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-RESEARCH ARTICLE-

ENHANCING BANKING PROCESS EFFECTIVENESS THROUGH STRATEGIC CLUSTERS: AN APPLIED STUDY ON IRAQI PRIVATE BANKS

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─Abstract─

The research attempts to identify the influence generated by SCs on the effectiveness of BPs at the selected set of Iraqi private commercial banks. SCs were measured based on six main dimensions, which included cooperation, competitive dynamics, OPs, SK, LS, and GSM. On the other hand, BP effectiveness was assessed based on three major dimensions such as CPE, OPE, and SIE. In order to meet the proposed research aims and objectives, the study employed the descriptive-analytical research approach. The primary data collection technique entailed distributing a structured questionnaire among 356 individuals holding managerial positions as general managers, deputy general managers, department managers, assistant department managers, division heads, and division officers working in the selected set of Iraqi private commercial banks. The empirical analysis considered several Iraqi private commercial banks, namely Bank of Baghdad, Iraqi Middle East Investment Bank, Investment Bank of Iraq, National Bank of Iraq, Sumer Commercial Bank, Gulf Commercial Bank, Union Bank of Iraq, Ashur International Bank for Investment, AL Mansour Bank, Trans Iraq Bank for Investment, and International Development Bank. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The data analysis techniques included weighted arithmetic mean, SD, coefficient of variation, simple and multiple linear

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regression analysis, Adjusted R^2, and t-test, z-test, and F-test methods. Statistical analysis yielded the evidence that SCs along with the related dimensions generate a considerable impact on BP effectiveness and explain about 80% of its variation.

Keywords: Strategic Clusters; Banking Process Effectiveness; Iraqi Private Commercial Banks; Operational Efficiency; Banking Performance.

INTRODUCTION

The banking industry has been undergoing an accelerated phase of structural transformation driven by digitalisation, shifting customer behaviour, regulatory pressures, and intensified market competition (Naimi-Sadigh et al., 2022). Commercial banks no longer function within stable and predictable business environments; instead, they operate under highly volatile and competitive market conditions that require continuous strategic adaptation to sustain operational efficiency (Yensu et al., 2021). Consequently, improving the effectiveness of BPs has become a strategic necessity because these processes directly influence service quality, institutional competitiveness, organisational resilience, and long-term sustainability (Ezechi et al., 2025). Contemporary studies further indicate that DT and OA now represent major determinants of sustainable competitive advantage within the banking sector (Probojakti et al., 2024). Additionally, digitalisation has been empirically associated with enhanced banking efficiency, particularly regarding profitability, while simultaneously reinforcing institutional resilience during periods of disruption and uncertainty (Ayadi et al., 2025). The problems are especially clear in the case of Iraqi private commercial banks (Al-Omari & Hamid, 2022), where various institutions still experience a number of structural weaknesses and inefficiencies associated with lack of banking technology, poor integration, lack of coordination and susceptibility to regulatory and economic risks. The above weaknesses have greatly limited flexibility and undermined their ability to provide innovative services. Previous research indicates that improvement in the performance and efficiency of banks is greatly influenced by the development of an appropriate strategic plan (Lagasio & Quaranta, 2022). Moreover, it is important to highlight that FL, governance and regulation have been shown to be important factors affecting banking performance in Iraq (Khalaf et al., 2023).

In this regard, SCs have provided an important conceptual basis for examining the possibility of improving institutional performance through systematic interaction and strategic partnerships. Based on the idea of clusters by Porter, SCs are seen as a set of institutions that exhibit strategic interdependence through cooperative and competitive behaviour (Zizka et al., 2021). This approach to interaction is known as coopetition, and through it, institutions can benefit from creating value without compromising their competitiveness in the market (Czakon et al., 2020). The importance of coopetition for achieving performance has been supported strongly by current literature. In fact, a meta-

analysis has revealed a significant positive association between coopetition and financial, market, and innovative performances of institutions (Yang et al., 2021).

However, there could be substantial benefits to these clustering strategies for banking institutions (Marques & Alves, 2020). Through SK, institutional support mechanisms, professional knowledge, and collaboration for innovation purposes, banks can achieve better coordination of processes, high-quality decision-making, resource optimization, and efficient service provision. KS has been proven to be an essential factor in determining a firm's innovative capacity and competitiveness (Yuen & Lam, 2024). Furthermore, based on empirical studies conducted in Iraq, credit services improvement, increased deposits, and factors related to sound financial condition were found to have a significant impact on the performance of banks (Ahmed, 2025). The spill-over effect produced via OL can help to increase adaptability and efficiency, especially in cases when changes in the environment and technology are observed. Hence, SCs shed light on the reasons for differences in banking performance and offer a tool for improving BP performance (Powers & Hahn, 2004). SC is among the major areas that have garnered tremendous significance in the field of MS recently (Jesenko & Schlögl, 2021). However, even though academic efforts in this regard have been increasing in number and intensity, there is little empirical research done into the effect of SC in Iraqi banks. Most of the literature available on the topic of Iraqi banking has focused on FP, risk management, regulatory issues, credit forecasting, deposit guarantees, and FS in times of crisis; much fewer attempts have been made to explore ways of developing collaboration-based strategies that would increase efficiency (Abdulrasool, 2025). There is still a considerable research gap in regards to the possibility of applying SC as a means to boost efficiency of operations of Iraqi private banks (Al–Qizani & Hameed, 2026). Accordingly, the present study seeks to examine the influence of the principal dimensions of SC on BP effectiveness (Dzuba & Krylov, 2021). These dimensions include cooperation, competition, OP, SK, LP, and GS (Zhou et al., 2023). Apart from providing a valuable contribution to the theory of strategic management and banking process studies, this study is geared towards addressing the aforementioned gaps between these two fields of study (Peykani et al., 2022). Moreover, it is anticipated that the results will help contribute to the available literature on SF and AM, both of which have been noted by previous researchers as crucial approaches to improving organisational performance and profitability in Iraq.

MATERIALS AND METHODS

Research Problem, Significance, and Objectives

For this research, a descriptive and analytical approach to research is adopted to reveal the impact of strategic clusters on the effectiveness of the activities performed by the private commercial banks in Iraq. This research is motivated by the inefficient operation of Iraqi private commercial banks as revealed by their inability to perform their business

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effectively. This conclusion was drawn from an in-depth examination of the financial annual reports of the selected Iraqi private commercial banks in the last decade. The inefficiency levels and variances in the performance of operations were found to be significant (Ahmad et al., 2020). Despite the pressure toward the digitalization and modernization of the process involved in the performance of activities in the banks, the problem of poor coordination among the banks still exists, even when working cooperatively and competitively (Sadraoui & Flayyih AL-Bayatl, 2024). Another important area that impacts the operations of the banks adversely is inefficiency in financial liquidity and management practices (Jasim & Chaibi, 2025). Taking into account all of this, there is a noticeable gap in understanding how effective strategic clusters can be applied to manage the operations of banks in modern times (Basiru, 2023). Although the use of strategic clusters in the process of managing a company plays an important role in increasing productivity, creativity, and competitiveness, the aspect of implementing this idea in practice about Iraqi banks receives minimal consideration. In this respect, the main research question is the following one: How good is the understanding of managements of the studied banks concerning the importance of strategic clusters in improving the efficiency of banking operations?

It is possible to outline several aspects related to the significance of this research study. The first aspect relates to theoretical implications: the study makes a valuable contribution to the creation of academic literature devoted to the concept of strategic clusters and effectiveness in banking activities, particularly in developing countries like Iraq (Miho, 2024). In practice, the current study examines the real situation regarding the implementation of strategic clusters and effectiveness of banking processes to make necessary adjustments. As for managerial implications, the study results contribute to the understanding of systematic influence of strategic clusters on coordination, efficiency, innovations, and overall performance of a company (Tavares et al., 2021). At the same time, the significance of the current research is justified by the crucial economic role of the banking sector in financing investments, business growth, fundraising, and developing trust towards private financial organizations (Hasan, 2024). In relation to the research problem discussed above, it is necessary to formulate the following research goals. The first goal is to identify the level of concern about strategic clusters and effectiveness of banking activities expressed by respondents. The second goal is to examine the impact of strategic clusters on improving the effectiveness of banking processes in Iraqi private commercial banks.

Research Hypothesis and Methodological Approach

Based on the research objectives, the following hypotheses were formulated and subjected to empirical testing:

H1: *Strategic clusters have a statistically significant impact on the effectiveness of banking operations.*

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The hypothesis mentioned above will be tested using descriptive–analytical research methodology based on empirical data gathered from a random selection of private commercial banks operating in Iraq. The chosen methodology is deemed to be suitable for the proposed study due to several factors. Firstly, the methodology allows one to evaluate the situation concerning the use of the concept of strategic capabilities in the banking industry. Secondly, it allows for an analysis of the effectiveness of BP used in the selected organisations.

Study Scope, Population, and Data Collection

From an empirical point of view, the context of the research refers to Iraqi private commercial banks in Baghdad. In terms of the time, the investigation is done during a certain timeframe that covers dates between 1 August 2025 and 30 March 2025, as well as financial information gathered during the period from 2015 to 2024. Concerning human resources, the respondents included top, middle, and executive level management, thus contributing to a comprehensive coverage of key points of view from important organisation participants. In relation to the number of participants involved in the study, a total of 517 managers was considered as the population; however, 356 participants formed the sample. The list of participants included such positions as general manager, deputy general manager, department manager, assistant department manager, division head, as well as division officer. The inclusion of different managerial levels ensures better accuracy of results, thus reducing possible biases. Data gathering was conducted via a structured questionnaire based on a five-point Likert scale. As a result, the research tool included 45 items of the questionnaire in total, of which 30 belonged to the SC category, and 15 were dedicated to BP evaluation.

Statistical Analysis

The SPSS version 28 software package was utilised in carrying out the statistical analysis (Singh, 2022). Two approaches to conducting the analysis, namely, the descriptive and inferential statistical approaches were utilised in this regard. Descriptive analysis entailed the application of measures such as the weighted mean, standard deviation, and coefficient of variation to quantify responses as far as the level of importance is concerned in relation to various dimensions. Inferential analysis entailed techniques such as Pearson correlation, simple linear regression, multiple linear regression, Adjusted R^2, t-test, z-test, and F-test.

Conceptual Framework and Variables Measurement

Conceptually, the problem of research stems from the concept of SCs, which are the independent variables within this study context (Stavroulakis et al., 2020). Specifically, SCs denote associations that consist of interrelated firms operating within the same industrial sphere. They also have broadly similar strategic orientations yet at the same

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time, there exist competitions and cooperation among them. In such an arrangement, it is cooperation that ensures sharing of SKs, resources, and innovativeness, leading to increased organisational effectiveness. As an independent construct, SCs are operationalised through six key dimensions, namely cooperation, competition, OPs, SK, LS, and GSM. Collectively, these dimensions capture the structural and functional mechanisms through which inter-organisational clustering influences coordination, operational flexibility, and innovation capacity within the banking environment. The dependent construct in this research is BP effectiveness, which refers to the extent to which banking institutions can achieve their strategic objectives through efficient, innovative, and socially responsive operational activities. This construct is operationalised through three dimensions: CPE, OPE, and SIE. Together, these dimensions reflect both the efficiency-oriented and relational aspects of banking service delivery and organisational performance. Accordingly, the proposed conceptual framework posits a direct and positive relationship between SCs and BP effectiveness (Figure 1). In this regard, the constituent dimensions of SCs—cooperation, competition, OPs, SK, LS, and GSM—are expected to enhance banking performance by strengthening coordination mechanisms, improving operational efficiency, fostering innovation, and increasing organisational adaptability within Iraqi private commercial banks.

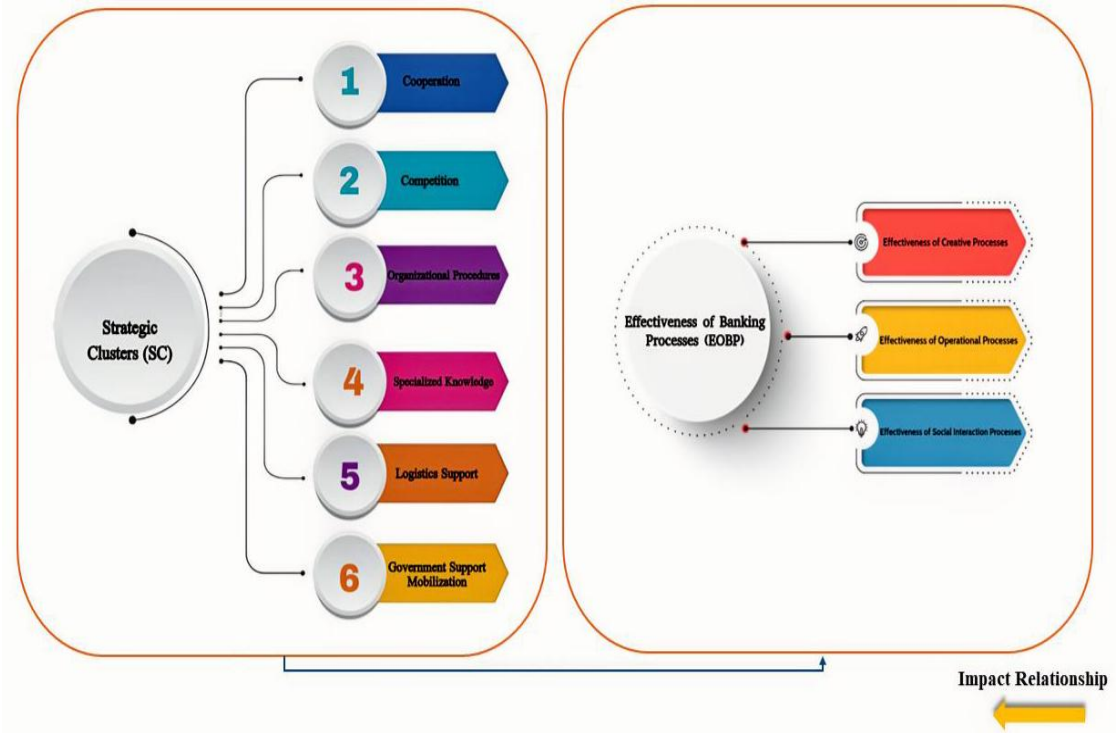

Figure 1: Proposed Conceptual Framework Illustrating the Impact Relationship Between Strategic Clusters (SC) and the Effectiveness of Banking Operations (EOBO), Including their Respective Dimensions

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RESULTS

Descriptive Analysis of Strategic Clusters

To determine the perceived significance of SCs in the selected banks, descriptive statistics were calculated on the whole construct and its six individual dimensions. The outcomes reported in Table 1 shed light on managerial views on the importance of SCs within the Iraqi private commercial banks' environment. The mean score for SCs obtained using the weighted approach is equal to 2.921. This figure slightly differs from the benchmark value of 3.000; therefore, it can be assumed that the significance of SCs is perceived quite well, with a certain degree of managerial involvement in SC-related activities being achieved. In addition, it should be mentioned that the standard deviation value (0.925) is rather low, thus suggesting a high level of homogeneity of responses, where no substantial divergence between the answers provided by the surveyed managers takes place.

To analyse the significance and consistency of perceptions, it was decided to use the coefficient of variation (CV). It should be noted that, in the present case, the lowest CV values reflect the highest significance and consistency of the dimension being considered. Based on the CV values, the first position was taken by the dimension of LS, which demonstrated the minimum coefficient value (32.06%) along with the mean score of 3.055 and standard deviation of 0.979. This means that the surveyed managers perceive LS as the most influential dimension when it comes to SCs. Next, it is OPs, which showed a coefficient of 33.40%, a mean value of 2.874, and a standard deviation of 0.960. This means that OPs is the second most significant dimension in SC management processes.

SK was ranked the third among the six analysed dimensions, where the coefficient equals 35.03%, while the mean value and standard deviation are 2.892 and 1.013 correspondingly. GS mobilisation came forth in terms of its significance, with the coefficient of 35.35%, the mean value of 3.007, and the standard deviation of 1.063. This suggests that GS mobilisation can be considered an essential part of SC management processes today. After that, competition was ranked fifth, where the CV, mean value, and standard deviation equaled to 37.70%, 2.821, and 1.064 correspondingly. Finally, cooperation became the least relevant and consistent dimension, obtaining the highest coefficient of 38.04% and the mean value of 2.879 with standard deviation of 1.095. Thus, it is possible to conclude that the significance of different SC dimensions is consistent. Nevertheless, it still requires practical implementation improvements.

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Table 1: Descriptive Statistics of Strategic Clusters and their Dimensions, Presenting Mean Values, Standard Deviations, Coefficients of Variation, and Relative Rankings

Dimensions of the Independent Variable Strategic Clusters	Mean	Standard Deviation	Coefficient of Variation (%)	Dimension Ranking
Cooperation	**2.879**	**1.095**	**38.04**	Sixth
Competition	**2.821**	**1.064**	**37.70**	Fifth
Organizational Procedures	**2.874**	**0.960**	**33.40**	Second
Specialized Knowledge	**2.892**	**1.013**	**35.03**	Third
Logistics Support	**3.055**	**0.979**	**32.06**	First
Mobilization of Government Support	**3.007**	**1.063**	**35.35**	Fourth
Overall Mean of Strategic Clusters	**2.921**	**0.925**	**31.67**	

Descriptive Analysis of Banking Operations Effectiveness

Descriptive statistics have been employed in this analysis as a method of determining the degree of importance accorded by managers to BP effectiveness as indicated in Table 2. These findings offer useful insight into the perceptions held by managers on the degree of importance of BP effectiveness among the sample of private commercial banks of Iraq. Aggregate data shows that the weighted mean for the overall BP effectiveness is 2.811. Since this value falls below the hypothetical threshold of 3.000, the importance given by the managers to BP effectiveness can be considered moderate. Also, the standard deviation of 1.016 shows that there is some reasonable variability but nothing extraordinary among the responses given by managers.

Relative importance of various dimensions has been determined using the Coefficient of Variation (CV), where the lower value would imply a higher degree of consensus among the respondents and importance of the dimension. Based on the ranking according to the Coefficient of Variation (CV), OPE turned out to be the most important factor, with the lowest CV of 37.76%. It is worth noting that the mean is 2.827 while the standard deviation is 1.068, which implies that the importance accorded by the managers to this factor is quite consistent. Following close behind is CPE, which shows CV of 38.14%, mean of 2.810, and standard deviation of 1.072. Lastly is SIE, which shows CV of 39.38%, mean of 2.797, and standard deviation of 1.102. This implies that this factor is relatively less emphasized by managers than the others, despite being considered equally relevant.

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Table 2: Descriptive Statistics of Banking Operations Effectiveness (EOBO) and Its Dimensions, Presenting Mean Values, Standard Deviations, Coefficients of Variation, and Relative Rankings

Dimensions of the Independent Variable (Effectiveness of Banking Operations)	Mean	Standard Deviation	Coefficient of Variation (%)	Dimension Ranking
Creative Process Effectiveness	**2.810**	**1.072**	**38.14**	Second
Operational Process Effectiveness	**2.827**	**1.068**	**37.76**	First
Social Interaction Process Effectiveness	**2.797**	**1.102**	**39.38**	Third
Overall Mean of Banking Operations Effectiveness	**2.811**	**1.016**	**36.14**	

Hypothesis Testing: Effect of Strategic Clusters on Banking Operations Effectiveness

For verifying the study hypotheses related to the effect of SCs on the effectiveness of BP, the simple linear regression analysis method was used. Hypothesis number one claims the statistical significance of the effect of SCs on the effectiveness of BP among Iraqi private commercial banks. The findings shown in Table 3 give a solid proof of the validity of the hypothesis. The computed F-value is 1416.827, which is considerably higher than the table value of 3.94. The Adjusted R^2 value was 0.800, indicating that approximately 80% of the variation in BP effectiveness is explained by SCs.

Table 3: Regression Analysis Showing the Effect of Strategic Clusters and their Dimensions on Banking Operations Effectiveness

Dependent Variable	Dimensions of the Independent Variable Strategic Clusters			(t)	(R^2)	R^2 (Adj)	(F)	Sig	Decision and Interpretation
Effectiveness of Banking Operations	Cooperation	**(α)**	0.698	7.515	0.626	0.625	592.140	0.000	The hypotheses are supported, demonstrating a significant effect of Strategic Clusters' dimensions on the effectiveness of banking operations.
		)β(	0.734	24.334					
	Competition	**(α)**	0.567	6.695	0.693	0.692	800.333	0.000	
		)β(	0.796	28.29					
	Organizational Procedures	**(α)**	0.326	3.316	0.668	0.667	711.662	0.000	
		)β(	0.865	26.677					
	Specialized Knowledge	**(α)**	0.447	4.725	0.665	0.664	702.001	0.000	
		)β(	0.818	26.495					
	Logistics Support	**(α)**	0.338	3.057	0.609	0.608	551.080	0.000	
		)β(	0.81	23.475					
	Mobilization of Government Support	**(α)**	0.542	5.451	0.623	0.622	585.712	0.000	
		)β(	0.755	24.201					
	Strategic Clusters	**(α)**	-0.058	-0.726	0.8	0.8	1416.827	0.000	
		)β(	0.982	37.641					
Number of accepted null hypotheses = 0 // Number of accepted alternative hypotheses = 6									
Tabulated (F) value = 3.94 // Tabulated (t) value = 1.984 // Sample size = 356									

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This high coefficient indicates strong explanatory power and demonstrates that SCs are a crucial factor affecting BP effectiveness in the research context. The standardized regression coefficient (β) of overall SCs was 0.982, showing a robust and positive correlation. It means that an increase in SCs brings a considerable improvement in BP effectiveness, implying an approximate 98% positive influence of the factor. Thus, the implementation of measures aimed at enhancing SC processes will result in a notable increase in coordination, service efficiency, learning ability, and organizational flexibility. In addition, t-statistics were equal to 37.641 and were significantly higher than the critical value of 1.984, proving the statistical significance of the effect of SCs on BP effectiveness.

At the level of dimensions, all the components of SCs have a statistically significant impact on BP effectiveness. Among them, C stands out as one of the strongest factors influencing BP effectiveness, where β = 0.796, and t = 28.290. Among other influential factors, the following can be singled out: CO (β = 0.734, t = 24.334); OPs (β = 0.865, t = 26.677); SK (β = 0.818, t = 26.495); LS (β = 0.810, t = 23.475); and GSM (β = 0.755, t = 24.201). Generally speaking, the results of the regression analysis indicate that SCs, as well as their dimensions, have a statistically significant positive influence on BP effectiveness (Table 3).

Multiple Regression Analysis: Combined Effects of Strategic Cluster Dimensions

The relative importance of each SC dimension can be determined by conducting a multiple regression test wherein all six SC dimensions were simultaneously taken into consideration. This process was necessary to find out if all the combined SC dimensions have any statistically significant impact on the effectiveness of BP. The result obtained from Table 4 indicates that the whole model is statistically significant. The value of F (255.474) exceeds the value from the table (2.19) for the significance level of 0.05, which implies that the model is appropriate for the study.

Table 4: Multiple Regression Analysis for the Combined Effects of Strategic Cluster Dimensions on Banking Operations Effectiveness

Strategic Clusters Dimensions	(α)	(β)	(t)	Sig.	Decision	Multiple (R)	(R^2)	(R^2) Adj	(F)	Sig.
Cooperation	-0.033	0.037	.843	0.400	Significant (Has Effect)	0.903	.8150	.8110	255.474	0.000
Competition		0.338	8.015	0.000	Significant (Has Effect)					
Organizational Procedures		0.191	3.675	0.000	Significant (Has Effect)					
Specialized Knowledge		0.162	3.211	0.001	Significant (Has Effect)					

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Logistics Support		0.017	.319	0.750	Not Significant (No Effect)					
Mobilization of Government Support		0.239	5.446	0.000	Significant (Has Effect)					
Critical F-Value						2.19				
Critical T-Value						1.984				
The number of accepted (statistically significant) dimensions= 4 competition, organizational procedures, specialized knowledge, and the mobilization of government support.										
The number of unaccepted (non-significant) dimensions= 2 cooperation and logistics support.										

According to the multiple correlation coefficient (R = 0.903), there is a strong relationship between the overall SC dimensions and BP effectiveness. Furthermore, the coefficient of determination ($R^2 = 0.815$) and the adjusted R^2 (0.811) confirm that about 81.1% of the BP effectiveness variability can be predicted by SC dimensions, which proves their high explanatory power. In turn, variation of statistical significance was noticed among the individual predictors. Competition turned out to be the main driver, as it was characterised by the highest beta ($\beta = 0.338$), highest absolute value of the t-statistic ($t = 8.015$) and low probability value ($p < 0.001$), which means it has a strong impact on BP effectiveness. The next predictor was GS mobilisation with statistically significant positive impact ($\beta = 0.239$, $t = 5.446$, $p < 0.001$). Therefore, it can be argued that institutional support and facilitation play an important role in making BP more efficient.

At the same time, OPs also had a significant positive impact on BP effectiveness ($\beta = 0.191$, $t = 3.675$, $p < 0.001$). It means that having proper organisational system, including procedures and processes, plays a crucial role in improving BP efficiency. Another predictor was SK, with statistically significant positive impact ($\beta = 0.162$, $t = 3.211$, $p = 0.001$). In turn, technical skills, professional competencies and knowledge resources may be used as facilitative factors to improve BP effectiveness. Two other predictors, namely, cooperation and LS did not have an independent explanatory power in predicting BP effectiveness due to insignificance, with $\beta = 0.037$, $t = 0.843$, $p = 0.400$ for cooperation and $\beta = 0.017$, $t = 0.319$, $p = 0.750$ for LS. Since the absolute values of their t-statistics are lower than the critical one (1.984) and their probabilities are higher than 0.05, none of them have an independent explanatory power in the regression analysis. Thus, SC dimensions do not have the same influence on BP effectiveness; they are represented by four predictors (Table 4).

CONCLUSION AND PRACTICAL IMPLICATIONS

There is empirical evidence indicating the considerable influence of SC factors on BP effectiveness. The regression analysis reveals that SCs account for about 80% of the variance in BP effectiveness, which confirms high explanatory power. Generally, the

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results of the empirical analysis suggest the high importance of SC utilization for increasing efficiency, organizational flexibility, and overall effectiveness of banking operations. Hence, SCs can be considered managerial tools contributing to performance improvement amid dynamic environmental settings. The further regression analysis indicates differential influences of various SC dimensions on BP effectiveness. Competition is found to be one of the factors that has the highest impact on BP effectiveness because the competitive pressure contributes to innovation, increases efficiency, and helps to enhance performance. OPs have an important effect since well-structured operations increase efficiency and ensure proper decision-making. Additionally, SK is found to be an essential driver of banking performance because the utilization of professional competences and skills contributes to innovation adoption and better implementation of innovative technology. Moreover, GS mobilization is another driver of BP effectiveness since GS provides banks with institutional support, regulatory assistance, and a favorable environment that facilitates better performance. However, CO and LS proved to be insignificant factors influencing BP effectiveness since they had no significant independent influence. Specifically, the insignificant role played by LS can be explained by insufficient development of logistics systems and the lack of implementation of logistics management practices. Similarly, CO was found to be insignificant due to inadequate development and embedding of cooperative strategies and mechanisms into bank operations. Generally, although the utilization of SCs is a helpful strategy for increasing performance, there is still need for proper balancing of SC dimensions to maximize their positive influence on BP effectiveness.

In conclusion, there are several recommendations for Iraqi private commercial banks' managers concerning implementation of SCs that should be taken into account to increase BP effectiveness. Namely, banks are recommended to apply SCs comprehensively through integration of CO, competitive strategy, OP, SK, LS, and GS and alignment of the SC dimensions with CPE, OPE, and SIE outcomes. Although CO proves to have an insignificant statistical influence, it is highly recommended to promote cooperation by structuring resource exchange between banks for the purpose of collective learning and making better financial decisions. In addition, it is important to improve logistic capacities of banks by adopting better planning approaches and investing in technological infrastructure. In this regard, it is highly beneficial to establish strategic relationships with external organizations such as IT companies, consultancy agencies, and universities and research centers. Moreover, banks should pay special attention to adaptation of banking operations in line with financial market dynamics, including development of asset management strategies, improvement of loaning policies, solvency evaluation, accounts opening and modernization of financial disclosures systems.

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AUTHOR CONTRIBUTIONS

Conceptualization, B.S.L and S.M.I.; methodology, S.M.I.; software, S.M.I.; validaion, B.S.L.; formal analysis, S.M.I.; investigation, B.S.L.; data curation, S.M.I.; writing—original draft preparation, S.M.I.; writing—review and editing, B.S.L.; visualization, B.S.L.; supervision, B.S.L. All authors have read and agreed to the published version of the manuscript.

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DATA AVAILABILITY

The data used in this research are derived from publicly available annual financial statements of Iraqi private commercial banks listed on the Iraq Stock Exchange. The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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