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An Empirical Study on the Impact of TOE Factors on E-Accounting Adoption: The Moderating Role of Cybersecurity

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Abstract. The growing trend of E-Accounting adoption and its impact on businesses through technological advancements and regulatory requirements, while highlighting the transformative potential of digital accounting systems in streamlining financial processes and enhancing decision-making capabilities. The purpose of this study is to examine the E-Accounting adoption. The TOE framework, which stands for the "Technological, Organizational, and Environmental" framework, is a conceptual model used in management and organizational studies to analyze and understand the factors that influence an organization's adoption and implementation of technology. It encompasses three main dimensions: our study proposes Organizational factors (Relative advantage, Technology compatibility), Organizational Influences (Top management support, Readiness), and Environmental factors (competitive pressure) to affect E-Accounting Adoption. Furthermore, auditor cyber security was proposed as a moderating variable. Moreover, the results came from 215 respondents, and the information was gathered from e-accounting users by convenience sampling and SPSS analysis. The findings showed that factors linked to technology, organization, and environment greatly predict the adoption of E-accounting. The findings showed that factors linked to technology, organization, and environment greatly predict the adoption of E-accounting. Additionally, the association between TOE variables and the adoption of E-Accounting is strongly somewhat positively impacted by cyber security. Lastly, more studies are needed on E-Accounting adoption in developing countries to understand the predictors of this technology among E-accounting users. This means that decision-makers are advised to enhance the knowledge of E-accounting users regarding the E-Accounting adoption and to spread the knowledge regarding the benefits of E-Accounting adoption for e-accounting users in the position of decision-makers.

Keywords: E-Accounting adoption, cyber security, TOE factors.

1. Introduction

Accounting is a crucial component of every organization since it not only makes it easier for businesses to keep track of their financial data and transactional activities (Alqudah et al., 2023; Lutfi et al. 2022a), but it is also frequently required by law (Lutfi, & Alqudah, 2023). The development of E-accounting, or accounting software, has made it easier for businesses to significantly automate their accounting procedures. This is thanks to the growth of the Internet and digitalization. Although there is an increase in the adoption of digital accounting solutions, there is also a rise in demand for software that can offer a positive user experience (Alshira'h et al., 2020; Hassenzahl, 2008). More precisely, because they have fewer staff and a lesser budget than their bigger counterparts, financial organizations constantly deal with logistical variables and challenges (Ghobakhloo et al. 2018; Lutfi 2022a). They have opted to adopt electronic accounting in order to perform operations in concert with their IT department in order to improve. These improvements focus on management, improved service delivery, management functionality, and increased market competitiveness (Alshirah et al., 2021a; Lutfi et al. 2022b). The achievement of goals and objectives as well as increased management effectiveness and efficiency have all been achieved in organizations using computerized ISs (Almaiah et al. 2022a; Lutfi 2020; Elshaer and Saad 2022). For this reason, information systems have become an essential institutional tool for addressing problems (Alshirah et al., 2021b; Lutfi et al., 2020; Majesty et al., 2023).

Electronic accounting captures, stores, and analyses financial data (Esmeray & Esmeray, 2020). This ensures that information essential to the financial sector is organized, correct and free from data tampering. Accurate electronic accounting increases efficiency and saves operating costs (Lotfi, 2021; Kong et al., 2019). Electronic accounting facilitates data collection, storage and transmission by using a software system instead of sifting through mountains of paper (Alshirah et al., 2021c; Alsmadi et al., 2023; Teru et al., 2019). In addition, it provides excellent reliability and helps produce financial accounts (Batayneh, 2018). Electronic accounting speeds up the entire process by allowing data and reports to be quickly generated at the touch of a button (Ganyam and Ivungu, 2019). In order to protect it from floods, fires, earthquakes, arson and other risks, electronic accounting is sometimes archived and kept off-site (Bailey et al., 2020). The ability to see data in graphs, tables and various forms can be utilized when viewing accounts using an electronic accounting system (Almahadin et al., 2023 Lutfi, 2022b; Akandinda, 2019; Gusai, 2019).

In this study, the research gap may center on a brief investigation into the impact of (TOE) elements, mainly how cybersecurity measures act as moderators, influencing the adoption of electronic accounting practices among companies in Jordan. Discovered by Al-Wadat et al. (2023), Idris and Mohamed (2017), Lutfi et al. (2022f) and Venkatesh and Bala (2012), the TOE framework serves as a vital tool in understanding how companies adopt technology. According to Tornatzky and Fleischer (1990), the primary factors that influence the successful reception of a technical innovation within the TOE framework include technological, organizational, and environmental contexts. To advance the current body of literature, this research examines how factors such as comparative advantage, technology compatibility, top management support, preparedness, and competitive pressure influence the adoption of electronic accounting and its subsequent impact on financial performance. Furthermore, the study explores the moderating effects of cybersecurity on the relationships between TOE factors and electronic accounting adoption. The TOE framework, as explored by Alodat et al. (2023), Idris and Mohamed (2017), Lutfi et al. (2022f), and Venkatesh and Bala (2012), serves as a tool for understanding how companies embrace technology. According to Tornatzky and Fleischer (1990), technological, organizational and environmental contexts are pivotal factors that influence the successful reception of technical innovation within the TOE framework.

Over recent years, companies in Jordan have turned to electronic accounting methods as a way to improve efficiency and capabilities associated with business operations. There is some previous research on this topic, such as Hussein et al., 2021; Jaafar et al., Hoover, Jordanian companies face challenges while using electronic accounting to fully leverage its potential such as business analytics

and decision support.

For this reason, the current study seeks to identify and evaluate the impact of TOE factors on the application of electronic accounting based on financial performance, as a number of studies have been devoted to it, while achieving a systematic evaluation has remained elusive. This research was conducted through an extensive review of the literature on empirical studies demonstrating the direct relationship between TOE variables, electronic accounting, and financial performance. Companies in Jordan and similar contexts can achieve high transparency and financial efficiency by making informed decisions regarding implementing electronic accounting systems and ensuring financial data security.

2. Literature Review

According to the literature on information systems, system use refers to the effort expended in using an experience that can be equated to a level of output; The time unit used for these considerations (Al-Naimi et al., 2023). The use of information systems also depends on how the user or adopter evaluates the system, meaning that if they are convinced that it at least improves productivity tasks; This will lead to higher levels of satisfaction and using it more often. According to Uzrail and Bardai (2019), e-accounting accuracy makes it possible for all processes (calculations), including additions and subtraction, to be carried out automatically by software, hence removing some of the time-consuming and laborious duties connected with manually operated (manual) accounting (Cong et al., 2019). Additionally, it expedites and reduces the price of running businesses (Cong et al., 2019).

Ghaffar et al. (2019) define adoption of e-accounting as the use of a computer (software and hardware) for accounting tasks and the compilation of financial reports in organizations, regardless of whether the accounting software was created internally or by a vendor. E-accounting is "digital accounting," according to Deshmukh (2006), which carries out accounting operations using binary digits "0" and "1," which signify a computer's power state. Several writers have sought to describe e-accounting as computerized accounting, ICT based accounting, the use of accounting information systems, or the use of computer technology in accounting in an effort to support their claims. These writers include Alfartoosi & Jusoh (2021), Shatnawi et al., (2021), Zakaria et al. (2011), and others. The use of a spreadsheet is once more referred to as "e-accounting" by Binuomote et al. (2019, p. 184). The most accurate definition of electronic accounting, however, extends beyond a focus on computer-based accounting and include the usage of mobile technologies via the internet (Daoud,2023, Oladejo & Yinus, 2020).

There are a lot of relevant E-accounting studies in the present body of knowledge. For instance, Amidu et al. (2011) studied how SMEs in Ghana used electronic accounting. The survey found that SMEs created their financial data using accounting software. Relhan (2013) investigated the adoption of accounting software by Indian SMEs. The returned questionnaire was just 56% of the total. The sample consists of both E-accounting system users and non-users. The applications of the program for managing general ledger administration, fixed assets, payroll, inventory, accounts payable, and bank reconciliation are displayed in the results. According to Oladejo (2014), Yadav (2015), and Teru et al. (2019), e-accounting systems use digital tools like web links, various materials from around the world on the internet, databases from online universities and businesses, online electronic financial spreadsheets, and online accounting software to perform accounting tasks.

The research gap in previous studies there is a need for more comprehensive investigations into the adoption of broader e-accounting technologies, especially those incorporating mobile and internet-based solutions. Reliance on survey data, as seen in Relhan (2013), often results in varying response rates and potential biases, which may affect the generalizability of findings. The impact of factors like organizational size, industry, and geographical location on e-accounting adoption is not explicitly addressed in the synthesized studies.

Due to the vulnerability of e-accounting systems to cyberattacks, the link between cyber security

and adoption of e-accounting is crucial, and it is essential to ensure the security of sensitive financial data. E-accounting systems are becoming increasingly popular as they offer many advantages over traditional accounting systems, including greater efficiency, accuracy, and accessibility. However, companies that use electronic accounting systems face difficulties and potential threats such as cyber-attacks, unauthorized access, and data theft .To fight against these dangers, it is essential to deploy strong cyber security measures.

3. Literature Review and Hypotheses Development

3.1. Technology, Organization and Environment (TOE) Framework, Justification examined the TOE dimensions

Three context-related aspects have an impact on how a firm adopts and uses technological advancements, according to the (TOE) paradigm (Tornatzky & Fleischer, 1990). This framework provides a useful analytical framework that can be used to examine how different types of IT innovation are adopted and assimilated after being originally introduced and subsequently updated in IT adoption studies. It has a solid theoretical base and the potential to be used in innovative IS domains. A paradigm for implementing IT/IS for small firms was put forth by Thong (1999). In order to make judgments for the operations of the business, he detached owner-manager from the organizational setting. The TOE model's decision maker trait is a significant predictor of adoption (Awa, Eze, Urieto, & Inyang, 2011). The method was then utilized by Wan Ismail & Azwadi (2013) for Malaysian SMEs across several industries employing computerized accounting information systems (CAIS). As a result, this study will expand on their approach in many contexts, particularly in the marine sector.

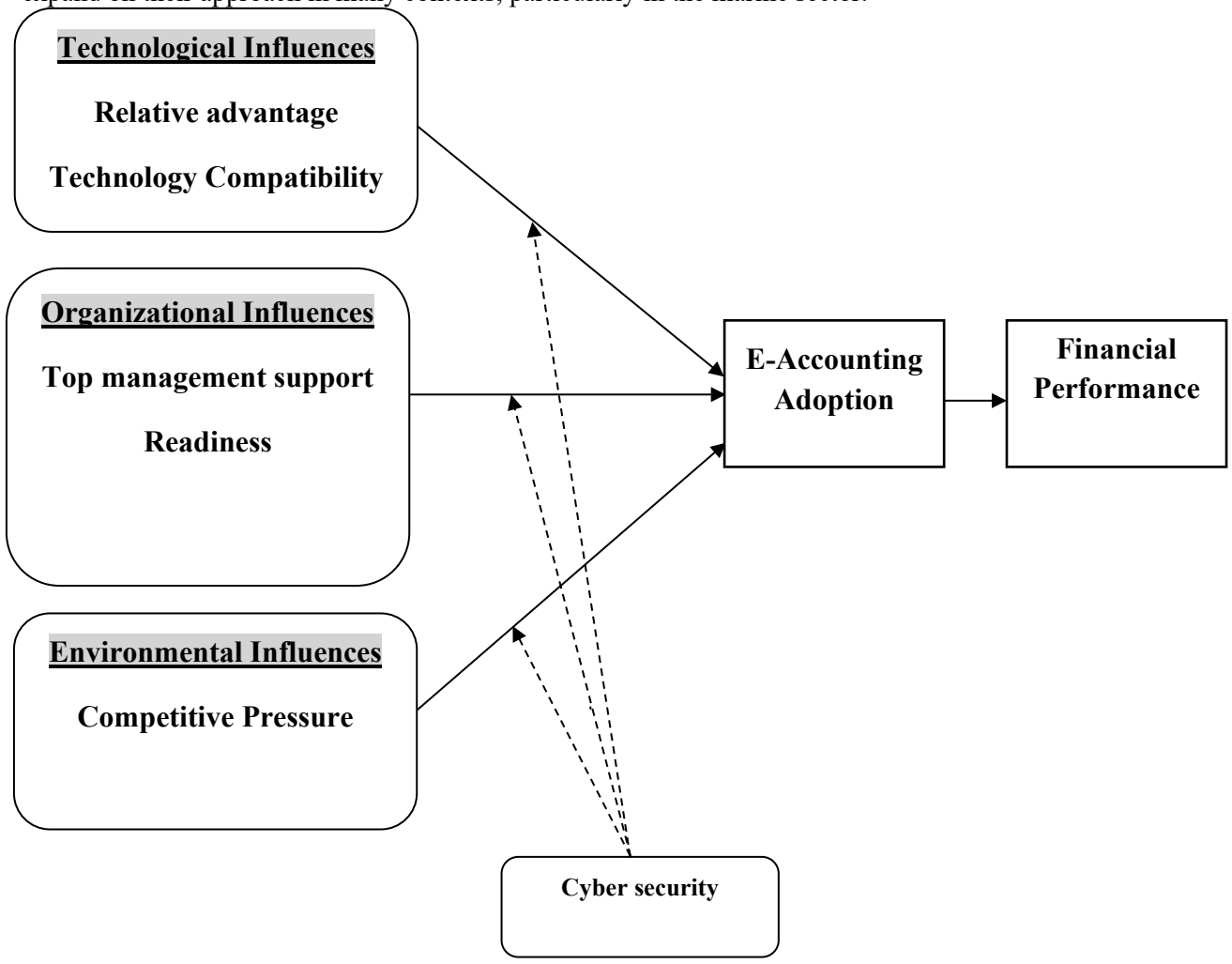

Fig.1: The Research Model

3.2. Relative advantage

The degree to which an invention is thought to give higher organizational advantages than the notion it replaces or the status quo is referred to as relative advantage, according to Rogers (1983). It makes sense for businesses to think about the benefits of implementing innovations (Alsmadi et al. 2023; Almaiah et al. 2022b; Wang, Wang, & Yang, 2010). In conclusion, businesses are more inclined to use e-accounting technology if they see larger relative advantages in it.

According to Rogers (2003), relative advantage is the degree to which an invention is viewed as superior to the concept it replaces. Whether formally or unofficially, prospective adopters will do a cost-benefit analysis, the author predicts. Therefore, prospective consumers will choose a new invention over one that is currently accessible and offers more advantages (Almaiah et al. 2022c; Rogers, 2003).

In summary, the primary concept in a number of adoption theories was relative benefit. It significantly affects how quickly innovations are adopted (Alsyouf et al., 2021; Alrawad et al., 2023a; Al-Okaily et al., 2023). Since E-Accounting is a decision made at the organizational level in an interorganizational setting, relative advantage alone is insufficient to justify its acceptance. A new conceptual framework that broadens the innovation literature is needed to comprehend how the connection qualities affects the application of other aspects. According to this study, customers are more inclined to adopt e-Accounting if they think doing so would result in better rewards. Thus, it is hypothesized that:

H1. Relative advantage will influence positively E-Accounting Adoption.

3.3. Technology Compatibility

According to Rogers (1983) and Louis G. Tornatzky & Klein (1982), The degree to which an invention is deemed to satisfy the requirements of the present practices of potential adopters is known as compatibility. High compatibility has been emphasized as a facilitator for the adoption of innovations, according to Wang et al. (2010).

Their research indicated that alignment is paramount in a company's readiness to embrace innovation. Resistance to change can provide significant obstacles to the introduction of information systems (IS), including electronic accounting (Wang et al., 2010).

One crucial factor impacting the adoption of electronic accounting could be compatibility. Fit, as described by Rogers (1983) and Tornatzky and Klein (1982), is the degree to which an innovation is thought to comply with the current behaviours of possible adopters. According to research by Wang et al. (2010), incorporating electronic accounting into any information systems system might be difficult if there is resistance to change. Innovation adoption has been said to be facilitated by high compatibility. Therefore, compatibility may significantly impact the adoption of electronic accounting.

In conclusion, technological compatibility significantly impacts the adoption of electronic accounting. To guarantee effective deployment and acceptance, businesses should carefully assess how well e-accounting technology fits with their current procedures and requirements. In addition, advantages are regarded more highly at higher levels of compatibility, according to Lins et al. (2016). As a result, it is assumed that:

H2. Technology Compatibility will influence positively E-Accounting adoption.

3.4. Top management support

According to Ragu et al. (2004), top management support (TMS) is defined as top management's acceptance of an IS's potential benefits and involvement in its implementation. TMS is described as the "explicit and active support of the top management towards the introduction and development of new information technology" in a study by Bruque et al. (2004). TMS has a key role in promoting an organization's adoption of technological improvements, claim Lutfi et al. in 2022i.

Senior management's engagement in ICT projects at public accounting firms has improved the

companies' decision-making process for obtaining and implementing technology, claim Salleh et al. in 2007. The firm's partners have a significant role in encouraging their staff to embrace audit technology in the context of technology adoption among auditors (Alsyouf et al., 2023; Curtis & Payne, 2008).

In conclusion, top management support is crucial for the successful adoption of e-accounting systems. Organizations should ensure that senior management is involved and supportive of the implementation process to increase the chances of successful adoption and maximize the benefits of e-accounting systems. To the best of our knowledge, despite multiple studies showing that TMS favorably influences intention to use (Lutfi et al., 2022j; Alsyouf & Ishaq, 2018; Alsyouf et al., 2022a), little study has studied how TMS relates to the adoption of E-Accounting. Hence, the following hypothesis is posited:

H3. Top management support will influence positively E-Accounting adoption.

3.5. Readiness

The organizational resources and capability of a business have a considerable impact on its structure and behavior. Organizational resources may help or hinder transformation depending on their function (Almaiah et al., 2022d; Unsworth et al., 2012). For the proper adoption of such technology, a fundamental theory in the organization and IT literature (Alrawad et al., 2023b; Guo & Wu, 2010; Tarofder et al., 2013) emphasizes the need to match the nature of technological change and the capacity of organizations.

A company's technological and financial resources can be utilized to determine how prepared it is (Almaiah et al., 2022e; Iacovou, Benbasat, & Dexter, 1995; Marei et al., 2022). These resources are used to increase the preparation of the organization by providing the business with technological tools and encouraging a work climate that encourages technology adoption. Curtis and Payne (2008) state that a public accounting firm may refuse to shift toward new technologies because of pressure on its budget. Flexibility to embrace new challenges varies for public accounting firms. Businesses are better able to handle new issues when they provide their clients with new services (Alkhazaleh and Marei, 2021; Alsyouf et al., 2022b; Salleh, Rose, Kumar, & Peng, 2007).

In summary, effective adoption of e-accounting systems depends on readiness. In order to adopt and run e-accounting systems successfully, organizations need make sure they are well-equipped, have the necessary resources, and are supported. This could result from performance and benefit gains and a rise in the use of e-accounting systems.

H4. Readiness will influence positively E-Accounting adoption.

3.6. Competitive Pressure

Competitive pressure affects SMEs' use of AI systems (Lotfi et al., 2023a). Increased competition in this environment drives companies to adopt innovation (Alsaad et al., 2016). Under the influence of competitive forces, entrepreneurs are driven to grow a thriving market and demonstrate greater creativity to stand out from competitors (Almaiah et al., 2022f; Lutfi et al., 2023b). Organizations may implement electronic accounting systems to outpace competitors in response to competitive dynamics. Electronic accounting systems offer many advantages, including improved accuracy, faster processing times, and easier access to financial data. These benefits can give organizations a competitive advantage through cost savings and improved decision-making.

Overall, competitive pressure is a significant driver of e-accounting adoption, as businesses seek to remain competitive by adopting technologies that can improve their operational efficiency, productivity, and customer service. Hence, the following hypothesis is posited:

H5. Competitive Pressure will influence positively E-Accounting adoption.

3.7. Moderating Role of cyber security

A common abbreviation for cybersecurity is "cybersecurity." Another crucial component of cyber security is the protection of those who work in cyberspace as well as any of their assets that may be accessible through cyberspace. (Almaiah et al. 2022i; Marei, 2022; Rifai et al. 2023; Von Solms and van Niekerk, 2013). Systems, networks, and data are protected from cyberattacks using a combination of technologies, procedures, and controls called cyber security. Effective cyber security lowers the danger of cyberattacks and guards against unlawful use of systems, networks, and technology by society, companies, and people. Information security and information assurance are subsets of the broader idea of cybersecurity (Almaiah et al. 2022j; Gyun No and Vasarhelyi, 2017). In order to secure information that is evaluated and transferred via any computer network, cybersecurity is necessary (Gordon and Loeb, 2006).

Researchers that study the relationship between accounting and information systems, or accounting information system (AIS) academics, can assess the effect of cybersecurity on accounting data from a number of theoretical or empirical angles. Our emphasis on how behavior drives action may be helpful to managers who create and administer cybersecurity laws or strive to avoid and detect cybersecurity breaches. Last but not least, we provide this special subject issue to encourage accounting professionals to learn more about cybersecurity. See Richardson and Banker and Feng (2019), Due to the introduction of e-accounting, cybersecurity has considerably changed into an accounting problem, necessitating cost-benefit calculations and disclosure policy considerations (Almaiah et al. 2022k; Almaiah et al. 2022l; Haapamäki & Sihvonen 2019; Qushtom et al. 2022).

The concept of cyber security plays a critical role as a moderator in the Technology-Organization-Environment (TOE) factors' positive relationship with e-accounting adoption. Finally, electronic accounting adoption and TOE characteristics are positively associated, with cybersecurity as a moderator. The presence and strong role of cybersecurity can increase user trust and confidence in the system, alleviate concerns about cyber threats and promote greater propensity to adopt electronic accounting. This, in turn, is expected to contribute to enhancing financial performance. Therefore, the hypothesis posits that:

H6A. Relative Advantage influences the E-Accounting adoption in the presence of cyber security.

H6B. Technology Compatibility influences E-Accounting adoption in the presence of cyber security.

H6C. Top management support influences E-Accounting adoption in the presence of cyber security.

H6D. Readiness influences E-Accounting adoption in the presence of cyber security.

H6E. Competitive pressure E-Accounting adoption in the presence of cyber security.

3.8. E-Accounting Adoption and Financial Performance

According to the IS literature (Lutfi et al., 2022k; Trice and Treacy 1988), the amount of effort required to utilize an IS is equivalent to the system's output in terms of a time unit. The user's or adopter's evaluation of the system largely determines how frequently and to what extent they use an IS (Bokhari 2005). If they are convinced that the system enhances work performance, they will be more satisfied with it and use it more frequently.

EA adoption, independent of whether the accounting software was developed internally or by a vendor, is the use of a computer (hardware and software) for accounting duties and the production of financial reports inside a company. Thus, IT is not a "white elephant" and is used creatively (Al-Naimi et al., 2023; Thong & Yap, 1995). Adopting EAs is essential for the company to guarantee that all

financial data is properly organized and available for decision-making. As a result, that firm may be well-managed and enhance the performance of businesses, particularly SMEs (Lutfi et al., 2022k).

Adoption of e-accounting may have a big influence on financial success. E-accounting systems can improve the accessibility and quality of financial data while speeding accounting processes and minimizing errors.These benefits can favour financial performance by reducing costs, enhancing decision-making, and increasing operational efficiency.

Implementing electronic accounting can improve financial performance by increasing asset utilisation, profitability, and liquidity. Real-time financial data from electronic accounting systems helps organisations identify patterns and make prompt, well-informed financial choices. Enhancing customer service can also give businesses a competitive edge. This can be done by accelerating response times, raising transaction accuracy, and enhancing data analysis (Shahin et al., 2023; Lotfy, 2022b; Marei, 2023; Mansour et al., 2023). These advantages impact increased sales, better financial performance, and customer happiness and loyalty.

Implementing electronic accounting can potentially affect financial performance significantly. Electronic accounting systems can improve profitability, liquidity, and asset utilisation through enhanced operational efficiency, decision-making, compliance, and customer service. Thus, the following is the hypothesis:

H7: E-Accounting Adoption will influence positively Financial Performance

4. Research Methodology

Measurements Design and Collecting Data The questionnaire for this study was originally created in English and then translated into Arabic to assess hypotheses. The measurement items, meanwhile, were selected in a manner similar to previous e-accounting. There were no changes made to the metrics of the questionnaire to maintain their applicability in the context of the study. Nine e-accounting specialists first created and evaluated this questionnaire. To verify that the questions were precise, understandable, unambiguous, and pertinent, a preliminary pretest was developed (Al-Mugheed et al., 2022; Alharasis et al., 2022; Sekaran and Bougie 2013). Three senior managers and six directors who worked for Jordanian companies that used accounting studied and evaluated the research questionnaire. After the pretest, several items were altered to make the questionnaire simpler to read. A Likert scale of 1 (strongly disagree) to 5 (strongly agree) was used to score each item.

The e-accounting users who are decision-makers who were the study's survey subjects were interviewed over the course of four months (17 January 2023–19 May 2023). 191 listed companies in the financial, industrial, and service sectors of Jordan received online surveys as part of the study. Based on the assertion made by Hwang et al. (2016) that the sample size should be at least 10 times the number of paths leading to the endogenous construct, the number of samples was chosen., which in this case was (N = 215), which resulted in 215 being recovered out of the total copies dispersed.

A similar recommendation was made by Hair et al. (2019), who argued that the number of respondents should be 8 times more than the number of research constructs. The two primary references for the study's sample size justification are Hair et al. (2019) and Hwang et al. (2016). The sample size should be at least ten times the number of approaches leading to the endogenous construct, according to Huang et al. (2016). Hair et al. (2019) suggested that the participant count should be eight times greater than the total research components. A multivariate analysis or structural equation modelling (SEM) study guarantees enough statistical power to identify meaningful relationships and produce more dependable and thorough results. These well-established research technique norms and practices justify the chosen sample size, demonstrating that the researchers carefully picked an adequate and statistically sound size for their study.

5. Measurement Model

Internal consistency reliability is measured by directing all subindices towards measuring a construct (Hair et al. 2019). With respect to the definition of CRS values, they should be 0.7 and AVE value must reach at least 0.5

All of the CR and AVE values above the threshold levels, as shown in Table 1.

Table 1. Reliability and Validity

Variables	CR	AVE
Relative advantage	0.971	0.713
Technology compatibility	0.972	0.735
Top management support	0.955	0.796
Readiness	0.941	0.770
competitive pressure	0.974	0.893
E-Accounting Adoption	0.962	0.884
cyber security	0.964	0.895
Financial Performance	0.955	0.884

5.1. Measurement of Variables

Eleven factors, including those pertaining to relative advantage, technology compatibility, top management support, readiness, competitive pressure, and competitive pressure, are included in this study. a modicum (cyber security). The E-Accounting Adoption, a dependent variable that affects financial performance, is the variable. Table 2 displays the measures used to the constructions and their sources. As suggested by Lutfi & Alqudah (2023), Rosli, et al. (2013), Lutfi et al. (2022), Lee & Raschke. (2023)

Table 2. Constructs Measurements and Measurement Sources

Constructs	Source	Items
Relative advantage	Lutfi & Alqudah,(2023) Rosli, et al. (2013)	5
Technology compatibility	Lutfi & Alqudah,(2023) Rosli, et al. (2013)	3
Top management support	Lutfi & Alqudah,(2023) Rosli, et al. (2013)	4
Readiness	Lutfi & Alqudah,(2023) Rosli, et al. (2013)	5
Competitive pressure	Lutfi & Alqudah,(2023) Rosli, et al. (2013)	3
E-Accounting Adoption	Lutfi et al. (2022)	4
Cyber security	Garcia et al. (2023)	3
Financial Performance	Lee & Raschke. (2023)	5
	Total :	32

6. Data Analysis and Results

This study used regression analysis to forecast the relationship between TOE Factors and E-Accounting Adoption: examining the moderation role of Cyber security.

6.1. Demographics and Descriptive Statistics

Demographic information of the respondents is presented in Table 3. A total of 215 respondents participated in this study. Majority of the respondents are males (91.6%) younger than 35 years (62.8%), have bachelors' degree (96.2%), with 60.90% of the respondents have experience and working as Accountant (60.62%).

Table 3. Demographic Information

Variable	Label	Frequency	Percent	Mean	Std. Deviation
Gender	Male	197	91.6	1.08	0.289
	Female	18	8.4		
Age	26-35	135	62. 8	1.68	0.491
	36-45	61	28.30		
	Over 46	19	8.9		
Education	Bachelor Degree	207	96.2	2.06	0.353
	Master Degree	4	1.9		
	PhD degree	4	1.9		
Experience	Less than 5 years	24	11.10	2.05	0.599
	5-10 years	131	60.90		
	10-15 years	43	20.00		
	More than 15 years	17	8.00		
Position	Financial Manager	13	10.23	2.88	0.791
	Head of Accounts Department	96	44.65		
	Accountant	141	65.58		

Descriptive statistics are those used to analyze data in ways that explain or show the data as it is, without attempting to draw broad inferences or generalizations, according to Sugiyono (2014). This study's goal was to examine descriptive statistics using SPSS.

Using SPSS Version 23, basic data processing is carried out.Table 4 is a list of the criteria used in this investigation. The variable (Technological Influences) has a minimum value of 1 and a maximum value of 5, with an average score of 4.01 and a standard deviation of 0.52. It is based on respondents' responses to nine questions and five alternative choices (1, 2, 3, 4, and 5). (Organizational Influences) is based on respondents' answers to nine questions and five alternative choices (1, 2, 3, 4, and 5), and has a mean score of 4.09 and a standard deviation of 0.48, with a minimum value of 1 and a maximum value of 5. Environmental Influences has a mean score of 4.27 and a standard deviation of 0.55 on a scale from 0 to 100. Based on respondents' responses to fifteen questions with five potential answers (one, two, three, four, and five), the variable (E-Accounting Adoption) yields a minimum value of 1 and a maximum value of 5, with an average score of 4.11 and a standard deviation of 0.41. Additionally, there is a scale for cyber security that ranges from 1 to 5, with an average score of 4.13 and a standard deviation of 0.53. Tables 3 and 3 display the findings of a correlation analysis of the key study variables. As indicated in Tables 4 and 5, there are significant relationships between the variables in this study. The correlation results support the H1, H2, H3, H4, H5, and H6 investigational hypotheses.

These are the conclusions:

Table 4: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Technological Influences	215	1.00	5.00	4.01	0.52
Organizational Influences	215	1.00	5.00	4.09	0.48
Environmental Influences	215	1.00	5.00	4.27	0.55
E-Accounting Adoption	215	1.00	5.00	4.11	0.41
Cyber security	215	1.00	5.00	4.13	0.53

Table 5 shows correlations between the moderating variable, in this case cybersecurity, and the other independent variables (technological influences, organizational influences, and environmental influences). Let's examine the data in the table in more detail:

Technological Influences vs. Cybersecurity: The correlation coefficient between Cybersecurity and Technological Influences is 0.635, and the p-value is less than 0.05 (significant at the 0.05 level). This shows that technological influences and cybersecurity have a mildly favorable link. In other words, cybersecurity tends to grow along with technological influences. Organizational Influences vs. Cybersecurity: Organizational Influences and Cybersecurity have a 0.575 correlation coefficient, and the p-value is less than 0.05. The relationship between organizational influences and cybersecurity is thus moderately good. Cybersecurity tends to rise as organizational influences do. Environmental Influences vs. Cybersecurity: Environmental factors and cybersecurity have a 0.664 association coefficient, and the p-value is less than 0.05. The relationship between environmental influences and cybersecurity is also somewhat beneficial, as seen by this.

Table 5: Correlation between Independent Variables and a Moderating Variable

		Technological Influences	**Organizational Influences**	**Environmental Influences**	**Cyber security**
Technological Influences	Correlation Coefficient	1.000	.760**	.575**	.635**
	Sig. (2-tailed)	.	.000	.000	.000
	N	215	215	215	215
Organizational Influences	Correlation Coefficient	.760**	1.000	.664**	.575**
	Sig. (2-tailed)	.000	.	.000	.000
	N	215	215	215	215
Environmental Influences	Correlation Coefficient	.575**	.664**	1.000	
	Sig. (2-tailed)				
	N	215	215	215	215
Cyber security	Correlation Coefficient	.635**	.575**	.575**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	215	215	215	215

Table 6 shows correlation coefficients between a number of independent factors (environmental, organizational, and technological influences) and dependent variables (financial performance and adoption of e-accounting). Let's examine the data in the table in more detail:

Technological Influences vs. Financial Performance: The relationship between technological influences and financial performance is very favorable, as indicated by the correlation coefficient of 0.778 and the p-value of less than 0.05. Technological Influences vs. E-Accounting Adoption: The use of E-Accounting is strongly positively correlated with technological influences, as shown by the correlation coefficient of 0.641 and the p-value of less than 0.05. Organizational Influences vs. Financial Performance: Organizational Influences and Financial Performance are somewhat positively correlated, as shown by the correlation coefficient of 0.555 and the p-value of less than 0.05. Organizational Influences vs. E-Accounting Adoption: Organizational Influences and the Adoption of E-Accounting are somewhat positively correlated, as shown by the correlation coefficient of 0.565 and the p-value of less than 0.05. Environmental Influences vs. Financial Performance: The p-value is less than 0.05, and the correlation coefficient between environmental factors and financial success is 0.666, indicating a highly strong positive relationship. Adoption of E-Accounting vs. Environmental effects: A correlation coefficient of 0.611 and a p-value less than 0.05 indicate a substantial positive association between environmental effects and the adoption of E-Accounting.

Table 6: Correlation between an Independent Variables and an Dependent Variable

			Technological Influences	**Organizational Influences**	**Environmental Influences**	**Financial Performance**	**E-Accounting Adoption**
Spearman's rho	Technological Influences	Correlation Coefficient	1.000	.840**	.551**	.778	.641**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	215	215	215	215	215
	Organizational Influences	Correlation Coefficient	.840**	1.000	.666**	.555	.565**
		Sig. (2-tailed)	.000	..000	.000	.000	.000
		N	215	215	215	215	215
	Environmental Influences	Correlation Coefficient	551	.666**	1.000	0.555	.611**
			.000	.000	.000	.000	.000

	Sig. (2-tailed)	215	215	215	215	215
	N					
Financial Performance	Correlation Coefficient	.778	.555	.311	1.000	.661**
		.000	.000	.000	.000	.000
		215	215	215	215	215
	Sig. (2-tailed)					
	N					
E-Accounting Adoption	Correlation Coefficient	.641**	.565**	.611**	.661**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	215	215	215	215	215

	Sig. (2-tailed)	**.000**	**.000**	**.000**	**.000**	**.000**
	N	215	215	215	215	215

6.2. Multiple Linear Regression Analysis

Using linear regression analysis, the effect of the dependent variable on the free variable is evaluated. Regression is the term used to describe the situation where there are two or more independent variables. Table 7 below shows the results of the regression analysis:

The finding in Table 7 demonstrates that E-Accounting Adoption is significantly and positively connected to TOE factors. This finding suggests that growing technological influences result in the growing adoption of E-Accounting Adoption. Additionally, the adoption of e-accounting is strongly influenced by both organizational and environmental factors. H1, H2, and H3 are therefore supported. This suggests that Technological Influences, Organizational Influences, and Environmental Influences have an impact on E-Accounting Adoption.

Table 7. Regression Model Summary Statistics of Technological Influences, Organizational Influences, and Environmental Influences Variables on E-Accounting Adoption (N=215)

Dependent Variable	
	(Prob -t statistics in parentheses)
Constant	0.313
	(0.000) ***
Technological Influences	0.011
	(0.000) *
Organizational Influences	0.046

	(0.000) **
Environmental Influences	0.021
	(0.000) *
R^2	0.868
Adjusted R^2	0.775
F statistic	62.314***
Significance of *F*	0.000
Durbin-Watson	2.111

Table 8 shows that technological influences, organizational influences, and environmental influences are strongly and favorably correlated. According to this finding, increasing technical effects lead to rising financial performance. Additionally, both Technological organizational, and environmental factors have a significant impact on E-Accounting Adoption. Therefore, Hs 1, 2, and 3 are supported. This shows that technological influences, organizational influences, and environmental influences have an effect on financial performance.

Table 8: Regression Model Summary Statistics of Technological Influences, Organizational Influences, and Environmental Influences Variables on Financial Performance (N=215)

Dependent Variable	
	(Prob -t statistics in parentheses)
Constant	0.413
	(0.002) ***
Technological Influences	0.011
	(0.003) *
Organizational Influences	0.046
	(0.001) **
Environmental Influences	0.021
	(0.000) *
R^2	0.778
Adjusted R^2	0.888
F statistic	64.414***
Significance of *F*	0.000
Durbin-Watson	2.012

Table 9 illustrates how cyber security has a moderating effect on the relationship between e-accounting adoption and technological, organizational, and environmental factors. The results show that when cyber security is incorporated as a moderating variable, the relationship between technical impacts, organizational influences, and environmental effects and the adoption of e-accounting changes for the better. Hypotheses H4, H5, and H6 are therefore supported.

Table 9: Regression Model Summary Statistics of Cyber security Moderate the Relationship Between (Technological Influences, Organizational Influences, and Environmental Influences) and E-Accounting Adoption (H4,5 and 6)

Dependent Variable	
	(Prob -t statistics in parentheses)
Constant	0.288
	(0.002) ***
Technological Influences	0.011
	(0.055) *
Organizational Influences	0.046
	(0.016) **
Environmental Influences	0.021

	(0.014)*
	0.000
Cyber security * Technological Influences	(0.841)
	0.007
Cyber security * Organizational Influences	(0.791)
	0.002
Cyber security * Entrepreneurial Influences	(0.224)***
R^2	0.868
Adjusted R^2	0.775
F statistic	62.314***
Significance of *F*	0.000
Durbin-Watson	2.111

***, **, * demonstrates that regression analysis has statistical significance at 1%, 5%, and 10%, respectively.

Table 10 displays the moderating impact of cyber security on the link between financial performance and technological, organizational, and environmental influences. The findings indicate that when cyber security is included as a moderating variable, the association between technological, organizational, and environmental influences and financial performance is positive. As a consequence, hypotheses H4, H5, and H6 are supported.

Table 10: Regression Model Summary Statistics of Cyber security Moderate the Relationship Between (Technological Influences, Organizational Influences, and Environmental Influences) and Financial Performance (H4,5 and 6)

Dependent Variable	
	(Prob -t statistics in parentheses)
Constant	0.413
	(0.002) ***
Technological Influences	0.001
	(0.003) *
Organizational Influences	0.033
	(0.004) **
Environmental Influences	0.022
	(0.014)*
	0.000
Cyber security * Technological Influences	(0.734)
	0.000
Cyber security * Organizational Influences	(0.814)
	0.000
Cyber security * Entrepreneurial Influences	(0.213)***
R^2	0.778
Adjusted R^2	0.888
F statistic	64.414***
Significance of *F*	0.000
Durbin-Watson	2.012

***, **, * demonstrates that regression analysis has statistical significance at 1%, 5%, and 10%, respectively.

7. Conclusions

This study closes a knowledge gap in the adoption of e-accounting among users who are in decision-making roles. The value of e-accounting is created by improving business performance, but in spite of its significance, A variety of elements and their relationships may also have an impact on performance outcomes, while this is not well understood and is typically assumed to enhance judgments. This study's major goal is to examine TOE characteristics, their importance in encouraging e-accounting adoption, and their effects on financial success.

The study's results show that adoption of e-accounting for attaining the main goal is significantly and favorably influenced by five factors: relative advantage, technological compatibility, top management support, preparation, and competitive pressure.

The study's results show that adoption of e-accounting for attaining the primary aim is significantly and favorably influenced by five factors: relative advantage, technological compatibility, top management support, preparation, and competitive pressure. "Relative advantage" refers to the extent to which using E-Accounting is deemed to be more advantageous than carrying out tasks the traditional manner in terms of efficiency, speed, cost-effectiveness, or other criteria. To minimize interruptions and get the advantages of automation, efficiency, and accuracy in financial operations, businesses must be able to easily integrate E-Accounting systems into their current technical infrastructure. This is referred to as technology compatibility. The level of support for e-accounting adoption from top management within a business is shown by the resources and investments made to further this objective. The use of E-Accounting may be accelerated by people and organizations, which will increase financial processes' accuracy, efficiency, and decision-making. Competitive pressure is the term used to describe the outside pressures that push businesses to adopt e-accounting in order to stay competitive.

It is important to note that the impact of E-Accounting adoption on financial performance can vary depending on factors such as the size of the organization, the effectiveness of implementation, user adoption, and the overall business environment. However, when implemented and utilized effectively, E-Accounting systems have the potential to positively transform financial processes, enhance decision-making, and contribute to improved financial performance.

In spite of its conflicting results, this study found that cyber security has a substantial influence on the association between TOE variables and e-accounting adoption. Because the high-end (high cyber security) is higher than the low-end (low cyber security), the results also show that moderating is advantageous and that an increase in organizational readiness as a moderator will result in an increase in the positive relationship between TOE factors and E-Accounting adoption.

7.1. Consistent Findings with Past Studies:

Relative Advantage: According to the study, relative advantage has a beneficial influence on the adoption of e-accounting. This is consistent with earlier studies that frequently emphasize the accuracy, cost-effectiveness, and efficiency advantages of e-accounting. Studies in the past have repeatedly indicated that when businesses see the benefits of e-accounting, they tend to embrace it. Technology Compatibility: This study confirms that the adoption of E-Accounting is significantly influenced by technology compatibility. This is in line with other studies that highlight how crucial it is to integrate E-Accounting systems with current technological infrastructure in order to reduce interruptions. Top Management Support: Analysis consistently reveals that top management support has a favorable influence on the adoption of e-accounting. Previous studies have repeatedly stressed the importance of leadership commitment and support in fostering technological transformation inside firms. Readiness: The findings of a study on readiness are consistent with other studies that claim an organized and responsive organizational climate is favorable to the adoption of E-Accounting. A few readiness factors that have been shown to affect adoption include training, employee acceptance, and business culture. Competitive Pressure: According to the research, there is substantial evidence that competition has an impact on the adoption of electronic accounting. According to past studies, organizations are under

external pressure to adopt E-Accounting in order to stay competitive.

Cybersecurity's Moderating Role: The study offers a unique conclusion by claiming that cybersecurity significantly, and favorably modifies the association between TOE variables and the adoption of electronic accounting. This result conflicts with past studies that might not have thoroughly examined the cybersecurity element. This innovative understanding could be an indication that more people are seeing the value of cybersecurity in contemporary accounting procedures.

7.2. Discuss limitations of the research methods/design

Certainly, here are some potential limitations of the research methods and design for an emphasis on the moderating function of cybersecurity for research on the effects of TOE (Technological, Organizational, and Environmental) variables on the adoption of E-Accounting in Jordanian companies:

Sample Size and Representativeness: A research may not be representative of the total population of Jordanian firms if it uses a small sample size or is restricted to a small number of industries or geographical areas within Jordan. The generalizability of your findings may be impacted by this. Data Collection Methods: Talk about the data collection techniques you employed, such as surveys, interviews, or secondary data sources. Mention any potential biases or restrictions on the data-gathering process. For instance, selection bias can be introduced if survey response rates are low. Moderation Effect Interpretation: Although the study indicated that cybersecurity has a beneficial moderating impact, it's important to stress that moderating does not imply causation. There can be more, unaccounted-for elements that affect the connection. Generalization Beyond Jordan: Recognize that Jordanian businesses are the topic of the study. The generalizability of the findings to businesses in other countries may be limited due to differences in legislative frameworks, cultural norms, and business practices. In summary, the study provides valuable insights into the impact of TOE variables on adopting E-Accounting in Jordanian businesses, with a particular focus on cybersecurity. However, it is essential to acknowledge and be transparent about the limitations.

7.3. Theoretical contributions and practical implications

Theoretical Contributions:

This study offers a fresh viewpoint by examining the moderating influence of cybersecurity on the adoption of electronic accounting. Several significant theoretical developments are given to the electronic accounting adoption and performance literature by this study. It supports such literature of E-accounting adoption and utilization with its effect (benefits) in a developing country, Jordan. This is the first attempt to either test empirically or theoretically factors influencing electronic accounting adoption and its influence on business performance. A different view is being presented by the study wherein cybersecurity was adopted as a mediator of electronic accounting adoption. Presented as a theoretical addition to the corpus of research on technology adoption, it highlights cybersecurity's critical role in influencing the integration of cutting-edge financial technologies. The TOE framework considers the interactions between organizational characteristics, outside environmental influences, and technical preparedness to offer a methodical way to analyze and comprehend adoption behaviors.

Practical Implications:

The results are also of great importance to government agencies, decision makers, electronic accounting vendors or consultants, and the company. Regarding the advantages of use, this study demonstrated the existence of a reliable relationship between electronic accounting and business performance. This means that companies with advanced electronic accounting enjoy superior performance in all areas of operations, higher corporate competitiveness as well as productivity, resulting in more informed decisions based on high-quality information in less time. Due to cybersecurity's significant moderating influence, organizations may prioritize cybersecurity investments when deploying electronic

accounting systems. Ensuring the secure operation of computerized accounting platforms and safeguarding sensitive financial information requires the practical implementation of cybersecurity. Therefore, this study complemented previous findings by confirming this association. Decision makers must understand that electronic accounting is important for the growth and sustainability of their organizations. As the deployment of electronic accounting is increasing, regulatory bodies must impose strict cybersecurity standards and a way to keep financial information private. Companies need to be proactive in monitoring and following these regulations.

Future Research Directions:

Future studies are likely to cover other samples and other respondent groups. The second consideration is the context of the study, which refers to Jordanian companies. This could limit generalizability of results and future research may collect samples from other developing countries, such as African or Asian countries. The second limitation relates to the cross-sectional study design, where no responses over time are included. It is important to note that there are some formulations such as usage, which require a long time for accurate measurement. New factors, such as the effects of electronic accounting efficiency and decision-making, could be analyzed in future studies that would evaluate the net benefits provided by the system. Second: The results of this study showed that it is necessary to emphasize that electronic accounting plays a vital role in enabling companies to maintain their competitive positions. Extending the research to examine the implementation of electronic accounting in various industries in Jordan may unveil optimal approaches unique to each sector. Such an analysis can also indicate possible variations in industries' cybersecurity considerations and TOE elements. Furthermore, it would be advantageous to thoroughly analyze the long-term impacts of electronic accounting adoption on Jordanian enterprises' financial performance. This study can explore how precision, effectiveness, and decision-making gains over an extended period translate into observable financial outcomes.

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Reference

Akandinda, N. (2019). Computerized finance management system for Banton clay brick making business (Doctoral dissertation, Makerere University).

Alfartoosi, A., & Jusoh, M. A. (2021). A Conceptual Model of E-accounting: Mediating effect of Internal Control System on the Relationship Between E-accounting and the Performance in the Small and Medium Enterprises. International Journal of Economics and Management Systems, 6.

Alharasis, E. E., Tarawneh, A. S., Shehadeh, M., Haddad, H., Marei, A., & Hasan, E. F. (2022). Reimbursement costs of auditing financial assets measured by fair value model in Jordanian financial firms' annual reports. Sustainability, 14(17), 10620.

Ali, M. A., Hussin, N., Haddad, H., Alkhodary, D., & Marei, A. (2021). Dynamic capabilities and their impact on intellectual capital and innovation performance. Sustainability, 13(18), 10028.

Alkhazaleh, A. M. K., & Marei, A. (2021). Would irregular auditing implements impact the quality of financial reports: Case study in jordan practice. Journal of Management Information and Decision Sciences, 24(6), 1-14.

Alkhwaldi, A. F., Alharasis, E. E., Shehadeh, M., Abu-AlSondos, I. A., Oudat, M. S., & Bani Atta, A. A. (2022). Towards an understanding of FinTech users' adoption: Intention and e-loyalty post-COVID-19 from a developing country perspective. *Sustainability*, *14*(19), 12616.

Almahadin, H. A., Shehadeh, M., Al-Gasaymeh, A. S., Abu-AlSondos, I. A., & Atta, A. A. B. (2023, March). Impact of Blockchain Technology and Fintech on Sustainable Performance. In *2023 International Conference on Business Analytics for Technology and Security (ICBATS)* (pp. 1-5). IEEE.

Almaiah, Mohammed Amin, Ali Al-Rahmi, Fahad Alturise, Lamia Hassan, Abdalwali utfi, Mahmaod Alrawad, Salem Alkhalaf, Waleed Mugahed Al-Rahmi, Saleh Al-sharaieh, and Theyazn HH Aldhyani. 2022c. Investigating the Effect of Perceived Security, Perceived Trust, and Information Quality on Mobile Payment Usage through Near-Field Communication (NFC) in Saudi Arabia. *Electronics* 11: 3926. https://doi.org/10.3390/electronics11233926.

Almaiah, Mohammed Amin, Ali Mugahed Al-Rahmi, Fahad Alturise, Mahmaod Alrawad, Salem Alkhalaf, Abdalwali utfi, Waleed Mugahed Al-Rahmi, and Ali Bani Awad. 2022d. Factors influencing the adoption of internet banking: An integration of ISSM and UTAUT with price value and perceived risk. *Frontiers in Psychology* 13: 919198. https://doi.org/10.3389/fpsyg.2022.919198.

Almaiah, Mohammed Amin, Fahima Hajjej, Abdalwali utfi, Ahmad Al-Khasawneh, Rami Shehab, Shaha Al-Otaibi, and Mahmaod Alrawad. 2022a. Explaining the Factors Affecting Students' Attitudes to Using Online Learning (Madrasati Platform) during COVID-19. *Electronics* 11: 973.

Almaiah, Mohammed Amin, Fahima Hajjej, Abdalwali utfi, Ahmad Al-Khasawneh, Tayseer Alkhdour, Omar Almomani, and Rami Shehab. 2022b. A Conceptual Framework for Determining Quality Requirements for Mobile Learning Applications Using Delphi Method. *Electronics* 11: 788.

Almaiah, Mohammed Amin, Fahima Hajjej, Rima Shishakly, Abdalwali utfi, Ali Amin, and Ali Bani Awad. 2022e. The Role of Quality Measurements in Enhancing the Usability of Mobile Learning Applications during COVID-19. *Electronics* 11: 8070. https://doi.org/10.3390/1748070.

Almaiah, Mohammed Amin, Khadija Alhumaid, Abid Aldhuhoori, Noha Alnazzawi, Ahmad Aburayya, Raghad Alfaisal, Said A. Salloum et al. 2022f. Factors Affecting the Adoption of Digital Information Technologies in Higher Education: An Empirical Study. *Electronics* 11: 3572.

Almaiah, Mohammed Amin, Raghad Alfaisal, Said A. Salloum, Fahima Hajjej, Rima Shishakly, Abdalwali utfi, Mahmaod Alrawad, Ahmed Al Mulhem, Tayseer Alkhdour, and Rana Saeed Al-Maroof. 2022g. Measuring Institutions' Adoption of Artificial Intelligence Applications in Online Learning Environments: Integrating the Innovation Diffusion Theory with Technology Adoption Rate. *Electronics* 11: 3291.

Almaiah, Mohammed Amin, Raghad Alfaisal, Said A. Salloum, Fahima Hajjej, Sarah Thabit, Fuad Ali El-Qirem, Abdalwali utfi et al. 2022h. Examining the Impact of Artificial Intelligence and Social and Computer Anxiety in E-Learning Settings: Students' Perceptions at the University Level. *Electronics* 11: 3662.

Almaiah, Mohammed Amin, Raghad Alfaisal, Said A. Salloum, Shaha Al-Otaibi, Omar Said Al Sawafi, Rana Saeed Al-Maroof, Abdalwali utfi, Mahmaod Alrawad, Ahmed Al Mulhem, and Ali Bani Awad. 2022i. Determinants influencing the continuous intention to use digital technologies in Higher Education. *Electronics* 11: 2827.

Almaiah, Mohammed Amin, Raghad Alfaisal, Said Salloum, Shaha Al-Otaibi, Rima Shishakly, Abdalwali utfi, Mahmaod Alrawad, Ahmed Al Mulhem, Ali Bani Awad, and Rana Saeed Al-Maroof. 2022j. Integrating Teachers' TPACK Levels and Students' Learning Motivation, Technology Innovativeness, and Optimism in an IoT Acceptance Model. *Electronics* 11: 3197.

Almaiah, Mohammed Amin, Sarra Ayouni, Fahima Hajjej, Abdalwali utfi, Omar Almomani, and Ali Bani Awad. 2022l. Smart Mobile Learning Success Model for Higher Educational Institutions in the Context of the COVID-19 Pandemic. *Electronics* 11: 1278.

Al-Mugheed, K., Bayraktar, N., Al-Bsheish, M., AlSyouf, A., Aldhmadi, B. K., Jarrar, M. T., & Alkhazali, M. (2022). Effectiveness of game-based virtual reality phone application and online education on knowledge, attitude and compliance of standard precautions among nursing students. Plos one, 17(11), e0275130.

Al-Mugheed, Khaild, Nurhan Bayraktar, Mohammad Al-Bsheish, Adi AlSyouf, Mu'taman Jarrar, Waleed AlBaker, and Badr K. Aldhmadi. 2022. Patient Safety Attitudes among Doctors and Nurses: Associations with Workload, Adverse Events, Experience. *Healthcare* 10: 631. https://doi.org/10.3390/healthcare10040631.

Al-Naimi, A., & Daoud, L. (2023). THE CONNECTION BETWEEN CAPITAL STRuCTuRE AND PERFORMANCE: DOES FIRM SIzE MATTER?.

Al-Naimi, A., & Daoud, L. (2023). THE CONNECTION BETWEEN CAPITAL STRuCTuRE AND PERFORMANCE: DOES FIRM SIzE MATTER?.

Alodat, A. Y., Al Amosh, H., Khatib, S. F., & Mansour, M. (2023). Audit committee chair effectiveness and firm performance: The mediating role of sustainability disclosure. *Cogent Business & Management*, *10*(1), 2181156.

Al-Okaily, M., 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*.

Alqudah, H., Lutfi, A., Al Qudah, M. Z., Alshira'h, A. F., , M. A., & Alrawad, M. (2023). The impact of empowering internal auditors on the quality of electronic internal audits: A case of Jordanian listed services companies. *International Journal of Information Management Data Insights*, *3*(2), 100183.

Alrawad, Mahmaod, Abdalwali utfi, Mohammed Amin , Adi Alsyouf, Akif Lutfi Al-Khasawneh, Hussin Mostafa Arafa, Nazar Ali Ahmed, Ahmad M. AboAlkhair, and Magdy Tork. "Managers' Perception and Attitude toward Financial Risks Associated with SMEs: Analytic Hierarchy Process Approach." *Journal of Risk and Financial Management* 16, no. 2 (2023b): 86.

Alrawad, Mahmaod, Abdalwali utfi, Sundus Alyatama, Adel Al Khattab, Sliman S. Alsoboa, Mohammed Amin , Mujtaba Hashim Ramadan et al. "Assessing customers perception of online shopping risks: A structural equation modeling–based multigroup analysis." *Journal of Retailing and Consumer Services* 71 (2023a): 103188.

Alrawad, Mahmaod, Abdalwali utfi, Sundus Alyatama, Ibrahim Elshaer, and Mohammed Amin . 2022. Perception of Occupational and Environmental Risks and Hazards among Mineworkers: A Psychometric Paradigm Approach. *International Journal of Environmental Research and Public Health* 19: 3371.

Alsaad, Abdallah, Md Moddassir Alam, and Abdalwali Lutfi. "A sensemaking perspective on the association between social media engagement and pro-environment behavioural intention." *Technology in Society* 72 (2023): 102201.

Alshira'h, Ahmad Farhan, Moh Alsqour, Abdalwali utfi, Adi Alsyouf, and Malek, Alshirah. 2020. A Socio-Economic Model of Sales Tax Compliance. *Economies* 8: 88. https://doi.org/10.3390/economies8040088.

Alshirah, Malek Hamed, Ahmad Farhan Alshira'h, and Abdalwali, utfi. 2021a. Political connection, family ownership and corporate risk disclosure: Empirical evidence from Jordan. *Meditari Accountancy Research* https://doi.org/10.1108/MEDAR-04-2020-0868.

Alshirah, Malek Hamed, Ahmad Farhan Alshira'h, and Abdalwali, utfi. 2021b. Audit committee's attributes, overlapping memberships on the audit committee and corporate risk disclosure: Evidence from Jordan. *Accounting* 7: 423–40.

Alshirah, Malek, Abdalwali utfi, Ahmad Alshirah, Mohamed Saad, N. M. E. S. Ibrahim, and Fathallah Mohammed. 2021c. Influences of the environmental factors on the intention to adopt cloud based accounting information system among SMEs in Jordan. *Accounting* 7: 645–54. https://doi.org/10.5267/j.ac.2020.12.013.

Alsmadi, A. A., Alrawashdeh, N., Al-Gasaymeh, A., Alhawamdeh, L. N., & Al_Hazimeh, A. M. D. (2023). Adoption of blockchain technology in supply chain. *SAGE Open*, *13*(1), 21582440231160143.

Alsmadi, A. A., Shuhaiber, A., Al-Okaily, M., Al-Gasaymeh, A., & Alrawashdeh, N. (2023). Big data analytics and innovation in e-commerce: current insights and future directions. Journal of Financial Services Marketing, 1-18.

Alsyouf, Adi, Abdalwali Lutfi, Mohammad Al-Bsheish, Mu'taman Jarrar, Khalid Al-Mugheed, Mohammed Amin , Fahad Nasser Alhazmi, Ra'ed Masa'deh, Rami J. Anshasi, and Abdallah Ashour. 2022b. Exposure Detection Applications Acceptance: The Case of COVID-19. *International Journal of Environmental Research and Public Health* 19: 7307. https://doi.org/10.3390/ijerph19127307.

Alsyouf, Adi, Abdalwali Lutfi, Nizar Alsubahi, Fahad Nasser Alhazmi, Khalid Al-Mugheed, Rami J. Anshasi, Nora Ibrahim Alharbi, and Moteb Albugami. "The Use of a Technology Acceptance Model (TAM) to Predict Patients' Usage of a Personal Health Record System: The Role of Security, Privacy, and Usability." *International Journal of Environmental Research and Public Health* 20, no. 2 (2023): 1347.

Alsyouf, Adi, and Awanis Ku Ishak. 2018. Understanding EHRs continuance intention to use from the perspectives of UTAUT: Practice environment moderating effect and top management support as predictor variables. *International Journal of Electronic Healthcare* 10: 24–59.

Alsyouf, Adi, Awanis Ku Ishak, Abdalwali Lutfi, Fahad Nasser Alhazmi, and Manaf Al-Okaily. 2022a. The Role of Personality and Top Management Support in Continuance Intention to Use Electronic Health Record Systems among Nurses. *International Journal of Environmental Research and Public Health* 19: 11125.

Alsyouf, Adi, Ra'ed Masa'deh, Moteb Albugami, Mohammad Al-Bsheish, Abdalwali Lutfi, and Nizar Alsubahi.. 2021. Risk of Fear and Anxiety in Utilising Health App Surveillance Due to COVID-19: Gender Differences Analysis. *Risks* 9: 179.

Amidu, M., Effah, J., & Abor, J. (2011). E-accounting practices among small and medium enterprises in Ghana. Journal of Management Policy and Practice, 12(4), 146–155.

Awa, H. O., Eze, S. C., Urieto, J. E., & Inyang, B. J. (2011). Upper echelon theory (UET) a major determinant of information technology (IT) adoption by SMEs in Nigeria. Journal of Systems and Information Technology, 13(2), 144-162.

Banker, R. D., & Feng, C. (2019). The impact of information security breach incidents on CIO turnover. Journal of Information Systems, 33(3), 309-329.

Bataineh, A. (2018). The effect of using computerized accounting information systems on reducing production costs in Jordanian pharmaceutical companies. International Journal of Business and Management Invention (IJBMI), 7(7), 1-10.

Binuomote, M.O., Nwagwu, L.N. and Mong, I.K. (2019). Financial Record Competencies Required for Effective Utilization of e-accounting platforms in Government Ministries in Ebony State. Al-Hikmah Journal of Education, 06(02), pp. 184-193.

Bokhari, R. H. (2005). The relationship between system usage and user satisfaction: a meta-analysis. Journal of Enterprise Information Management, 18(2), 211-234.

Bruque-Cámara, S., Vargas-Sánchez, A., & Hernández-Ortiz, M. J. (2004). Organizational determinants of IT adoption in the pharmaceutical distribution sector. *European Journal of Information Systems*, *13*(2), 133-146.

Bruque-Cámara, S., Vargas-Sánchez, A., & Hernández-Ortiz, M. J. (2004). Organizational determinants of IT adoption in the pharmaceutical distribution sector. European Journal of Information Systems, 13(2), 133-146.

Cheng, X., & Walton, S. (2019). Do nonprofessional investors care about how and when data breaches are disclosed?. Journal of Information Systems, 33(3), 163-182.

Cong, Y., Omar, A., & Sun, H. L. (2019). Does IT outsourcing affect the accuracy and speed of financial disclosures? Evidence from preparer-side XBRL filing decisions. Journal of Information Systems, 33(2), 45-61.

Curry, M., Marshall, B., Correia, J., & Crossler, R. E. (2019). InfoSec process action model (IPAM): Targeting insiders' weak password behavior. Journal of Information Systems, 33(3), 201-225.

Curtis, M. B., & Payne, E. A. (2008). An examination of contextual factors and individual characteristics affecting technology implementation decisions in auditing. International Journal of Accounting Information Systems, 9(2), 104-121.

Daoud, L. (2023). Predictors of Auditors' Usage of CAATs: The Role of Top Management Support and Trust.

Daoud, L., Marei, A., Al-Jabaly, S., & Aldaas, A. (2021). Moderating the role of top management commitment in usage of computer-assisted auditing techniques. Accounting, 7(2), 457-468.

Deshmukh, A. (2006). Digital accounting: The effects of the internet and ERP on accounting. IGI Global.

Deshmukh, A. (2006). Digital accounting: The effects of the internet and ERP on accounting. IGI Global

dris, K. M., & Mohamad, R. (2016). The influence of technological, organizational and environmental factors on accounting information system usage among Jordanian small and medium-sized enterprises. International Journal of Economics and Financial Issues, 6(7), 240-248.

Garcia-Perez, A., Cegarra-Navarro, J. G., Sallos, M. P., Martinez-Caro, E., & Chinnaswamy, A. (2023). Resilience in healthcare systems: Cyber security and digital transformation. *Technovation*, *121*, 102583.

Ghaffar, A. M., Mokhtar, M. Z., Ismail, W. N. S. W., & Othman, M. R. (2019). Determinant of e-accounting (EA) adoption among Malaysian maritime SMES. International Journal of Engineering and Technology, 8(18), 102-105.

Ghobakhloo, M., Azar, A., & Tang, S. H. (2018). Business value of enterprise resource planning spending and scope: A post-implementation perspective. Kybernetes, 48(5), 967-989.

Gofwan, H. (2022). Effect of accounting information system on financial performance of firms: A review of literature. DEPARTMENT OF ACCOUNTING (BINGHAM UNIVERSITY)-2nd Departmental Seminar Series with the Theme–History of Accounting Thoughts: A Methodological Approach. Vol. 2, No. 1

Gordon, L. A., & Loeb, M. P. (2006). Economic aspects of information security: An emerging field of research. Information Systems Frontiers, 8, 335-337.

Gusai, O. P. (2019). Robot human interaction: role of artificial intelligence in accounting and auditing. Indian Journal of Accounting, 51(1), 59-62.

Haapamäki, E., & Sihvonen, J. (2019). Cybersecurity in accounting research. *Managerial Auditing Journal*, *34*(7), 808-834.

Haapamäki, E., & Sihvonen, J. (2019). Research on International Standards on Auditing: Literature synthesis and opportunities for future research. Journal of International Accounting, Auditing and Taxation, 35, 37-56.

Hair, Joseph, Jeffrey Risher, Marko Sarstedt, and Christian Ringle. 2019. When to use and how to report the results of PLS-SEM. European Business Review 31: 2–24.

Hassenzahl, M. (2008, September). User experience (UX) towards an experiential perspective on product quality. In Proceedings of the 20th Conference on l'Interaction Homme-Machine (pp. 11-15).

Hwang, Yujong, Mohanned Al-Arabiat, Dong-Hee Shin, and Younghwa Lee. 2016. Understanding information proactiveness and the content management system adoption in pre-implementation stage. Computers in Human Behavior 64: 515–23.

Iacovou, C. L., Benbasat, I., & Dexter, A. S. (1995). Electronic data interchange and small organizations: Adoption and impact of technology. MIS quarterly, 465-485.

Idris, K. M., & Mohamad, R. (2016). The influence of technological, organizational and environmental factors on accounting information system usage among Jordanian small and medium-sized enterprises. *International Journal of Economics and Financial Issues*, *6*(7), 240-248.

Idris, K. M., & Mohamad, R. (2017). AIS usage factors and impact among Jordanian SMEs: The moderating effect of environmental uncertainty. *Journal of Advanced Research in Business and Management Studies*, *6*(1), 24-38.

Ismail, W. N. S., Mokhtar, M. Z., & Ali, A. Z. W. A. D. I. (2013). Design activities and the difference level of sales and profits performance of the batik SMEs in Malaysia. International Review of Management and Business Research, 2(2), 627-642.

Khassawneh, A. A. L. (2014). The influence of organizational factors on accounting information systems (AIS) effectiveness: A study of Jordanian SMEs. *International Journal of Marketing and Technology*, *4*(10), 36-46.

Lee, M. T., & Raschke, R. L. (2023). Stakeholder legitimacy in firm greening and financial performance: What about greenwashing temptations?. *Journal of Business Research*, *155*, 113393.

Lins, K. V. (2003). Equity ownership and firm value in emerging markets. Journal of financial and quantitative analysis, 38(1), 159-184.

Lutfi, A. (2020). Investigating the moderating effect of Environment Uncertainty on the relationship between institutional factors and ERP adoption among Jordanian SMEs. Journal of Open Innovation: Technology, Market, and Complexity, 6(3), 91.

Lutfi, A., & Alqudah, H. (2023). The Influence of Technological Factors on the Computer-Assisted Audit Tools and Techniques Usage during COVID-19. *Sustainability*, *15*(9), 7704.

Lutfi, A., Alkelani, S. N., Al-Khasawneh, M. A., Alshira'h, A. F., Alshirah, M. H., , M. A., ... & Ibrahim, N. (2022k). Influence of Digital Accounting System Usage on SMEs Performance: The Moderating Effect of COVID-19. *Sustainability*, *14*(22), 15048.

Lutfi, A., Al-Okaily, M., Alshirah, M. H., Alshira'h, A. F., Abutaber, T. A., & Almarashdah, M. A. (2021). Digital financial inclusion sustainability in Jordanian context. *Sustainability*, *13*(11), 6312.

Lutfi, A.; Alqudah, H.; Alrawad, M.; Alshira'h, A.F.; Alshirah, M.H.; , M.A.; Alsyouf, A.; Hassan, M.F. Green Environmental Management System to Support Environmental Performance: What Factors Influence SMEs to Adopt Green Innovations? Sustainability 2023b, 15, 10645. doi: 10.3390/su151310645.

Lutfi, Abdalwali, Adi Alsyouf, Mohammed Amin , Mahmaod Alrawad, Ahmed Abdullah Khalil Abdo, Akif Lutfi Al-Khasawneh, Nahla Ibrahim, and Mohamed Saad. 2022a. Factors Influencing the Adoption of Big Data Analytics in the Digital Transformation Era: Case Study of Jordanian SMEs. *Sustainability* 14: 1802. https://doi.org/10.3390/su14031802.

Lutfi, Abdalwali, Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Manaf Al-Okaily, Hamza Alqudah, Mohamed Saad, Nahla Ibrahim, and Osama Abdelmaksoud. 2022b. Antecedents and Impacts of Enterprise Resource Planning System Adoption among Jordanian SMEs. *Sustainability* 14: 3508. https://doi.org/10.3390/su14063508.

Lutfi, Abdalwali, Akif Lutfi Al-Khasawneh, Mohammed Amin , Adi Alsyouf, and Mahmaod Alrawad. 2022c. Business Sustainability of Small and Medium Enterprises during the COVID-19 Pandemic: The Role of AIS Implementation. *Sustainability* 14: 5362. https://doi.org/10.3390/su14095362.

Lutfi, Abdalwali, Akif Lutfi Al-Khasawneh, Mohammed Amin , Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Adi Alsyouf, Mahmaod Alrawad, Ahmad Al-Khasawneh, Mohamed Saad, and Rommel Al Ali. 2022d. Antecedents of Big Data Analytic Adoption and Impacts on Performance: Contingent Effect. *Sustainability* 14: 15516.

Lutfi, Abdalwali, Mahmaod Alrawad, Adi Alsyouf, Mohammed Amin , Ahmad Al-Khasawneh, Akif Lutfi Al-Khasawneh, Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Mohamed Saad, and Nahla Ibrahim. 2023a. Drivers and impact of - analytic adoption in the retail industry: A quantitative investigation applying structural equation modeling. Journal of Retailing and Consumer Services 70: 103129.

Lutfi, Abdalwali, Manaf Al-Okaily, Adi Alsyouf, Abdallah Alsaad, and Abdallah Taamneh. 2020. The Impact of AIS Usage on AIS Effectiveness among Jordanian SMEs: A Group Analysis of the Role of Firm Size. *Global Business Review* 21: 1–19. https://doi.org/10.1177/0972150920965079.

Lutfi, Abdalwali, Manaf Al-Okaily, Adi Alsyouf, and Mahmaod Alrawad. Evaluating the D&M IS Success Model in the Context of Accounting Information System and Sustainable Decision Making. *Sustainability* **2022g**, *14*, 8120. doi: 10.3390/su14138120

Lutfi, Abdalwali, Maryam Ashraf, Waqas Ahmad Watto, and Mahmaod Alrawad. 2022e. Do Uncertainty and Financial Development Influence the FDI Inflow of a Developing Nation? A Time Series ARDL Approach. *Sustainability* 14: 12609.

Lutfi, Abdalwali, Mohamed Saad, Mohammed Amin , Abdallah Alsaad, Ahmad Al-Khasawneh, Mahmaod Alrawad, Adi Alsyouf, and Akif Lutfi Al-Khasawneh. 2022h. Actual Use of Mobile Learning Technologies during Social Distancing Circumstances: Case Study of King Faisal University Students. *Sustainability* 14: 7323. https://doi.org/10.3390/su14127323.

Lutfi, Abdalwali, Saleh Nafeth Alkelani, Hamza Alqudah, Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Mohammed Amin , Adi Alsyouf, Mahmaod Alrawad, Abdelhameed Montash, and Osama Abdelmaksoud. "The Role of E-Accounting Adoption on Business Performance: The Moderating Role of COVID-19." *Journal of Risk and Financial Management* 15, no. 12 (2022j): 617.

Lutfi, Abdalwali, Saleh Zaid Alkilani, Mohamed Saad, Malek Hamed Alshirah, Ahmad Farhan Alshirah, Mahmaod Alrawad, Malak Akif Al-Khasawneh, Nahla Ibrahim, Abeer Abdelhalim, and Mujtaba Hashim Ramadan. The Influence of Audit Committee Chair Characteristics on Financial Reporting Quality. *J. Risk Financial Manag.* **2022f**, *15*, 563. doi: 10.3390/jrfm15120563

Lutfi, Abdalwali. 2021. Understanding Cloud Based Enterprise Resource Planning Adoption among SMEs in Jordan. *Journal of Theoretical and Applied Information Technology* 99: 5944–53. https://doi.org/10.24473031560656.

Lutfi, Abdalwali. 2022a. Factors Influencing the Continuance Intention to Use Accounting Information System in Jordanian SMEs from the Perspectives of UTAUT: Top Management Support and Self-Efficacy as Predictor Factors. *Economies* 10: 75.

Lutfi, Abdalwali. 2022b. Understanding the Intention to Adopt Cloud-based Accounting Information System in Jordanian SMEs. *The International Journal of Digital Accounting Research* 22: 47–70.

Lutfi, Abdalwali. Saleh, Nafeth Alkelani, Malak Akif Al-Khasawneh, Ahmad Farhan Alshira'h, Malek Hamed Alshirah, Mohammed Amin , Mahmaod Alrawad, Adi Alsyouf, Mohamed Saad, and Nahla Ibrahim. 2022i. Influence of antec Accounting System Usage on SMEs Performance: The Moderating Effect of COVID-19. *Sustainability* 14: 15048. https://doi.org/10.3390/su142215048.

Mansour, M., Hashim, H. A., Almaqtari, F. A., & Al-ahdal, W. M. (2023). A review of the influence of capital structure on the relationship between corporate governance and firm performance. *International Journal of Procurement Management*, *17*(1), 79-105.

Marei, A. (2022). The effect of e-procurement on financial performance: Moderating the role of competitive pressure. Uncertain Supply Chain Management, 10(3), 855-866.

MAREI, A. (2023). The Moderating Role of Big Data and User Satisfaction in the Predictors of Generalized Audit Software among Jordanian Auditing Firms. expert systems, 9, 10.

Marei, A., Al-Haddad, S., Daoud, L., Habashneh, A., Fariz, R., & Aldamisi, R. (2022). The impact of innovation on customer satisfaction in the commercial banks: Business performance as a mediating variable. Uncertain Supply Chain Management, 10(3), 887-894.

Mohammed Amin, Shaha Al-Otaibi, Abdalwali utfi, Omar Almomani, Arafat Awajan, Adeeb Alsaaidah, Mahmoad Alrawad, and Ali Bani Awad. 2022k. Employing the TAM Model to Investigate the Readiness of M-Learning System Usage Using SEM Technique. *Electronics* 11: 1259.

Mustafa, J. A., Marie, A., Al-Amarneh, A., & Al-Abbadi, A. (2023). The Role of Fintech Payment Instruments in Improving Financial Inclusion.

No, W. G., & Vasarhelyi, M. A. (2017). Cybersecurity and continuous assurance. Journal of Emerging Technologies in Accounting, 14(1), 1-12.

Oladejo, M.O. and Yinus, S.O. (2020). E-Accounting Practices: An Effective Means for Financial Reporting Quality in Nigeria Deposit Money Banks. International Journal of Managerial Studies and Research (IJMSR), 5(2), pp. 13-26.

Qushtom, T. F. A., Al-Fasfus, F. S., Alshawahneh, H. M. I., & Marei, A. (2022, March). Exploring the Expected Moderating Effect of COVID-19 on the Effectiveness of ISA 520-Analytical Procedures-on the Quality of Auditors' Reports in Jordan. In International Conference on Business and Technology (pp. 1395-1404). Cham: Springer International Publishing.

Rabbani, M. R., Lutfi, A., Ashraf, M. A., Nawaz, N., & Ahmad Watto, W. (2023). Role of artificial intelligence in moderating the innovative financial process of the banking sector: a research based on structural equation modeling. *Frontiers in Environmental Science*, *10*, 2083.

Ragu-Nathan, B. S., Apigian, C. H., Ragu-Nathan, T. S., & Tu, Q. (2004). A path analytic study of the effect of top management support for information systems performance. *Omega*, *32*(6), 459-471.

Relhan, A. (2013). E-Accounting Practices of SMEs in India. International Journal of Technical Research (IJTR), 2(1), pp. 1-10.

Richardson, V. J., Smith, R. E., & Watson, M. W. (2019). Much ado about nothing: The (lack of) economic impact of data privacy breaches. Journal of Information Systems, 33(3), 227-265.

Rifai, F., Alrawashdeh, N., Alsmadi, A. A., Kasasbeh, H. A., & Alzoubi, M. (2023, May). Cutting-Edge Technology and Blockchain: A Bibliometric Analysis (2017–2022). In *Conference on Sustainability and Cutting-Edge Business Technologies* (pp. 162-172). Cham: Springer Nature Switzerland.

Rogers, E. M., & Williams, D. (1983). Diffusion of. Innovations (Glencoe, IL: The Free Press, 1962).

Rogers, E.M., 2003. Diffusion of innovations. Free Press, New York

Saad, M., Lutfi, A., , M. A., Alshira'h, A. F., Alshirah, M. H., Alqudah, H., ... & Abdelmaksoud, O. (2022). Assessing the Intention to Adopt Cloud Accounting during COVID-19. Electronics, 11(24), 4092.

Salleh, A., Rose, R. C., Kumar, N., & Peng, L. C. (2007). Readiness in meeting globalization challenges: A case of accounting firms in Malaysia. Journal of social Sciences, 3(4), 176-184.

Sekaran, Uma, and Roger Bougie. 2013. Research Methods for Business: A Skill-Building Approach. West Sussex: John Willey & Sons Ltd.

Shaheen, N., Al-Haddad, S., Marei, A., & Daoud, L. (2023). The Effect of Creativity on Entrepreneurial Behavior: The Moderating Role of Demographics. Information Sciences Letters, 12(3), 1365-1372. DOI 10.18576/isl/120326.

Shatnawi, S. A., Marei, A., Hanefah, M. M., Eldaia, M., & Alaaraj, S. (2021). Audit Committee And Financial Performance In Jordan:\r\nThe Moderating Effect Of Ownership Concentration. Montenegrin Journal of Economics.

Shatnawi, S. A., Marei, A., Hanefah, M. M., Eldaia, M., & Alaaraj, S. (2022). The Effect Of Audit Committee On Financial Performance Of Listed Companies In Jordan: The Moderating Effect Of Enterprise Risk Management. Journal of Management Information and Decision Sciences.

Tarofder, A. K., Marthandan, G., Mohan, A. V., & Tarofder, P. (2013). Web technology in supply chain: an empirical investigation. Business Process Management Journal, 19(3), 431-458.

Teru, S. P., Idoko, I. F., & Bello, L. (2019). The impact of E-accounting in modern businesses. International Journal of Accounting & Finance Review, 4(2), 1-4

Thong, J. Y. (1999). An integrated model of information systems adoption in small businesses. Journal of management information systems, 15(4), 187-214.

Thong, J. Y., & Yap, C. S. (1995). CEO characteristics, organizational characteristics and information technology adoption in small businesses. Omega, 23(4), 429-442.

Thottoli, M. M., & Ahmed, E. R. (2022). Information technology and E-accounting: some determinants among SMEs. Journal of Money and Business, 2(1), 1-15.

Tornatzky, L., & Fleischer, M. (1990). The process of technology innovation, Lexington, MA.

Trice, A. W., & Treacy, M. E. (1988). Utilization as a dependent variable in MIS research. ACM SIGMIS Database: The Database for advances in information systems, 19(3-4), 33-41

Unsworth, N., McMillan, B. D., Brewer, G. A., & Spillers, G. J. (2012). Everyday attention failures: an individual differences investigation. Journal of experimental psychology: learning, memory, and cognition, 38(6), 1765.

Uzrail, A. H., & Bardai, B. (2019). Moderating effect of the adoption of computerized accounting information systems and the perceived effect on financial performance–A study of Palestinian companies case. International Journal Of All Research Writings, 2(2), 63-74.

Venkatesh, V., & Bala, H. (2012). Adoption and impacts of interorganizational business process standards: Role of partnering synergy. *Information systems research*, *23*(4), 1131-1157.

Von Solms, R., & Van Niekerk, J. (2013). From information security to cyber security. computers & security, 38, 97-102.

Wan Zakaria, W. Z., Rahman, S., Elsayed, M., & Omran, M. (2011). An analysis of task performance outcomes through e-accounting in Malaysia.

Wang, Y. M., Wang, Y. S., & Yang, Y. F. (2010). Understanding the determinants of RFID adoption in the manufacturing industry. Technological forecasting and social change, 77(5), 803-815.

Wu, G. C., & Lee, E. W. M. (2010). Fractional variational iteration method and its application. Physics Letters A, 374(25), 2506-2509.

Yigitbasioglu, O. M. (2015). The role of institutional pressures and top management support in the intention to adopt cloud computing solutions. *Journal of Enterprise Information Management*, *28*(4), 579-594