The impact of internal control on employees' performance in small and medium-sized enterprises: The moderating role of accounting information systems (case study: Iraq)

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ABSTRACT

Internal control is a critical strategy employed by organizations to enhance efficiency and operational effectiveness. Accounting information systems (AIS) also serve as valuable tools for acquiring necessary information to evaluate the performance of both managers and employees. This study examines the impact of internal control on employees' performance in small and medium-sized enterprises (SMEs) in Iraq, with a particular focus on the moderating role of accounting information systems (AIS). Questionnaires were distributed among SMEs in Iraq, and data from 198 responses were analyzed using structural equation modeling (SEM). The findings indicate that internal control has a positive and significant influence on employees' performance in Iraqi SMEs. Furthermore, the utilization of information systems contributes to improved employee performance. However, the study did not find evidence of AIS moderating the relationship between internal control and employees' performance. Based on these findings, it can be concluded that in the economic context of Iraq, particularly within SMEs, internal control plays a crucial role in enhancing efficiency and improving employees' performance. Additionally, information systems have the potential to make a substantial impact in this domain. Nevertheless, it is imperative for these systems to be regularly updated and upgraded to effectively influence all departments and components within an organization. This research contributes to the understanding of internal control and information systems in SMEs in Iraq, which can aid similar organizations in developing economies.

Keywords:	Internal control, Employees' performance, Accounting information system, Small and medium-sized enterprises

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1. Introduction

The establishment of internal control is a vital strategy employed by organizations to enhance efficiency and improve overall operations. Internal control procedures streamline processes and contribute to the performance improvement of all active employees within the organization. Accounting Information Systems (AIS) serve as valuable tools for acquiring the necessary information to evaluate the performance of both managers and employees, thereby playing a significant role in strengthening internal controls and subsequently enhancing employees' performance [1]. The objective of this study is to investigate the effect of internal control on the performance of employees in Small and Medium-Sized Enterprises (SMEs), considering the moderating role of AIS in enterprises listed on the Iraqi Stock Exchange.

Control serves as an effective tool for managers at various levels of the organization, from senior management to supervisors, and its necessity is evident across different managerial levels. One of the key challenges necessitating the presence of control is the inherent margin of error accompanying the organization's forecasts

and operational plans. Control provides the means to rectify these errors and make necessary adjustments to operations [2]. The concept of internal control is closely related to various organizational activities of employees, particularly in SMEs. Consequently, numerous organizational guidelines emphasize the establishment of a robust internal control system as a prerequisite for effective and efficient management of SMEs [3].

In response to financial scandals, the enactment of the Sarbanes-Oxley Act in 2002 introduced stringent regulations governing reporting and disclosure in public enterprises [4]. The act requires chief financial and executive officers to certify their financial statements, accompanied by severe penalties, including hefty fines and prison terms for non-compliance. Consequently, organizations are compelled to enhance internal controls governing their financial reporting [5] to prevent fraudulent activities and ensure adherence to regulations, as some enterprises may resort to concealing information or engaging in unlawful practices to achieve higher profitability.

To facilitate the structure of internal control, AIS relies on several processes and procedures [6]. Empirical studies, such as those conducted by Guan [7], Sumaryati et al. [8], and Yusuf and Kanji [6], have provided evidence supporting this argument. AIS, an approach utilized in accounting, aids in the preparation, control, and monitoring of an organization's economic operations by management. This interconnected structure operates based on specific priorities and aids in decision-making [9]. Moreover, AIS equips policymakers with valuable knowledge that informs their decision-making processes [10]. AIS plays a critical role in enterprise control and the implementation of internal control systems. Instances of accounting irregularities and financial statement misuse have underscored the significance of efficient internal control. By analyzing records and transactions to generate valuable information for corporate activities, AIS is considered a successful approach for managing internal and external changes [11], thereby enhancing organizational efficiency [12]. The efficacy of AIS can be evaluated across three dimensions: information scope, aggregation, and timeliness [8].

The range of information encompasses financial and non-financial data, both internal and external, which plays a crucial role in predicting future events. Timely quality refers to the ability to fulfill information requirements through systematic reporting to both external and internal users, while information aggregation focuses on the collection and summarization of data over a specific period. Previous research has demonstrated that AIS has a positive and significant impact on employees' performance, with AIS being one of the contributing variables. Consequently, AIS directly influences employees' ability to complete their work, ultimately enhancing organizational efficiency [13]. Furthermore, considering the relationship between internal controls and AIS, along with the influence of these variables on employees' performance, it is reasonable to expect that AIS affects the connection between internal control and employees' performance.

This study investigates the role of internal control in enhancing employees' performance and promoting organizational development, particularly in the context of small and medium-sized enterprises (SMEs). Internal control is of paramount importance in SME management as it serves as a crucial principle and preventive measure against various performance-related issues such as violations and abuses. By implementing meticulous controls within the organizational framework, SMEs can achieve their primary objective of increasing profitability. Preserving the position and progress of SMEs in today's highly competitive world, which undoubtedly concerns company managers, necessitates recognizing the significance of internal control. Ultimately, this leads to improved performance in organizational activities. Furthermore, recent advancements in information technology (IT) have significantly impacted Accounting Information Systems (AIS). It is now rare to find an organization or enterprise that has not adopted information systems based on new technologies. All organizations must assess the impact of different events on their controlled resources. For AIS to function optimally and mitigate risks, it requires a suitable and efficient internal control system.

The advent of advanced technology has introduced new and significant risks in ensuring the security and accuracy of information derived from AIS. In other words, the accounting system plays a crucial role in enhancing the effectiveness of internal control measures. Simultaneously, it has been argued that robust internal control within organizations also impacts employees' performance. However, this claim can only be considered speculative in the context of Iraq's economic status and requires further empirical investigation. In other words, the main challenge lies in finding a logical answer to the question of how internal control affects employees' performance in SMEs and how AIS can act as a moderating factor in this regard. Thus, this present study aims to address this question and bridge the existing research gap that previous studies have yet to fill.

The subsequent sections of this study focus on two key aspects: the development of theoretical foundations and the formulation of hypotheses. Following that, the research methodology is explained in detail. The results obtained from the research are then presented. Finally, the study concludes with a discussion and summary of the findings.

2. Previous studies and hypothesis development

2.1. Internal control and employees' performance

The theoretical foundations of this study center around the concept of internal control and its impact on organizational performance. Internal control encompasses the strategic approach and systematic procedures implemented within a company to safeguard its characteristics, ensure the quality and reliability of accounting data, promote operational efficiency, and ensure compliance with management policies [14], [15]. In the realm of accounting and auditing, internal control is regarded as a process aimed at achieving operational effectiveness and efficiency, reliable financial reporting, and adherence to laws, regulations, and policies [16].

The presence of a robust internal control system provides management with enhanced knowledge and confidence in effectively executing business operations, with the support of AIS [2]. The primary objective of internal control is to establish mechanisms, rules, and procedures within an organization to safeguard the integrity of financial and accounting information, foster accountability, and prevent fraud. Internal control comprises an interconnected set of activities that influence an organization's regular operating procedures, serving to protect assets, minimize errors, and ensure that operations are conducted in a compliant manner [17], [18].

In the realm of control, there are two distinct types: financial control and administrative control. Financial control pertains to ensuring the reliability of financial documents and safeguarding assets. It is primarily concerned with financial management aspects [19]. On the other hand, administrative control focuses on influencing the way work is carried out within an organization. This includes aspects such as scheduling, policies, rules, and procedures, including standards and operating procedures [19]. In the context of AIS, the compatibility of its characteristics with internal control processes and management becomes significant. The features and capabilities of AIS can have an impact on internal control mechanisms. Effective internal control, in turn, aims to ensure the attainment of organizational priorities and desired outcomes [2]. By aligning AIS with internal control objectives, organizations can strengthen their control environment and enhance their ability to achieve desired results while maintaining operational efficiency and reliability of financial information.

The components of internal control encompass various aspects crucial to effective organizational governance. These components are control setting, implementation of control procedures, risk assessment, communication and information, and monitoring [20], [21]. Control setting, the first component, is considered a vital indicator of successful internal regulation [21]. It refers to the attitude towards internal control and control awareness fostered and maintained by both management and employees within an organization [22], [23]. This setting is influenced by factors such as management philosophy, leadership style, supportive attitude, and the competence, moral values, honesty, and commitment of the organization's employees. The organizational structure and accountability relationships also play significant roles within the control environment.

The second component is control activities, which encompass both manual and automated resources and serve to prevent or mitigate risks that could hinder the organization's ability to achieve its goals and mission [24]. Risk assessment forms the third component of internal control. Risks are events or circumstances that pose obstacles to goal attainment. Effective risk management involves identifying, evaluating, and determining how to address these events. Internal and external threats can impact the organization's ability to accomplish its objectives at all levels [25].

The fourth component is communication and information. Communication involves the exchange of relevant information within and between individuals and organizations, facilitating decision-making and activity planning. Within the organization, information should be communicated to management and other employees who require it in a timely manner, enabling them to fulfill their responsibilities. Effective communication with external parties, such as customers, suppliers, and regulators, is also crucial. Monitoring, the fifth component, is the process of evaluating the effectiveness of internal controls over time. It involves analyzing business operations and transactions to assess the level of compliance and effectiveness of control measures. To be most effective, all employees should have a clear understanding of the organization's mission, goals, responsibilities, and risk tolerance levels [26], [27], [28].

The existing literature indicates that the components of internal control play a crucial role in organizational performance [29]. Based on this understanding, it is reasonable to expect that the five components of internal control (control setting, implementation of control procedures, risk assessment, communication and information, and monitoring) significantly contribute to the enhancement and improvement of employees' performance within an organization. Employees hold a vital position within the organization and their performance has a direct impact on overall organizational success. Consequently, it can be argued that high-

quality and efficient internal controls have a significant influence on promoting and improving the performance of company employees. Building on this argument, the following hypothesis can be proposed:

H1: Internal control has a direct impact on employees' performance.

2.2. AIS and employees' performance

AIS, as an accounting approach, plays a vital role in assisting management in preparing and monitoring an organization's economic operations. This interconnected system operates based on predetermined priorities and aids decision-making [9]. AIS provides valuable knowledge to policymakers, aiding them in making informed decisions, as supported by Louadi's [10] findings. AIS is of great importance in controlling enterprises and implementing internal control systems. It is regarded as a successful method for managing both internal and external changes [30], [11], as it analyzes records and events to provide valuable information for the preparation, control, and execution of corporate activities [12], ultimately enhancing overall organizational efficiency.

The efficiency of AIS can be evaluated across three dimensions: information scope, aggregation, and timeliness [8]. Within the range of information used to predict future events, both financial and non-financial information, as well as internal and external information, play crucial roles. Timeliness, as a quality characteristic, pertains to the ability to meet information requirements through systematic reporting to both external and internal users, while information aggregation emphasizes the collection and summarization of data over a specific period.

Previous studies have demonstrated a positive and significant effect of AIS on employees' performance [2], suggesting that AIS is one of the contributing factors in enhancing and promoting employees' performance. Consequently, AIS directly impacts employees' ability to carry out their work, ultimately leading to increased organizational efficiency [31], [13]. Building upon the literature, the following hypothesis can be proposed:

H2: AIS has a direct impact on employees' performance.

2.2. Information systems, internal control and employees' performance

Recent developments in information technology have significantly impacted the field of AIS. Nowadays, it is rare to come across an organization or enterprise that has not adopted information systems based on new technologies. All organizations recognize the importance of assessing the effects of various events on the resources they control. For AIS to operate effectively and mitigate risks, it requires a suitable and efficient internal control system. On one hand, this advanced technology has introduced new and significant risks related to ensuring the security and accuracy of information obtained from AIS. In other words, AIS can contribute to enhancing the efficiency of internal control. On the other hand, as mentioned earlier, strong internal control within organizations also affects employees' performance. Additionally, it has been argued that AIS can play a positive role in promoting and improving employees' performance. Hence, it can be posited that AIS can influence the relationship between internal control and employees' performance. Based on these premises, the following hypothesis is proposed:

H3: AIS strengthens (or weakens) the relationship between internal control and performance.

3. Methodology

In this study, a systematic sampling method was employed due to the geographical distribution of SMEs in Iraq and the researcher's constraints in terms of time and resources. The study was conducted in 2023, focusing on industrial enterprises listed on the Iraqi Stock Exchange. The average number of employees in small industrial enterprises was around 50 employees per enterprise, while medium enterprises had an average of 51-100 employees. Based on previous studies conducted on SMEs in Iraq, the total number of employees in the target population was estimated to be 550.

To determine an appropriate sample size for the limited population, Cochran's formula was employed:

$$n = \frac{\frac{Z^2 pq}{d^2}}{1 + \frac{1}{N}(\frac{Z^2 pq}{d^2} - 1)}$$

Where:

n: Sample size, N: Size of the statistical population, Z: Value of the normal variable at a 1-α confidence interval (1.96 at a 95% confidence interval, 2.58 at a 99% confidence interval), p: Proportion of the population possessing the given attribute (e.g., male population), q=(1-p): Proportion of not having the given attribute (for example, female population). Usually, p and q are considered 0.5.

Based on Cochran's formula and considering a limited population, the appropriate sample size was calculated to be 226 employees.

In this study, a questionnaire was utilized as the data collection tool. The questionnaire consisted of closed-ended questions, utilizing a Likert scale format, and was administered electronically for ease of implementation. The primary data was collected by distributing the questionnaire to the selected sample. To ensure the quality of the questionnaire and obtain accurate and generalizable information, several steps were taken in its design to align with the research objectives. The preliminary version of the questionnaire was initially provided and shared with university professors and executive directors. They were requested to review the questionnaire, answer the questions, and provide feedback regarding the order, clarity, and comprehensibility of the questions. Additionally, their input was sought on the grouping of indicators. These university professors and executive managers, being experts in the relevant fields addressed in the research, were selected to validate the questionnaire questions by providing their professional opinions on the concepts and indicators. To establish the validity of the questionnaire, three criteria were employed: content validity, face validity, and construct validity. Content validity refers to the extent to which the questionnaire covers the relevant content areas and adequately represents the constructs under investigation. Face validity, on the other hand, pertains to the extent to which the questionnaire appears to be valid to the respondents and is easily understood. Construct validity is concerned with evaluating the extent to which the questionnaire measures the intended constructs accurately and consistently. Factor analysis and Smart PLS were employed to assess the construct validity of the study. It is important to highlight that confirmatory factor analysis (CFA) was performed using SmartPLS 4, a software tool commonly used for conducting CFA and structural equation modeling (SEM) analyses.

Factor analysis is a statistical technique used to uncover the latent factors or constructs underlying a set of observed variables. It aids in confirming whether the observed variables adequately measure the intended constructs and provides insights into the interrelationships among the variables. Smart PLS, as a specialized software tool, is specifically designed for conducting SEM and path modeling analyses. It enables researchers to assess the validity and reliability of the measurement model, as well as analyze the structural relationships among the constructs in the model.

In this study, structural equation modeling (SEM) was utilized, specifically employing path analysis, to test the hypotheses. Path analysis, which falls under the structural model, is a technique that examines the relationships among research variables, including independent, mediating, and dependent variables, simultaneously. As part of the study's methodology, the initial model was tested through simultaneous examination of the hypotheses. The hypothetical model was evaluated by estimating the parameters using the maximum likelihood method. These estimated parameters include the influence coefficients, which indicate the strength and direction of the relationships between variables. Finally, the fit indices of the model and the shape of the fitted model are reported as indicators of model adequacy and goodness-of-fit. These fit indices provide insights into how well the model aligns with the observed data.

The variables and objects of the research are described in detail in the following table, outlining their specific characteristics and relationships within the study.

Table 1. Research variables and objects

No.	Dimension	Question
1	Internal Control	Within the organization, employees' requests are taken into consideration.
2		Key employees receive strong support from the organization.
3		Contract employees are delegated appropriate and acceptable levels of authority.
4		The organization efficiently and accurately implements the performance assessment system.
5		The organization effectively executes the job promotion plan.
6		There is no discrimination or injustice within the organization.
7	Extra-Organizational Factors	Employees receive adequate organizational support and perform their duties effectively.
8		A positive work environment has been established both internally and externally.
9		Employees enjoy good reputation and credibility outside the organization due to their association with it.

No.	Dimension	Question
10		The organization pays attention to the needs of employees' families.
11		Senior managers consider and address the extraneous needs of employees.
12		A favorable cultural and social atmosphere exists within the organization.
13	Employees' Performance	Employees contribute significantly to the organization's added value.
14		The circulation of work activities within the organization is well-structured and managed by key employees.
15		The organization has experienced substantial growth in product sales volume.
16		A considerable number of future production orders have been received.
17		The organization maintains effective communication with customers.
18		The quality of the organization's products has significantly improved.
19		Customer communication is well managed and implemented.
20		The flow of information within the organization is well-defined and established.
21	Accounting Information System	New communication systems based on the Internet of Things are successfully integrated within the organization.
22		An appropriate information system is in place to support decision-making processes within the organization.
23		Management possesses effective monitoring facilities for organizational processes.
24		A suitable software system has been implemented to monitor business activities and financial indicators within the organization.

4. Results and discussion

4.1. Descriptive statistics

The questionnaire for the current study was distributed to employees working in small and medium-sized enterprises (SMEs) in Iraq. As indicated in Table 2, the most common educational degree among the participants was a master's degree, accounting for approximately 35% of the respondents. Around 27% of the participants held a doctorate degree. In terms of gender and work experience, the highest frequency was observed among male employees and those with 16 to 25 years of experience.

Table 2. Frequency distribution of research participants

Criterion		No.	F (%)
Degree of Education	Diploma	15	8
	B.A	55	28
	M.A	74	37
	Ph.D.	54	27
Total		198	100
Work Experience	Below 5 Years	5	3
	5-10 Years	20	10
	11-15 Years	83	42
	16-25 Years	90	45
Total		198	100
Gender	Male	169	85
	Female	29	15
Total		198	100

Table 3 presents the descriptive statistics for the research variables. It is important to highlight that the descriptive statistics for each variable's items (research questions) are reported based on a 5-point Likert scale to provide a more accurate depiction of the respondents' opinions.

Table 3. Descriptive statistics of research variables

Variable	Question	Mean	Median	Sd	Skewness	Min	Max
Internal Control	Q_1	4.394	4	0.736	-2.308	1	5
	Q_2	4.354	4	0.729	-1.449	2	5
	Q_3	4.399	4	0.737	-2.319	1	5
	Q_4	4.192	4	0.955	-1.269	2	5
	Q_5	4.273	4	0.808	-1.406	2	5
	Q_6	4.045	5	1.308	-1.109	1	5
Extra-Organizational Factors	Q_7	4.242	4	0.629	-0.364	2	5
	Q_8	4.197	4	0.679	-1.243	2	5
	Q_9	4.338	4	0.543	0.004	3	5
	Q_{10}	4.076	4	0.989	-1.099	2	5
	Q_{11}	4.369	5	0.916	-1.594	2	5
	Q_{12}	4.146	4	0.606	-0.219	2	5
Employees' Performance	Q_{13}	4.273	4	0.808	-1.985	1	5
	Q_{14}	4.172	4	0.865	-2.228	1	5
	Q_{15}	4.586	5	0.595	-1.135	3	5
	Q_{16}	4.566	5	0.622	-1.139	3	5
	Q_{17}	4.162	4	0.536	0.12	3	5
	Q_{18}	4.323	4	0.641	-0.416	3	5
	Q_{19}	4.101	4	0.492	-1.056	2	5
	Q_{20}	4.293	4	0.599	-0.933	2	5
Accounting Information System	Q_{21}	4.253	4	0.802	-1.97	1	5
	Q_{22}	4.273	4	0.708	-1.308	2	5
	Q_{23}	4.374	5	0.83	-2.13	1	5
	Q_{24}	4.293	4	0.678	-0.734	2	5

4.2. Validity and reliability of the questionnaire

To ensure the validity and reliability of the questionnaire, convergent validity, Cronbach's alpha coefficient, and composite reliability (CR) were employed. The results of these assessments, which confirm the validity and reliability, are presented in Table 4. Reliability is considered acceptable when the Cronbach's alpha value of the variables exceeds 0.7. In this study, all variables in Table 4 exhibit Cronbach's alpha values higher than 0.7, indicating satisfactory reliability. In addition to Cronbach's alpha, the CR values of the constructs provide a more accurate measure of reliability. A CR value above 0.7 in Table 4 suggests appropriate internal consistency for the measurement models. Convergent validity was evaluated using the average variance extracted (AVE) as introduced by Fornell and Larcker [32]. They proposed a critical value of 0.5 for AVE, indicating acceptable convergent validity. In this study, Table 3 reveals that all variables have AVE values exceeding 0.5, indicating acceptable convergent validity. Overall, the results from Table 4 indicate that the questionnaire demonstrates both validity and reliability through the confirmation of convergent validity, acceptable values of Cronbach's alpha and CR, and AVE exceeding 0.5 for all variables.

Table 4. Cronbach's alpha coefficient, CR and AVE

Title In The Model	Cronbach's Alpha Coefficient (Alpha > 0.7)	CR (Alpha > 0.7)	AVE > 0.5
Internal Control	0.798	0.718	0.589
Extra-Organizational Factors	0.765	0.750	0.578
Employees' Performance	0.735	0.769	0.564
Accounting Information System	0.749	0.732	.0559

4.3. Measurement of factor loadings

Factor loadings are calculated by assessing the correlation between the indicators of a construct. A factor loading equal to or greater than 0.4 confirms that the variance between the construct and its indicators is higher than the variance of the measurement error, thereby indicating acceptable reliability of the measurement model. However, some authors, such as Rivard and Huff [33], have suggested a criterion value of 0.5 for factor loadings. It is crucial for researchers to consider factor loadings below 0.4 as an indication to modify or eliminate those indicators from the research model. This ensures that only indicators with sufficient variance in relation to the construct are retained. Figure 1 illustrates the factor loadings of the variables in this study. As indicated, the factor loadings of these variables exceed 0.4, indicating that the variance between the construct and its indicators surpasses the variance of the measurement error. Therefore, the reliability of the measurement model is deemed acceptable.
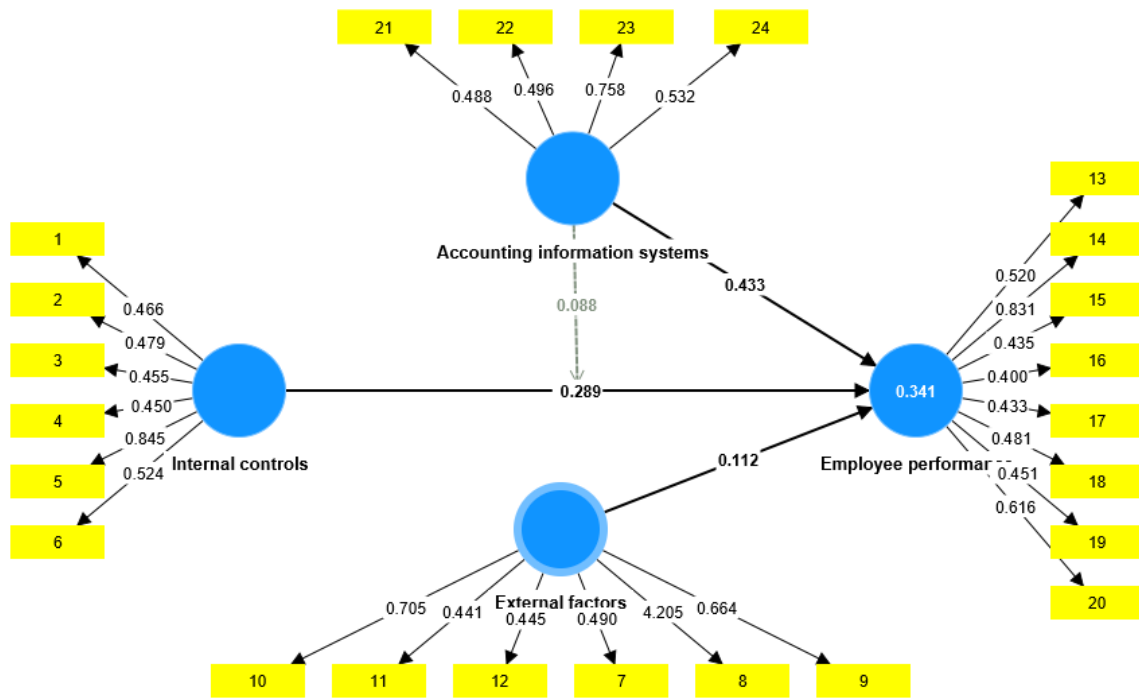

Figure 1. Results of factor loadings and path coefficients of the research model

4.4. Testing research hypotheses

The results pertaining to the research hypotheses are summarized in Table 5, as illustrated in Figure 2.

Table 5 presents a summary of the research hypotheses' results. Based on the path coefficients and t-statistics, as well as a significance level below 5%, it has been confirmed that H1 and H2, which investigate the positive effects of internal control and AIS on employees' performance, are supported. However, H3, which examines the moderating effect of AIS on the relationship between internal control and employees' performance, has not been confirmed due to a significance level higher than 5%.

The CV-Red and CV-Com values, representing cross-validation redundancy and cross-validation communality, respectively, demonstrate the suitability and quality of the structural model in the present study, as indicated by positive numbers in all paths (Table 5). Moreover, the R^2 value for the dependent variable, employees' performance, in Table 4 reveals that approximately 34% of the variations in employees' performance can be predicted by the explanatory variables. Additionally, it was observed that the control variable of extra-organizational factors did not have a significant impact on enterprise performance.

Table 5. Summary of research hypothesis test results

Hypothesis	Variable	Path Coefficient	T-Statistic	Significance Level	Result
1	Internal Control → Employees' Performance	0.289	2.151	0.032	Confirmed
	Cv – Red :0.445		Cv – Com :0.419		

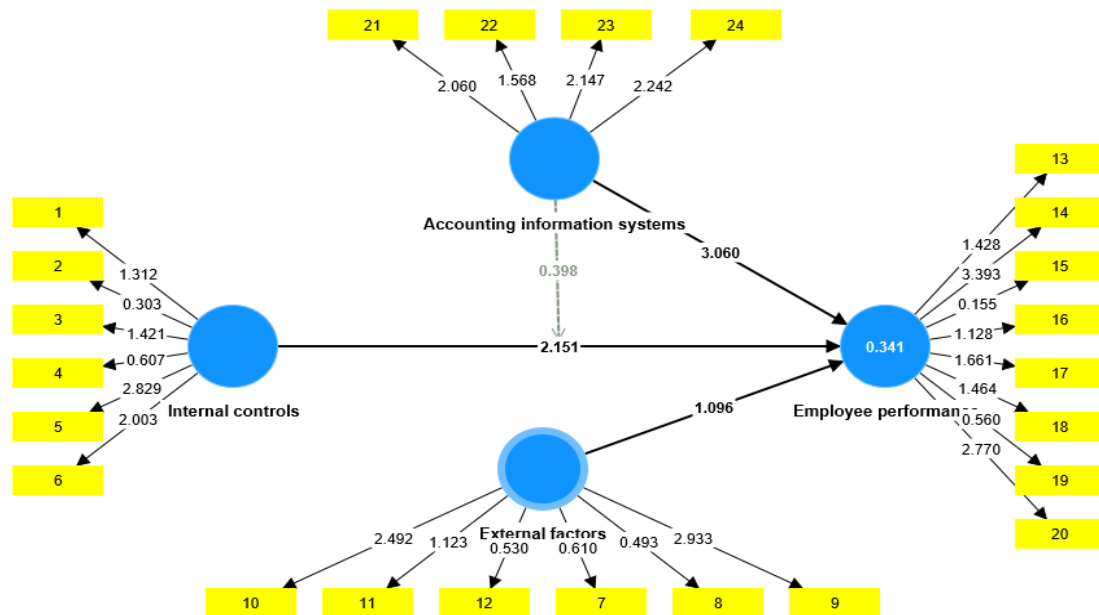| Hypothesis	Variable	Path Coefficient	T-Statistic	Significance Level	Result
2	Accounting Information System → Employees' Performance	0.433	3.060	0.002	Confirmed
	Cv – Red :0.432		Cv – Com : 0.379		
3	Accounting Information System* Internal Control → Employees' Performance	0.088	0.398	0.691	Rejected
	Cv – Red :0.319		Cv – Com :0.287		
	Employees' Performance R^2 (0.341)				

Figure 2. Significance results of research model variables

The objective of this study was to examine the impact of internal control on the performance of employees in small and medium-sized enterprises (SMEs), taking into consideration the moderating role of Accounting Information Systems (AIS) in Iraq. Internal control is a crucial strategic component in organizations, as it enhances efficiency and streamlines company operations. By implementing internal control procedures, organizations can establish a systematic process that improves the performance of all employees involved. Increasing the effectiveness and consistency of activities is a key objective of internal control. Employees hold significant importance as a vital group within the organizational structure. The literature reviewed in this study indicated that internal control can have a positive influence on improving employees' performance. However, it is important to recognize that this effect may vary across different economic settings. Thus, the study aimed to investigate this relationship specifically within the economic context of Iraq. Based on existing research, a positive relationship between internal controls and employees' performance was anticipated.

The study's findings indicate that internal control practices in Iraqi SMEs have a positive and significant impact on employees' performance. The results demonstrate that internal control procedures implemented in these enterprises play a vital role in enhancing overall operational efficiency and specifically improving employee efficiency. As a result, the research expectations and predictions have been confirmed, showing that effective internal control positively influences employees' performance. The study identifies five key components of internal control: control setting, implementation of control procedures, risk assessment, communication and information, and monitoring. These components serve as important indicators of the functioning of internal control within organizations.

Based on the study results, it can be concluded that the control setting within organizations has contributed to the improvement of employees' performance through the establishment of compliance with rules and regulations. Moreover, the control setting is influenced by various factors such as management philosophy, leadership style, supportive attitudes, as well as the competence, moral values, honesty, and dedication of the organization's employees. This conducive setting creates motivation and order among employees, leading to

enhanced performance. The implementation of control procedures, which constitutes the second component of internal control, has been found to be well-executed in SMEs in Iraq. This effective implementation has resulted in improved employee performance. Additionally, the study suggests that enterprises in the context of the research have demonstrated a good understanding and assessment of risks. This proactive approach towards risk management has further contributed to the enhancement of employees' performance. In summary, the study reveals the positive impact of control setting, implementation of control procedures, and effective risk assessment on employees' performance in SMEs. These findings underscore the importance of a comprehensive internal control system in promoting employee productivity and overall organizational success.

Furthermore, it can be observed that effective communication and information management within SMEs in Iraq have positively contributed to the improvement of employees' performance. The dissemination of relevant and timely information, coupled with efficient communication channels, has enhanced the overall efficiency and productivity of employees. Lastly, the monitoring of internal control processes has served as a motivating factor for employees to improve their performance. The oversight and supervision of internal control activities have instilled a sense of accountability and encouraged employees to strive for better performance outcomes.

It is important to note that research results can vary across different settings and contexts. However, the present study's results are consistent with the findings of a study conducted by Alawaqleh [2], who demonstrated a strong positive relationship between internal control and employees' performance in SMEs in Jordan. These variations highlight the significance of considering contextual factors and the need for further research to gain a comprehensive understanding of the relationship between internal control and employees' performance in different settings.

The study's findings indicate that in addition to internal control, Accounting Information Systems (AIS) have contributed to the improvement of employees' performance. AIS is an accounting approach used to facilitate the preparation, monitoring, and management of an organization's economic operations. This interconnected system operates with specific priorities and aids in decision-making processes. Therefore, it was hypothesized in this study that the effective mechanisms of AIS positively influence and enhance employees' performance. The results support this hypothesis, highlighting AIS as a variable that promotes and improves employees' performance. Consequently, AIS has a direct impact on employees' task completion, ultimately increasing organizational efficiency. These results align with a study conducted by Alawaqleh in Jordan [2], which also found that information systems, including AIS, have contributed to the improvement of employees' performance. Similarly, Maharani and Damayanthi [13] concluded that AIS positively impacted employees' performance. These consistent findings across studies further support the notion that effective implementation and utilization of AIS can enhance employees' performance in various organizational contexts.

Indeed, as stated earlier, the results of the study indicate that H3, which examined the moderating effect of AIS on the relationship between internal control and employees' performance, did not show a significant influence. This suggests that AIS did not play a significant role in shaping the relationship between internal control and employees' performance. The study results suggest that the cultural setting and the state of underdevelopment in SMEs in Iraq may have influenced the limited effectiveness of AIS in facilitating the successful implementation of internal control. It is possible that AIS was not effectively utilized to adapt to internal and external changes within these organizations. Additionally, the limited development and lack of interconnectivity of AIS in Iraq may have hindered their overall efficiency. As a result, it is advisable for these enterprises to consider updating their AIS to enhance the functioning of internal control and its components. This, in turn, can contribute to improving employees' performance, as well as the performance of other individuals, groups, and departments within these organizations.

The findings of this study are inconsistent with the results of [2], where AIS was found to have a positive effect on employees' performance but did not play a significant role in the relationship between internal control and employees' performance. Similarly, the findings differ from the results of Maharani and Damayanthi [13], which highlighted the influence of AIS on employees' performance through organizational culture, while internal control impacted employees' performance through organizational culture as well.

These discrepancies in findings emphasize the importance of considering specific contextual factors, such as cultural settings and the development level of AIS, when examining the relationship between internal control, AIS, and employees' performance. Future research can further explore these dynamics to gain a more comprehensive understanding of the role of AIS in different organizational contexts.

5. Conclusion

The present study has significant implications for both practical and theoretical knowledge in the field. From a practical standpoint, the findings highlight the importance of implementing effective internal control systems to

achieve the goals of all stakeholders involved. The study underscores that internal control plays a crucial role in influencing employees' performance, as evidenced by the results. Therefore, it is recommended that enterprises give significant attention to establishing robust internal control systems. SMEs in Iraq are specifically encouraged to enhance their internal control components to maintain and improve employees' performance at a satisfactory level. Furthermore, the development of standards and laws that support the improvement of internal control in SMEs is suggested.

Regarding AIS, the results indicate that while these systems have contributed to enhancing internal control performance, they may not be sufficiently robust to have a significant impact on internal control and subsequently improve employees' performance. Therefore, SMEs in Iraq are advised to upgrade their information systems to enhance the influence of AIS on internal control and its important components. Future research endeavors are recommended to investigate the impact of internal control on employees' performance across various types of enterprises within the Iraqi economic landscape. Furthermore, conducting comparative studies across different economic contexts can provide valuable insights by comparing the findings and understanding the potential variations in the relationship between internal control and employees' performance.

Conflict of Interest

The authors declare that they have no conflict of interest.

Funding

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