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Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector

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The study aimed to examine the effects of accounting technology improvements on the generation of accurate and reliable financial reports in the public sector of Jordan. In order to carry out this inquiry, the researchers set research goals and formulated null hypotheses that were derived from these objectives and afterwards used in the study. The study used an ex-post facto survey methodology as its research technique. The study sample included 250 persons employed at the Ministry of Finance in Jordan. The research included a sample size including 152 people. A questionnaire was used as the primary tool for data collection in this study. The validity of the instrument was established by an evaluation conducted by experts specialising in the field of testing and measurement. The evaluation of the instrument's dependability was performed using the Cronbach Alpha reliability approach, yielding a reliability coefficient ranging from 0.73 to 0.85. The findings of this research demonstrate that the instrument has a significant level of dependability. The data obtained from the surveys underwent analysis using the Pearson Product-Moment Correlation (PPMC) and regression analysis approaches. The present study offers empirical data and affirms the growing significance of financial reporting in the global economic landscape. Ensuring unwavering trust in the financial information pertaining to the public sector has considerable significance for investors. The article proposes that the establishment of a comprehensive framework of guidelines for enterprises' information technology infrastructure would be advantageous for regulatory bodies, such as the Jordan Central Bank. The aim of this method is to reduce the potential danger of the public sector being overwhelmed by outdated technology.

1. Introduction

There is a discernible relationship between the utilization of modern accounting methodologies and the improvement of financial reports produced by governmental organizations (Beshi & Kaur, 2020). There are other factors that provide support to this claim. The responsibility for overseeing the effective and efficient allocation of the state budget by public entities lies with the government, citizens, contributors, and investors. This is accomplished by means of the examination of accounting information of superior quality. The justification for this practice is rooted in the use of government funds by these entities to manage and provide public services to a wider populace (Wang et al., 2023). Given the assumption, it can be argued that the government possesses the capability to allocate national resources in a fair and just manner. In addition, the availability of accurate and reliable accounting information allows public organizations to exhibit a sense of responsibility, liability, and

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openness, hence playing a crucial role in deterring corruption and fostering public confidence in the field (Beshi & Kaur, 2020). An additional benefit is that public sector entities exhibit greater levels of responsibility and accountability as a consequence of the increased scrutiny stemming from the availability of this data. According to Cheng et al. (2023), there is an improvement in the delivery of governmental services to the general public.

According to Elliot cited in Medina-Quintero et al. (2015), accounting may be defined as a systematic approach employed by business entities to effectively monitor and assess their financial well-being. The precise recording and categorization of diverse financial transactions, including sales, purchases, assets, and liabilities, in accordance with internationally recognized accounting principles, facilitates this accomplishment. Evaluating the performance of a company is a significant undertaking. The emergence of accounting technology, encompassing artificial intelligence, blockchain, and cloud computing, has resulted in substantial disruptions across several industries that serve corporate entities (Persson et al., 2018). The emergence of the effect of technology breakthroughs on the content of accounting and financial reports has necessitated the engagement in conversations about the repercussions of these enhancements and their impact on accounting professionals (Medina-Quintero et al., 2015).

Undoubtedly, major improvements in robotics have been accomplished by humanity since the onset of the twenty-first century. In light of the progress made in robotic technology, which has enabled the successful emulation of human behaviors and movements, there is an increasing imperative for experts to redirect their focus towards endowing robots with the capacity to independently engage in logical reasoning and adapt to unfamiliar circumstances (Kopec & Lucci, 2016). According to Barjatya (2004), experts in the field of artificial intelligence want to equip computers with the ability to participate in analytical reasoning by leveraging breakthroughs in computer science, robotics, and mathematics. Although the present use of artificial intelligence (AI) in the realm of accounting remains constrained, it is commonly recognized that this technology has considerable potential to have a substantial influence on the accounting profession in forthcoming times. The progress of artificial intelligence (AI) has enabled the achievement of a seamless interaction between humans and machines (Naujokaitiene et al., 2015). Intelligent machines have the capacity to proficiently manage information queries, identify patterns within data, and independently generate assessments.

The concept of quality encompasses the combination of characteristics and inherent or designated elements that serve as indicators of a product, individual, procedure, service, or system's ability to fulfil predetermined expectations, demands, requirements, or standards. Hall (2012) identifies five key elements that define high-quality information: relevance, timeliness, correctness, completeness, and summary. Gelinas et al. (2005) established a framework consisting of four essential criteria, namely accuracy, timeliness, relevance, and completeness, that are indicative of high-quality information. The financial statements serve as a means of financial management accountability at several levels, encompassing national, regional, and global contexts, spanning a specific timeframe. In the public sector, financial reporting purposes can be classified into two distinct categories: general objectives and specialist aims.

The progression of technology has provided numerous prospects for augmenting the efficacy of accountants. The proliferation of readily available data confers benefits upon organizations. Over time, there is a progressive shift of decision-making responsibilities from individuals to technological systems. In contemporary times, there has been a discernible surge in the progress and swiftness of artificial intelligence system development. The results of this system demonstrate a notable level of accuracy, comparable to that of a human, and in certain situations, even exceeding human capacities. The utilization of artificial intelligence facilitates the capacity to direct queries to machines pertaining to several domains, such as sales, stock, client loyalty, fraud events, and other pertinent subjects (Chopra, 2012). A blockchain refers to a distributed and decentralized digital ledger that maintains a comprehensive record of all transactions executed among nodes within a network. In the capacity of a community notary, those who use blockchain technology are afforded the chance to avail themselves of the register to authenticate the precision of the data it encompasses. It has the potential to be used in a wide range of financial transactions, protocols for user authentication, the development of cybersecurity technologies, and several related applications. The use of blockchain technology has the capacity to substantially transform the manner in which firms engage with government authorities and fundamentally restructure certain operational processes that transpire in the background. Nevertheless, the deployment of this technology persists in facing a multitude of challenges, hence categorizing it as an exploratory endeavor. Since 2016, a significant number of financial institutions, exchanges, and FinTech groups have expressed their plans to engage in projects related to blockchain technology. This trend indicates a substantial surge in the industry's attention towards this specific domain. There is a substantial amount of empirical data that supports the claim that the continued use of blockchain technology in the financial industry and stock markets is expected to persist (Beke, 2010). Numerous market parties have collaborated to establish consortia with the aim of developing common protocols for the exploitation of this technology. Furthermore, a multitude of esteemed financial organizations have formed specialized teams to investigate the prospective uses of this technology. The technology facilitates the secure storage and effective retrieval of data, consequently augmenting its accessibility and transparency. Furthermore, it is conceivable that addressing concerns and resolving inaccuracies may potentially lead to decreased time and financial costs (Leung, 2012).

In forthcoming times, accountants are anticipated to redirect their attention from the collecting and analysis of data towards the utilisation of artificial intelligence (AI) as a means to enhance decision-making procedures. According to Warren et al. (2015), there are further benefits associated with improved managerial efficiency and enhanced internal controls. A prevalent

occurrence in the expansion of businesses relates to the widespread utilization of information technology (IT) systems among diverse organizational bodies. According to Ahmad et al. (2023), there has been a notable rise in the utilization of cloud computing. In the present-day civilization, nearly every aspect of human existence has its equivalent in the digital realm, so rendering this claim quite feasible. The expeditiousness with which knowledge may presently be disseminated, aided by technical infrastructures such as the Internet, is noteworthy. Organizations employ specialized software to effectively administer their accounting and control operations. In the present era, a considerable proportion of individuals employed in the business domain have embraced the practice of fulfilling their work obligations from a remote location, thereby participating in online communication and exchanging data. The mandatory prerequisite for submitting a report or inputting data into a shared database does not encompass the necessity of installing the software on a mobile device or personal computer. Moreover, it is both unnecessary and impractical for each employee to possess a thorough comprehension of the subtleties of the program. Cloud technologies demonstrate their advantages in this context (Financial Accounting Standard Board, 2008).

It is anticipated that the forthcoming two decades will witness significant alterations in reporting finance because of the widespread adoption of big data, blockchain technology, artificial intelligence, and machine learning. There is no doubt that the combination of artificial intelligence and blockchain holds great potential for substantially improving accounting practices through the implementation of automation soon. Hence, the objective of this research is to evaluate the impact of advancements in accounting technology on the quality of financial reports within the public sector of Jordan.

Before the advent of modern computer systems, the human input of data was distinguished by a lengthy time-consuming process and a vulnerability to errors. The recognition of errors is widely acknowledged as resulting in financial costs due to the allocation of resources and personnel required for their rectification. To rectify these shortcomings, it is imperative to engage in a rigorous and systematic procedure of iterative analysis. Acquiring accounting data can be a time-intensive endeavor for individuals. Moreover, the lack of any contingency plans amplifies the likelihood of data loss. The significance of strategic decision-making for enterprises is underscored by the critical consideration of utilizing information technology (IT).

1.1 Objectives of the Study

1. To examine the relationship between cloud base accounting technology and quality financial quality financial reports in Jordanian public sector.

2. To examine the relationship between artificial intelligence base accounting technology and quality financial quality financial reports in Jordanian public sector.

3. To examine the joint influence of the relationship between artificial intelligence and cloud base accounting technology and quality financial quality financial reports in Jordanian public sector.

1.2 Research Questions

1. What is the relationship between cloud base accounting technology and quality financial quality financial reports in Jordanian public sector?

2. What is the relationship between artificial intelligence base accounting technology and quality financial quality financial reports in Jordanian public sector?

3. What is the joint influence of the relationship between artificial intelligence and cloud base accounting technology and quality financial reports in Jordanian public sector?

1.3 Hypotheses

H_1: There is no significant relationship between cloud base accounting technology and quality financial quality financial reports in Jordanian public sector.
H_2: There is no significant relationship between artificial intelligence base accounting technology and quality financial quality financial reports in Jordanian public sector.
H_3: There is no significant joint influence of the relationship between artificial intelligence and cloud base accounting technology and quality financial reports in Jordanian public sector.

2. Literature Review

2.1 Concept of Advanced Technology on Quality Financial Report

The main purpose of financial reporting is to furnish relevant information that aids in the process of making effective decisions by management. Individuals possessing a basic comprehension of economics and business should demonstrate the ability to access and utilize this dataset. The main purpose of a financial report is to aid readers in making predictions about future cash

flows, including their amounts, timing, and level of uncertainty. This is achieved by providing information on profits and their many components (Kumar, 2019).

The impact of technology on several industries is substantial in the present era. Technological advancements have effectively enabled and enhanced the operational procedures of various professions. It is expected that the discipline of accounting will experience a substantial upheaval within the upcoming two decades. The accounting industry has experienced substantial expansion and development as a result of technological advancements witnessed in the past twenty years. Twenty years ago, professionals carried out their duties in a manner that differed from their current methodology (Peng et al., 2023).

A blockchain is defined as a distributed ledger or database that functions in real-time across multiple nodes, generally encompassing a significant number of persons and organizations on a global scale. While the implementation of a blockchain is a complex process, the fundamental premise of this technology is straightforward. The cryptographic safeguarding mechanism is responsible for ensuring the attribute of immutability or irreversibility, which is a key characteristic of the blockchain.

Prior to the inclusion of each block of registry transactions into the database, a cryptographic verification process is executed. This decreases the likelihood of unauthorized alteration of the registry. One notable virtue of blockchain technology is its intrinsic immutability, which ensures that the data recorded within the blockchain remains unchangeable unless a consensus is achieved among all nodes in the network. This guarantees that all transactions conform to legal standards and follow established norms and protocols.

2.1.1 Cloud-based Accounting Technology and Quality Financial Quality Reports

The importance of a reliable and thorough financial report in improving feasibility analysis, financial analysis, and interpretation has been constantly emphasized in the aforementioned body of research. Previous scholarly investigations have predominantly concentrated on examining the association between the quality of financial reporting and many aspects, including but not limited to fraudulent activities, manipulation of profits, earnings, internal audit and control mechanisms, and corporate governance practices. The objective of these studies has been to gain insights into the intricate relationship among these variables (Al-Zoubi, 2017). The term "financial reporting" refers to the formal process of recording and disclosing a corporation's financial transactions. The possession of this trait is frequently seen as an essential asset for participating in business operations inside the marketplace. Moreover, this technology enables improved understanding and coordination among various user cohorts, such as managers, investors, regulatory bodies, society, and other relevant parties. By facilitating a more comprehensive comprehension of the viewpoints and objectives held by each party involved, it successfully reduces the likelihood of misunderstandings and disputes. Individuals that actively participate in the aforementioned operation, together with those who perform any related supplemental tasks, are required to meticulously and exactly execute their work. This statement holds particular significance in relation to the dissemination of information, the rules that govern accounting practices, and the perspectives and decisions of those involved.

Gupta and Gaur (2018) conducted a study to examine the effects of cloud computing on several components of an accounting information system. The bookkeeping entity encompasses various elements, namely financial activities, records, accounting books, financial reporting, users, procedures, software, and hardware. This research paper aims to consolidate and analyze the current body of knowledge on distributed computing and data innovation, with a specific focus on their impact on accounting information systems. The study revealed that the use of cloud computing yielded several significant consequences. Initially, it resulted in a reduction in the spatial footprint of the enterprise, comprising both physical structures and office spaces. The decrease in size can be ascribed to the increased ease of data movement and the removal of the need for executives to be physically present at specific sites. Additionally, the deployment of cloud technology was found to be correlated with enhanced operational efficiency, as it enabled the timely execution of duties and the accurate upkeep of financial documentation. Finally, the cloud has emerged as a crucial focal point for the organization, functioning as a central hub for a multitude of processes and services. The study conducted by Russell and Norvig (2010) examined the effects of distributed computing on the field of accounting. Many organizations and people have embraced distributed computing as a viable alternative to traditional accounting methods, driven by the desire to stay up-to-date. The aim of this study is to evaluate the influence of distributed computing on the discipline of accounting. Furthermore, it takes into consideration both potential benefits and limitations associated with its ongoing expansion. This study utilized secondary sources to systematically utilize primary materials in order to encourage specific actions. However, despite the inherent cost-effectiveness and flexibility benefits associated with distributed computing, its widespread adoption has been hindered by concerns regarding security and inadequate support from collaborators. Individuals who cling to conventional accounting practices frequently display reluctance towards the widespread use of distributed computing. This opposition stems from their aversion to embracing change and their limited ability to develop proficiency in using new technical advancements.

2.1.2 Accounting Technology and Financial Reporting of High Quality

The term "artificial intelligence" encompasses multiple interpretations. According to Russell and Norvig (2010), these entities can be classified into four separate categories, which are determined by two factors: the level of resemblance to human

thinking and action, and the level of manifestation of rational cognition and behavior. Artificial intelligence and business analytics share common goals. By employing data, sophisticated analytical tools, cutting-edge technology, and rigorous statistical analysis, professionals utilize these resources to find untapped opportunities. The predominant approaches in the field of artificial intelligence (AI) are primarily based on statistical concepts. Therefore, it is anticipated that a corporation's artificial intelligence (AI) endeavors should smoothly integrate with its current analytical capacities (Davenport, 2018).

The potential for accounting firms to expand their capacity in delivering comprehensive predictive consulting services to businesses might be greatly bolstered by the effective management of a larger volume of data within financial records by artificial intelligence (AI) systems. Within the framework of industrial operations, it is conceivable for a manufacturing facility to see an increase in expenditure associated with suppliers. Nevertheless, an accountant who possesses artificial intelligence (AI) technology can foresee the prospective consequences for the firm. Accountants may offer recommendations on the most effective course of action to mitigate the incidence of a shortfall before it becomes a matter of concern. According to Kietzmann et al. (2019), passengers can receive advance warning regarding any changes to the timetable of an express train when viewing its departure from the station. This allows them to evaluate alternative routes or modes of transportation.

As a result, the AI system has significant implications for various practical disciplines, such as the subject of accounting. The utilization of artificial intelligence (AI) has had profound ramifications for the procedural aspects of accounting operations and the broader domain of data processing. Off-the-shelf accounting software possesses the capacity to independently obtain, categorize, and condense data without requiring human involvement. The rise of artificial intelligence has resulted in a notable reduction in the conventional duties associated with financial and cost accounting, hence yielding major implications for the control function, a pivotal position within the accounting discipline (Kietzmann et al., 2019).

2.2 Theoretical Framework

The theory of diffusion is based on the concept of comprehending the mechanism via which innovations spread from their point of origin to attain widespread adoption or non-adoption. The diffusion theory provides a conceptual framework for analyzing global adoption processes, encompassing various disciplines beyond the realm of information technology. The diffusion hypothesis posits that the dissemination of innovations is influenced by a range of factors, including their relative benefits reliability, difficulty, trialability, and visibility. The concept of relative advantage pertains to the extent to which a technology provides enhancements when compared to previously existing instruments. However, compatibility can be defined as the extent to which a technology aligns with the social practises and norms that are adhered to by its users. The existing body of literature indicates that innovations possessing certain advantageous attributes, such as compatibility with established practices and beliefs, low complexity, potential for trial, and observability, are more likely to be adopted on a large scale and at a faster pace, in contrast to innovations that possess a combination of contrasting characteristics. It is imperative to acknowledge that the predictive accuracy of diffusion extent or speed cannot be attributed only to any of these individual traits (Dillon & Morris, 1996). The significance of end-user concerns holds similar weight within the framework of innovation diffusion. The classification of individuals who adopt new technologies or approaches has traditionally consisted of five separate categories, as identified by previous research: innovators, early adopters, early majorities, late majorities, and laggards (Dillon & Morris, 1996).

3. Materials and Methods

3.1 The Area of Study

The area of this study was the ministry of finance in Jordan.

3.2 Research Design

The researchers in this study used the Expost-Facto technique. The efficacy of this research design was predicated on its intention to examine pre-existing correlations between independent and dependent variables.

3.3 The population of the study

The population of this study consisted of 250 staff in the Ministry of Finance, Jordan, adopted from the work of (Al-Kharabsheh, 2021)**.**

3.4 A Sample and Sampling Technique

The research used a sample size consisting of 152 respondents. The sample size table used in this study was derived from the work of Krejcie and Morgan (1970) (Krejcie & Morgan, 1970).

3.5 Research Instrument

The researcher used a questionnaire as a method of data gathering. Both sections A and B of the questionnaire were used to gather data pertaining to the independent and dependent variables. In the first section, demographic data pertaining to the participants was gathered. In Part B, an assessment was conducted on the independent variables.

3.6 Validation of the Research Instrument

The research instrument underwent comprehensive validation by professionals who had specialized knowledge in contemporary accounting technology. Considerable effort was exerted to ensure that every item included in the questionnaire was appropriately calibrated in terms of difficulty level, according to the cognitive abilities of the respondent.

3.7 Reliability of the Instrument

Professionals specializing in testing, measurement, and statistics were provided with the instrument to evaluate its alignment with the research objectives, with the aim of determining the instrument's dependability. The acceptability of items was determined based on the requirement that they be evaluated by a minimum of two experts. The study revealed that coefficients of reliability ranging from 0.73 to 0.85, which may be considered satisfactory, provide adequate grounds to endorse the use of the instrument (Sekaran & Bougie, 2016).

3.8 Administration of the instrument

The researcher was granted access to the Ministry of Finance via the provision of a letter of introduction and authorization. The research participants were requested to complete questionnaires immediately. The researcher used this particular approach in order to optimize time management and prevent the loss of surveys. At the end, all copies were collected for further examination.

3.9 The Method of Data Analysis

Simple percentages, Pearson product moment correlations, and regression analysis were used to analyse the data.

Model Specification

$$QFR=\alpha 0+ \beta CBATit+\beta AIBATit \quad (1)$$

where;

QFR= Quality Financial Report
CBAT= Cloud base accounting technology
AIBAT= Artificial intelligences base accounting technology
α_0 =Constant or intercept

4. Result

4.1 Analysis of Data

4.1.1 Hypothesis One: There is no significant relationship between cloud base accounting technology and quality financial reports in Jordanian public sector.

Table 1
Pearson product moment correlation analysis of the relationship between cloud base accounting technology and quality financial reports in Jordanian public sector

Variables		Quality financial reports	Cloud base accounting technology
Quality financial reports	Pearson Correlation	1	.963**
	Sig. (2-tailed)		.000
	N	152	152
Cloud base accounting technology	Pearson Correlation	.963**	1
	Sig. (2-tailed)	.000	
	N	152	152

**Significant at 0.025 level; df =150; N =152; critical r–value = 0.086*

The above table 1 shows the calculated r-value, which is determined to be 0.96. The significance of this result was assessed by comparing it to the crucial r-value (0.086) at a significance threshold of 0.05 with 150 degrees of freedom. The calculated correlation coefficient (r = 0.96) exceeded the threshold value (r = 0.086). Therefore, the outcome had considerable significance. Hence, the findings indicate a significant correlation between cloud-based accounting technology and the production of high-quality financial reports within the public sector of Jordan.

4.1.2 Hypothesis Two: There is no significant relationship between artificial intelligences base accounting technology and quality financial quality financial reports in Jordanian public sector.

Table 2
Pearson product moment correlation analysis of the relationship between AI base accounting technology and quality financial reports in Jordanian public sector

Variables		Quality financial reports	Artificial intelligences base accounting technology
Quality financial quality financial reports	Pearson Correlation	1	.842**
	Sig. (2-tailed)		.000
	N	152	152
Artificial intelligences base accounting technology	Pearson Correlation	.842**	1
	Sig. (2-tailed)	.000	
	N	152	152

*Significant at 0.025 level; df =150; N =152; critical r–value = 0.086

The above table displays the calculated r-value, which is 0.84. The significance of this result was assessed by comparing it to the crucial r-value (0.086) at a significance threshold of 0.05, with 150 degrees of freedom. The calculated correlation coefficient (r = 0.84) exceeded the crucial correlation coefficient (r = 0.086). Therefore, the outcome was statistically significant. Consequently, the findings indicate a notable correlation between accounting technology based on artificial intelligence and the quality of financial reporting within the public sector of Jordan.

4.1.3 Hypothesis Three: There is no significant joint influence of the relationship between artificial intelligence and cloud-based accounting technology on the quality of financial quality financial reports in the Jordanian public sector. In order to test the hypothesis, regression analysis was then used to analyze the data in order to determine the relationship between the two variables (see Table 3).

Table 3
Model Summary of the joint influence of relationship between artificial intelligence and cloud base accounting technology and quality financial quality financial reports in Jordanian public sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.964[a]	.930	.929	.787	.930	987.644	2	149	.000	2.046

a. Predictors: (Constant), CLOUD, SN

b. Dependent Variable: FIN_REP

Source: Author's Computation (SPSS Version 20.0 IBM)

The computed R-value of 0.96 exceeded the tabulated R-value of 0.93 at a significance level of 0.000, accompanied with a Durbin Watson statistic of 2.04. The R-square coefficient of determination, which is 0.93 in this case, indicates that almost 93% of the variance in the quality of financial reports in the Jordanian public sector can be explained by the combined impact of the link between artificial intelligence and cloud-based accounting technology. It was crucial to determine if there was a substantial disparity in the impact imposed by each independent variable (refer to Table 4).

Table 4
Analysis of variance of the difference in the influence exerted by each independent variable

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1224.814	2	612.407	987.644	.000[b]
	Residual	92.390	149	.620		
	Total	1317.204	151			

Source: Author's Computation (SPSS Version 20.0 IBM)

The table displays the computed F-value of 987.644, whereas the crucial F-value from the computer (0.000 a) falls below the significance threshold of 0.05, given the degrees of freedom of 2 and 149. Consequently, the outcome indicates a substantial disparity in the impact produced by the independent factors on the dependent variable. To assess the impact of each independent variable, a coefficient analysis was conducted, as shown in Table 5.

Table 5
Coefficient analysis of the influence of each of independent variable on the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.199	.661		1.815	.072
	AI base	1.203	.001	.742	23.945	.054
	CLOUD base	1.939	.044	.963	44.376	.000

Source: Author's Computation (SPSS Version 20.0 IBM)

From the table, it was observed that the most positively influencing quality accounting variables were cloud base accounting (t: 44.37, B: 1.93) and AI base accounting (t: 23.94, B: 1.20), which are seen to have an influence on quality financial reports in the Jordanian public sector.

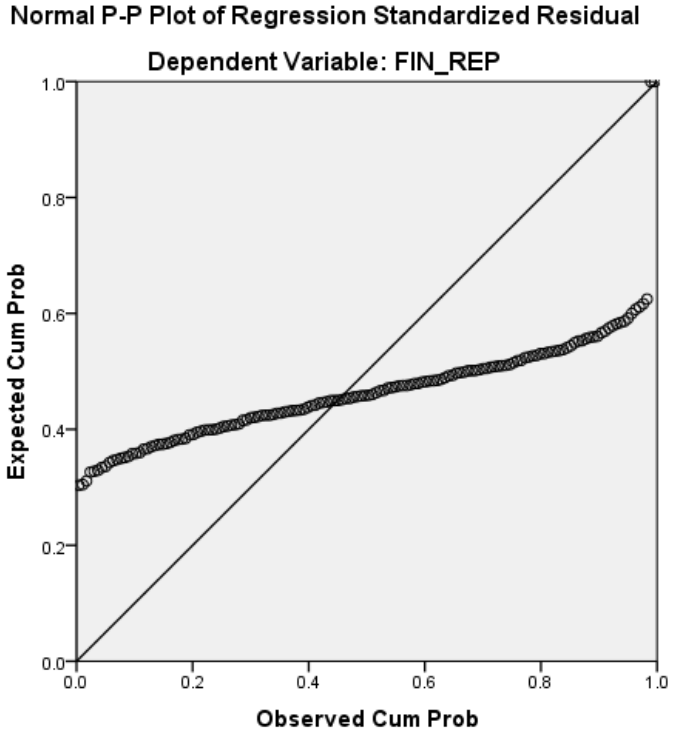

Fig. 1. The normal probability plot of the residuals

In addition to the visual examination of graphs, the Shapiro-Wilk p-value for the unstandardized residuals compared to the standardized residuals serves as a reliable method for assessing the normality of the residuals. The p-value for the standardized residuals was determined to be 0.130 ($p > 0.05$), suggesting that there was no statistically significant difference between the two sets of data. Additionally, the residuals were found to have a normal distribution in the present investigation. The linear regression analysis of quality financial report ratings indicated that the endorsement of "advances in accounting technology" was found to be a strong predictor of artificial intelligence (AI) and cloud-based accounting technology. The correlation coefficients for AI and cloud-based accounting technology were found to be.742 ($t = 23.94$, $p < .001$) and.963 ($t = 44.37$, $p < .001$), respectively. According to adjusted estimates, the R2-R2 model, which is based on population data, explains 0.3% of the variability seen in the outcome. Based on the available data, a significant connection can be seen between the aforementioned components, hence providing support for the first and second hypotheses, respectively.

4. Discussion of Findings

Analysis of table 1 is significant since cloud-based accounting technology can enhance the accuracy and timeliness of financial reporting. Cloud-based systems can automatically update financial data, reducing the risk of human errors and enabling real-time reporting. This can result in more reliable and up-to-date financial reports, which are crucial for effective decision-making in the public sector. This result is supported by Ahmad, Gongada, Shrivastava, Gabbi, Islam, & Nagaraju, (2023) cloud-based accounting technology allows authorized stakeholders to access financial data from anywhere with an internet connection. This increased accessibility improves transparency in the public sector, as various stakeholders, including citizens and government officials, can easily review financial reports. This transparency can foster public trust and accountability.

The analysis of table 2 is statistically positive and correlates that the use of AI in accounting can enhance transparency in financial reporting. AI systems provide an audit trail and maintain a record of all transactions and changes. This transparency can enhance accountability in the public sector by making it easier to trace financial transactions and decisions, thus reducing the risk of corruption. This result is supported by Kumar, S. (2019) AI-powered accounting systems can greatly enhance the accuracy of financial reporting. By automating data entry and processing, AI can significantly reduce human errors, which are common in manual accounting processes. In the context of Jordan's public sector, this means that financial reports are less likely to contain inaccuracies or mistakes, which can improve the credibility of government financial statements.

5. Conclusion and Recommendations

The importance of financial reporting is seeing a discernible increase within the framework of the global economic system. The establishment of unflinching faith in the financial accounts of the public sector is of utmost importance for investors. Ensuring the precise payment of tax rates is of utmost significance for enterprises, while governments should exhibit judicious discretion in the allocation of resources. The aforementioned concerns are relevant to the domain of accounting. Based on the findings of Hollander et al. (1999) and Türegün (2019), it has been noted that intelligent systems offer distinct approaches to effectively address the core challenges and objectives that the accounting profession seeks to resolve. Hence, it is recommended that financial institutions' management spend resources towards the implementation of modern information technology, in order to protect the well-being of the general public and improve shareholder value. It is advisable for regulatory entities, including the Jordan Central Bank, to develop a set of minimum requirements for information technology infrastructure inside firms. This measure aims to mitigate the risk of the public sector becoming a repository for outdated technological systems.

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