 Dec 2024

Revised: 12 Feb 2025

Accepted: 27 Feb 2025

ABSTRACT

Introduction: Cloud Accounting Information Systems (AIS) show a crucial role in boosting business competitiveness by delivering fast, accurate, and reliable financial data to support informed decision-making. Despite government efforts to encourage adoption, the use of AIS among Jordanian businesses remains relatively limited, hindering its potential to enhance overall performance

Objectives: This paper discovers how CEO characteristics—specifically innovativeness, information systems (IS), and trust in technology—along with environmental factors like competitive pressure and government support, influence the adoption of AIS in Jordanian companies across various industries.

Methods: Data were gathered through a structured questionnaire using a seven-point Likert scale, targeting CEOs and business owners from small, medium, and large enterprises in Jordan. Out of the responses collected, 315 usable questionnaires were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).

Results: The findings reveal that CEO innovativeness, IS knowledge, trust in technology, as well as competitive pressure and government support, all have a significant positive impact on AIS adoption. Notably, this study is the first to investigate the role of CEO characteristics within the AIS context.

Conclusions: The results offer valuable theoretical and practical insights for managers and business leaders, highlighting the key drivers behind successful AIS implementation and its potential to improve a firm's competitiveness and overall performance.

Keywords: AIS; CEO characteristics; Jordanian firms; Information technology; Environmental factors..

INTRODUCTION

Accounting information is vital for all types of business units, including non-profit organizations, as it supports informed decision-making and caters to the needs of various stakeholders [1,2]. Accurate accounting data is not just about numbers—it acts as a crucial tool for executives, helping them make strategic decisions, streamline operations, manage resources effectively, and strengthen internal controls [3,2].

Research Article

In today's world, often described as the era of Industry 4.0, where digital technologies and global connectivity through the Internet dominate, the integration of systems and processes has become more essential than ever [4,5].

The adoption of information technology (IT) enhances task execution, reduces costs, and supports the efficient management of organizations by providing timely and accurate information [6,7]. As a result, the integration of modern IT systems has become a critical requirement for effective company operations and management [8].

The deployment of accounting information systems (AIS) to automate various business functions offers significant benefits to industries, such as increased efficiency in time management, the ability to process large transaction volumes, reduced errors, and the production of accurate and timely reports that facilitate informed decision-making [9]. In this regard, ref. [10] and [11] asserted that the adoption of AIS is essential for companies striving to maintain sustainability and competitiveness in an increasingly dynamic business landscape. In addition, AIS contributes to improving business processes, thereby enhancing organizational capabilities.

In Jordan, companies across a range of industries have gradually integrated accounting information systems to meet their accounting and management requirements. The local market for accounting software has expanded significantly in recent years [12, 68], with more than 130 officially registered providers currently operating in the country. As the digital economy advances, introducing innovative business models, advanced payment mechanisms, and more complex financial transactions, the government has been continually updating its mandatory accounting frameworks to keep pace with these economic transformations [13].

The strategic use of intelligent information systems is critical for organizations, as it enables cost reduction, revenue maximization, competitive advantage, and overall productivity enhancement. For example, ref. [10] reported that only 14% of Jordanian firms have integrated accounting information systems into their business operations. Comparative findings ref. [14] confirm this pattern. Data from the Jordanian Department of Statistics (2016) indicate that only 38.1% of firms use accounting information systems, reflecting ongoing barriers to widespread adoption. One major barrier is the lack of employee training—only 17.7% of firms provide training on software applications, including core systems such as human resource planning and ERP (Jordan Department of Statistics, 2016).

Accordingly, this study seeks to address the research gaps by identifying the factors that influence the use of AIS. The research is carried out in Jordan, a developing country. Intrinsically, CEO compositions play a vital role in companies where CEO characteristics remain a substantial factor influencing IT adoption [15,16,17,18, 69]. As discovered in the literature, knowledgeable CEOs with trust in IT and innovation are more likely to adopt IT (e.g., AIS) [19,20,21]. Likewise, ref. [22] meta-analysis revealed that competitive pressure and government support are the most commonly and significantly pertinent and positively significant attributes that are examined in the current study [66,67].

This study explores the impact of CEO characteristics—specifically CEO innovativeness, information system (IS) knowledge, and trust in technology—alongside environmental factors such as competitive pressure and government support, on the use of AIS in Jordanian companies across various industries. The research also considers firm size as a control variable to better understand its influence on these relationships.

This research addresses a significant gap in literature, offering valuable insights for future scholars in the field of Information Systems. On a practical level, it provides useful guidance for CEOs, business practitioners, and

governmental bodies, aiding them in crafting effective strategies for AIS implementation and improving decision-making processes.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The theoretical establishment of this investigation is relied in the central theories of the Diffusion of Innovation, as articulated by ref. [23]. Diffusion, in this context, refers to the process by which innovation is communicated through specific channels over time among members of a social system [23]. Rogers further emphasized that the spread of innovation often hinges on efforts to disseminate it through effective communication channels managed by engaged individuals. This theory has been pivotal in guiding research on technology adoption [24]. In line with this, AIS has been widely adopted by businesses aiming to optimize efficiency and secure a competitive advantage. Therefore, in this study, the DOI theory supports the investigation of environmental factors influencing AIS adoption.

In addition to DOI, this research incorporates the Technology-Organization-Environment (TOE) framework, which has been extensively utilized in studies on technological innovation and adoption [25, 26,27, 70]. The present study focuses on two key environmental factors: Competitive Pressure (CP) and Government Support (GS). Notably, ref. [22] identified these attributes as consistently significant in influencing technology adoption, making them central to this research.

2.1. CEO innovativeness and Use of AIS

CEO innovativeness reflects a CEO's ability to generate and apply novel ideas, especially in adopting and utilizing Information Technology (IT) systems such as AIS [18]. Numerous studies have established a positive link between CEO innovativeness and the uptake of technological innovations [28,18,29]. For example, ref. [21] emphasized the critical influence of CEOs in promoting innovation among Malaysian SMEs, and [17] identified a robust relationship between CEO innovativeness and the adoption of Information Systems (IS) in Singapore. Likewise, ref. [30] highlighted how CEO innovativeness plays a crucial role in the effective deployment of AIS in firms.

Innovative CEOs are typically distinguished by their risk-taking propensity, receptiveness to new technologies, creative thinking, and dedication to investing in advanced solutions [6, 71]. Their progressive mindset not only accelerates technology integration but also enhances organizational performance and competitiveness.

Based on these insights, this study posits that higher levels of CEO innovativeness positively influence the utilization of AIS within organizations, leading to the following hypothesis:

Hypothesis 1. "There is a significant positive relationship between CEO innovativeness and the adoption of AIS in Jordanian companies."

2.2. CEO IS Knowledge and Use of AIS

CEO Information Systems (IS) knowledge has been widely recognized as a critical factor influencing the adoption of technological innovations at the organizational level [31,20,32]. ref. [17, 72] highlighted that a CEO’s understanding of Information Systems (IS) significantly impacts a firm’s ability to adopt and effectively utilize new technologies. In this study, CEO IS knowledge is defined as the extent to which a CEO possesses expertise and experience in Information Technology (IT) applications and accounting practices, enabling them to leverage systems like AIS within their organization [18]. Empirical evidence supports this perspective. ref. [21] found that CEOs with higher

levels of IT knowledge and innovativeness are more likely to promote the sustained use of digital technologies, such as corporate websites. In the specific context of AIS, studies by [30],[10], and [33] confirmed the significant influence of CEO IS knowledge on the successful adoption and implementation of AIS.

Building on these insights, this study posits that CEOs with stronger IS/IT expertise and a deeper understanding of AIS benefits are more inclined to adopt and integrate AIS into their organizations. Consequently, the following hypothesis is proposed:

Hypothesis 2. CEO IS knowledge has a positive significant impact on the use of AIS in Jordanian firms.

2.3. CEO Trust in Technology and Use of AIS

CEO trust in technology has been identified as a significant driver in the adoption and effective utilization of technology within organizations [33,34,6,28]. This trust plays a pivotal role in accelerating the integration of systems such as AIS. A CEO's confidence in technology is particularly critical when making strategic decisions regarding the adoption and implementation of Information Systems (IS) and other technological innovations [34]. In this study, CEO trust in technology is defined as the CEO's perception of the integrity, reliability, and competence of IT applications to effectively support the use of AIS within the organization [28,75]. High levels of trust in technology among managers, professionals, and employees often correlate with successful innovation and smoother technology adoption processes [74].

Empirical evidence further supports this notion. Studies have consistently demonstrated that a CEO's trust in technology significantly influences the successful adoption and implementation of AIS [30,10,28]. Therefore, it is anticipated that CEOs who exhibit a high degree of trust in technology are more likely to promote and expedite the adoption of AIS within their firms [62, 73]. Based on these insights, the following hypothesis is proposed:

Hypothesis 3. CEO trust in technology has a positive significant impact on the use of AIS in Jordanian firms.

2.4. Competitive Pressure and Use of AIS

Competitive pressure refers to the challenges and demands faced by competitors operating within the same industry [35]. Previous studies suggest that competitive pressure influences the adoption of technology, particularly when firms recognize that adopting such technology can provide a competitive advantage and ultimately enhance their performance [36]. Ref. [22] highlighted that competitive pressure has a positive effect on the adoption of innovation.

The adoption of AIS is significantly influenced by competitive pressure, as emphasized by the Technology-Organization-Environment (TOE) framework [37,38,76]. Competitive pressure motivates businesses to expedite the adoption of AIS to remain competitive. Additionally, in highly competitive environments, business owners and managers may opt to implement AIS if they believe the technology can differentiate their firm and drive greater impact.

Consequently, it is anticipated that Jordanian firms experiencing higher levels of competitive pressure will be more likely to adopt AIS [61]. Based on this reasoning, the study proposes the following hypothesis:

Hypothesis 4. Competitive pressure has a positive significant impact on the use of AIS in Jordanian firms.

2.5. Government Support and Use of AIS

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Another important factor that may have an impact is government support for the TOE model's environmental component, highlighting the government's role in promoting and encouraging technology adoption in businesses [22]. Research indicates that various government policies and regulations can significantly impact the adoption of AIS by businesses. Numerous studies have examined this factor and consistently underscored the critical role of government support in facilitating technology use in organizations [39,40,35]. Based on this, the study proposes the following hypothesis:

Hypothesis 5. Government Support has a positive significant impact on the use of AIS in Jordanian firms.

addressing research questions within developing countries, specifically in companies based in Jordan. The theoretical framework of the study encompasses five independent variables, one dependent variable, and one control variable, as illustrated in Fig. 1.

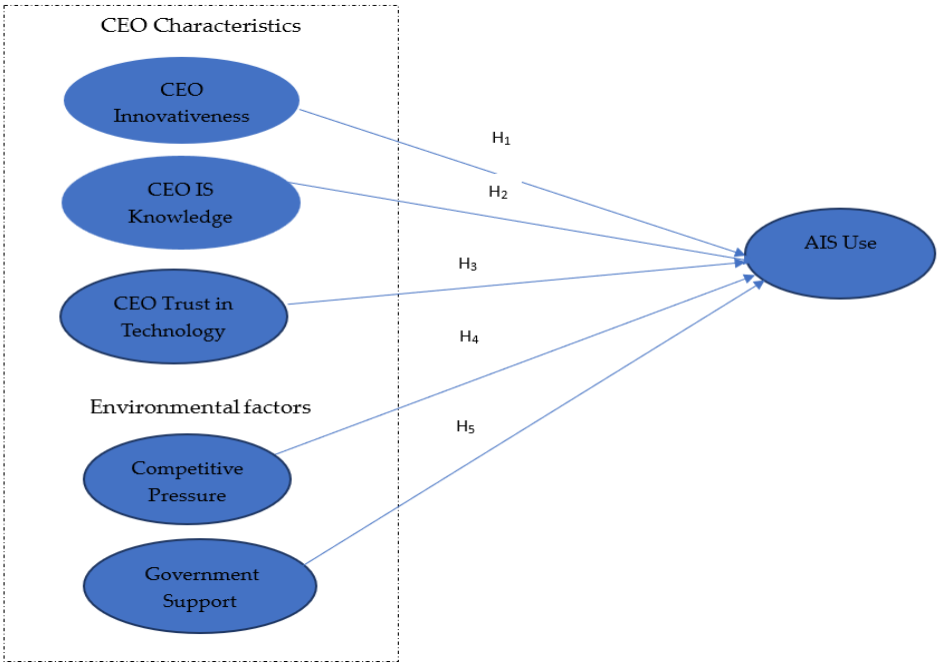

Figure 1. Theoretical framework.

METHODS

3.1. Research Design, Population, and Sampling Technique

The research design brings together various components of the study into a coherent, logical, and efficient framework. By implementing a comprehensive strategy that involves measuring and analyzing data, it ensures effective, credible, and systematic solutions to research problems and questions [63]. Moreover, the research design guarantees that the data collected is used to answer the research questions as precisely as possible [41]. This study employed a cross-sectional survey method. Survey research examines the relationships between various variables within social systems, including institutions, organizations, and communities. Additionally, the unit of analysis refers to the specific entity being studied in the research [42].

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

The current study questionnaire was adapted from previous studies; the CEO innovativeness scale was adapted from [18]. Likewise, to measure CEO IS knowledge, the five-item scale by [18] was adapted; and CEO trust in technology was measured using the [28] questionnaire; the questionnaire related to the competitive pressure was adapted from [43] and [40] and government support was measured using the [44] questionnaire. In addition, we measured control variable (firm size) based on the number of employees in the targeted firms. Lastly, twelve items were adapted from the studies conducted by [40] and [45] to measure the use of AIS [64, 65, 72].

According to the chambers of industry and commerce in Jordan (2021), the total population of the small, medium, and large industries is 9,473, as shown in Table 1 below:

Table 1. The population of the current study.

Population	**No of Companies**
Manufacturing sector	3,457
Wholesale and Retail Trade, Repair of Motor Vehicle and Motorcycle	4,506
Accommodation and Food Service Activities	1,510
Total	9,473

Moreover, 368 companies were chosen according to the sample size table provided by [46].

3.2. Data Collection Procedure

The researcher gathered data through a modified questionnaire distributed to CEOs of various Jordanian companies across different industries that utilize AIS. The questionnaire employed a seven-point Likert scale, where responses ranged from "Strongly disagree" (1) to "Strongly agree" (7), except for AIS usage, which was measured on a scale from "Not used at all" (1) to "Used very extensively" (7). The questions were designed to examine the factors influencing AIS adoption in Jordanian firms.

Data collection took place over three months, beginning in June 2021. The survey was conducted online via Google Forms, with the questionnaire distributed via email and WhatsApp using contact details obtained from Jordan's chambers of industry and commerce. As shown in Table 2, out of 700 questionnaires sent, 315 were completed and returned, resulting in a 45% usable response rate for analysis. Further details are provided in Table 3.

Table 2. Questionnaire distribution and response rate.

Questionnaire	Response Rate
Questionnaires distributed	700
Number of questionnaires returned	315

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Returned and usable questionnaires	315
Percentage of usable questionnaire	45%

RESULTS

The present study employed SPSS 23 to measure the descriptive statistics of the study.

4.1. Respondents' Profile

Table 3 depicts a gender analysis of male participants with a response rate of 85.7% in the demographic analysis, while the female response rate was 14.3%. In Jordanian firms, the age group of the CEOs revealed that 31.1% of the respondents are in the age bracket of 40–49 years. Lastly, the "Experience of using AIS" data verified that most of the CEOs who participated and had experience using AIS belong to the category 6 to 10 years.

Table 3. Demographic analysis.

Demographics Respondents Percentage (%)	Frequency	Percentage
Gender		
Male	270	85.7
Female	45	14.3
Age-Group		
Under 30	52	16.5
30 – 39	96	30.5
40 – 49	98	31.1
50 and above	69	21.9
Experience Using AIS		
2 years or less	52	16.5
3 to 5 years	70	22.2
6 to 10 years	101	32.1
Over 10 years	92	29.2

4.2. Descriptive Analysis

The descriptive statistics in Table 4 showed that notches connected to mean, minimum, maximum, and standard deviation values were calculated on a Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

Table 4. Descriptive statistics and Cronbach's alpha.

	Min	Max	Mean	SD	Cronbach's Alpha
AIS use	1	7	5.568	1.273	.947
CEO innovativeness	1	7	2.489	1.117	.762
CEO IS knowledge	2	7	4.898	.853	.813
CEO trust in technology	1	7	5.563	1.149	.889
Competitive Pressure	1	7	2.111	.989	.873

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Government Support	1	7	5.638	1.601	.923

4.3. Assessment of Measurement Model

The present research examined the validity and internal consistency reliability of the model to evaluate the outer model, also known as the measurement model [47] and it is shown in Figure 2.

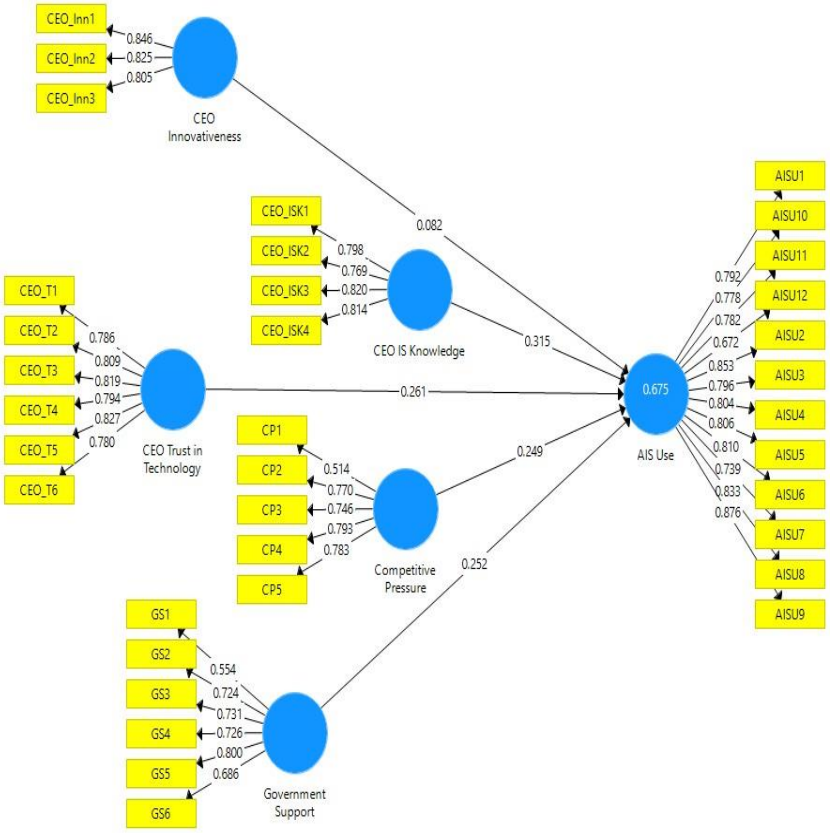

Figure 2. The PLS algorithm of the measurement model.

4.3.1. Internal Consistency Reliability and Convergent Validity

To assess internal consistency reliability, the study examined the composite reliability (CR) of the model. As presented in Table 6, all CR values exceeded the threshold of 0.60, meeting the recommended standard [48]. Additionally, convergent validity—defined by [47] as the extent to which a construct accounts for the variance in its indicators—was evaluated. Table 5 demonstrates that each construct explained at least 50% of the variance (i.e., AVE ≥ 0.50), surpassing the minimum criterion established by [47].

Table 5. Reliability and validity of the constructs.

Construct	Items	loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
CEO innovativeness	CEO-Inn1	.846	.865	.682

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

	CEO-Inn2	.825			
	CEO-Inn3	.805			
CEO IS Knowledge	CEO-ISk1	.798	.877		.641
	CEO-ISk2	.769			
	CEO-ISk3	.820			
	CEO-ISk4	.814			
CEO trust in Technology	CEO-T1	.786	.916		.644
	CEO-T2	.809			
	CEO-T3	.819			
	CEO-T4	.794			
	CEO-T5	.827			
	CEO-T6	.780			
Competitive Pressure	CP1	.514	.847		.531
	CP2	.770			
	CP3	.746			
	CP4	.793			
	CP5	.783			
Government Support	GS1	.554	.856	.500	
	GS2	.724			
	GS3	.731			
	GS4	.726			
	GS5	.800			
	GS6	.686			
AIS Use	AISU1	.792	.954	.635	
	AISU2	.853			
	AISU3	.796			
	AISU4	.804			
	AISU5	.806			
	AISU6	.810			
	AISU7	.739			
	AISU8	.833			
	AISU9	.876			
	AISU10	.778			
	AISU11	.782			

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

AISU12	.672

4.3.2. Discriminant Validity

The square root of AVE given by [49] defines discriminating validity. Furthermore, ref. [49] propose that the value of the AVE square root should be greater than the latent variables, which indicates a discriminating value. Table 7 revealed that all the diagonal values are greater than the other latent variable values. Likewise, the second criterion is to measure the validity of the constructs provided by [50] and [51], including the two commonly used parameters with the cutoff points HTMT.85 and HTMT.90, respectively, to evaluate the HTMT values [64]. The values shown in Table 6 are less than the threshold values.

Table 6. Discriminant validity matrix (Fornell-Larcker Criterion).

	AIS Use	CEO IS knowledge	CEO innovativeness	CEO trust in technology	Competitive Pressure	Government Support
AIS Use	.797					
CEO IS knowledge	.683	.801				
CEO innovativeness	-.341	-.317	.826			
CEO trust in technology	.663	.611	-.460	.803		
Competitive Pressure	.610	.434	-.409	.465	.729	
Government Support	.649	.503	-.405	.523	.544	.707

Table 7. Heterotrait-Monotrait ratio of correlations (HTMT).

	AIS Use	CEO IS knowledge	CEO innovativeness	CEO trust in technology	Competitive Pressure	Government Support
AIS Use						
CEO IS knowledge	.775					
CEO innovativeness	.395	.401				
CEO trust in technology	.720	.716	.556			

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Competitive Pressure	.662	.526	.589	.539	
Government Support	.739	.620	.531	.612	.697

4.4. Structure Model

After the measurement model, the next move was towards the structural model assessment. As discussed by [48], inner modelling is given in a structural model by considering path coefficients and t-values of direct relationships. Figure 3 shows the structural model of the study.

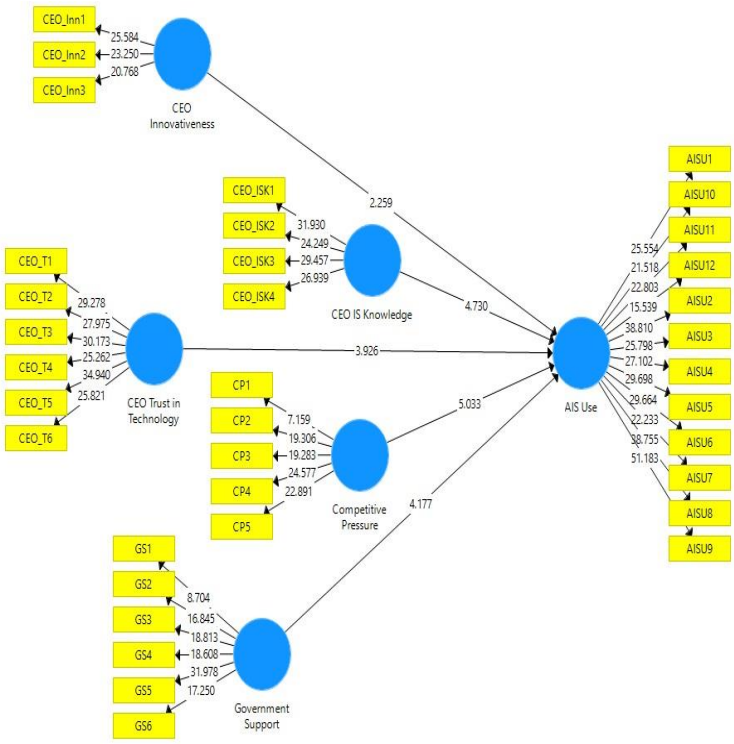

Figure 3. Assessment of structure model.

4.4.1. Assessment of Structural Model

Table 9 summarizes the hypotheses testing results, where the hypotheses were supported to have a t-value greater than 1.96. Therefore, all the direct relationship hypotheses were supported in the current study. The first hypothesis is supported; the direct impact from CEO IS knowledge (CEO-ISK) to AIS use (AISU) is positively significant (beta value = .315; T = 4.730; p < .05). Likewise, the result demonstrates that the second hypothesis, which is CEO innovativeness (CEO-INN), has a significant positive impact on the use of AIS (AISU) (beta = .082; T = 2.259; p < .05), is supported. In addition, the third hypothesis is supported, as the CEO trust in technology has a significant direct impact on AIS use (beta = .261; T = 3.926; p < .05). The fourth relationship, i.e., competitive pressure (CP) has a significant positive impact on the use of AIS (AISU) (beta = .249; T = 5.033; p < .05), and

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

therefore, supported. Similarly, the fifth hypothesis is supported, as the government support has a significant direct impact on AIS use (beta = .252; T = 4.177; p < .05).

Table 8. Hypotheses testing results.

Hypothesis	Relationship	Std. Beta	T Values	P Values	Decision
H1	CEO-ISK => AISU	.315	4.730	.000	Supported
H2	CEO-INN => AISU	.082	2.259	.024	Supported
H3	CEO-T => AISU	.261	3.926	.000	Supported
H4	CP => AISU	.249	5.033	.000	Supported
H5	GS => AISU	.252	4.177	.000	Supported
Control Variable	FS -> AISU	-.007	.226	.824	Not Supported

Note: ISK = information system knowledge, INN=innovativeness, T = trust in technology, CP = competitive pressure, GS = government support, FS= firm size (control variable), AISU =accounting information system use.

4.4.2. Assessment of Coefficient of Determination (R2), Effect Size (f2), and Predictive Relevance (Q2)

The coefficient of determination (R^2) measures the proportion of variance in the endogenous variable (AISU) explained by all exogenous variables in the model. According to ref. [52], R^2 values can be interpreted as follows: 0.75 represents substantial explanatory power, 0.50 indicates moderate predictive accuracy, and 0.25 suggests weak explanatory capability[65]. As shown in Table 9, the R^2 value for AISU falls within the moderate range, demonstrating that the exogenous variables collectively provide a meaningful but not exhaustive explanation of the variance in AIS adoption.

Table 9. The coefficient of determination and effect size.

Construct	R2	f2	Q2
CEO IS knowledge (ISK)	.670	.174	.414
CEO innovativeness (INN)		.105	
CEO trust in technology(T)		.107	
Competitive pressure (CP)		.120	
Government support (GS)		.112	
AIS Use (AISU)			

After the analysis of the coefficient of determination (R2), there is a need to examine the effect size (f2) of all of the latent variables of the study. To measure the effect size (f2) of a specific model, the threshold values range from .02, .15, and .35 for no, medium, and high effect sizes. The current study showed medium effect size of the studied model. Likewise, the acceptance level of predictive relevance (Q2) above 0 indicates that exogenous variables have predictive

Journal of Information Systems Engineering and Management
2025, 10(47s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

significance for the model's endogenous variables [52]. Thus, it can be found in Table 10 that the Q2 = .414 value is greater than zero. Therefore, the current research model has sufficiently predictive relevance.

DISCUSSION

This research revealed a significant and positive relationship between CEO innovativeness, CEO IS knowledge, CEO trust in technology, competitive pressure, and government support with the utilization of AIS across various industrial sectors in Jordan. The findings highlight the critical influence of CEO characteristics on AIS adoption within Jordanian companies, emphasizing the pivotal role of CEOs in driving technological integration [66]. These results offer valuable insights and practical guidelines for organizations seeking to enhance AIS usage, enabling them to navigate the dynamic business environment and remain competitive in the face of intense market pressures.

CEO innovativeness has been shown to significantly influence the use of AIS among Jordanian firms. Companies with more innovative CEOs or owners are more likely to adopt and implement AIS. This finding aligns with previous studies that identify CEO innovativeness as a key determinant of IS/IT adoption and usage [53,54,55,56,21]. Consequently, this study concludes that Jordanian firms led by innovative CEOs are more likely to leverage AIS effectively. Innovative CEOs are often characterized by their willingness to take risks and pursue creative solutions [17].

Regarding the environmental factors, the results of this resarch indicated that both competitive pressure and government support have a positive impact on AIS use. Consistent with the DOI theory and with numerous previous research. Specifically, the influence of competitive pressure on AIS use corresponds with the TOE framework and previous research [57,58,59], which asserted the significance of highly competitive pressures in influencing the adoption and usage of technology applications, including AIS [61,62,63]. This finding highlights the importance of environmental factors, particularly the role of industry competition as a catalyst for AIS advancements. Concerning the government support, the finding indicates that government support significantly and positively influences the decision of Jordanian companies to employ AIS. The result of this study confirmed the prediction that, more support from the government would increase the usage of AIS in Jordanian companies. Moreover, this outcome supports the result of past works which revealed that government support and IT/IS adoption are significantly and positively related [37,60,24].

Additionally, the study's model may prove valuable for application in other industries. Future researchers are encouraged to expand on the identified significant factors by incorporating new variables and measures, offering fresh insights into the determinants of AIS adoption [67]. They can also extend the model by including unexplored factors from the four key dimensions of technology adoption: CEO, organizational, technological, and environmental characteristics. Therefore, the effect of CEO attributes and environmental factors on AIS requires a multifaceted methodology concerning strategic planning, investment in innovation, operational efficiency, and permanent professional development. Future research should address these associations utilizing several methodologies involving interviews, and case studies which could provide richer insights and a more thorough understanding of how leadership characteristics impact sustainability efforts within organizations. One limitation of the existing inquiries is its reliance on data from a limited time frame, theoretically overseeing future shifts in the association between emerging technologies and sustainability purposes. The findings suggest numerous beneficial perceptions

Research Article

for CEOs, managers, practitioners, industry leaders, and policymakers. By Investigating given CEO characteristics and environmental factors in the context of Jordanian companies, the findings provide actionable implications. Policymakers, particularly in topics like Jordan, would suppose about creating a comprehensive regulatory framework to encourage the use of FinTech and blockchain technologies. Such frameworks should aim to promote innovation while maintaining economic stability and security. Therefore, the effect of CEO attributes and environmental factors on AIS requires a multifaceted methodology concerning strategic planning, investment in innovation, operational efficiency, and permanent professional development. The conclusions build on the DOI theory as a foundation and extends the TOE framework by integrating CEO characteristics, contribution a deeper perception of the influences that drive AIS use at the organizational level.

REFRENCES

[1] Thuan, Pham Quoc, Nguyen Vinh Khuong, Nguyen Duong Cam Anh, Nguyen Thi Xuan Hanh, Vo Huynh Anh Thi, Tieu Ngoc Bao Tram, and Chu Gia Han. 2022. The Determinants of the Usage of Accounting Information Systems toward Operational Efficiency in Industrial Revolution 4.0: Evidence from an Emerging Economy. Economies 10(4). doi: 10.3390/economies10040083.

[2] Saad, Mohamed, Abdalwali Lutfi, Mohammed Amin Almaiah, Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Hamza Alqudah, Akif Lutfi Alkhassawneh, Adi Alsyouf, Mahmaod Alrawad, and Osama Abdelmaksoud. 2022. Assessing the Intention to Adopt Cloud Accounting during COVID-19. Electronics (Switzerland) 11(24):1–19. doi: 10.3390/electronics11244092.

[3] Monteiro, Albertina, and Catarina Cepêda. 2021. Accounting Information Systems: Scientific Production and Trends in Research. Systems 9(3). doi: 10.3390/systems9030067.

[4] Akter, Mohsina, Tyge F. Kummer, and Ogan Yigitbasioglu. 2024. Looking beyond the Hype: The Challenges of Blockchain Adoption in Accounting. International Journal of Accounting Information Systems 53(July):100681. doi: 10.1016/j.accinf.2024.100681.

[5] Kureljusic, Marko, and Erik Karger. 2024. Forecasting in Financial Accounting with Artificial Intelligence – A Systematic Literature Review and Future Research Agenda. Journal of Applied Accounting Research 25(1):81–104. doi: 10.1108/JAAR-06-2022-0146.

[6] Bataineh, Ishraq, Abdalwali Lutfi, Hamza Alqudah, and Thamir Al Barrak. 2024. Unveiling the Impact of CEO Characteristics and Technological Factors on Management Accounting Information System Use. Uncertain Supply Chain Management 12(4):2525. doi: 10.5267/j.uscm.2024.5.017.

[7] Al-Okaily, M. (2023). The influence of e-satisfaction on users' e-loyalty toward e-wallet payment apps: a mediated-moderated model. International Journal of Emerging Markets. Vol. and No. ahead-of-print. https://doi.org/10.1108/IJOEM-08-2022-1313

[8] Al-Fraihat, D., Al-Debei, M. M., & Al-Okaily, A. (2022). Factors influencing the decision to utilize eTax systems during the COVID-19 pandemic: the moderating role of anxiety of COVID-19 infection. International Journal of Electronic Government Research (IJEGR), 18(1), 1-24.

Research Article

[9] Al-hattami, Hamood Mohd; KABRA, Jawahar D.; LOKHANDE, Murlidhar A. Reducing costs in manufacturing firms by using target costing technique. International Journal of Business Excellence, 2020, 22.1: 69-82.

[10] Bataineh, Ishraq, Haslinda Hassan, and Hafizah Mohamad Hsbollah. 2023. Investigating the Influence of Chief Executive Officer Characteristics on Accounting Software Technology Use among Jordanian Firms. Journal of Advanced Research in Applied Sciences and Engineering Technology 30(2):282–303. doi: 10.37934/araset.30.2.282303.

[11] Hassan, Haslinda, Mohamad Hsbollah, Haslinda Raja, Mohd Ali, and Tunku Puteri Intan. 2021. Accounting Software Application: Understanding Behavioural Intention to Use and the Moderating Role of Gender. International Business Education Journal 14(2):48.

[12] Pham, Huy Quang, and Phuc Kien Vu. 2024. Managing Big Data and Blockchain for Enterprise Internationalization Process: Mediating Role of Dynamic Accounting System Capability. Management and Marketing 19(1):113–157. doi: 10.2478/mmcks-2024-0007.

[13] Mojtahedi, Amir, and Lina Zhou. 2024. Information Technology Internal Control Material Weaknesses in Financial Reporting: Categories, Trends, Associations, and Industry Effects. International Journal of Accounting Information Systems 53: 100-679.

[14] Aloulou, M., Grati, R., Al-Qudah, A.A. and Al-Okaily, M. (2024), "Does FinTech adoption increase the diffusion rate of digital financial inclusion? A study of the banking industry sector", Journal of Financial Reporting and Accounting, Vol. 22 No. 2, pp. 289-307. https://doi.org/10.1108/JFRA-05-2023-0224

[15] Hasan, F., Al-Okaily, M., Choudhury, T., & Kayani, U. (2023). A comparative analysis between FinTech and traditional stock markets: using Russia and Ukraine war data. Electronic Commerce Research, 1-26. https://doi.org/10.1007/s10660-023-09734-0.

[16] Safari, Fariba, Narges Safari, Alireza Hasanzadeh, and Ali Rajabzadeh Ghatari. 2015. Factors Affecting the Adoption of Cloud Computing in Small and Medium Enterprises. International Journal of Business Information Systems 20(1):116–137. doi: 10.1504/IJBIS.2015.070894.

[17] Thong, James Y. L. 1999. An Integrated Model of Information Systems Adoption in Small Businesses. Journal of Management Information Systems 15(4):187–214. doi: 10.1080/07421222.1999.11518227.

[18] Thong, J. Y. L., and C. S. Yap. 1995. CEO Characteristics, Organizational Characteristics and Information Technology Adoption in Small Businesses. Omega 23(4):429–442. doi: 10.1016/0305-0483(95)00017-I.

[19] Al-hattami, Hamood Mohammed. Impact of AIS success on decision-making effectiveness among SMEs in less developed countries. Information Technology for Development, 2024, 30.3: 472-492.

[20] Lestari, I., Diputera, I., Baarimah, A. O., Alaloul, W. S., Musarat, M. A., Alawag, A. M., & Alzubi, K. M. (2024). Traditional Practices and Potential of Industrial Revolution 4.0 in the Construction Projects. In International Conference on Emerging Smart Cities (pp. 647-660). Springer, Singapore.

[21] Ramayah, T., Niu Swee Ling, Seyedeh Khadijeh Taghizadeh, and Syed Abidur Rahman. 2016. Factors Influencing SMEs Website Continuance Intention in Malaysia. Telematics and Informatics 33(1):150–164. doi: 10.1016/j.tele.2015.06.007.

[22] Srouji, A. F., Hamdallah, M. E., Al-Hamadeen, R., Al-Okaily, M., & Elamer, A. A. (2023). The impact of green innovation on sustainability and financial performance: Evidence from the Jordanian financial sector. Business Strategy & Development, 6(4), 1037-1052.

Research Article

[23] Teoh, A.P., Al-Okaily, M., Iranmanesh, M. and Al-Betar, M.A. (2023), "The efficiency measurement of business intelligence systems in the big data-driven economy: a multidimensional model", Information Discovery and Delivery, Vol. 51 No. 4, pp. 404-416. https://doi.org/10.1108/IDD-01-2022-0008

[24] Mohtaramzadeh, Masoumeh, T. Ramayah, and Cheah Jun-Hwa. 2018. B2B E-Commerce Adoption in Iranian Manufacturing Companies: Analyzing the Moderating Role of Organizational Culture. International Journal of Human-Computer Interaction 34(7):621–639. doi: 10.1080/10447318.2017.1385212.

[25] Kuan, Kevin K. Y., and Patrick Y. K. Chau. 2001. A Perception-Based Model for EDI Adoption in Small Businesses Using a Technology-Organization-Environment Framework. Information and Management 38(8):507–21. doi: 10.1016/S0378-7206(01)00073-8.

[26] Duan, Xiaoxia, Hepu Deng, and Brian Corbitt. 2012. Evaluating the Critical Determinants for Adopting E-Market in Australian Small-and-Medium Sized Enterprises. Management Research Review 35(3–4):289–308. doi: 10.1108/01409171211210172.

[27] Ramdani, Boumediene, Delroy Chevers, and Densil A. Williams. 2013. SMEs' Adoption of Enterprise Applications: A Technology-Organisation-Environment Model. Journal of Small Business and Enterprise Development 20(4):735–753. doi: 10.1108/JSBED-12-2011-0035.

[28] Khalil, and Zainuddin, Y. 2015. Intrinsic Motivation as a Mediator on Accounting Information System Adoption. Pertanika J. Soc. Sci. & Hum 23:33–46.

[29] Baarimah, S. O., & Baarimah, A. O. (2021, November). PVT properties for Yemeni reservoirs using an intelligent approach. In 2021 third international sustainability and resilience conference: climate change (pp. 368-372). IEEE.

[30] Almaqtari, F. A., Elmashtawy, A., Farhan, N. H., Almasria, N. A., & Alhajri, A. (2024). The moderating effect of board gender diversity in the environmental sustainability and financial performance nexus. Discover Sustainability, 5(1), 318.

[31] Al-Sartawi, A., Hannoon, A., & Khalid, A. A. (2022). Information technology governance and online banking in Bahrain. In Artificial Intelligence for Sustainable Finance and Sustainable Technology: Proceedings of ICGER 2021 1 (pp. 611-618). Springer International Publishing.

[32] Sharifat, Hani. 2018. Investigating the Impact of Organization Internal and External Factors on E-business continuance intention in Small and Medium. European Journal of Management and Marketing Studies: 44–65. doi: 10.5281/zenodo.1252446.

[33] Abduljalil, Khalil, and Yuserrie Zainuddin. 2015. Intrinsic and Extrinsic Motivation as Attitude Factors towards Adoption of Accounting Information System (AIS) In Libyan SMEs. International Journal of Academic Research in Accounting, Finance and Management Sciences 5(1):161–170. doi: 10.6007/ijarafms/v5-i1/1553.

[34] Aseri, Abdulah M. 2018. Factors Influencing the Use of E-Management from Manager's Perspective: An Applied Study in Saudi Communication Sector. International Review of Management and Marketing 8(3):32.

[35] Alawag, A. M., Alaloul, W. S., Liew, M. S., Musarat, M. A., & Baarimah, A. O. (2023). Implementation of total quality management (TQM) in malaysian industrialized building system (IBS) projects. Revista de la construcción, 22(1), 74-86

Research Article

[36] Alduais, F., Almasria, N. A., & Airout, R. (2022). The Moderating Effect of Corporate Governance on Corporate Social Responsibility and Information Asymmetry: An Empirical Study of Chinese Listed Companies. Economies, 10(11), 280.

[37] Tawfiq, T. T., Tawaha, H., Tahtamouni, A., & Almasria, N. A. (2024). The Influence of Environmental, Social, and Governance Disclosure on Capital Structure: An Investigation of Leverage and WACC. Journal of Risk and Financial Management, 17(12), 570.

[38] Mahama, Fuseini, and Halina Mohamed Dahlan. 2024. Accounting Information System (AIS) Adoption in Small and Medium-Sized Enterprises in Northern Ghana. In: Contemporary Research in Business, Management and Economics 1:56–73.

[39] Alnsour, J., Arabeyyat, A. R., Alnsour, A. J., & Almasria, N. A. (2024). The Impact of Financial Development, Foreign Direct Investment, and Trade Openness on Carbon Dioxide Emissions in Jordan: An ARDL and VECM Analysis Approach. Journal of Risk and Financial Management, 17(11), 490.

[40] Ali, Azwadi, Mohd Shaari Abdul Rahman, and Wan Nur Syahida Wan Ismail. 2012. Predicting Continuance Intention to Use Accounting Information Systems among SMEs in Terengganu, Malaysia. International Journal of Economics and Management 6(2):295–320.

[41] Kumar, R. 2019. Research Methodology: A Step-by-Step Guide for Beginners. 5th ed. London: Sage Publications Limited.

[42] Sekaran, Uma. 2004. No TitleResearch Methods for Business: A Skill Building Approach. 4th ed. John Wiley & Sons.

[43] Ifinedo, Princely. 2011. Internet / e-Business Technologies Acceptance in Canada ' s SMEs : An Exploratory Investigation. 21(3):255–81. doi: 10.1108/10662241111139309.

[44] Al-Haderi, Sami. 2014. The Influences of Government Support in Accepting the Information Technology in Public Organization Culture. International Journal of Business and Social Science 5(5):118–124.

[45] Amelia, Z. Fariha, and Azliza. 2014. The Usage of Computerised Accounting System: The Case of Small and Medium Enterprise in Malaysia. Australian Journal of Basic and Applied Sciences 8(4):199–205.

[46] Krejcie, Robert V, and Daryle W. Morgan. 1970. Determining Sample Size for Research Activities. Educational and Psychological Measurement 30(3):607–610.

[47] Alduais, F., Ali Almasria, N., Samara, A., & Masadeh, A. (2022). Conciseness, financial disclosure, and market reaction: A textual analysis of annual reports in listed Chinese companies. International Journal of Financial Studies, 10(4), 104.

[48] Sarstedt, Marko, Joseph F. Hair, Jun Hwa Cheah, Jan Michael Becker, and Christian M. Ringle. 2019. How to Specify, Estimate, and Validate Higher-Order Constructs in PLS-SEM. Australasian Marketing Journal 27(3):197–211. doi: 10.1016/j.ausmj.2019.05.003.

[49] Aldboush, H. H., Almasria, N. A., & Ferdous, M. (2023). Determinants of firm profitability: empirical evidence from Jordan's service sector. Business: Theory and Practice, 24(2), 438-446.

[50] Airout, R. M., Alawaqleh, Q. A., Almasria, N. A., Alduais, F., & Alawaqleh, S. Q. (2023). The Moderating Role of Liquidity in the Relationship between the Expenditures and Financial Performance of SMEs: Evidence from Jordan. Economies, 11(4), 121.

[51] Ibrahim, A., Almasria, N. A., Almaqtari, F. A., Al-Kasasbeh, O., Alhatabatb, Z., & Ershaid, D. (2024). The Impact of Green Finance, FinTech and Digital Economy on Environmental Sustainability: Evidence from Advanced Panel Techniques. International Journal of Energy Economics and Policy, 14(6), 621-627.

[52] Alduais, F., Alsawalhah, J., & Almasria, N. A. (2023). Examining the impact of corporate governance on investors and investee companies: Evidence from Yemen. Economies, 11(1), 13.

[53] Al-Okaily, A., Al-Okaily, M., & Teoh, A. P. (2023). Evaluating ERP systems success: evidence from Jordanian firms in the age of the digital business. VINE Journal of Information and Knowledge Management Systems, 53(6), 1025-1040.

[54] Grandón, Elizabeth E., and Patricio Ramírez-Correa. 2018. Managers/Owners' Innovativeness and Electronic Commerce Acceptance in Chilean Smes: A Multi-Group Analysis Based on a Structural Equation Model. Journal of Theoretical and Applied Electronic Commerce Research 13(3):1–16. doi: 10.4067/S0718-18762018000300102.

[55] Alkhwaldi, A. F., Alobidyeen, B., Abdulmuhsin, A. A., & Al-Okaily, M. (2023). Investigating the antecedents of HRIS adoption in public sector organizations: integration of UTAUT and TTF. International Journal of Organizational Analysis, 31(7), 3251-3274.

[56] Alqudah, H., Al-Qudah, A. A., Al-Qadi, N. S., Elrehail, H., & Al-Okaily, A. (2022). Does financial awareness increase the acceptance rate for financial inclusion? An empirical examination in the era of digital transformation. Kybernetes, 52(11), 4876-4896.

[57] Al-Kofahi, M., Shiyyab, F.S. and Al-Okaily, A. (2023), "Determinants of user satisfaction with financial information systems in the digital transformation era: insights from emerging markets", Global Knowledge, Memory and Communication, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/GKMC-12-2022-0285.

[58] Alsmadi, A. A., Alrawashdeh, N., Al-Okaily, A., Oroud, Y., & Al-Gasaymeh, A. S. (2023). The role of digital accounting transformation in the banking industry sector: an integrated model. Journal of Financial Reporting and Accounting, 22(2), 308-326.

[59] Ibrahim, A., Almasria, N. A., Alhatabat, Z. A., Ershaid, D. J. A., & Aldboush, H. H. (2025). Transforming Financial Services With Artificial Intelligence and Machine Learning: Insights Into Opportunities and Emerging Trends. Utilizing AI and Machine Learning in Financial Analysis, 129-148.

[60] Masadeh, A., Jrairah, T., & Almasria, N. (2023). The Impact of Applying the Target Cost Approach on Products' Structure (Products Pricing, Development and Quality). International Journal of Professional Business Review, 8(6), e02086. https://doi.org/10.26668/businessreview/2023.v8i6.2086.

[61] Alhaimer, R. (2025). Comparing virtual political campaigns with traditional political campaigns: evidence from Kuwait during the COVID-19 pandemic. Global Knowledge, Memory and Communication, 74(1/2), 548-563.

[62] Hair Jr, Joseph F., Marko Sarstedt, Christian M. Ringle, and Siegfried P. Gudergan. 2017. Advanced Issues in Partial Least Squares Structural Equation Modeling. saGe publications.

[63] Hassan, Haslinda, Alexei Tretiakov, and Dick Whiddett. 2017. Factors Affecting the Breadth and Depth of E-Procurement Use in Small and Medium Enterprises. Journal of Organizational Computing and Electronic Commerce 27(4):304–24. doi: 10.1080/10919392.2017.1363584.

[64] Alduais, F., Ali Almasria, N., Samara, A., & Masadeh, A. (2022). Conciseness, financial disclosure, and market reaction: A textual analysis of annual reports in listed Chinese companies. International Journal of Financial Studies, 10(4), 104.

[65] Al-hattamI, Hamood Mohammed, et al. Determinants of interaction intention to purchase online in less developed countries: The moderating role of technology infrastructure. Cogent Social Sciences, 2023, 9.1: 2213918.

[66] Al-hattami, Hamood Mohammed. Impact of AIS success on decision-making effectiveness among SMEs in less developed countries. Information Technology for Development, 2024, 30.3: 472-492.

[67] Wijayanti, Provita, Intan Salwani Mohamed, and Dalila Daud. 2024. Computerized Accounting Information Systems: An Application of Task Technology Fit Model for Microfinance. International Journal of Information Management Data Insights 4(1).

[68] Alzubi, K. M., Alaloul, W. S., Al Salaheen, M., Qureshi, A. H., Musarat, M. A., & Baarimah, A. O. (2021, November). Automated monitoring for construction productivity recognition. In 2021 Third International Sustainability and Resilience Conference: Climate Change (pp. 489-494). IEEE.

[69] Al-Kasasbeh, O., Almasria, N. A., Almajali, M., Tawfiq, T. T., Al-Okaily, A., & Tawaha, H. (2025). Empirical Analysis of Non-Renewable Energy, Renewable Energy, Foreign Direct Investment, and Economic Growth on Environmental Sustainability. International Journal of Energy Economics and Policy, 15(3), 515-523.

[70] Hair, Joseph F., Jeffrey J. Risher, Marko Sarstedt, and Christian M. Ringle. 2019. When to Use and How to Report the Results of PLS-SEM. European Business Review 31(1):2–24. doi: 10.1108/EBR-11-2018-0203.

[71] Masadeh, A. A., Saadat, M., Almasria, N. A., Jrairah, T. S., & Alsawalhah, J. M. (2021). Investigating the role of applying the quality cost approach in the manufacturing system in the public shareholding manufacturing company in Jordan. Academy of accounting and financial Studies Journal, 25(5), 1-14.

[72] Zhu, Kevin, and Kenneth L. Kraemer. 2005. Post-Adoption Variations in Usage and Value of e-Business by Organizations: Cross-Country Evidence from the Retail Industry. Information Systems Research 16(1):61–84. doi: 10.1287/isre.1050.0045.

[73] Mahliza, Febrina. 2020. The Moderating Role of Government Support on The Relationship between Owner Characteristic and E-Commerce Adoption by Micro Enterprises. (6). doi: 10.4108/eai.26-3-2019.2290682.

[73] I M Alnajjar, Mohd. 2017. Impact of Accounting Information System on Organizational Performance: A Study of SMEs in the UAE. Global Review of Accounting and Finance 8(2):20–38. doi: 10.21102/graf.2017.09.82.02.

[74] Chatzoglou, Prodromos, and Dimitrios Chatzoudes. 2016. Factors Affecting E-Business Adoption in SMEs: An Empirical Research. Journal of Enterprise Information Management 29(3):327–358. doi: 10.1108/JEIM-03-2014-0033.

[75] Soto-Acosta, Pedro, Simona Popa, and Daniel Palacios-Marqués. 2016. E-Business, Organizational Innovation and Firm Performance in Manufacturing SMEs: An Empirical Study in Spain. Technological and Economic Development of Economy 22(6):885–904. doi: 10.3846/20294913.2015.1074126.

[76] Alkhater, Nouf, Robert Walters, and Gary Wills. 2018. An Empirical Study of Factors Influencing Cloud Adoption among Private Sector Organisations. Telematics and Informatics 35(1):38–54. doi: 10.1016/j.tele.2017.09.017.