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Automation of Accounting Processes in Private Hospitals and its Impact on the Quality of Financial Reports: Evidence from Iraq.

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Abstract: The study seeks to illustrate the impact of automating accounting operations on the accuracy and reliability of accounting information in private hospitals in Iraq. The study involved six hospitals in Baghdad, Najaf, and Karbala, selected from nineteen private hospitals in Iraq, excluding the Kurdistan Region. The sample comprised 144 personnel, including financial managers, accountants, internal auditors, and IT workers.

The study utilized a descriptive and analytical methodology to examine the influence of the independent variable on the quality of financial reports. The findings demonstrated a favorable impact of automating accounting operations, including software and procedures, on the quality of financial reports. The attributes of accounting information, such as its relevancy, have been found to have a positive and considerable influence on the quality of financial reports.

Keywords: Automation of Accounting Processes, Private Hospitals, Quality of Financial Reports, Iraq

Introduction

In recent years, there has been a notable advancement in the automation of accounting processes. This progress is evident in the transformation of the electronic operating system, which has evolved from a mere tool for bookkeeping to an integrated system that plays a crucial role in the accounting information system. The efficacy of the electronic accounting operating system is vital for the organization's success, as it facilitates the generation of top-notch financial reports. This is necessary for assuring the accuracy and trustworthiness of accounting data for stakeholders.

The emergence of private hospitals in Iraq is a relatively recent development. Before 2003, during the previous political regime, which leaned heavily towards socialism, there were no private hospitals. However, with the change in political regime and the implementation of the first constitution, private hospitals started to be established. In 2005, a lasting Iraqi provision specified in Iraqi Constitution 31 of Chapter One granted individuals the privilege to create private hospitals in the Republic of Iraq. Consequently, the state transitioned to a market-based economic system, establishing these hospitals between 2015 and 2023. As a result, the number of private hospitals expanded to 19 throughout 15 governorates. Except for the governorates in the Kurdistan area, Iraqi hospitals consist of 14 hospitals in Baghdad, three in the Karbala governorate, and one in the Najaf governorate. However, most of these institutions lacked a distinct and measurable inclination towards computerized accounting systems, except to a limited degree.

Considering the evolution of organizations and the intricate nature of financial operations, it has become crucial to analyze accounting data to maintain the accuracy and dependability of the accounting system. Although automating accounting operations offers advantages such as fast data retrieval and cost-effectiveness, the impact of technology on the accuracy of financial reports provided by the system still needs to be assessed. This issue arises due to the necessity of having a well-defined understanding of data and information processing procedures and the potentially fraudulent activities that current employees may engage in. Data operations directly impact the integrity of the system's outputs, specifically the financial reports. The study problem seems to be associated with mismanagement, administrative dysfunction, and financial misconduct inside the accounting system. These violations result in a decrease in trust in the system, which undermines the reliability of the information and amplifies the likelihood of financial losses and insolvency for the hospital. Hence, our study aims to validate these issues. Therefore, the study posed the following inquiries:

A. Does implementing automated accounting systems, including all their elements, impact the quality of financial reporting in privately owned hospitals in Iraq?

B. Does the automation of accounting operations in private Iraqi hospitals have a statistically significant association with the features of accounting information, specifically relevance and reliability?

The study aims to assess the effects of automating accounting information, including its infrastructure, databases, software, procedures, and individuals, on the quality of financial reports in private Iraqi hospitals. Additionally, it seeks to investigate the correlation between automating accounting processes and the appropriateness and dependability of the information generated by the electronic accounting system.

The significance of the study is apparent in the subsequent facets:

A. The study's findings are anticipated to be advantageous for various organizations, including government and private hospitals, that have not yet initiated the automation of their accounting procedures.

B. Directing the private Iraqi hospital administrations' focus towards comprehending the correlation between the elements of the accounting process automation system and their impact on the quality of financial reports.

C. Assess the strengths and shortcomings of the existing electronic accounting systems in the hospitals included in the research sample and focus on enhancing and developing these systems to increase their efficacy.

Research Results

Soepriyanto et al. (2020) found that the hospital accounting system offers crucial data for practical problem-solving, decision-making, and planning. Hospitals' utilization of automated accounting systems will enhance the accuracy and quality of their financial reports. Information technology is anticipated to substantially impact the surveillance, documentation, and generation of data (Al-Delawi & Ramo, 2023). Al-Okaily et al. (2023) state that the advancements in digital accounting have significantly impacted organizations' sustainable production processes. By implementing digital accounting applications to automate operational procedures, these organizations can enhance institutional efficiency, improve the quality of outputs, and promote sustainability. Research conducted by Helio and Abdullah (2023) suggests that cloud computing technology indirectly impacts the implementation of financial reporting requirements. This is achieved through the valuable feedback that issuers get, enabling them to make appropriate comments and revisions.

The study conducted by Pavlova and Petrova in 2023 determined that successful integration of technology in accounting necessitates the harmonious combination of utilizing technical skills to carry out financial and accounting tasks. The human element is crucial in attaining this outcome in the accounting domain. Striking a balance in the role of accounting regarding technology implementation facilitates the effective reorganization of the financial and accounting sectors. In their study, Boonsothonsatit et al. (2024) found three factors that impact the selection of technology: financial resources and funding assistance, employees' level of technological expertise, and support from leadership. Fang and Li (2024) argue that the national digital economic policy should persist to optimize the advantages of digitization by mitigating the associated hazards. Ahmad et al. (2024) propose using artificial intelligence and big data, establishing high-quality digital infrastructure, reinforcing cybersecurity measures against cyber threats, and promoting digital currencies and financial technologies to improve financial inclusion. Accounting technology has been shown to improve the accuracy and timeliness of financial reporting. This cloud-based process automation can automatically update financial data, hence minimizing the possibility of human error and facilitating real-time reporting. According to a study by Anto and Yasran in 2023, the utilization of information technology and adherence to accounting standards have a good and considerable effect on the accuracy and dependability of financial reports. Simultaneously, the effectiveness of human resources has a favorable albeit inconsequential influence on the caliber of financial reports. This suggests that enhancing information technology and adhering to accounting standards will result in superior financial report quality. According to Lin and Qamruzzaman (2023), integrating information technology enables organizations to establish accountability and achieve efficient corporate governance.

Reviewing relevant literature from various search engines, we observed a need for studies directly related to the research variables. This highlights the significance of conducting this study locally to fulfill the research objectives and address the research questions. Consequently, the data about the variables was analyzed. The search was performed using SPSS version 26, and the obtained findings are as follows:

Table1

Summary of Hypothesis Testing

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.879[a]	.773	.772	.73023	.259
a. Predictors: (Constant), Quality of Financial Reports					
b. Dependent Variable: Automation of Accounting Processes in Private Hospitals					

The table above displays the Pearson correlation coefficient, which is both reliable and independent. The correlation coefficient (R) between the variables was 0.879, indicating a strong positive relationship. The coefficient of determination (R squared) was 0.773, representing the model's ability to explain the variation in the non-dependent variable (Quality of Financial Reports). The model accounts for 77.7% of the variation observed in the dependent variable, automating accounting processes in private hospitals. The standard deviation of the estimation error is 0.730, indicating a suboptimal value. A lesser occurrence of this error is preferable from a statistical perspective since it indicates the model's robustness.

Table 2

Hypothesis Testing Variance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	260.258	1	260.258	488.075	.000[b]
	Residual	76.252	143	.533		
	Total	336.510	144			
a. Dependent Variable: Automation of Accounting Processes in Private Hospitals						
b. Predictors: (Constant), Quality of Financial Reports						

The provided table displays the ANOVA analysis outcomes used to assess the significance of the regression. The observed value of F, 488.075, exceeds the critical value estimated based on the degrees of freedom of 1 and 143. Additionally, the mean square of the residuals is 260.258 at a significance level of 5%. The test's level of significance, denoted as Sig, was found to be 0.000. The value falls below the predetermined error threshold of 0.05, which is approved in the field of social sciences. This signifies the dismissal of the null hypothesis and the affirmation of the alternative hypothesis, which states that the regression is statistically significant. Consequently, the independent variable influences the dependent variable.

Table 3

Regression Function Coefficients for the Hypothesis

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.425	.336		-1.266	.208

	Quality of Financial Reports	.851	.039	.879	22.092	.000
a. Dependent Variable: Automation of Accounting Processes in Private Hospitals						

The provided table displays the coefficients for standard and non-standard regression functions, the standard error, the T-test value with its corresponding probability value, the VIF, and the tolerance. The table indicates that the VIF value is 1.000, which suggests no multicollinearity issue between the variables and inflation factors. This is considered statistically acceptable as the number is less than 3.00. Furthermore, the regression equation's constant attained a value of -0.425. The regression equation's slope coefficient, represented by B, has a value of 0.851, indicating the impact of the dependent variable on the non-dependent variable. The positive coefficient value implies a direct correlation between the two variables, including the dependent variable. The table above shows that the significance level of T for the independent variable is 0.00, which is significantly lower than the accepted error in the social sciences, set at 0.05. Consequently, the sample data presented compelling evidence to reject the null hypothesis and accept the alternative hypothesis, thereby establishing the statistical significance of automating accounting processes in private hospitals on the quality of financial reports.

Conclusions

The study examined the impact of automation on the quality of financial reports in the healthcare sector, specifically in private hospitals in Iraq. Previous research on this topic, both local and foreign, is lacking. The results revealed that the infrastructure level for automating accounting processes in private Iraqi hospitals, as perceived by the study sample, was somewhat satisfactory but fell short of expectations. Respondents concurred in the questionnaire that process automation affects the appropriateness and impartiality of accounting information while not affecting disclosure. Several theoretical advancements have been made about the impact of automation on the hospital accounting sector. Furthermore, the study suggests that the administration of Iraqi private hospitals should focus on formulating, constructing, and enhancing accounting procedures, actively monitoring their implementation to ensure optimal functioning, and frequently upgrading them to align with the swift advancements in this domain. Furthermore, the system's capacity to evaluate and compare data and outcomes to improve the quality of accounting information will be advantageous for all stakeholders.

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