ZAC Conference Series: Social Sciences and Humanities
(ZACCS: SSH)
https://conf.zenithacademic.co.uk/index.php/zacsssh
ISSN (Print): 3049-7760 ISSN (Online): 3049-7779
3rd International Humanitarian Conference, Baghdad 2024
Volume 001, Issue 01, 2024, pp. 001-125
https://doi.org/10.70516/zaccsssh.v1i1.29

The Impact of Accounting Information Systems on Ensuring the Accuracy and Reliability of Financial

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Abstract. The study aims to explore the effect of accounting information systems including (internal control, software, devices and equipment, information systems security) on ensuring the accuracy and reliability of financial statements in Al-Rafidain Bank in Iraq. The descriptive and analytical approach was employed to achieve the purposes of the study. A questionnaire was designed to collect data and distributed to a random sample of (150) employees of the bank's head office at different job levels, and then the data from the questionnaire was analyzed using the spss program. The results demonstrate a strong support by the sample members for the impact of accounting information systems in ensuring the accuracy and reliability of financial statements in Al-Rafidain Bank, as this indicates the importance of these systems in the context of banking, and the study also showed a statistically significant positive impact of accounting information systems represented in (internal control, software, hardware and equipment, information systems security) in ensuring the accuracy and reliability of financial statements in Al-Rafidain Bank in Iraq, which is a positive indication of the importance of these systems in improving Data quality and enhanced efficiency in banking.

Keywords: Accounting information systems, internal control of systems, software, hardware and equipment, security of information systems, accuracy and reliability of financial statements.

INTRODUCTION

Technological advancements in the field of information have led to the creation of diverse and sophisticated electronic data systems that strive to efficiently and effectively meet the needs of users. Commercial institutions, particularly financial ones, have adopted these advancements to enhance their service delivery methods to their clients. These financial institutions rely on gathering, analyzing, and processing information to meet the demands of clients, investors, and all beneficiaries [4]

Accounting information systems play a crucial role in the success of banking operations, as they provide methods to protect the bank's assets through internal controls and effective oversight of all bank activities. These systems offer financial and accounting reports and records that enable users to measure the bank's performance in terms of profit or loss and to ascertain the actual financial value [14]. According to Al-Dahliky [4], an accounting information system is defined as a system that collects financial data and then uses it to produce results in the form of financial information that assists in decision-making both within and outside the organization.

The use of accounting information systems and their rapid development day by day have led to continuous and swift changes in the outputs of these systems, contributing to the efficiency and effectiveness of the financial data contained within them in terms of speed, objectivity, detail, and relevance [17]. A highly developed accounting information system characterized by automation and integration across financial processes can

significantly enhance the accuracy of financial reports. Integrated systems automate data entry, reconciliation, and reporting, reducing human intervention and the associated errors [21].

Research Problem and Questions:

In an era characterized by an increased demand for financial transparency and accuracy in accounting processes, accounting information systems have become essential to achieving these objectives, particularly in the banking sector, which is distinguished by its sensitivity and significance in financial and economic terms. In this context, Al-Rafidain Bank in Iraq serves as a model highlighting the urgent need to effectively utilize accounting information systems, given its primary role in the Iraqi financial and banking system. The trend towards digitizing financial and accounting operations further underscores the necessity for an analytical study focusing on how these technologies impact the accuracy and reliability of financial data in Al-Rafidain Bank as a practical example.

Therefore, the research problem can be articulated by addressing the following question:

What is the impact of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq?

This overarching question can be further broken down into the following sub-questions:

1. What is the impact of internal control of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq?
2. What is the impact of the software, hardware, and equipment of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq?
3. What is the impact of the security of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq?

Importance of the Research

The significance of this research is highlighted through the following points:

The study gains importance due to the relevance of its variables, namely (accounting information systems, accuracy, and reliability of financial data). The application of these systems contributes to enhancing the organizations' ability to provide precise and reliable financial information, which positively impacts the financial performance and reputation of the bank in the financial market and among investors.

Investigating the impact of accounting information systems on the accuracy and reliability of financial data is a multifaceted and dynamic field of research that continues to evolve with technological advancements and changing business landscapes. As institutions strive for greater transparency and reliability in their financial data, understanding and improving the role of accounting information systems in this process remains a critical endeavor for academics, practitioners, and policymakers alike.

Research Objectives

The objectives that the researcher aimed to highlight are as follows:

- To clarify the concept and characteristics of accounting information systems, as well as the accuracy and reliability of financial data.
- To evaluate the impact of accounting information systems (internal control, software and hardware, information systems security) on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq.
- To derive findings and recommendations that would benefit other banks.

Research Methodology

The researcher employed a descriptive-analytical method, aiming to describe the subject under study in a scientifically accurate manner and present the results in interpretable numerical forms [2]. This methodology included the use of books, journals, and both Arabic and foreign articles, as well as the internet as part of the descriptive analysis. For the applied study, a field survey was conducted to gather the opinions of the targeted sample in the research. This was done to determine the impact of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq from the perspective of the bank's employees at various functional levels. Additionally, the SPSS statistical program was utilized.

Research Hypotheses

The research hypotheses can be formulated as follows:

Main Hypothesis: There is no statistically significant impact of accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq.

From this main hypothesis, the following sub-hypotheses emerge:

Sub-Hypothesis 1: There is no statistically significant impact of internal control within accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq.

Sub-Hypothesis 2: There is no statistically significant impact of the software, hardware, and equipment associated with accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq.

Sub-Hypothesis 3: There is no statistically significant impact of information systems security within accounting information systems on ensuring the accuracy and reliability of financial data in Al-Rafidain Bank in Iraq.

Research Boundaries

The scope of this research is delineated spatially and demographically to include employees of Al-Rafidain Bank in Baghdad, Iraq, across various functional levels. Temporally, the research was conducted during the first half of the year 2024.

Research Scope:

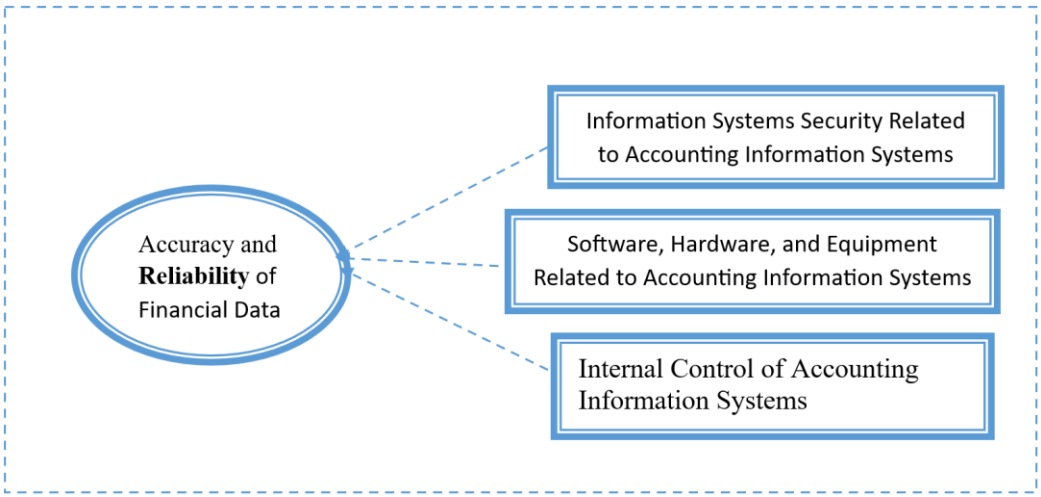


Figure (1) illustrates the proposed research model.

Previous Studies:

1. The study by Kimani (2024) [21] investigated the impact of accounting information systems on the accuracy of financial data. This study utilized a descriptive methodology by collecting secondary data and concluded that accounting information systems have a significant positive impact on the accuracy of financial data by reducing errors, ensuring data integrity, enforcing consistency, providing an audit trail, and facilitating timely report preparation, ultimately leading to more reliable financial data.
2. The study by Al-Dahlaki (2023) [4] aimed to demonstrate the importance of electronic accounting information systems in reducing financing risks in banks. A descriptive analytical approach was employed, distributing a structured questionnaire among employees. The results indicated a significant correlation between the dimensions of electronic accounting information systems (user efficiency, internal system controls, software, hardware, equipment, information security, and policies of senior management) and financing risks. The findings also showed that the accounting information system provides accurate information in less time and with high efficiency.
3. The study by Li and Liu (2021) [22] examined the role of internal controls in accounting information systems (AIS) in mitigating reporting errors within Chinese listed companies. This research included

survey-based methodologies and rigorous analysis of financial data. The study revealed that companies implementing stronger internal controls within their AIS experienced a notable decrease in reporting errors, leading to improved accuracy of financial reports. It emphasized the importance of investing in robust internal controls within AIS to enhance the accuracy of financial reporting among listed Chinese companies.

4. The study by Darmawan (2021)[15] aimed to determine how accounting information systems affect the quality of financial data in the Indonesian software company Pt Nerounworks. The descriptive correlational methodology was used, and results indicated that the accounting information system positively impacted the quality of financial reports in the Indonesian software company, as its utilization contributed to enhanced accuracy and reliability of the resultant data.
5. The study by Shaqfa (2020)[8] aimed to assess the role of electronic accounting information systems in improving the quality of financial accounting reports in Palestinian government institutions. The researcher adopted a descriptive analytical approach, represented by a questionnaire distributed to the study population, composed of system users and their outputs. The study found that financial data generated by electronic accounting information systems in Palestinian government institutions were neutral and represented facts consistent with professional standards and auditing.
6. The study by Elsharif (2019) [17]aimed to clarify and identify the current state of accounting information systems and their impact on the relevance of financial information at Al-Wahda Bank. A descriptive analytical methodology was employed, designing a structured questionnaire distributed to a sample of all financial staff working in the accounts and budget department at Al-Wahda Bank. Results indicated that only three elements of accounting information systems (namely, people, data, and internal controls) positively influence the importance of financial information. Consequently, these three elements are critical factors in explaining the impact on the importance of financial information at Al-Wahda Bank - Benghazi, Libya. Therefore, any increase in these elements will enhance the importance of financial information.

Position of the Current Study Among Previous Studies

The current study is distinguished from previous research by its uniqueness—according to the researcher—in examining the impact of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. This study is designed to fill the existing knowledge gap through the proposed variables. Additionally, prior studies have been applied to various companies in different countries, such as Spain, China, Indonesia, Palestine, and Jordan, whereas the current study focuses specifically on Al-Rafidain Bank located in Iraq.

Theoretical Aspect

Accounting Information Systems

It is often stated that accounting is the language of business. If this is the case, then the accounting information system serves as the intelligence that provides the information for this language. It is a system that collects, records, stores, and processes data to produce information for decision-makers [10]. In most cases, the accounting information system is a computer-based mechanism used to track accounting activities by leveraging information technology resources [20] According to Al-Hamadi (2022: p. 8)[5], it consists of people, data records, and activities that process data and information within the organization. This includes the automated processes of the organization aimed at supporting managers and developing strategies at various levels of management. As noted by Odero (2014: p. 7)[11], it is a system that records and processes transaction data and events into meaningful information for use in planning, controlling, and operating businesses. According to Khamas and Lafta (2022: p. 8)[7], it comprises multiple interactive components (people, hardware, computers, software) that organize and aggregate data in a timely manner, in the appropriate size and form, and distribute it to interested parties to achieve the desired profit.

The researcher believes that accounting information systems are systems that deal with the collection of financial data and then utilize this data to produce results in the form of financial information that aids in decision-making both within and outside the organization.

The importance of accounting information systems, according to Dumitru (2023: p. 93)[16], can be summarized as follows:

1. Collection and storage of data related to activities and transactions.

2. Processing data into information that can be used in the decision-making process related to business planning and monitoring.
3. Performing adequate control over the company's assets.
4. Cost and time efficiency in financial performance.
5. Presenting financial data in a systematic and accurate manner during the appropriate accounting period.

The dimensions of accounting information systems include the following:

1. Internal Control of the System: This refers to a structure that interacts with senior management and other employees within the bank and is established to provide clear assurance regarding the effectiveness and efficiency of activities, the reliability of financial data, and compliance with laws and other regulations (Turedi and Celayir, 2018: p. 3)[23]. The internal control procedures within the accounting information system are responsible for detecting and preventing negative effects resulting from changes in the surrounding environment of the system and aim to identify and prevent accounting errors caused by human intervention in accounting recording processes (Ben Moussa and Ajila, 2020: pp. 26-27)[6].
2. Software, Hardware, and Equipment: Since the accounting information system is a tangible material system, it requires software, hardware, and equipment, which can be summarized as follows (Dubayan et al., 2019: p. 26)[3]:
   - Processing Unit: This represents the physical means through which raw data is transformed into a usable format.
   - Database: This includes all data that has been stored, whether on magnetic disks and drives or in accounting records.
   - Data Input and Output Unit: This represents the means used for storing and retrieving data and information.
3. Information Systems Security: This refers to the means, tools, and procedures necessary to ensure the protection of information from internal and external threats by ensuring that the information cannot be accessed or disclosed by unauthorized individuals, knowing the identity of individuals attempting to use the information, as well as ensuring that the content of the information is accurate and has not been altered, destroyed, or tampered with, and confirming the continuity of the system's operation with all its components and the continued ability to interact with the information (Al-Jamal, 2014: pp. 293-294)[1].

Accuracy and Reliability of Financial Data

Financial data is a crucial tool for providing information about the financial position of an entity, as it contributes to the economic decision-making process [12]. This process involves formally reporting the financial activities of businesses and serves as the primary source of information for anyone interested in the market, whether they are managers, investors, or stakeholders [13]. Therefore, good financial data serves as the foundation for determining future financial policies [19].

The accuracy of financial data, measured by the frequency and magnitude of reporting errors, is vital for ensuring transparency and trust in financial markets. The use of advanced software tools aids in verifying the correctness of the data and identifying and correcting errors more efficiently, ultimately leading to improved accuracy in the preparation of this data [21].

Moreover, the reliability of financial data is a critical factor in the quality of financial information. The information must be of high quality and reliable to be useful. This quality is validated when the information relied upon by users is free from bias and financial errors [18]

From the above, it is evident that providing high-quality financial data is significantly important due to its positive impact on stakeholders in investment and credit processes and resource allocation to enhance market efficiency.

Practical Aspect

Statistical Methods Used

To achieve the desired research objectives, the researcher utilized the SPSS program, applying a significance level of 5%, which corresponds to a confidence level of 95%. The following statistical methods were employed:

- Frequencies and percentages

- Cronbach's alpha test to assess the reliability of the survey items
- Pearson correlation coefficient to indicate internal consistency
- One-sample t-test.

Research Population and Sample

The study selected Al-Rafidain Bank as the population due to its strategic importance, being one of the largest and oldest banks in Iraq. Its headquarters are located in Baghdad, the capital of Iraq. The researcher chose the sample randomly from the study population of 250 employees working at the main headquarters of the bank, across various job levels. The appropriate sample size was determined to be 150 employees. A questionnaire was distributed, containing general information about the sample and three main axes: internal control of the system, software and hardware, and information systems security. The statements were arranged according to a five-point Likert scale and assigned the following weights:

Table (1): Weights of the Research Questionnaire

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Description of the Research Sample:

Table (2) indicates that the percentage of male respondents among the employees at Al-Rafidain Bank was the highest, accounting for (59%), while the percentage of female respondents constituted (41%) of the total sample.

Table (2) Demographic Characteristics of Study Participants by Gender

Gender	Pecentage
Male	59%
Female	41%

Source: Based on SPSS analysis

Table (3) shows that the percentage of respondents holding a Bachelor's degree was the highest at 52.7%, followed by those with postgraduate degrees at 34.7%, and 12.7% with other qualifications. This indicates that most participants in the sample are well-equipped to respond to the questionnaire items. Additionally, the table highlights that the highest percentage of employees have less than 5 years of experience (38%), followed by those with 5 to less than 10 years of experience (30.7%). Employees with 15 years or more of experience accounted for 20.7%, and those with 10 to less than 15 years of experience represented 10.7%.

Table (3): Descriptive Characteristics of Study Participants by Educational Qualification and Years of Service

Educational Qualification	Percentage
Bachelor's Degree	**52.7%**
Postgraduate Studies	**34.7%**
Other	**12.7%**
Years of Service	**Percentage**
Less than 5 years	**38%**
5 to less than 10 years	**30.7%**
10 to less than 15 years	**10.7%**
15 years and above	**20.7%**

Source: Based on SPSS analysis

Instrument Validity

A. Judges' Validity:

Researchers benefit from the scientific consultations provided by experts and academic judges during the questionnaire review phase. This process ensures that the questionnaire is precisely formulated to represent the study's subject. A group of specialized professors was consulted to leverage their knowledge and expertise. The researcher requested their opinions regarding the appropriateness of the tool for its intended purpose and implemented modifications based on the judges' recommendations to finalize the questionnaire model.

B. Internal Consistency Validity of Items:

The goal of internal consistency validity is to measure the correlation of each item with its respective dimension to ensure that the questionnaire measures what it is intended to measure without assessing anything else. The correlation coefficient ranges between -1 and +1; the closer the value of r is to 1, the stronger the relationship between the variables, and vice versa (Al-Dahliky, 2023: p. 69). The internal consistency test data indicate a significant correlation between the items that belong to the primary dimensions of the study tool, as shown in the following Table (4):

Table (4) Internal Consistency Validity Test for Study Dimensions

Dimension	Correlation Coefficient	p-value
The effect of internal control of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq	**0.869**	**0****
The effect of software and hardware related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq	**0.868**	**0****
The effect of information security of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq	**0.921**	**0****

Source: Based on SPSS analysis

Reliability Test-Alpha (Cronbach's Alpha):

The Cronbach's Alpha test is used to assess the internal consistency of the questions in the questionnaire, reflecting the tool's ability to consistently measure the targeted aspect. The acceptable ratio should be equal to or greater than 70% [9]. Table (5) shows that the value of Cronbach's Alpha coefficient for all study dimensions exceeds 80%, indicating that the questionnaire results can be relied upon to achieve the desired outcome when analyzing the results.

Table (5) Reliability Coefficients of the Study Tool

Dimension	Number of Items	Cronbach's Alpha
Effect of Internal Control of Accounting Information Systems on Ensuring Accuracy and Reliability of Financial Data at Al-Rafidain Bank in Iraq	**5**	**0.839**
Effect of Software, Hardware, and Equipment of Accounting Information Systems on Ensuring Accuracy and Reliability of Financial Data at Al-Rafidain Bank in Iraq	**4**	**0.838**
Effect of Information Security of Accounting Information Systems on Ensuring Accuracy and Reliability of Financial Data at Al-Rafidain Bank in Iraq	**5**	**0.868**
Overall	**14**	**0.925**

Source: Based on SPSS analysis

Results of Hypothesis Testing

Main Hypothesis:There is no statistically significant effect of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq.

To test the hypothesis, a one-sample t-test was employed to compare the mean responses with the hypothetical value of 3. As indicated in Table (6), the t-value is 34.16 and the p-value is less than 0.05. Therefore, there is a significant effect of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq at a significance level of 5%. Given that the difference is positive (1.29), it can be concluded that accounting information systems have a positive impact on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank, exceeding the hypothetical value.

Table (6) Results of the Main Hypothesis Test

Dimension	p-value	t.test	p-value	Result
Overall	**1.29**	**34.16**	**0****	**Statistically Significant**

Source: Based on SPSS analysis

Sub-Hypothesis 1: There is no statistically significant effect of internal controls of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rasheed Bank in Iraq.

To test this hypothesis, a one-sample t-test was conducted to compare the mean responses with the hypothesized value of 3. As shown in Table (7), the t-value is 34.05, and the p-value is less than 0.05. Therefore, there is a statistically significant effect of internal controls of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rasheed Bank in Iraq at the 5% significance level. Since the mean difference is positive (1.35), it can be concluded that internal controls of accounting information systems have a positive effect on ensuring the accuracy and reliability of financial data at Al-Rasheed Bank, exceeding the hypothesized value.

Table (7): Results of the Sub-Hypothesis Testing

Focus	Mean Difference	t-test	value	Result
The effect of internal controls of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rasheed Bank in Iraq	**1.35**	**34.05**	**0****	**Statistically significant**

Source: Based on SPSS analysis

From Table (8), it is evident that the mean score for all statements ranges between 4.29 and 4.45, which aligns with the response of "Strongly Agree," accounting for over 80% of the responses. Therefore, there is a consensus that internal controls of accounting information systems positively influence the accuracy and reliability of financial data at the Rasheed Bank in Iraq. Furthermore, according to the opinions of the study sample, examining the data and ensuring its accuracy and completeness before entering it into the system is the most significant factor that enhances and guarantees the accuracy and reliability of financial data, with a relative weight of 89%.

Table (8): Descriptive Interpretation for the First Dimension Statements of the First Dimension

Statements of the First Dimension	Mean Score	Standard Deviation	Relative Weight	Response According to Likert
The internal control system includes a hierarchy of authorities, which enhances the accuracy and reliability of financial data	**4.33**	**0.57**	**86.6%**	**Strongly Agree**
Examining the data and ensuring its accuracy and completeness before entering it into the system enhances the accuracy and reliability of financial data	**4.45**	**0.61**	**89%**	**Strongly Agree**
Early detection of errors through internal controls of financial operations enhances the accuracy and reliability of financial data	**4.29**	**0.65**	**85.8%**	**Strongly Agree**
The presence of an electronic internal control system over the accounting system enhances the accuracy and reliability of financial data	**4.31**	**0.61**	**86.2%**	**Strongly Agree**
The internal control system's documentation of information enhances the accuracy and reliability of financial data	**4.39**	**0.66**	**87.8%**	**Strongly Agree**

Source: Based on SPSS analysis

Sub-Hypothesis 2: There is no statistically significant effect of the software, hardware, and equipment related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq.

To test this hypothesis, a one-sample t-test was employed to compare the mean responses with the hypothesized value of 3. As indicated in Table (9), the t-value is 29.10, and the p-value is less than 0.05. Therefore, there is a statistically significant effect of the software, hardware, and equipment related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq at a significance level of 5%. Furthermore, since the difference is positive (1.27), it can be concluded that the software, hardware, and equipment related to accounting information systems have a positive impact on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank, exceeding the hypothesized value.

Table (9) Results of the Second Sub-Hypothesis Test

Dimension	Mean Difference	t.test	p-value	Result
The impact of software, hardware, and equipment associated with accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq	**1.27**	**29.10**	**0****	**Statistically Significant**

Source: Based on SPSS analysis

From Table (10), it can be observed that the mean score for all statements ranges between 4.20 and 4.33, which corresponds to the responses categorized as (Agree - Strongly Agree), with over 80% of the responses indicating this agreement. Consequently, there is a consensus that the software, hardware, and equipment associated with accounting information systems positively influence the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. Furthermore, according to the opinions of the research sample, providing high-efficiency software and equipment for the operation of the system is the most significant factor that enhances and ensures the accuracy and reliability of financial data, with a relative weight of 86.6%.

Table (10) mean score for all statements

Statements of the Second Dimension	**Mean Score**	**Standard Deviation**	Relative Weight	Likert Response
Providing sufficient devices and equipment for the operation of the system enhances the accuracy and reliability of financial data.	**4.26**	**0.61**	**85.2%**	Strongly Agree
Providing high-efficiency software and equipment for the operation of the system enhances the accuracy and reliability of financial data	**4.33**	**0.60**	**86.6%**	Strongly Agree
Utilizing well-known high-quality electronic accounting software enhances the accuracy and reliability of financial data	**4.20**	**0.67**	**84%**	Agree
Subjecting computers to continuous updates and developments enhances the accuracy and reliability of financial data.	**4.29**	**0.69**	**85.8%**	Strongly Agree

Source: Based on SPSS analysis

Sub-Hypothesis 3: There is no statistically significant effect of information systems security related to accounting information systems on ensuring the accuracy and reliability of financial data at AL-Rafidain Bank in Iraq.

To test the hypothesis, a one-sample t-test was employed to compare the mean responses with the hypothetical value of 3. As indicated in Table (11), the t-value is 28, and the p-value is less than 0.05. Therefore, there is a statistically significant effect of information systems security related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq at a 5% significance level. Given that the difference is positive (1.24), it follows that the security of information systems related to accounting information systems positively influences the accuracy and reliability of financial data at Al-Rafidain Bank, exceeding the hypothetical value.

Table (11): Results of the Sub-Hypothesis Three Test

Dimension	**Mean Difference**	**t-test**	**p-value**	**Result**
The effect of information systems security related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq	**1.24**	**28.00**	**0****	**Statistically significant**

Source: Based on SPSS analysis

From Table (12), it is observed that the mean of all statements falls between 4.11 and 4.37, which corresponds to the responses classified as (Agree - Strongly Agree), with over 80% of the responses indicating agreement. Therefore, there is consensus that the security of information systems related to accounting information systems positively influences the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. Furthermore, according to the opinions of the research sample, the existence of clear policies for the security of accounting information systems significantly enhances and ensures the accuracy and reliability of financial data, with a relative weight of 87.4%.

Table (12) Descriptive Interpretation of the Third Dimension

Statements of the Third Dimension	**Mean**	**Standard Deviation**	**Relative Weight**	**Response According to Likert**
The existence of clear policies for the security of accounting information systems enhances the accuracy and reliability of financial data	**4.37**	**0.64**	**87.4%**	**Strongly Agree**
The inability to produce unauthorized outputs from the system enhances the accuracy and reliability of financial data.	**4.23**	**0.63**	**84.6%**	**Strongly Agree**
Ensuring the identity of the user in information technology systems during financial transactions enhances the accuracy and reliability of financial data.	**4.11**	**0.61**	**82.2%**	**Agree**
The difficulty of unauthorized access to data in the accounting system enhances the accuracy and reliability of financial data	**4.33**	**0.70**	**86.6%**	**Strongly Agree**
The use of antivirus software enhances the accuracy and reliability of financial data	**4.21**	**0.77**	**84.2%**	**Strongly Agree**

Source: Based on SPSS analysis

RESULTS

In light of the hypothesis testing results, the research arrived at the following conclusions:

- There is a statistically significant positive effect of accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. This result highlights the importance of continuous investment in these systems to guarantee data accuracy and reliability, thereby achieving operational efficiency and transparency within the financial environment.
- There is a statistically significant positive effect of internal control in accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. This finding indicates that focusing on internal controls related to the system is a crucial investment for improving the quality of financial data and enhancing confidence in the financial environment of Al-Rafidain Bank and other financial institutions, as it ensures the financial and operational integrity of the bank.
- There is a statistically significant positive effect of the programs, devices, and equipment related to accounting information systems on ensuring the accuracy and reliability of financial data at Al-Rafidain Bank in Iraq. This result emphasizes the importance of continuous investment in technology to ensure data accuracy and reliability and to improve the overall performance of public banks, as it significantly contributes to the efficiency and effectiveness of accounting and financial processing.
- There is a statistically significant positive effect of information security in accounting information systems on ensuring the accuracy and reliability of financial data at AlRafidain Bank in Iraq. Strong security measures and data protection play a vital role in maintaining data quality.

Recommendations

Based on the conclusions, the researcher presents a set of recommendations to achieve the intended purpose of this study, which include:

- Improving and clarifying internal control policies and procedures while ensuring proper understanding and effective implementation.
- Providing regular training courses for employees on the importance of internal control and how to implement it.
- Prioritizing the regular update and development of software and hardware to ensure compatibility with the latest technological advancements and to enhance the performance of accounting information systems.
- Allocating sufficient financial and human resources for the periodic update of software and hardware.
- Strengthening and implementing security policies while taking appropriate measures to protect against cyber threats and ensuring regular updates.
- Offering training sessions for employees on best practices in information systems security.
- Conducting periodic assessments of accounting information systems to ensure their effectiveness and to update them according to recent technological developments.
- Implementing all recommendations in an integrated manner under the supervision of senior management at the bank, as they should play an active role in motivating and supporting these changes. Additionally, establishing a specialized team to monitor, evaluate, and implement these recommendations and provide regular reports on progress

REFERENCES

1. Al-Jamal, Jihan Abdul-Ma's. (2014). Auditing in the Electronic Environment, First Edition, Al-Ain: Dar Al-Kitab Al-Jami'i.
2. Al-Mahmoudi, Mohammed Sarhan. (2019). Research Methodologies, Third Edition, Sana'a: Dar Al-Kutub.
3. Dubayan, Sayyid Abdul-Maqsoud, Abdul-Latif, Nasser, and Rabea, Marwa ... (2019). Introduction to Accounting Information Systems, Faculty of Commerce, Publications of Alexandria University.
4. Al-Dahlaki, Mortada Basel Ghanem. (2023). The Role of Electronic Accounting Information Systems in Mitigating Financing Risks: An Analytical Study of the Opinions of a Sample of Employees at Al-Rafidain Bank, Faculty of Business Administration, Lebanese Canadian University.
5. Al-Hamadi, Hussein Taleb Abdul-Bari. (2022). The Impact of Accounting Information Systems on Enhancing Corporate Governance in Banks: A Field Study on Private Banks in Iraq, Comprehensive Electronic Journal for Publishing Scientific and Educational Research, Issue 52.

6. Ben Moussa, Amar, and Ajila, Mohammed. (2020). The Contribution of the Internal Control System to the Effectiveness of Accounting Information Systems in Organizations, Journal of Quantitative and Qualitative Research in Economic and Administrative Sciences, 2(1), pp. 25-48.
7. Khamas, Azhar, and Lefteh, Manal. (2022). The Impact of Behavioral Factors on the Effectiveness of Accounting Information System Development, Journal of Economic and Administrative Studies, Issue 25(1), pp. 256-268.
8. Shaqfeh, Khalil Ibrahim Abdullah. (2020). The Role of Electronic Accounting Information Systems in Improving the Quality of Financial Reports in Palestinian Government Institutions, Journal of Research in Financial Sciences and Accounting, 5(1).
9. Hair, J. F., Black, W. C., & Babin, B. (2019). Multivariate Data Analysis, Eighth Edition, Cengage Learning EMEA.
10. Romney, Marshall B., & Steinbart, Paul John. (2015). Accounting Information Systems, Thirteenth Edition, United States of America: Pearson Education, Inc.
11. Odero, A. O. (2014). The Effect of Accounting Information System Quality on Financial Performance of SMEs in Nairobi County, Degree of Master of Business Administration, University of Nairobi School of Business.
12. Afiah, N. N., & Rahmatika, D. N. (2014). Factors Influencing the Quality of Financial Reporting and Its Implications on Good Government Governance: Research on Local Government in Indonesia, International Journal of Business, Economics and Law, 5(1), pp. 111-121.
13. Al-Dmour, A. H., & Al Qadi, N. S. (2018). The Impact of the Quality of Financial Reporting on Non-Financial Business Performance and the Role of Organizations' Demographic Attributes (Type, Size, and Experience), Academy of Accounting and Financial Studies Journal, 22(1), pp. 1-18.
14. Al-Jaraideh, S. N., & Al-Olimat, N. H. (2022). The Impact of Electronic Accounting Information Systems on the Financial Performance of Jordanian Commercial Banks, YMER Digital, 2(20), pp. 1-15.
15. Darmawan, E. (2021). The Effect of Accounting Information Systems on the Quality of Financial Statements: Case Study at Nerounworks Indonesia, Turkish Journal of Computer and Mathematics Education, 12(8), pp. 377-380.
16. Dumitru, A.P. (2023). The Importance of Accounting Information Systems for Business, Global Economic Observer, Nicolae Titulescu University, Bucharest, Faculty of Economic Sciences; Institute for World Economy of the Romanian Academy, 11(1), pp. 92-96.
17. Elsharif, T. A. (2019). The Element of Accounting Information Systems and the Impact of Their Use on the Relevance of Financial Information in Wahda Bank, Benghazi, Libya, Open Journal of Business and Management, 7, pp. 142-145.
18. Herath, S. K., & Albarqi, N. (2017). Financial Reporting Quality: A Literature Review, International Journal of Business Management and Commerce, 2(2), pp. 1-14.
19. Irwandi, S. A., & Pamungkas, I. D. (2020). Determinants of Financial Reporting Quality: Evidence from Indonesia, Journal of International Studies, 13(2), pp. 25-33.
20. Kim, B. (2022). The Importance of an Accounting Information System: Advantages and Disadvantages, International Journal of Accounting Research, 1(5), No: 1000272.
21. Kimani, B. (2024). Influence of Accounting Information System (AIS) on Financial Reporting Accuracy, American Journal of Accounting, 6(1), pp. 37-47.
22. Liu, Y., & Li, X. (2021). The Role of Accounting Information System Internal Controls in Mitigating Reporting Errors: Evidence from Chinese Listed Companies, Accounting, Organizations and Society, 88, 101296.
23. Turedi, H., & Celayir, D. (2018). Role of Effective Internal Control Structure in Achieving Targeted Success in Businesses, European Scientific Journal, January 2018 Edition, 14(1), pp. 1-18.