

Article

The Role of Accounting Information System and Knowledge Management to Enhancing Organizational Performance in Iraqi SMEs

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Abstract: Small and Medium Enterprises (SMEs) in Iraq have experienced low performance due to the limited usage of accounting information systems (AIS) and the inability to exploit knowledge of management capabilities (KMC). These deficiencies have led to competitive pressures in the marketplace that have adversely affected their sales and production. This study investigates the role of AIS in terms of operation support, knowledge support, regulatory support, and the role of KMC, including knowledge acquisition, knowledge transfer, and knowledge utilized to enhance organizational performance in Iraqi SMEs. The target population was managers and owners in SMEs using AIS in Iraq's cities. A non-probability purposive sampling technique was used to collect the data, and self-administered printed questionnaires were distributed to the SME managers and owners; 236 questionnaires were used for analysis. Partial least squares was used to examine the role of AIS and the mediation of KMC through second-order analysis. The results showed that AIS and KMC have a positive and significant role in enhancing organizational performance. The study also found that KMC partially mediated between AIS and organizational performance. The findings show that managers and owners of SMEs should focus on AIS and pay more attention to KMC to improve organizational performance.

Keywords: accounting information system; knowledge management capabilities; SMEs; organizational performance

1. Introduction

SMEs are the mainstay for Iraq's economy and associated local job creations. SMEs today endeavor to improve their performance despite the numerous challenges and adverse circumstances in the current economy during COVID-19. Due to the cost of using a high-level system like enterprise resource planning (ERP), Small and Medium enterprises (SMEs) in Iraq only use AIS that handles accounting transactions such as accounts receivable, payroll, sheet, accounts payable, sales, expenses, and purchase order, electronic payment, billing, and trial balances. Most recently, Iraqi SMEs have faced the risk of failure, affecting

their balance sheets [1,2]. These risks differentiate them from SMEs in other countries because Iraqi SMEs sell on account to many clients, are willing to wait for customers for a long time, and face the risk of failure due to COVID-19. These features are also the result of the critical political situation, competition with large firms, and depressed levels of investment in the technology needed for access to markets in a competitive environment. Although the Central Bank of Iraq has allocated about five billion dollars to support SMEs, they remain underdeveloped [3]. The Iraqi government (2020) promulgated a broader strategy for initiatives worth one trillion dinars to improve national economic growth, job creation, and the local production of goods and services to help SMEs [4]. Despite the worldwide revolution in information systems, Iraqi SMEs continually face the risk of low performance and therefore must deal carefully to improve performance addressing different individual, managerial, and technological levels [5].

Iraqi SMEs lag in using accounting information systems (AIS) due to the need for new technological resources, and knowledge management capabilities (KMC) remain underdeveloped, unpretentious, and not correctly exploited. SME managers and owners need to improve performance by optimizing the use of AIS and KMC to make appropriate decisions at the right time. Efficient operation and KMC by using AIS will provide high-quality information, and government regulatory support can play an essential role in upgrading to an AIS. In addition, the mediator role of KMC in terms of acquisition, transfer, and utilization can add to creativity and sustainability to obtain a competitive advantage. Despite the need, limited studies have looked at how SME performance can be improved through exploiting AIS and KMC to meet the challenges inherent in increasing competition [6]. In the provinces in Iraq, the number of employees for SMEs ranges from four to ten as a small enterprise, while a medium enterprise ranges from eleven to fifty employees. Managers and owners of these SMEs were the target population in this study [2].

2. Background of Study

The low performance in Iraqi SMEs directly impacts economic growth, job creation, and the production of goods and services. COVID-19 has seriously affected SMEs, leading to new challenges represented by an economic slump and competitive pressure in the marketplace. In particular, SMEs have found that their sales and production were significantly adversely impacted [7]. Thus, SMEs should be looking at the factors that influence performance. For example, the low usage of AIS could contribute to low performance through poor information, which negatively affects decision-making and leads to low levels of operational skills and knowledge. Furthermore, the lack of regulatory support contributes to the low usage of AIS [2,8].

Using AIS supports knowledge by allowing managers/owners to develop their businesses using techniques, skills, and processes in AIS correctly [5,9,10]. Moreover, the usage of AIS reflects how SMEs use these systems to manage their transactions effectively to help grow their ability to manage and understand their operations in order to meet challenges in the business environment [11]. Furthermore, managers and owners can obtain operational clarity using AIS. Thus, the current results can help them make strategic decisions which are reflected in firm performance [12].

SMEs need to manage KMC to support and improve organizational performance. Managers should recognize the importance of improving KMC, as this will help minimize risks. KMC in Iraqi SMEs lags in terms of technological and managerial issues [2,13]. Therefore, Al-Hakim and Hassan [14] recommended conducting extensive studies on the role of knowledge management in improving performance. Moreover, the critical issue related to management is how to improve performance through appropriate decisions within the firm's strategy to encourage implementing relevant decisions that lead to success through the acquisition, transfer, and use of KMC. KMC, as organizational activities, can support the management of SMEs through these capabilities. For example, KMC can cover the new use of technologies, transfer of new knowledge between departments, or the

organizational processes that acquire, store and use knowledge. So, it is imperative to collect knowledge from internal and external resources and use them in a timely manner [5].

3. Theoretical Model and Hypotheses

3.1. Accounting Information System

The dynamic capability (DC) theory supports the framework of this study. The DC theory supports the integration of operation support, regular support, and knowledge by inviting new skills to improve using AIS and knowledge management to enhance organizational performance. DC refers to developing procedures and integrating new skills to deal with fast-changing environments [2,5,15,16]. In this context, dynamic ability theory serves as a mediator between owners, managers, and organizational performance. DC theory and knowledge management contribute a dynamic ability to improve organizational performance [17].

AIS refers to the system used to collect, process, classify and present data for decision-making [5]. This study focuses on AIS by contributing to operations support, referred to as activities such as processes, technique, and skills [10,18]. The contribution of knowledge support refers to the extent to which the management or users realize and understand this system, like the awareness and understanding of the set of information and methods that support decisions [19]. For example, management might be concerned with developing, upgrading, or buying a new system. The management would then use this knowledge to make relevant decisions [5,12,20]. The contribution of regulatory support refers to the role of government support to motivate and encourage the use and development of AIS [6].

Previous studies found that the AIS can achieve better organizational performance for SMEs with high AIS alignment [21–23]. Additionally, Pérez-López and Alegre [12] and Tanriverdi [24] found a positive and significant relationship between information technology and knowledge management. Therefore, to manage data accurately in order to perform a particular purpose, SMEs need to successfully use techniques, skills, and processes to improve their databases and produce high-quality, more organized information [25]. Regulatory support can play a crucial role in developing the levels of knowledge in software, hardware, and infrastructure of AIS to upgrade AIS systems to achieve SME objectives (Kareem et al., 2019). According to Zaid et al. [26], the support of KM can have a mediation effect on organizational performance. Lastly, Deni et al. [27] found that KM can, directly and indirectly, affect organizational performance, and AIS can affect overall organizational performance by developing dynamic resources for SMEs. The dynamic capability theory suggests that AIS capabilities can affect overall OP and improve the level of AIS usage.

Based on the above discussion, the three dimensions have been studied for AIS. Accordingly, the hypotheses are as follows:

Hypothesis 1 (H1). *The use of AIS has a positive influence on organizational performance.*

Hypothesis 2 (H2). *The use of AIS has a positive influence on KM capabilities.*

3.2. KM Capabilities

Kareem et al. [5] define KM capabilities as a process of creating, sharing, and using knowledge. Therefore, the lack of certain aspects of knowledge management may lead to difficulties in making critical decisions [28]. For this reason, many researchers have looked at the importance of this factor. For example, Pérez-López and Alegre [12] and Tanriverdi [24] found that KM processes mediate between information technology competency and market performance. Furthermore, Park et al. [29] and Lai et al. [30] confirmed that the quantity of knowledge acquired can contribute significantly to performance [31]. Hu et al. [32] and Oyemomi et al. [33] reported that knowledge sharing directly contributes to enhancing organizational performance. In addition, Sheng et al. [34] argued that knowl-

edge use is required for the understanding of transfer of knowledge. Accordingly, the following two hypotheses are formulated as follows:

Hypothesis 3 (H3). *KM capabilities have a positive influence on organizational performance.*

Hypothesis 4 (H4). *KM capabilities mediate the relationship between AIS and organizational performance.*

Figure 1 elaborates the research model. This study explores the mediating role of KM capability in the relationship between AIS and organizational performance; this study adapts the dynamic capabilities perspective that Teece, Pisano, and Shuen advocated [35].

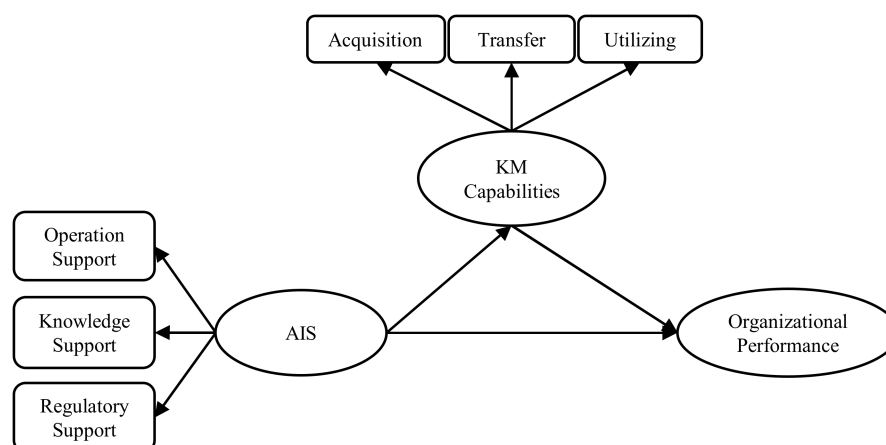


Figure 1. Demonstrates the research framework and hypotheses proposed for this study.

4. Research Methodology

4.1. Sample and Data Collection

The target population was all SMEs in Iraq in different provinces. Managers and owners were chosen to be offered detailed information about using AIS in these firms. This is because most of these SMEs are directly managed by this sample due to low income and budget and the small number of employees, and they make the final decision to adopt new technologies. All SMEs were selected based on a criterion of having between 4 and 10 employees representing small enterprises and 11–50 employees representing medium enterprises [5]. The questionnaire was first written in English and then translated into Arabic. A pilot study was used to obtain reliability before distributing the questionnaires, and 35 questionnaires were used to measure the validity and reliability [36]. The results of the pilot analysis showed all variables within an acceptable level of 0.70 for Cronbach's alpha values [37].

Five hundred self-administered surveys were distributed to the different sectors of SME managers and owners. This was done between March and September 2020. Using judgment sampling, a non-probability of the purposive sampling technique was adopted, consistent with the broad categories of purposive sampling for all SMEs. The justification for choosing this method was because the sample was selected from SMEs using AIS [37]. Overall, 236 SMEs responded to this study, which were all valid for further study.

4.2. Measures

In this study, the questionnaire used closed-ended questions to gather data and obtain the participants' feedback. This type of questionnaire was used because it is useful when the sample size is large and various geographical regions are studied, and it can reduce measurement error and respondent bias [37].

The demographic information was in the first part. The second included the measurement items. These items were divided into three sections. The first section was AIS

capabilities, with six items measuring AIS operation support [10], three items measuring AIS knowledge support [38], and three items measuring regulatory support [39,40]. The second section included the mediator KM capabilities with three subscales adapted from De Silva and Rossi [41] and Pérez-López and Alegre [12] including four items of each subscale; measuring knowledge acquisition, knowledge transfer [42,43] and knowledge utilization [44]. The third section includes six items measuring organizational performance [5] (See Appendix A). All constructs were measured using a 5-point Likert with responses ranging from the “1-strongly disagree—5 strongly agree” scale. The justification for using this 5-point scale was that it seemed to be more comfortable for respondents and typically produces a greater response rate and response quality. In addition, the scale reduces the frustration level among the participants [45,46].

4.3. Data Analysis

The present study used structural equation modeling (SEM) and smart partial least squares (PLS-3) software to assess the hypotheses. PLS-SEM was suitable for this study because it included building new paths for the structural model. In addition, this software allows for the combining of non-observable variables by indicator variables based on indirect measurement. It also helps to calculate errors in measurement in the observed variables [47].

The root means square error of approximation (RMSEA) and comparative fit index (CFI) were reported to assess model fit to test model fit. The RMSEA indicates how well the model would fit the population covariance matrix given the unspecified but ideally specified parameter estimates. According to Hooper et al. [48], the RMSEA should be in the range of 0.05 to 0.10; in a well-fitting model, the lower limit should be close to 0, and the upper limit should be less than 0.08. For CFI, values range between 0.0 and 1.0, with values closer to 1.0 indicating good fit; a value of $CFI \geq 0.95$ is presently recognized as indicative of a good fit [48,49].

5. Results

5.1. Demographic Information

The current positions of the respondents were managers 46.2%, owners 27.5%, and IT users 26.3%, with educational levels for bachelor's, diploma's degree, master's degree, and Ph.D. qualification of 55.5%, 22.5%, 14.8%, and 7.2%, respectively. Concerning years of firm establishment, 50.8% of the firms had been established from 2 to 10 years ago, 39% were more than 10 years old, and 10.2% were less than 2 years old. The experience using AIS was 24.6% for two years, 30.5% for three to four years, and 44.9% for over four years.

5.2. Measurement Model Analysis

The results of the measurement model show that the average variance extracted (AVE) had an acceptable level of higher than 0.50; furthermore, composite reliability (CR) was above 0.70, and the outer loadings were acceptable [47]. Cronbach's alpha also had an acceptable level of above 0.80 [37] (See Table 1).

Table 1. Results of Convergent Validity.

Construct	Indicator	Outer Loading >0.7	Cronbach's Alpha >0.7	Composite Reliability >0.7	AVE >0.5
AIS Knowledge Support (AKNOW)	AKNOW1	0.892	0.868	0.919	0.792
	AKNOW2	0.922			
	AKNOW3	0.855			
AIS Operation Support (AOPER)	AOPER1	0.873	0.917	0.935	0.707
	AOPER2	0.834			
	AOPER3	0.83			
	AOPER4	0.868			
	AOPER5	0.816			
	AOPER6	0.823			
Knowledge Acquisition (KAC)	KAC1	0.843	0.855	0.902	0.697
	KAC2	0.881			
	KAC3	0.809			
	KAC4	0.805			
Knowledge Transfer (KTR)	KTR1	0.801	0.843	0.895	0.681
	KTR2	0.866			
	KTR3	0.821			
	KTR4	0.81			
Knowledge Utilizing (KUTI)	KUTI1	0.876	0.888	0.922	0.748
	KUTI2	0.877			
	KUTI3	0.882			
	KUTI4	0.823			
Organizational Performance (PERF)	PERF1	0.83	0.924	0.941	0.726
	PERF2	0.884			
	PERF3	0.878			
	PERF4	0.892			
	PERF5	0.848			
	PERF6	0.775			
Regulatory Support (REGS)	REGS1	0.884	0.891	0.932	0.821
	REGS2	0.923			
	REGS3	0.911			

The Fornell–Larcker [50] test for discriminant validity is shown in Table 2. This result shows that all constructs share more variance with their indicators than with other constructs.

Table 2. Correlation of Latent Variables and Discriminant Validity (Fornell–Larcker).

	AKNOW	AOPERS	KAC	KTR	KUTI	PERF	REGS
AKNOW	0.89						
AOPERS	0.357	0.841					
KAC	0.227	0.48	0.835				
KTR	0.205	0.452	0.465	0.825			
KUTI	0.164	0.384	0.418	0.348	0.865		
PERF	0.417	0.715	0.621	0.525	0.529	0.852	
REGS	0.321	0.389	0.309	0.194	0.198	0.575	0.906

Table 3, showing the cross-loading indicators, demonstrates that the latent constructs were higher than the cross-loading on other constructs through column and row, which means a good degree of unidimensional reliability for all constructs [47].

Table 3. Cross loading indicators.

	AKNOW	AOPERS	KAC	KTR	KUTI	PERF	REGS
AKNOW1	0.891	0.36	0.226	0.211	0.121	0.386	0.292
AKNOW2	0.926	0.292	0.18	0.174	0.193	0.388	0.306
AKNOW3	0.851	0.301	0.201	0.16	0.121	0.338	0.257
AOPER1	0.387	0.878	0.44	0.375	0.384	0.687	0.394
AOPER2	0.383	0.839	0.414	0.397	0.342	0.638	0.313
AOPER3	0.255	0.832	0.389	0.376	0.284	0.585	0.296
AOPER4	0.233	0.865	0.412	0.341	0.274	0.572	0.304
AOPER5	0.215	0.809	0.347	0.392	0.318	0.524	0.298
AOPER6	0.296	0.819	0.411	0.401	0.323	0.579	0.348
KAC1	0.185	0.425	0.844	0.401	0.361	0.526	0.309
KAC2	0.207	0.459	0.885	0.367	0.337	0.55	0.259
KAC3	0.103	0.314	0.801	0.382	0.325	0.465	0.207
KAC4	0.254	0.395	0.807	0.404	0.373	0.528	0.254
KTR1	0.149	0.316	0.397	0.792	0.298	0.405	0.126
KTR2	0.22	0.407	0.402	0.871	0.333	0.483	0.17
KTR3	0.158	0.375	0.369	0.827	0.223	0.426	0.201
KTR4	0.142	0.389	0.366	0.808	0.292	0.414	0.142
KUTI1	0.162	0.299	0.359	0.335	0.874	0.458	0.206
KUTI2	0.21	0.321	0.355	0.294	0.872	0.435	0.178
KUTI3	0.123	0.42	0.409	0.305	0.887	0.506	0.157
KUTI4	0.075	0.276	0.318	0.269	0.825	0.426	0.144
PERF1	0.399	0.616	0.501	0.405	0.46	0.83	0.506
PERF2	0.415	0.639	0.533	0.458	0.448	0.884	0.506
PERF3	0.326	0.629	0.557	0.454	0.463	0.878	0.495
PERF4	0.362	0.647	0.567	0.476	0.466	0.892	0.492
PERF5	0.355	0.588	0.521	0.455	0.437	0.848	0.52
PERF6	0.268	0.529	0.493	0.437	0.432	0.775	0.415
REGS1	0.255	0.306	0.245	0.147	0.13	0.465	0.881
REGS2	0.32	0.361	0.292	0.179	0.194	0.56	0.926
REGS3	0.293	0.386	0.3	0.2	0.208	0.53	0.909

To evaluate the model fit, CFI, X^2/df , and RMSEA were used to assess the quality of the scale adjustment for the data. The results show that the model was of good quality. The values of the adjustment confirm the theoretical model's good fit with the data collected. These indexes are regarded as adequate: $X^2/df = 2.44$, $p < 0.001$, CFI = 0.96, and RMSEA = 0.07.

5.3. Structural Model Analysis

The results in Table 4 show the total effects of direct and indirect effects and confirm that AIS capabilities had direct and indirect effects on organizational performance and were statistically significant. In addition, the result of KM capabilities partially mediated the relationship between AIS capabilities and organizational performance.

Table 4. Total Effects (Direct and Indirect).

Path	Total Effect	Direct Effect	Indirect Effect	Results
AIS capabilities → KM capabilities → Organizational Performance	0.785 ($p < 0.001$)	0.559 ($p < 0.001$)	0.226 ($p < 0.001$)	Partially Mediation

The adjusted R^2 for KM capabilities was 0.299, which could be explained by the exogenous latent variables of AIS capabilities. The organizational performance was 0.731, which could be explained by the exogenous latent variables of AIS and KM capabilities. The results of f^2 for the exogenous variables for the organizational performance showed that the AIS capabilities are highest effect size with $f^2 = 0.818$, then KM capabilities $f^2 = 0.442$, which indicated a large effect size for both. The result of predictive relevance Q^2 of the structural

model for KM capabilities was 0.126, and the value of organizational performance was 0.518, which was larger than zero as Hair et al. recommended [47]. Table 5 confirms the proposed relationships in the study and shows that all hypotheses were supported. In addition, Figure 2 shows the results of PLS-SEM.

Table 5. List of Hypotheses and Relative Paths.

Hypothesis		Path Coefficient	<i>t</i> -Test	<i>p</i> Value	Results
H1:	AIS capabilities → OP	0.559	15.522	<0.001	Supported
H2:	AIS capabilities → KM capabilities	0.549	10.618	<0.001	Supported
H3:	KM capabilities → OP	0.411	10.954	<0.001	Supported
H4:	AIS capabilities → KM Capabilities → OP	0.226	8.862	<0.001	Supported

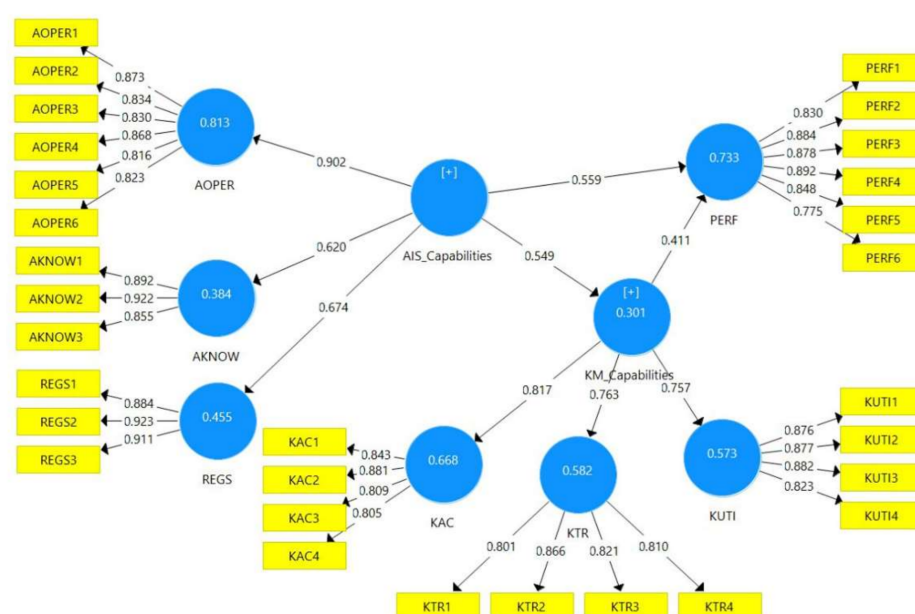


Figure 2. Results of smart PLS-SEM.

6. Discussion

Based on Table 5, the results revealed that the AIS had a positive and significant influence on organizational performance, supporting H1. This result is consistent with Ismail and King [21] and Soudani [21,51]. This result may reflect that the managers and owners believed in the reliability of data generated from the system. Thus, the chances of the information being error-prone are reduced. In addition, they depend on AIS to provide timely information to make sound decisions concerning financial statements and managerial reports.

The H2 result shows that the AIS had a positive influence on KM capabilities. This result contradicts Wang et al. [52] as their result did not find a significant and direct relationship between IT support for knowledge management and firm performance. This may be because of the mediation through the knowledge-based dynamic concept related to absorption, storage, creation, and knowledge application. The second reason is that the researchers focused only on manufacturing industries, which is a different sample than the current study where AIS has a positive influence on KM capabilities. One reason is that most managers or owners have complete control of their firms in terms of decision-making and optimal exploitation of the AIS and KMC to improve performance.

The H3 result shows that KM capabilities had a positive influence on organizational performance, which aligns with Tseng [42]. The positive result reflects that this variable can assist managers and owners in improving firm performance. In addition, the advantage

of the use of KM capabilities in SMEs could provide a distinct ability to enhance the performance of firms.

The H4 result of the indirect path showed that KM capabilities partially mediated between AIS and organizational performance. That is because KM capabilities can depend on information technology and allow for the integration of information and knowledge to make appropriate decisions for the firm and improve communication, innovation, and business processes. This result is supported by Pérez-López and Alegre [12] and Tanriverdi [24].

KM capabilities serve as a mediator because KM supports organizational performance by encouraging knowledge sharing among the employees. When employees are not sharing information, they may repeatedly do the same wrong thing. Cross coaching directives, business process enablement, and professional training applications allow SME management to gain business knowledge and enhance organizational performance.

7. Conclusions, Implications, Limitations, and Future Work

The objective of this study was to examine the role of AIS in terms of operation support, knowledge support, and regulatory support, and the mediation of KM capabilities for acquisition, transfer, and utilizing to enhance SME performance. The low performance found in previous research motivated the current study. The low level of using AIS and KM capabilities was also found to explain weak performance [5]. This empirical study presents a distinguished contribution by explaining the role of AIS and KM capabilities in enhancing organizational performance. The current study has shown the actual need to enhance organizational performance for SMEs in Iraq through the support of AIS and the optimum exploitation of KM capabilities. By considering these factors, SMEs can minimize the threat of competitive pressure in the business environment.

Furthermore, this study provides a guide to the positive and significant role of AIS and KM capabilities in improving performance. Therefore, managers and owners of SMEs should be looking at operational support, knowledge support, and regulatory support for using a high level of AIS. In addition, they also need to pay more attention to the KM capabilities in terms of knowledge acquisition, knowledge transfer, and knowledge utilization.

In general, when SMEs face a reduced level of use of accounting information systems and knowledge management due to a lack of operational, regulatory, and knowledge support, the impact on firms that rely on old systems to generate their revenue and revenue places them in a poor position to make correct decisions. This confirms the need for rapid action by the government to contain this problem.

The study contributes to the knowledge base as it extends to the role of AIS and KM in maintaining a competitive advantage. If SMEs managers and owners fully comprehend AIS and KM, they would be able to implement them successfully, creating value for their firms and improving organizational performance.

The study differs from similar studies by increasing the orienting development goals of the SMEs for both managers and owners, and SMEs need to call the involvement spirit of all upper management employees by upholding operations, knowledge, and regulatory support. In addition, the study upholds the need to acquire, utilize, and transfer knowledge through feedback and organizing workshops to share experiences regularly to attract and facilitate all managers and owners to participate in the SME business with greater confidence and increase the level of AIS and KM use in the SMEs.

The limitations of this study may open possibilities for further research. This study was conducted within a limited time-frame due to the COVID-19 pandemic, so future work could benefit from using a longitudinal approach. This study only examined the role of AIS and KM capabilities in Iraqi SMEs. As a result, the generalization may be limited due to differences in other geographical environments. Future researchers can investigate large companies that would add a greater understanding of the role of AIS and KM capabilities in enhancing organizational performance.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Measurement of Items

1. *AIS Capabilities*

AIS Operation Support (AOPER)

1. Our firm is skilled at collecting and analyzing market information about our customers via computer-based systems.
2. We routinely utilize computer-based systems to access market information from outside databases.
3. We have set procedures for collecting customer information from online sources.
4. We use computer-based systems to analyze customer and market information.
5. We utilize decision-support systems frequently when it comes to managing customer information.
6. We rely on computer-based systems to acquire, store, and process information about our customers.

AIS Knowledge Support (AKNOW)

1. Our firm possesses a high degree of AIS expertise
2. We are very knowledgeable about new AIS innovations
3. Our firm possesses a high degree of expertise in the development and maintenance of new AIS

Regulatory Support (REGS)

1. Government provided incentive
2. Compared to other regions, the local government, in general, illustrates more concern for our firm and provides us with more regulatory support
3. Compared to other regions, local government officials consider our needs more and provide us with more support

2. *KM Capabilities*

Knowledge Acquisition (KAC)

1. Acquire new basic knowledge
2. Acquire the technology the company needs
3. We have a system that allows us to learn successful practices from other organizations
4. New ideas and approaches on work performance experiment continuously

Knowledge Transfer (KTR)

1. Our company can transfer (to record and store) the knowledge acquired from an external source to become internal knowledge
2. Our company will transfer (share) this new knowledge to staff who need it

3. Share information effectively throughout the organization.
4. Share information between all parties involved in new service development

Knowledge Utilizing (KUTI)

1. Uses accumulated knowledge to solve new problems
2. Applies knowledge to changing competitive conditions
3. Uses shared knowledge to improve efficiency
4. Applies knowledge learned from mistakes

3. Organizational Performance (OP)

1. Is more competitive
2. Has more customers
3. Is growing faster
4. Is more profitable
5. Is more innovative
6. Has more employees

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