

-RESEARCH ARTICLE-

THE STRATEGIC APPROACH TO ASSESSING BANKING RISKS

Orooba Rasheed Ali Al-Badran*

University of Basrah, College of Administration and Economics, Department of Business Administration, Iraq.

Email: orooba.ali@uobasrah.edu.iq

Abdulreda Nasser Mohsen

Southern Technical University, College of Administrative Technology, Department of Business Administration Technologies, Iraq.

Email: dr.abdnaser@stu.edu.iq

—Abstract—

Banks face growing risks from both internal and external factors. Failing to address these risks and lacking sufficient knowledge can result in significant financial losses, such as bankruptcy and insolvency. These losses can lead to customer attrition and erode trust in the bank. The current study examines key banking risks, their various types, and approaches to measuring and evaluating them. It aims to answer inquiries regarding bank structure, operational activities, and financing operations. The objective of this study is to provide a clear understanding of effective methods for evaluating risks in the banking sector. It is crucial to assess risks accurately, as it serves as the initial stage in managing and mitigating potential risks. The study examined 38 Egyptian banks, selecting a sample of three banks at random. The sample included 100 senior and middle management personnel, who were given 150 questionnaires to complete. The study utilised a questionnaire for data collection, with empirical findings analysed using SPSS 26 and AMOS 22. The study found a clear link between strategic approach and banking risk assessment, emphasising the significance of minimising errors in business performance, especially when evaluating credit risks. The study highlights the importance of banks ensuring a safe work environment through ongoing evaluation processes to prevent collapse or errors. In addition, the risk assessment process is an essential step in evaluating environmental risks in banks. It involves the use of sophisticated tools and a thorough analysis of environmental factors to determine the financial risks to assets and portfolios. Management agents typically carry out this process.

Keywords: Strategic, Assessment, Risks, Management, Banks.

Citation (APA): Al-Badran, O. R. A., Mohsen, A. N. (2023). The Strategic Approach to Assessing Banking Risks. *International Journal of eBusiness and eGovernment Studies*, 15(2), 338-353. doi: 10.34109/ijepeg.2023150218

1. INTRODUCTION

In the present day, banks face increased susceptibility to a range of risks stemming from both internal and external factors that are closely tied to the overall state of the bank. Failure to consider these factors, along with a lack of understanding of the methods used to measure them, can be a significant cause of exposure for the bank and its institutions to substantial financial losses, such as bankruptcy and insolvency. These losses not only result in the loss of customers' funds but also erode trust in the bank (Rahman et al., 2023). Given their role as financial institutions responsible for providing capital, banks must prioritise the implementation of conditions that ensure a secure work environment for both companies and financial institutions in the labour market (Zereen, 2019). The bank board of directors is solely responsible for the continuous evaluation processes that ensure the institutional control system safeguards the bank from collapse or serious errors (Bolívar et al., 2023). Banks in developed nations have long implemented robust risk management systems and have developed unique strategies for mitigating risks (Demirgüç-Kunt et al., 2021). Contrarily, the implementation of risk management systems in banks in countries with volatile economies is a crucial priority for management (Ahmad et al., 2020).

In a recent study by Shakil (2021), important factors for enhancing banks in countries with transitioning economies were identified. It is important to highlight the development of cutting-edge risk management models that consider both quantitative and qualitative indicators. These models play a crucial role in informing decision-making (Cooke et al., 2019). Additional research highlights the importance of seeking novel strategies for banking institutions in nations experiencing economic transitions (Husni et al., 2021). This research examines the role of strategic management in assessing banking risks as a crucial step in identifying potential threats to the bank's operations. It also highlights the significance of this process in identifying and addressing any existing gaps before they become critical. Banks face various risks associated with their structure, operations, financing, and the external environment that directly affect them (Zhou et al., 2023). This study examines the key banking risks that affect operational processes and provides an analysis of their types, as well as approaches for measuring and assessing them. The present study aims to address the inquiries at hand: (1) What are the bank risks and their types? (2) What are the measuring models for bank risks? And (3) What is the role of strategic management in assessing banking risks?

Risk management plays a crucial role in the bank's strategy as it tackles the vulnerabilities and intricacies of the environment. To fully develop the banking strategy, it is crucial to address the current and future risk profile, as risk assessment plays a vital role in the banking industry. This study aims to provide a clear understanding of the effective strategies for evaluating banking risks, as risk assessment is crucial for effective risk management. The

research attempts to realize the following objectives: (1) Specifying models for measuring risk in banks in a manner commensurate with the type of bank, its mechanism of action, and the country in which it belongs and operates. (2) Determining the role of strategic management in controlling and assessing the banking risks as well as studying the awareness of banking management at its different levels. and (3) Determining the level of risk management assessment in Egyptian banks from the point of view of the strategic management responsible for risk assessment operations.

2. REVIEW OF LITERATURE

In a study conducted by [Kolapo et al. \(2021\)](#), it was found that a strategic approach to back work is crucial for establishing a trustworthy relationship with customers while minimising risks. Enhancing the security system of banks is imperative to safeguarding customers' financial transactions. The safeguarding of customers' financial transactions has a profound influence on the bank's commitment to ensuring financial stability. [Bacha et al. \(2021\)](#) suggest that banks can enhance customer trust by adopting a strategic management approach. In addition, it is necessary for banks to enhance their marketing strategy in order to improve their market positioning, which in turn affects how customers perceive the risk associated with the bank. [Kumar and Prakash \(2019\)](#) emphasise the importance of management developing effective policies and a strategic approach to providing reliable facilities to customers. This will enhance the bank's value in the market. As banks strive to enhance customer relationships, management can create viable opportunities to support customers through a new business model.

In the same vein, [Idewe and Murad \(2019\)](#) argue that a diverse business model is essential for bank management to effectively provide appropriate facilities to people. Foreign exchange rates and the bank's overall strategic reputation are just two examples of the many factors that affect bank risk. As stated by [Chosiah et al. \(2019\)](#), establishing a strong reputation is crucial for fostering customer relationships and positioning the bank for success in the market. Improving customer trust and enhancing their banking experience requires providing better facilities. The bank's service quality is crucial for its development in the competitive market, as it plays a significant role in achieving organisational goals. As per the findings of [Kitigin et al. \(2021\)](#), the interest rates offered by banks play a crucial role in shaping customer perception and establishing their reputation in the market. Hence, it is crucial to develop the bank's operational policies strategically to enhance its overall reputation. This can be achieved through effective decision-making in liquidity management, foreign exchange, and credit provision. As research by [Kitigin et al. \(2021\)](#), enhancing a bank's performance can lead to the development of its reputation. Thus, a hypothesis is formulated.

Hypothesis 1: *The dimensions of the strategic approach significantly affect assessing the bank risks in general and at the level of sizes.*

Ekinci and Poyraz (2019) emphasise the crucial role of strategic decision-making by bank management in determining overall performance and risk. The decision-making process enables executives to make informed choices by analysing data and forecasting the bank's market performance. Providing extensive resources is a reliable method for supporting organisational needs, particularly for banks in the market. As per the research conducted by Khalil and Boulila Taktak (2020), it is crucial for strategic decision-making to be dependable and forward-looking to effectively accomplish both long-term and short-term organisational objectives. These objectives would be beneficial for banks to enhance their performance and productivity in the market. As stated by John (2018), it is crucial for bank management to cultivate a positive perception among customers to attain organisational objectives.

In addition to the goals of the organisation, the long-term success of the banks is also a crucial consideration in strategic decision-making. According to a study by Jufri et al. (2022), the bank benefits from this complex banking system's many advantages, which produce favorable results. In addition, it is crucial for the top management policy to have a substantial influence on long-term goals and to provide implementation plans to the junior management. As put forth by Dharma and Hady (2023), strategically enhancing a bank's performance in any market involves taking into account the relevant factors of the external environment. This approach is known for its reliability. The performance of banks has shown improvement over time, reflecting the characteristics of the external environment. As stated by Finger et al. (2018), a thorough evaluation of banks' performance is crucial for making informed decisions and achieving successful outcomes. It is crucial for the banks' management to have a reliable opportunity to make informed decisions that greatly influence their overall performance. As mentioned by Azmi et al. (2021), it is crucial for banks' top management and stakeholders to have a clear understanding of the risks involved and develop strategic approaches to enhance the banks' position in the market. It is advisable for banks to provide customers with well-defined strategies and policies to help them achieve long-term goals while minimising risks. Thus, the subsequent hypothesis is formulated.

Hypothesis 2: *The dimension of strategic decision-making significantly affects assessing the bank risks in general and at the level of dimensions.*

According to a paper by Galdeano et al. (2019), banks must strategically evaluate their operations to align with organisational goals and establish policies for goal attainment. This evaluation is effective when policies are developed in alignment with the strategic management of banks and when careful consideration is given to the proper development of policies for banks. As per Todd and Peetz (2001), it is necessary to assess the banks to determine the effectiveness of policy implementation and identify strategies for future policy implementation. It offers a strategic approach to enhance the banks' performance, which is crucial for attaining the organisation's objectives. As stated by Corbet et al. (2022), the evolution of the tax serves the purpose of addressing various risks and offering improved solutions to customers. It is crucial to ensure that

the banks are deemed acceptable to effectively pursue long-term organisational objectives and improve the bank's overall performance.

According to a study by [Ramzan et al. \(2021\)](#), risk evaluation plays a crucial role in the banking sector, aiding banks in achieving their organisational goals and generating positive outcomes. Understanding the policy implementation and development of new policies requires a critical examination of the strategic banks' performance over time. [Shoaib et al. \(2022\)](#) have highlighted the significance of this process in comprehending the various dynamics of bank performance and its strategic outcome in the market. However, it is crucial to measure performance, as management must evaluate it consistently over time. [Abiola and Olausi \(2014\)](#) emphasise the importance of evaluating liquidity and bonds at banks to enhance expertise and mitigate risks. This factor plays a crucial role in driving the necessary performance for the bank's long-term growth. Thus, a hypothesis is formulated.

Hypothesis 3: *The dimension of the strategic decision evaluation significantly affects assessing the bank risks in general and at the level of dimensions.*

3. METHODOLOGY

The study includes a total of 38 banks located in the Arab Republic of Egypt. The study sample was restricted to three randomly chosen banks, with each bank contributing a minimum of 100 senior or middle management personnel. A total of 150 questionnaires were created and distributed to respondents in the selected banks, as outlined in Table 1 ([Ibrahim et al., 2022](#)). Figure 1 also provides the response rate.

Table 1: The Research Sample Size.

Final Sample Size	No. of Responded Questionnaire	No. of Questionnaire Distributed	Bank
1	42	50	1
2	39	50	2
3	47	50	3
108 persons	108	150	Total

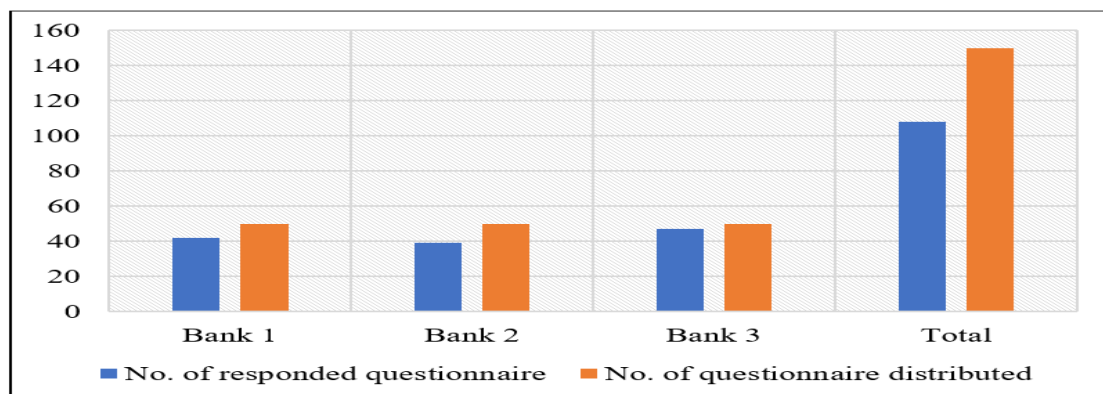


Figure 1: Response Rate.

The study utilised a questionnaire for data collection, which consisted of two axes. Each variable was assigned to a specific study. The statistical analysis programme SPSS 26 was used to assess the questionnaire's validity and reliability. This involved calculating the stability of the classification and Spearman Brown, as well as the internal consistency of the questionnaire using Cronbach's alpha. Additionally, the programme was used to measure the research sample's response to the study questionnaire by calculating the arithmetic mean and standard deviation of their answers. The statistical analysis programme AMOS 22 was used to verify the validity of the main hypothesis and sub-hypotheses of the study. This has been done by calculating the critical ratio (C.R.) and the significance of acceptance (P). For determining this hypothesis, it is accepted that the value of C.R. is greater than ± 1.96 and the value of P is less than 0.05.

The questionnaire's validity and reliability were assessed by calculating the stability of classification, Spearman-Brown, and internal consistency (Cronbach's alpha). These calculations were based on the data presented in Table 2 and Figure 2. Based on the Spearman-Brown coefficient and Cronbach's alpha, the data in Table 2 shows a high level of classification stability. The measurements are also consistent within themselves, which is true. The statement suggests that the questionnaire is both valid and reliable. Therefore, it demonstrates its validity for application to the basic research sample.

Table 2: The Research Data Validity.

Rating Stability	Spearman Brown	Alpha Cronbach
0.78	0.52	0.69

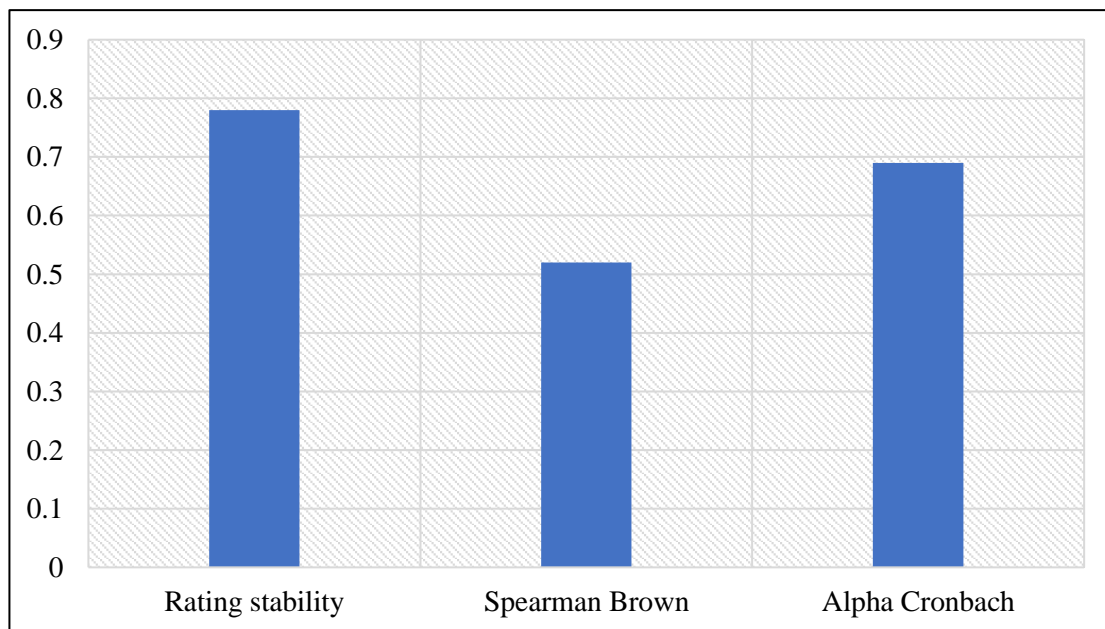


Figure 2: Data Validity.

4. FINDINGS

The arithmetic means and standard deviation of the answers obtained from the research sample regarding the awareness of each research variable were calculated. The questionnaire had a range of 1 to 4, with 1 being the lowest degree and 4 being the highest. The range was calculated as 3 (1–4). The range was divided into five categories, mirroring the structure of the questionnaire. The length of each category was calculated as $3/4 = 0.75$. The categories were then defined and distributed accordingly, based on the following criteria: [1-1.75] low, [1.75-2.5] medium, [2.5 - 3.25] high, [3.25 - 4] too high. Table 3 showing the number of respondents from among the sample, was designed for the two variables of the study.

Table 3: The Responses of The Research Sample to The Study Variables.

Variable		Arithmetic Mean	Standard Deviation	Degree of Response
Independent variable	Taking strategic decisions	2.36	0.78	Medium
	Assessing strategic decisions	2.65	0.56	High
Dependent variable		2.36	0.65	Medium

According to Table 3, the average score for the independent variable in the "strategic decision-making" dimension is 2.36, indicating a medium value. The standard deviation is 0.78. The arithmetic mean for the dimension of "evaluation of strategic decisions" is 2.65, indicating a high value. The standard deviation is 0.56. In addition, the table shows that the overall average for the dependent variable is 2.36, while the standard deviation is 0.65.

A path analysis was conducted using the AMOS statistical analysis programme to verify the validity of the main hypothesis and sub-hypotheses. The analysis was performed based on the answers entered in SPSS. The results of the path analysis to test the hypotheses are presented in Table 4.

Table 4: Path Analysis.

Result	Significance (P)	The Critical Ratio (C.R)	Path analysis		
Accepted	0.037	2.905	Strategic introduction	<---	Credit risk assessment
Accepted	0.012	4.358		<---	Operational risk assessment
Accepted	0.025	1.124		<---	Market risk assessment
Accepted	0.009	2.447	Making strategic decisions	<---	Credit risk assessment
Accepted	0.012	2.375	Evaluating strategic decisions	<---	
Accepted	***	2.776	Making strategic decisions	<---	Operational risk assessment
Accepted	0.037	2.749	Evaluate strategic decisions	<---	
Rejected	***	1.012	Making strategic decisions	<---	Market risk assessment
Accepted	0.037	2.749	Evaluating strategic decisions	<---	

The path analysis results support the presence of a statistically significant and positive impact of the strategic approach on credit risk assessment, with a level of significance ($P < 0.01$). In addition, the findings indicate a statistically significant and positive impact of the strategic approach on the evaluation of operational risks at a significant level ($P < 0.01$). Additionally, the study revealed a significant positive impact of the strategic approach on evaluating market risks, with a level of significance ($P < 0.01$). The research findings indicate a statistically significant positive effect on credit risk assessment when strategic decisions are made, with a level of significance ($P < 0.01$).

Additionally, the study revealed that there is no statistically significant positive impact on the evaluation of credit risks when assessing strategic decisions at a significance level of ($P < 0.01$). The study revealed a statistically significant and positive impact of strategic decision-making on the evaluation of operational risks, with a level of significance ($P < 0.01$). Similarly, the study reveals a statistically significant positive impact of assessing strategic decisions on evaluating operational risks, with a level of significance ($P < 0.01$). In addition, the study revealed that there is not statistically significant and positive effect on strategic decision-making when assessing market risks at a significance level of $P < 0.01$. In conclusion, the study found a significant positive effect of evaluating strategic decisions in assessing market risks at a high level of significance ($P < 0.01$).

5. DISCUSSION AND CONCLUSION

The results of this study were determined through rigorous statistical analysis, revealing significant findings. Firstly, it is acknowledged that the strategic approach has a substantial impact on the assessment of banking risks, both in a general sense and across various dimensions. The results were compared to those of earlier research. To build a trustworthy relationship with the customer, [Van Greuning and Brajovic-Bratanovic \(1999\)](#) assert that it is crucial to take a strategic approach when addressing back risks. In addition, it is imperative for bank management to enhance their security systems in order to protect the financial transactions of their customers. According to [Niemand et al. \(2021\)](#), protecting the customer's financial transactions has a big impact on the bank's strategic plan for achieving financial stability. Banks can enhance client trust by implementing a strategic management approach. To enhance their market position, banks must also focus on improving their marketing strategy. This strategy plays a crucial role in shaping clients' perceptions of the risk associated with the bank. As stated by [Murinde et al. \(2022\)](#), it is crucial for management to develop effective policies that adopt a strategic approach to ensure reliable facilities for clients.

Enhancing the bank's value in the relevant market will help achieve this. [Park and Kim \(2020\)](#) suggest that banks can create reliable opportunities to implement a new business model to enhance their customer relationships. In addition, the bank's management

benefits from a diverse business model that allows for the provision of appropriate facilities to the public. Numerous elements, such as the bank's strategic reputation and the foreign exchange market, affect risk. According to a study by [Akomea-Frimpong et al. \(2022\)](#), establishing a solid reputation is crucial for fostering strong client relationships and positioning the bank for success in the market. Improving customer trust and transactional experiences can be achieved by enhancing the bank's facilities. [Murad and Razzaq \(2022\)](#) emphasise the crucial role of service quality in the bank's development within a competitive market. This aligns with the organisation's objectives and signifies a positive step forward. The interest rates offered by banks are crucial for consumers and greatly impact the bank's reputation in the market. [Shoaib et al. \(2022\)](#) emphasise the importance of developing strategic operational policies for banks. These policies can enhance the bank's reputation by effectively managing liquidity, foreign exchange, strategic decision-making, and credit provision. By adopting this approach, the bank can improve its performance and establish a strong reputation.

In addition, the sub-hypothesis that the strategic decision-making dimension has a significant impact on assessing banking risks, both overall and at the level of specific dimensions, is not supported. The results of this study were compared to those of previous research. As per [Ahmad et al. \(2020\)](#), strategic decisions made by bank management significantly impact the overall performance and risk of the institution. Senior executives can make informed decisions by utilising a rigorous decision-making process that relies on information and projections for the bank's market success. Given the advantages banks have in the industry, this method reliably provides ample resources for organisational needs. Based on the research conducted by [Bătae et al. \(2021\)](#), it is crucial for strategic decision-making activities to be reliable and future-oriented to achieve both long-term and short-term organisational goals. To improve their performance and productivity in the market, it would be advantageous for banks to strive towards these objectives. The bank's management must foster a proper mindset among customers to achieve the organisation's goals. [Diener and Špaček \(2021\)](#) argue that banks' long-term profitability is a crucial factor in strategic decision-making.

This aligns with the objectives of the organisation. This deceptive banking strategy offers numerous benefits that are advantageous for the bank in a suitable manner. [Huang et al. \(2020\)](#) argue that the policy of top management plays a crucial role in achieving long-term goals and supporting junior management in implementing plans. This strategic method can enhance the bank's performance in any market. It is reliable because it considers the relevant aspects of the external environment. As per the findings of [Tjahjadi and Soewarno \(2019\)](#), the improvement in banks' performance over time is considered a notable characteristic of various external environments. Effective decision-making and successful financial operations are key factors for banks to achieve positive outcomes. Dysentery plays a crucial role in ensuring the reliability and stability of these processes. [Cooper et al. \(2019\)](#) argue that banks must be provided with a reliable

opportunity for management to make informed decisions, ultimately leading to improved performance. Senior bank management and stakeholders must comprehend the risks banks encounter and devise strategic measures to enhance their market position. As per [Tandelilin and Usman \(2023\)](#), it is advisable for banks to establish long-term objectives and implement appropriate strategies to achieve them while also mitigating the risks they encounter.

The sub-hypothesis, which examines the impact of evaluating strategic decisions on banking risks, has been accepted. This includes evaluating risks both in general and across different dimensions. The results were compared to those of prior research. To achieve organisational objectives, it is essential to conduct a strategic evaluation of banks and establish the necessary policies, as highlighted by [Moscatto et al. \(2021\)](#). This assessment is effective when policies align with the strategic management of banks and when due consideration is given to the development of suitable policies. In a study conducted by [Chauhan et al. \(2022\)](#), it is argued that analysing banks is crucial for identifying effective policy implementation strategies and techniques that can be applied to other policies. It provides a strategic approach to enhance bank performance, which is crucial for achieving organisational objectives. [Migliorelli \(2021\)](#) highlights the significant evolution of the tax, which offers the advantage of mitigating risks and providing clients with a more satisfactory solution.

To achieve long-term organisational goals and improve treatment for customers, it is crucial to gain the acceptance of banks. In the banking industry, risk assessment is considered a vital factor in the banks' ability to achieve their organisational goals and produce favourable outcomes ([Olorogun, 2020](#)). Understanding the implementation and creation of policies requires a critical analysis of the strategic banks' performance evolution. This method enhances comprehension of the diverse factors that impact bank performance and the strategic results it attains in the market. As highlighted by [Altaf et al. \(2019\)](#), it is crucial for management to evaluate performance over time through effective measurement. It is crucial to evaluate the liquidity and bonds held by banks to enhance the rationality of expertise and minimise the likelihood of risks. In a study by [Arshad Khan and Alhumoudi \(2022\)](#), they emphasise the crucial role of this component in driving the performance necessary for the development of financial institutions over time.

6. THEORETICAL AND PRACTICAL IMPLICATIONS

The findings indicate a correlation between the strategic approach and the assessment of banking risks. The results further highlight the significance of evaluating strategic decisions when assessing banking risks. Based on research findings, strategic decision-making does not appear to have an impact on the assessment of banking risks. The study made a valuable contribution to existing knowledge by highlighting the significant impact of strategic approaches in evaluating banking risks, both in a general sense and across different

dimensions. Additionally, the study found that the strategic decision-making dimension does not have a significant impact on the assessment of banking risks, both overall and across different dimensions. This study contributed to existing knowledge by highlighting the significant impact of evaluating strategic decisions on assessing banking risks, both in a general sense and across different dimensions. Therefore, this research has made significant contributions to filling the gaps in the existing literature.

The study also includes practical recommendations. An integrated structure should be designed to facilitate the participation of all stakeholders in the decision-making and evaluation processes. This will enable the development of an effective strategic approach that ensures a thorough assessment of banking risks and the implementation of measures to minimise potential losses. Furthermore, it is advised to enhance control procedures in banks and diligently verify customers and banking operations to safeguard the financial stability of the bank. This will help maintain liquidity and the integrity of the banking portfolio. Additionally, the study suggests the establishment of an administrative structure to consider the presence of specialised departments responsible for evaluating various banking risks. These departments would be tasked with providing data and designing the necessary mechanisms for risk assessment systems.

7. FUTURE DIRECTIONS

The study made a valuable contribution to the existing literature. Additionally, the findings of this research have practical implications. The study found a clear link between strategic approach and banking risk assessment, emphasising the need to minimise errors in business performance, especially when evaluating credit risks. The study highlights the importance of maintaining a secure work environment in banks through ongoing evaluation processes to prevent any potential collapse or errors. In addition, the risk assessment process is a vital step in evaluating environmental risks in banks. It entails using advanced tools and conducting a thorough analysis of environmental factors to determine the financial risks to assets and portfolios. Management agents typically carry out this process. Nevertheless, the study gathered data from a small number of banks within a specific geographical area. Hence, further research should be conducted to gather data from diverse geographical locations to validate the findings of this study. In addition, it is important to gather data from bank customers to gain insight into their perception of the bank's risk and their level of financial trust in the institution. This would be a valuable contribution to the existing body of knowledge, enhancing the literature with additional insights.

REFERENCES

- Abiola, I., & Olausi, A. S. (2014). The impact of credit risk management on the commercial banks performance in Nigeria. *International Journal of Management and sustainability*, 3(5), 295-306.
<https://doi.org/http://dx.doi.org/10.2139/ssrn.2536531>

- Ahmad, N., Naveed, A., Ahmad, S., & Butt, I. (2020). Banking sector performance, profitability, and efficiency: a citation-based systematic literature review. *Journal of Economic Surveys*, 34(1), 185-218. <https://doi.org/https://doi.org/10.1111/joes.12346>
- Akomea-Frimpong, I., Adeabah, D., Ofosu, D., & Tenakwah, E. J. (2022). A review of studies on green finance of banks, research gaps and future directions. *Journal of Sustainable Finance & Investment*, 12(4), 1241-1264. <https://doi.org/https://doi.org/10.1080/20430795.2020.1870202>
- Altaf, M., Hameed, W., Nadeem, S., & Shahzad, A. (2019). Successful entrepreneurial process as contributor towards business performance in banking: moderating role of passion for inventing. *South Asian Journal of Management Sciences*, 13(1), 13-40. <https://doi.org/10.21621/sajms.2019131.02>
- Arshad Khan, M., & Alhumoudi, H. A. (2022). Performance of E-banking and the mediating effect of customer satisfaction: a structural equation model approach. *Sustainability*, 14(12), 7224. <https://doi.org/https://doi.org/10.3390/su14127224>
- Azmi, W., Hassan, M. K., Houston, R., & Karim, M. S. (2021). ESG activities and banking performance: International evidence from emerging economies. *Journal of International Financial Markets, Institutions and Money*, 70, 101277. <https://doi.org/https://doi.org/10.1016/j.intfin.2020.101277>
- Bacha, S., Ajina, A., & Ben Saad, S. (2021). CSR performance and the cost of debt: does audit quality matter? *Corporate Governance: The International Journal of Business in Society*, 21(1), 137-158. <https://doi.org/https://doi.org/10.1108/CG-11-2019-0335>
- Bătae, O. M., Dragomir, V. D., & Feleagă, L. (2021). The relationship between environmental, social, and financial performance in the banking sector: A European study. *Journal of cleaner production*, 290, 125791.
- Bolívar, F., Duran, M. A., & Lozano-Vivas, A. (2023). Bank business models, size, and profitability. *Finance Research Letters*, 53, 103605. <https://doi.org/https://doi.org/10.1016/j.frl.2022.103605>
- Chauhan, S., Akhtar, A., & Gupta, A. (2022). Customer experience in digital banking: A review and future research directions. *International Journal of Quality and Service Sciences*, 14(2), 311-348. <https://doi.org/https://doi.org/10.1108/IJQSS-02-2021-0027>
- Chosiah, C., Purwanto, B., & Ermawati, W. J. (2019). Dividend policy, investment opportunity set, free cash flow, and company performance: Indonesian's agricultural sector. *Jurnal Keuangan dan Perbankan*, 23(3), 403-417. <https://doi.org/https://doi.org/10.26905/jkdp.v23i3.2517>
- Cooke, F. L., Wang, J., & Bartram, T. (2019). Can a supportive workplace impact employee resilience in a high pressure performance environment? An investigation of the Chinese banking industry. *Applied Psychology*, 68(4), 695-718. <https://doi.org/https://doi.org/10.1111/apps.12184>

- Cooper, B., Wang, J., Bartram, T., & Cooke, F. L. (2019). Well-being-oriented human resource management practices and employee performance in the Chinese banking sector: The role of social climate and resilience. *Human Resource Management*, 58(1), 85-97. <https://doi.org/https://doi.org/10.1002/hrm.21934>
- Corbet, S., Cumming, D. J., Hou, Y. G., Hu, Y., & Oxley, L. (2022). Have crisis-induced banking supports influenced European bank performance, resilience and price discovery? *Journal of International Financial Markets, Institutions and Money*, 78, 101566. <https://doi.org/https://doi.org/10.1016/j.intfin.2022.101566>
- Demirgüç-Kunt, A., Pedraza, A., & Ruiz-Ortega, C. (2021). Banking sector performance during the COVID-19 crisis. *Journal of Banking & Finance*, 133, 106305. <https://doi.org/https://doi.org/10.1016/j.jbankfin.2021.106305>
- Dharma, R., & Hady, H. (2023). Determinants of Job Satisfaction and Implications on Employee Performance in Bank Nagari Sumatera Barat. *International Journal of Professional Business Review*, 8(9), e02720-e02720. <https://doi.org/https://doi.org/10.26668/businessreview/2023.v8i9.2720>
- Diener, F., & Špaček, M. (2021). Digital transformation in banking: A managerial perspective on barriers to change. *Sustainability*, 13(4), 2032. <https://doi.org/https://doi.org/10.3390/su13042032>
- Ekinci, R., & Poyraz, G. (2019). The effect of credit risk on financial performance of deposit banks in Turkey. *Procedia Computer Science*, 158, 979-987. <https://doi.org/https://doi.org/10.1016/j.procs.2019.09.139>
- Finger, M., Gavius, I., & Manos, R. (2018). Environmental risk management and financial performance in the banking industry: A cross-country comparison. *Journal of International Financial Markets, Institutions and Money*, 52, 240-261. <https://doi.org/https://doi.org/10.1016/j.intfin.2017.09.019>
- Galdeano, D., Ahmed, U., Fati, M., Rehan, R., & Ahmed, A. (2019). Financial performance and corporate social responsibility in the banking sector of Bahrain: Can engagement moderate? *Management Science Letters*, 9(10), 1529-1542. <https://doi.org/10.5267/j.msl.2019.5.032>
- Huang, S.-Z., Chau, K. Y., Chien, F., & Shen, H. (2020). The impact of startups' dual learning on their green innovation capability: The effects of business executives' environmental awareness and environmental regulations. *Sustainability*, 12(16), 6526. <https://doi.org/https://doi.org/10.3390/su12166526>
- Husni, T., Rahim, R., & Wiranda, N. A. (2021). The impact of executive compensation, ownership, and capital requirement on earning management: Evidence from Indonesia banking companies. *The Journal of Asian Finance, Economics and Business*, 8(6), 849-858. <https://doi.org/https://doi.org/10.13106/jafeb.2021.vol8.no6.0849>
- Ibrahim, A. E. A., Hussainey, K., Nawaz, T., Ntim, C., & Elamer, A. (2022). A systematic literature review on risk disclosure research: State-of-the-art and future research agenda. *International Review of Financial Analysis*, 82, 102217. <https://doi.org/https://doi.org/10.1016/j.irfa.2022.102217>

- Idewe, I. O. E., & Murad, B. A. (2019). Dividend policy and financial performance: a study of selected deposit money banks in Nigeria. *African Journal of Business Management*, 13(7), 239-255. <https://doi.org/https://doi.org/10.5897/AJBM2018.8667>
- John, T. A. (2018). Effect of non-performing loans on bank performance of some selected commercial bank in the Nigerian banking sector. *International Journal of New Technology and Research*, 4(4), 263089. <https://doi.org/10.46545/aijbms.v1i2.82>
- Jufri, A., Prasetyo, T. B., Yulianty, P. D., Hadiwibowo, I., Nurudin, A., & Gusman, T. A. (2022). The Linkage of Perceived CSR, Corporate Reputation, Organizational Commitment, and Purchase Intention. *Acad. J. Interdiscip. Stud*, 11, 71. <https://doi.org/https://doi.org/10.36941/ajis-2022-0036>
- Khalil, A., & Boulila Taktak, N. (2020). The impact of the Shariah Board's characteristics on the financial soundness of Islamic banks. *Journal of Islamic Accounting and Business Research*, 11(9), 1807-1825. <https://doi.org/https://doi.org/10.1108/JIABR-08-2018-0127>
- Kitigin, B., Korir, M., & Chepkwony, K. (2021). E-Banking Technology Characteristics and Performance of Micro and Small Enterprise in Kenya: A Moderated Mediation Model of Adoption and Innovative Behavior. *SEISENSE Journal of Management*, 4(1), 13-30. <https://doi.org/https://doi.org/10.33215/sjom.v4i1.480>
- Kolapo, F. T., Mokuolu, J. O., Dada, S. O., & Adejayan, A. O. (2021). Strategic marketing innovation and bank performance in Nigeria. *Innovative Marketing*, 17(1), 120. [https://doi.org/10.21511/im.17\(1\).2021.10](https://doi.org/10.21511/im.17(1).2021.10)
- Kumar, K., & Prakash, A. (2019). Developing a framework for assessing sustainable banking performance of the Indian banking sector. *Social Responsibility Journal*, 15(5), 689-709. <https://doi.org/https://doi.org/10.1108/SRJ-07-2018-0162>
- Migliorelli, M. (2021). What do we mean by sustainable finance? Assessing existing frameworks and policy risks. *Sustainability*, 13(2), 975. <https://doi.org/https://doi.org/10.3390/su13020975>
- Moscato, V., Picariello, A., & Sperlí, G. (2021). A benchmark of machine learning approaches for credit score prediction. *Expert Systems with Applications*, 165, 113986. <https://doi.org/https://doi.org/10.1016/j.eswa.2020.113986>
- Murad, M., & Razzaq, S. (2022). The Responsible Role of Banking Services in Social Equity: A Thematic Analysis in Pakistani Perspective. *Journal of Banking and Social Equity*, 1(1), 61-68. <https://doi.org/https://doi.org/10.52461/jbse.v1i1.1702>
- Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis*, 81, 102103. <https://doi.org/https://doi.org/10.1016/j.irfa.2022.102103>

- Niemand, T., Rigtering, J. C., Kallmünzer, A., Kraus, S., & Maalaoui, A. (2021). Digitalization in the financial industry: A contingency approach of entrepreneurial orientation and strategic vision on digitalization. *European Management Journal*, 39(3), 317-326. <https://doi.org/https://doi.org/10.1016/j.emj.2020.04.008>
- Olorogun, L. A. (2020). Spillover effects of Covid-19 uncertainty on non-performing loans of the Turkish agricultural sector on bank performance. *Journal for Global Business Advancement*, 13(4), 514-532. <https://doi.org/https://doi.org/10.1504/JGBA.2020.112389>
- Park, H., & Kim, J. D. (2020). Transition towards green banking: role of financial regulators and financial institutions. *Asian Journal of Sustainability and Social Responsibility*, 5(1), 1-25. <https://doi.org/https://doi.org/10.1186/s41180-020-00034-3>
- Rahman, M., Ming, T. H., Baigh, T. A., & Sarker, M. (2023). Adoption of artificial intelligence in banking services: an empirical analysis. *International Journal of Emerging Markets*, 18(10), 4270-4300. <https://doi.org/https://doi.org/10.1108/IJOEM-06-2020-0724>
- Ramzan, M., Amin, M., & Abbas, M. (2021). How does corporate social responsibility affect financial performance, financial stability, and financial inclusion in the banking sector? Evidence from Pakistan. *Research in International Business and Finance*, 55, 101314. <https://doi.org/https://doi.org/10.1016/j.ribaf.2020.101314>
- Shakil, M. H. (2021). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, 72, 102144. <https://doi.org/https://doi.org/10.1016/j.resourpol.2021.102144>
- Shoaib, M., Nawal, A., Korsakienė, R., Zámečník, R., Rehman, A. U., & Raišienė, A. G. (2022). Performance of academic staff during COVID-19 pandemic-induced work transformations: An IPO model for stress management. *Economies*, 10(2), 51. <https://doi.org/https://doi.org/10.3390/economies10020051>
- Tandelilin, E., & Usman, B. (2023). Toward a better understanding of social impact, CSR reporting and firm performance: a look at the ASEAN banking industry. *Social Responsibility Journal*, 19(3), 579-600. <https://doi.org/https://doi.org/10.1108/SRJ-04-2021-0167>
- Tjahjadi, B., & Soewarno, N. (2019). The mediating effect of intellectual capital, management accounting information systems, internal process performance, and customer performance. *International Journal of Productivity and Performance Management*, 68(7), 1250-1271. <https://doi.org/https://doi.org/10.1108/IJPPM-02-2018-0049>
- Todd, P., & Peetz, D. (2001). Malaysian industrial relations at century's turn: Vision 2020 or a spectre of the past? *International Journal of Human Resource Management*, 12(8), 1365-1382. <https://doi.org/https://doi.org/10.1080/09585190110085062>

- Van Greuning, H., & Brajovic-Bratanovic, S. (1999). *Analyzing banking risk: a framework for assessing corporate governance and financial risk management*. The World Bank. <https://doi.org/https://doi.org/10.1596/0-8213-4417-X>
- Zereen, N. (2019). Analysis of impact of non-performing loan (NPL) on banking performance of AB bank. *Advances in Economics, Business and Management Research*, 176, 251-258. <http://hdl.handle.net/10361/12264>
- Zhou, F., Endendijk, T., & Botzen, W. W. (2023). A review of the financial sector impacts of risks associated with climate change. *Annual Review of Resource Economics*, 15, 233-256. <https://doi.org/https://doi.org/10.1146/annurev-resource-101822-105702>