

Analyzing the Financial Performance of Private Banks Listed in the Iraqi Stock Exchange Using Continuous Improvement Process

Zainab Raheem Hassan

Department of Finance and Banking College of Administration & Economics, University of Babylon, Iraq
Email: <mailto:mly35644@gmail.com>

Assad Munshid Mohammed

Department of Finance and Banking College of Administration & Economics, University of Babylon, Iraq
Email: bus.asaad.munshid@uobabylon.edu.iq

As a result of the effective competition witnessed by the financial environment in general and commercial banks in particular as a result of the rapid changes and developments in the technologies used to perform banking activity, this led to the effort of those banks to improve their performance continuously by introducing modern means into the financial environment and using the best methods that would ensure the continuation of these Banks and their survival to achieve their goals. Consequently, this study aims to demonstrate the continuous improvement methodology (KAIZEN) with its four dimensions (planning, implementation, auditing, and application) and how it can enhance commercial banks' financial performance on the Iraq Stock Exchange. Using survey questionnaires, the data was gathered from selected bank employees. The relationship between the variables was investigated using smart-PLS. This investigation has been applied to an Iraq Stock Exchange-listed bank. There is a positive relationship between the dimensions of the continuous improvement methodology and the financial performance of banks, so the higher the percentage of planned implementation and application, the greater the financial performance improvement.

Keywords: commercial banks, continuous improvement, profits, planning, implementation, auditing, application

1. Introduction

Any nation's economy comprises various industries, such as manufacturing and services. Whether the industry is manufacturing or service-based, it has its unique value. Usually, industries of comparable nature are intertwined, but a few industries have become indispensable to all others, such as the banking industry. The banking industry is associated with nearly every sector of the economy, and its sole purpose is to provide financial services. The country's banking system is regarded as one of the most dependable resources for securing and transferring funds. Finance is the backbone of every business.

Further, the importance of superiority and excellence in business performance in private banks in the modern era is one of the most important and greatest areas that banks aim to achieve, guaranteeing competition and continuity in performance to achieve goals. Excellence and excellence in functional and productive performance become to achieve customer and employee satisfaction jointly to implement the bank's goals (Birindelli, Dell'Atti, Iannuzzi, & Savioli, 2018). From this perspective emerged the continuous improvement methodology (Kaizen) or (CI) (Continuous Improvement) (Pakurár, Haddad, Nagy, Popp, & Oláh, 2019; Robus, 2019), which refers to "making some small changes and improvements continue in the administrative and operational processes." Kaizen is a Japanese term composed of the words (Kia), which means change and improvement, and (Zen), which means excellent or better (Robus, 2019). And it relied on three important basic principles: human resources, operations, and quantitative evaluation of the performance of those operations, and because Private banks are undergoing a very important transitional phase because they are witnessing various challenges, changes, and global developments and are required to move away from the old

traditional methods and adopt the new ones (Alsafadi & Altahtat, 2021; Cocco, Pinna, & Marchesi, 2017). Modern, these enhancements contribute to the growth and development of the Iraqi securities market through the investment of those banks in the Iraqi securities market to achieve a return with an acceptable level of risk.

The problem is that most banks only use continuous improvement when forced to (Kovacs, 2015; Zhao, Tsai, & Wang, 2019), so the research problem is the lack of interest in continuous improvement among commercial banks listed on the Iraq Stock Exchange. Consequently, this research investigates the effect of Kaizen's four dimensions (planning, implementation, control, and application) on the financial performance of private banks listed on the Iraq Stock Exchange. Al-Doori (2020); Soltani and Amanat (2019) provide a statement of the theoretical significance of this research in supporting scientific research and preceding studies in the field of applying the continuous improvement methodology (Kaizen) in banks. In light of the intense competition in the banking markets, implementing the continuous improvement methodology represents a new step for financial institutions that provide various services, particularly private banks. It should be noted that this research coincides with the country's economic conditions during the recession and the outbreak of Covid-19 to demonstrate the financial position of the study sample banks.

The first topic is the research methodology, and the second topic is the theoretical side, which includes three axes, namely (the first axis is financial performance, the second axis is continuous improvement, and the third axis is the impact of financial performance on the methodology of continuous improvement. The third topic is the analysis of the bank's financial performance, the research sample, according to the (Kaizen) methodology.

2. Review of Literature

Global competition is one of the greatest obstacles and difficulties all economic entities face, including banks. The researcher believes that positive change is a sign of development, growth, and conformity with the contemporary environment, based on her practical experience. Numerous researchers have studied this topic extensively in the past. Engaging in applied research and focusing on the various methods to support this perspective can enhance the quality of operations and services provided to consumers, reduce their costs, and shorten their acquisition time.

Literature suggests that the financial performance of banks is crucial and is evaluated by a set of financial indicators and ratios, such as profitability, liquidity, and financial leverage, or by comparing the current ratios with the ratios of previous years based on the availability of historical data (Lotto, 2019). In addition, the bank's final work is evaluated based on the bank's final objectives, and due to the specificity of the bank's work (Tan, Chong, Loh, & Lin, 2010), it is surrounded by numerous hazards, including those associated with the customer's trust in the bank. Banks, in particular, must understand the function of the bank. Financial analysis is the most important method of financial management (Eun & Resnick, 2015), as it evaluates the financial and operational performance of the bank and predicts its future financial performance that comes from outside the bank (Kaffash & Marra, 2017), such as government agencies, and financial analysis is defined as the processes of selection, evaluation, and consistency between data and financial accounts, and comparing them with the go-forward projections.

This analysis monitors the ups and downs of each item of the financial statements over time. Therefore, analysts and authors refer to it as time measurement and analysis (Bikker & Haaf, 2002; De Jonghe, 2010). This analysis of financial ratios can be conducted by comparing current financial ratios with similar ratios from previous years, allowing the bank to track its movement over time and make appropriate decisions. This method is superior to vertical analysis because it aids in Determining the behavior of each line item in the financial statements over a specified period (De Jonghe, 2010). Evaluating institutions' activities by analyzing each item's behavior and then making the appropriate decisions by tracing the origins of the resulting changes (Mohanram, Saiy, & Vyas, 2018). This analysis examines the long-term relationships between the financial statement items. This analysis is marked by stability and tranquility. Banks have performed it for some time. This analysis is insignificant unless the standard horizontal analysis substantiates it. Here, the total assets are the total number in the statement of financial position. The total revenue is the total number in the income statement, and it is characterized by rest because it lacks a time dimension (Manurung & Hardika, 2015).

Planning is the process that begins with understanding the needs of customers from the labor market and the financial needs of the bank's members, whether they are managers

or employees, providing them and then translating them into clear procedures and operations for the bank and its employees (Hopkins & Hopkins, 1997). These processes continue and are linked to all factors related to converting inputs into outputs, including improving structures, equipment, and work methods, as well as altering the behavior of bank employees. Improvement is possible in a variable-rich environment. Technological, cultural, and economical, this concept is defined as the extent of the interaction of organizational and human processes within the company or institution in terms of internal processes and outputs to meet the needs of customers using the methodology of continuous improvement, which is consistent with the company's guiding principles and is regarded as a means of achieving competitive advantage. In implementing processes of change and development in the work environment (Scarborough & Lannon, 1988), it is important to consider organizational culture. This method focuses primarily on the continuous development of the various bank operations, and adjustments and enhancements are made continuously and in small, incremental steps or changes. It focuses on innovating modern methods, processes, and methods to replace the old ones; continuous improvement is done in one shot (ONE SHOOT) to obtain high quality due to technology and modern methods with the possibility of large funds. It focuses on completing existing tasks and achieving results (Vunjak, Zelenovic, Birovljev, & Milenkovic, 2012). The methodology of continuous improvement is a process to improve the work of a company or organization, and it is based on three fundamental principles: how senior management and employees of the company execute their duties. How employees communicate with one another, and how to construct work mechanisms and assembly lines. In this context, Kang'aru and Tirimba (2018) investigated whether the planning process impacts a company's financial performance. The investigation was conducted on the Kenyan populace. The sample for the research consisted of 216 respondents. Using questionnaires, the sample information was gathered. The study employed the SPSS analysis method for analysis purposes. The analysis suggested that the planning process has a significant impact on the financial performance of any business.

Similarly, George, Walker, and Monster (2019) investigated whether strategic planning improves the performance of an organization (including financial performance). The investigation was conducted in US and international contexts. For the meta-analysis, 31 articles were utilized. For analysis, the investigation employed Meta-analysis. The research outcome suggested that strategic planning enhances organizational performance (including financial performance).

H1: *The planning process of continuous improvement positively impacts the financial performance of Iraqi banks.*

Implementation is the process that begins after planning and involves the provision of information and data in

minor steps (Haralayya, 2021). The financial outlet is observed through banking activity, the number of genuine deposits and current accounts, and the amount of the financial outlet from the plan established for those accounts. Continuous improvement is not just a method or an instrument but rather a way of life in which the focus is on the customer and not the market share, and it is one of the fundamental pillars of a company's or institution's success (Guraău, 2002). Making advances is an essential element in an era of intense competition. The importance of continuous improvement lies in the bank's ability to communicate quickly and accurately with the changes in the desires and tastes of customers and to develop its outputs to distinguish itself from its competitors, even though the majority of adopters of this philosophy believe that it is difficult to obtain due to the different internal and external factors and the incompatibility of abilities and skills with the nature of the business. In this context, Xie, Huo, and Zou (2019) examined whether green process innovation and product innovation in the context of implementation affect a company's financial performance. The investigation was conducted on the Chinese populace. The sample for the research consisted of 1,585 manufacturing companies. Using questionnaires, the sample information was gathered. For analysis, the study utilized content analysis. The analysis suggests that the implementation of green concepts has a significant impact on a company's financial performance. Corporate Social Responsibility is all about the implementation of society-related policies, and it significantly affects the performance of the business. In this context, Platonova, Asutay, Dixon, and Mohammad (2018) investigated the relationship between CSR in policy implementation and the firm's financial performance. The population of GCC region economies served as the subject of the study. The sample size for the investigation was fourteen years of data. The sample data spans the years 2000 through 2014. For analysis, the study utilized regression analysis. According to the analysis findings, a significant relationship exists between CSR implementation and the financial performance of businesses.

H2: *The implementation process of continuous improvement positively impacts the financial performance of Iraqi banks.*

(Hayali, Dinç, Sarılı, Dizman, & Gündoğdu, 2012) Control is the process that occurs through the feedback of data and information, in which the work team compares what has been implemented and planned to the objectives set in the planned performance of the bank and indicates deviations, whether positive or negative. To remain competitive in the bank's environment, success depends on continuous advancement to keep up with economic and environmental changes. Therefore, achieving these dimensions results in a competitive advantage for the bank through constant improvement, which stems from the bank's plans and objectives, which contribute to (reducing expenses, improving the quality of service provided to the customer (Khilenko, 2020), and reducing the service time provided

to the customer through a rapid response) and other objectives. The optimal use of resources, or the utilization of the bank's resources according to plan. Making banking operations safer: the workplace (the bank) is more efficient and productive, so there are fewer accidents during production, resulting in decreased costs and expenses. Achieving progress in customers' expectations by meeting or exceeding customers' estimates, as well as the ongoing enhancement of customers' perspectives. In the context of process and firm performance, Arrive and Feng (2018) investigated whether management control of any process impacts the firm's financial performance. The investigation was conducted on the Chinese populace. The research utilized data from 32 publicly traded Chinese companies as a sample. Using questionnaires, the sample information was gathered. The study employed correlation and regression analysis for research. The outcome of the investigation suggested that management control of any process affects the firm's financial performance, particularly in China.

Similarly, Bedford (2015) investigated whether the management controlling system during various periods of the innovation process impacts the firm's financial performance. The investigation was conducted on the Australian populace. The research sampled information from 400 Australian businesses. Using questionnaires, the sample information was gathered. The study employed correlation and regression analysis for purposes of analysis. The analysis suggested that the management controlling system impacts the firm's financial performance while various innovation processes occur.

H3: *The control process of continuous improvement has a positive impact on the financial performance of Iraqi banks.*

(R. N. Ichsan & Muda, 2022) Application is the process of improvement that aims to achieve a level of financial performance equal to or greater than the current level of financial performance. A specialized team carries out this process to identify any operations and areas that require improvement in addition to maintaining previously achieved improvements. Financial analysis is currently regarded as the most important method of financial management because it builds the financial bank's operational activity and financial position in addition to predicting the future (Aggarwal et al., 2019). Consequently, we will measure the development and change in the most important financial accounts of the banks, the research sample, to determine the level of the bank's activity and then evaluate the banks using financial ratios. Then, we demonstrate the effect of continuous improvement on the bank's financial performance by comparing what was planned with what was planned and indicating the degree of improvement (Abou Jaoude & Saade, 2019). In the context of process application and firm performance, Cegarra-Navarro, Soto-Acosta, and Wensley (2016) investigated whether the knowledge application process influences a company's financial performance. The investigation was conducted on the

Spanish populace. As a sample, the research utilized information from 112 large-scale Spanish firms. Using questionnaires, the sample information was gathered. For analysis, the investigation utilized SEM analysis. The analysis suggested that the knowledge application process affects the company's financial performance. Similarly, [Aydiner, Tatoglu, Bayraktar, Zaim, and Delen \(2019\)](#) investigated whether the business analytical, i.e., application process, impacts the organization's performance. The investigation was conducted on the Turkish populace. The research sampled the data from 800 businesses. Using questionnaires, the sample information was gathered. The BA analysis method was employed for analysis in this study. The outcome of the analysis suggested that the business analytical, i.e., application process, influences the company's performance.

H4: *The application process of continuous improvement positively impacts the financial performance of Iraqi banks.*

3. Research Methods

This study aims to demonstrate how the continuous improvement methodology (KAIZEN), with its four dimensions (planning, implementation, control, and application), can enhance the financial performance of listed commercial banks. Using survey questionnaires, the data was gathered from selected bank employees. The variables are measured with questions taken from prior research. For example, the planning process is measured with eight questions taken from [Paolini, Kollmannsberger, and Rank \(2019\)](#), the implementing process is measured with five questions taken from [Paolini et al. \(2019\)](#), the application process is measured with six questions extracted from [Piprani, Jaafar, and Mohezar Ali \(2020\)](#), and the control process is measured with four questions taken from [Shin, Badgwell, Liu, and Lee \(2019\)](#).

The personnel of the private banks listed on the Iraqi stock exchange were surveyed for the study. Personal visits were

made to designated employees to distribute the surveys. The employees were chosen through straightforward random sampling. 567 questionnaires were sent out, but only 295 valid responses were received. These valid responses have a response rate of 52.03 percent. In addition, smart-PLS was utilized to examine the association between variables. It is a commonly used instrument for the analysis of primary data and handles complex models effectively ([Hair, Hult, Ringle, Sarstedt, & Thiele, 2017](#)). Four predictors, including the planning process (PP), implementation process (IMP), control process (CP), and application process (AP), were utilized in the study. Financial performance (FP) was the dependent variable in the study's final step. [Figure 1](#) contains these variables.

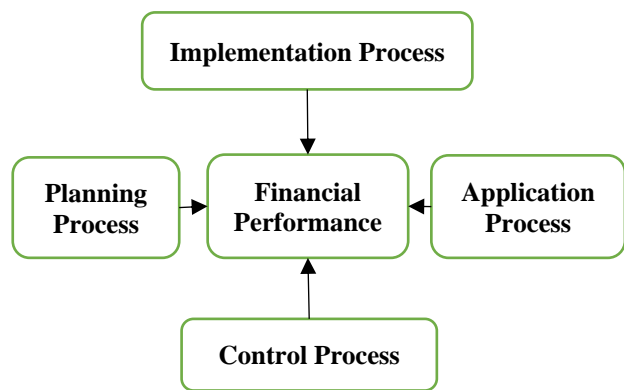


Figure 1: Theoretical model

4. Research Findings

The article examines the correlation between items with factor loadings and average variance extracted (AVE) and finds that the figures exceed 0.50. In addition, the article discusses the correlation between items using Alpha and composite reliability (CR), with figures exceeding 0.70. These numbers revealed a strong correlation between products. These numbers are shown in [Table 1](#).

Table 1: Convergent validity

Constructs	Items	Loadings	Alpha	CR	AVE
Application Process	AP1	0.865	0.915	0.937	0.749
	AP3	0.922			
	AP4	0.912			
	AP5	0.859			
	AP6	0.759			
	Control Process	CP1			
CP2	0.866				
CP3	0.868				
CP4	0.876				
Financial Performance	FP1	0.789	0.818	0.880	0.649
	FP2	0.828			
	FP3	0.892			
	FP4	0.700			
Implementation Process	IMP1	0.902	0.955	0.968	0.882
	IMP3	0.963			
	IMP4	0.966			
	IMP5	0.924			
	Planning Process	PP1			
PP2	0.672				
PP3	0.733				
PP4	0.605				
PP5	0.668				
PP6	0.647				
PP7	0.790				
PP8	0.746				

The article examines the correlation between variables using Fornell Larcker and cross-loadings. The figures revealing the linkages with the variable are greater than

those with other variables. These numbers showed a low correlation between variables. These numbers are presented in Tables 2 and 3.

Table 2: Fornell Larcker

	AP	CP	FP	IMP	PP
AP	0.866				
CP	0.403	0.870			
FP	0.491	0.393	0.805		
IMP	0.475	0.414	0.429	0.939	
PP	0.115	0.132	0.223	0.215	0.711

Table 3: Cross-loadings

	AP	CP	FP	IMP	PP
AP1	0.865	0.356	0.446	0.387	0.137
AP3	0.922	0.353	0.431	0.416	0.097
AP4	0.912	0.336	0.427	0.407	0.092
AP5	0.859	0.363	0.447	0.455	0.102
AP6	0.759	0.337	0.367	0.389	0.063
CP1	0.290	0.869	0.333	0.344	0.144
CP2	0.381	0.866	0.303	0.353	0.056
CP3	0.350	0.868	0.302	0.342	0.145
CP4	0.377	0.876	0.409	0.391	0.112
FP1	0.389	0.316	0.789	0.300	0.177
FP2	0.474	0.329	0.828	0.393	0.167
FP3	0.434	0.361	0.892	0.345	0.201
FP4	0.248	0.250	0.700	0.345	0.176
IMP1	0.460	0.389	0.393	0.902	0.247
IMP3	0.443	0.405	0.399	0.963	0.194
IMP4	0.442	0.409	0.393	0.966	0.193
IMP5	0.439	0.353	0.423	0.924	0.176
PP1	0.027	0.017	0.168	0.045	0.800
PP2	0.045	0.018	0.090	0.076	0.672
PP3	0.020	0.022	0.118	0.053	0.733
PP4	0.162	0.272	0.251	0.277	0.605
PP5	0.085	0.110	0.130	0.292	0.668
PP6	0.134	0.110	0.120	0.206	0.647
PP7	0.057	0.026	0.134	0.062	0.790
PP8	0.040	-0.022	0.115	0.075	0.746

The article checks the correlation among variables with Heterotrait Monotrait (HTMT) ratio, and the figures are

lower than 0.90. These figures exposed a low correlation among variables. These figures are mentioned in Table 4.

Table 4: Heterotrait Monotrait ratio

	AP	CP	FP	IMP	PP
AP					
CP	0.445				
FP	0.555	0.449			
IMP	0.509	0.445	0.486		
PP	0.115	0.131	0.235	0.209	

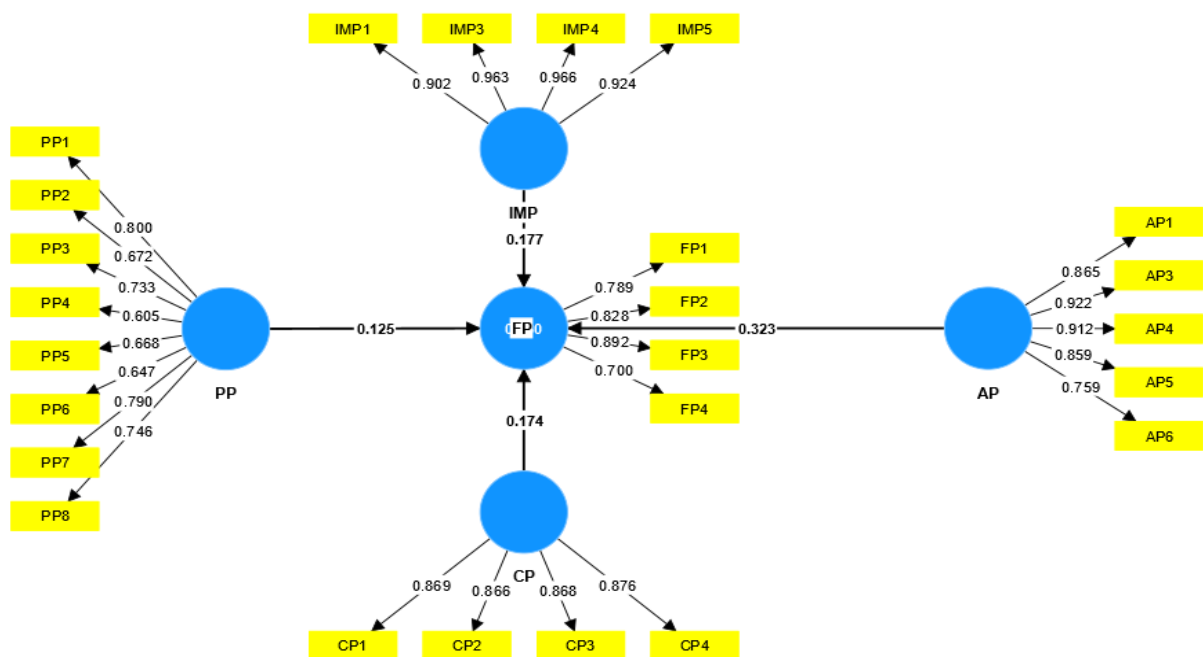


Figure 2: Measurement model assessment

Path analysis is also utilized to examine the relationship between variables. The results indicated that the application, control implementation, and planning

processes have positive and significant ties to financial performance, so we adopt Hypotheses 1, 2, 3, and 4. These relationships are listed in Table 5.

Table 5: A path analysis

Relationships	Beta	Standard deviation	T statistics	P values
AP -> FP	0.323	0.067	4.849	0.000
CP -> FP	0.174	0.049	3.562	0.001
IMP -> FP	0.177	0.065	2.740	0.007
PP -> FP	0.125	0.049	2.536	0.013

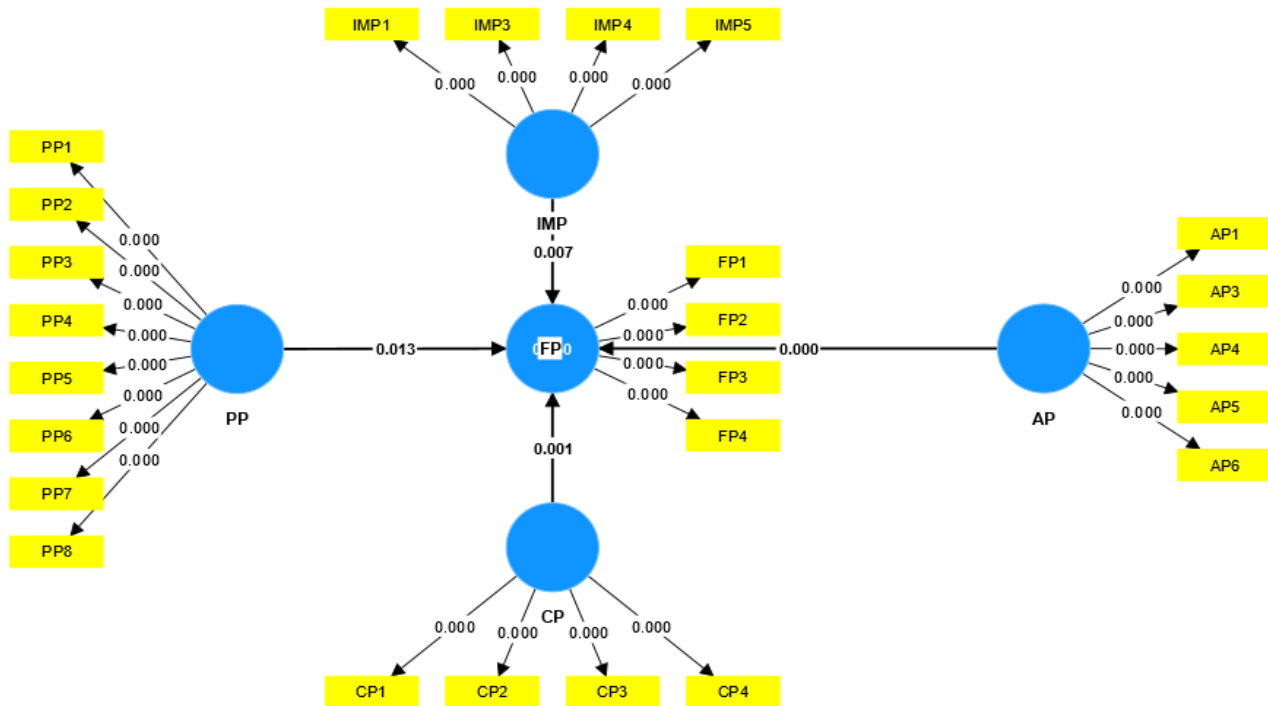


Figure 3: Structural model assessment

5. Discussions

Implementing efficient technologies and procedures streamlines banking operations, boosts productivity, and reduces manual errors. Adopting digital tools and automating duties results in operational efficiency, which improves the financial performance of Iraqi banks by maximizing profitability and minimizing expenses. Additionally, R. Ichsana, Suparmin, Yusuf, Ismal, and Sitompul (2021) supported this theory. Multiple linear regression analysis methodologies have been utilized to analyze the result. According to them, an effectively implemented process can improve the consumer experience. In a previous study, Nawaz and Haniffa (2017) also supported this hypothesis. According to them, these implementations can result in customer-centric processes that enable banks to provide more efficient and quicker services, such as mobile banking, loan approvals, and online banking. These characteristics attract consumers and increase their loyalty and satisfaction, resulting in a rise in financial growth. The implementation of the process could enhance analytical capabilities and data management systems. Disemadi and Shaleh (2020) supported this theory as well. According to them, private banks can gain valuable insights into market trends, risk profiles, and

customer behavior by utilizing data analysis tools. This data-driven process assists and aids banks in optimizing resources, identifying profitable opportunities, and making strategic decisions that improve the firm's financial performance. The effective implementation gives the bank a significant competitive advantage that distinguishes them from its rivals.

The planning process in the banking system incorporates quantifiable and distinct financial objectives that define the purpose and direction of institutions. Gangi, Mustilli, and Varrone (2018) supported this hypothesis. According to them, banks can allocate their resources appropriately by devising specific goals such as improving asset quality, increasing profitability, and expanding market share. Planning permits banks to evaluate their external and internal environments, identify threats and opportunities, and make strategic decisions. A bank can identify potential growth areas through proper analysis, such as geographic expansion, technological advancement, and the introduction of new products and services. Ozkan, Cakan, and Kayacan (2017) also supported this theory. In their methodology, they employed the value-added intellectual coefficient and collected data from the bank. Effective planning contributes to efficient resource allocation, improving financial performance. The planning process

assists banks in allocating their financial resources by evaluating various projects, and banks can prioritize their investment initiatives based on their strategic alignment.

Additionally, Oyewumi, Ogunmeru, and Oboh (2018) supported this theory. According to them, this ensures that their resources are allocated to activities with a significant financial impact. In brief, the planning process provides the bank with a methodical strategy for achieving its financial objectives. It fosters the development of strategic decision-making, risk management, resource allocation, and performance monitoring.

The application procedure permits private banks to increase their capital by issuing public shares. This infusion of capital allows them to expand their operations, strengthen their financial standing, invest in new technologies, and enhance their services. Mbama and Ezepeue (2018) supported this theory as well. According to them, an increase in bank capital will increase their profitability by increasing their competitiveness. In addition to enabling banks to comply with reporting requirements, the application process promotes transparency, good governance, and accountability within the banking system. Weber (2017) supported this theory as well. According to them, improved governance and transparency can attract more investors, enhancing the bank's performance. By being listed on the stock exchange, banks gain access to a larger pool of investors, including institutional and retail investors. This enhanced visibility increased demand for the bank's shares, resulting in improved liquidity and a high stock price. Additionally, the stock exchange enhances the credibility and reputation of private institutions that have fulfilled their regulatory commitment to good governance.

The control procedure plays a significant role in the financial performance of the private bank on the Iraqi stock exchange. It ensures institutions operate effectively, efficiently and follow applicable regulations and standards. Ekinçi and Poyraz (2019) supported this hypothesis in a previous study. According to them, the control procedure permits banks to assess and eliminate risks effectively. Implementing these mechanisms, which include risk assessment, internal audits, compliance monitoring, and a framework for risk assessments, can reduce financial losses resulting from operational market or credit risks. This improves the effectiveness and financial stability of institutions. Shakil, Mahmood, Tasnia, and Munim (2019) corroborated this hypothesis in a previous study. Internal controls are essential for enhancing financial reporting and preventing misconduct. The control process establishes checks and procedures to ensure the dependability and precision of safeguarding the bank's assets and financial information, thereby minimizing the risk of misuse. Esteban-Sanchez, de la Cuesta-Gonzalez, and Paredes-Gazquez (2017) supported this hypothesis. According to them, effective control processes can enhance the branding and reputation of financial institutions. Banks with a reputation for risk management and robust controls can attract customers,

leading to an increase in market share and a competitive advantage in the banking industry.

6. Conclusions

The results determined that the percentage of profit realization in the bank, relative to the size of its assets and funding sources, is low. This is due to the bank's low revenues and high expenditures, which are inconsistent with banking work. The continuous improvement methodology is one of the modern approaches that can be relied upon for evaluating and enhancing banking performance through successive periods of constant improvement to achieve the best results in banking activity. The investigation revealed that there are indications that the bank uses the methodology. There is a plan to increase the level of banking activity, but its implementation is inconsistent and delayed. Consequently, the implementation rates of the intended profits are low relative to the plan.

7. Recommendations

Continuously and annually implementing continuous improvement in financial institutions in general, and the bank under study in particular, because customer expectations and needs and the external environment are in constant flux, necessitating the bank's performance improvement and development. The need to adopt continuous improvement technology in the bank's performance accurately and in all of the bank's activities and profits, as well as in other banking operations, by streamlining the procedures for granting these services without affecting the required guarantees in exchange for giving services. Since continuous improvement aims to reduce expenses (reduce them) by reducing the cost of services provided, the bank has achieved its objective by observing a decrease in costs, but revenues have declined. The bank must develop strategies to increase these revenues to generate profits.

References

- Abou Jaoude, J., & Saade, R. G. (2019). Blockchain applications—usage in different domains. *Ieee Access*, 7, 45360-45381. doi: <https://doi.org/10.1109/ACCESS.2019.2902501>
- Aggarwal, S., Chaudhary, R., Aujla, G. S., Kumar, N., Choo, K.-K. R., & Zomaya, A. Y. (2019). Blockchain for smart communities: Applications, challenges and opportunities. *Journal of Network and Computer Applications*, 144, 13-48. doi: <https://doi.org/10.1016/j.jnca.2019.06.018>
- Al-Doori, J. A. (2020). The impact of lean practices on operational performance in the banking sector: an empirical investigation. *International journal of services and operations management*, 37(1), 27-39. doi: <https://doi.org/10.1504/IJSOM.2020.109436>
- Alsafadi, Y., & Altahat, S. (2021). Human resource management practices and employee performance: the role of job satisfaction. *The Journal of Asian Finance, Economics and Business*, 8(1), 519-529. doi: <https://doi.org/10.13106/jafeb.2021.vol8.no1.519>

- Arrive, J. T., & Feng, M. (2018). The complexity of the environment, management control and firm performance. *Business Strategy and the Environment*, 27(8), 1347-1354. doi: <https://doi.org/10.1002/bse.2183>
- Aydiner, A. S., Tatoglu, E., Bayraktar, E., Zaim, S., & Delen, D. (2019). Business analytics and firm performance: The mediating role of business process performance. *Journal of business research*, 96, 228-237. doi: <https://doi.org/10.1016/j.jbusres.2018.11.028>
- Bedford, D. S. (2015). Management control systems across different modes of innovation: Implications for firm performance. *Management Accounting Research*, 28, 12-30. doi: <https://doi.org/10.1016/j.mar.2015.04.003>
- Bikker, J. A., & Haaf, K. (2002). Competition, concentration and their relationship: An empirical analysis of the banking industry. *Journal of banking & finance*, 26(11), 2191-2214. doi: [https://doi.org/10.1016/S0378-4266\(02\)00205-4](https://doi.org/10.1016/S0378-4266(02)00205-4)
- Birindelli, G., Dell'Atti, S., Iannuzzi, A. P., & Savioli, M. (2018). Composition and activity of the board of directors: Impact on ESG performance in the banking system. *Sustainability*, 10(12), 4699. doi: <https://doi.org/10.3390/su10124699>
- Cegarra-Navarro, J.-G., Soto-Acosta, P., & Wensley, A. K. (2016). Structured knowledge processes and firm performance: The role of organizational agility. *Journal of Business Research*, 69(5), 1544-1549. doi: <https://doi.org/10.1016/j.jbusres.2015.10.014>
- Cocco, L., Pinna, A., & Marchesi, M. (2017). Banking on blockchain: Costs savings thanks to the blockchain technology. *Future internet*, 9(3), 25. doi: <https://doi.org/10.3390/fi9030025>
- De Jonghe, O. (2010). Back to the basics in banking? A micro-analysis of banking system stability. *Journal of financial intermediation*, 19(3), 387-417. doi: <https://doi.org/10.1016/j.jfi.2009.04.001>
- Disemadi, H. S., & Shaleh, A. I. (2020). Banking credit restructuring policy amid COVID-19 pandemic in Indonesia. *Jurnal Inovasi Ekonomi*, 5(2), 63-70. doi: <https://doi.org/10.22219/jiko.v5i02.11790>
- Ekinci, R., & Poyraz, G. (2019). The effect of credit risk on financial performance of deposit banks in Turkey. *Procedia Computer Science*, 158, 979-987. doi: <https://doi.org/10.1016/j.procs.2019.09.139>
- Esteban-Sanchez, P., de la Cuesta-Gonzalez, M., & Paredes-Gazquez, J. D. (2017). Corporate social performance and its relation with corporate financial performance: International evidence in the banking industry. *Journal of cleaner production*, 162, 1102-1110. doi: <https://doi.org/10.1016/j.jclepro.2017.06.127>
- Eun, C. S., & Resnick, B. G. (2015). *International financial management*. McGraw-Hill Education. Retrieved from https://repository.vnu.edu.vn/handle/VNU_123/90415
- Gangi, F., Mustilli, M., & Varrone, N. (2018). The impact of corporate social responsibility (CSR) knowledge on corporate financial performance: evidence from the European banking industry. *Journal of Knowledge Management*, 23(1), 110-134. doi: <https://doi.org/10.1108/JKM-04-2018-0267>
- George, B., Walker, R. M., & Monster, J. (2019). Does strategic planning improve organizational performance? A meta-analysis. *Public Administration Review*, 79(6), 810-819. doi: <https://doi.org/10.1111/puar.13104>
- Guraău, C. (2002). Online banking in transition economies: the implementation and development of online banking systems in Romania. *International journal of bank marketing*, 20(6), 285-296. doi: <https://doi.org/10.1108/02652320210446742>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the academy of marketing science*, 45, 616-632. doi: <https://doi.org/10.1007/s11747-017-0517-x>
- Haralayya, B. (2021). Core banking technology and its top 6 implementation challenges. *Journal of Advanced Research in Operational and Marketing Management*, 4(1), 25-27. Retrieved from <https://www.researchgate.net/publication/352681706>
- Hayali, A., Dinç, Y., Sarılı, S., Dizman, A. S., & Gündoğdu, A. (2012). Importance of internal control system in banking sector: Evidence from Turkey. In *Conference Proceedings of the Finance and Economics Conference*. Retrieved from <http://www.lcbr-archives.com/media/files/13fec27.pdf>
- Hopkins, W. E., & Hopkins, S. A. (1997). Strategic planning—financial performance relationships in banks: a causal examination. *Strategic management journal*, 18(8), 635-652. doi: [https://doi.org/10.1002/\(SICI\)1097-0266\(199709\)18:8<635::AID-SMJ904>3.0.CO;2-%23](https://doi.org/10.1002/(SICI)1097-0266(199709)18:8<635::AID-SMJ904>3.0.CO;2-%23)
- Ichsan, R., Suparmin, S., Yusuf, M., Ismal, R., & Sitompul, S. (2021). Determinant of Sharia Bank's Financial Performance during the Covid-19 Pandemic. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(1), 298-309. doi: <https://doi.org/10.33258/birci.v4i1.1594>
- Ichsan, R. N., & Muda, I. (2022). Application of Source Management and Human Values based on Religious Values at Bank Syariah Indonesia. *Specialis Usudyas*, 1(43), 7514-7522. Retrieved from <http://www.sumc.lt/index.php/se/article/view/1034>
- Kaffash, S., & Marra, M. (2017). Data envelopment analysis in financial services: a citations network analysis of banks, insurance companies and money market funds. *Annals of Operations Research*, 253, 307-344. doi: <https://doi.org/10.1007/s10479-016-2294-1>
- Kang'aru, P. N. u., & Tirimba, I. (2018). Effect of Financial Planning Practices on the Financial Performance of Non Profit Making Health Organizations in Kiambu County, Kenya. *International Journal of Scientific and Research Publications*, 8(5), 599-623. doi: <http://dx.doi.org/10.29322/IJSRP.8.5.2018.p7778>
- Khilenko, V. V. (2020). Modeling the control effects of the banking system on the functioning of the economy. I. Dynamics and adjustment of crisis situations. *Cybernetics and Systems Analysis*, 56(1), 22-28. doi: <https://doi.org/10.1007/s10559-020-00217-w>

- Kovacs, Z. (2015). Process improvement in the banking sector. *Journal of Securities Operations & Custody*, 8(1), 56-64. Retrieved from <https://hstalks.com/article/885/process-improvement-in-the-banking-sector>
- Lotto, J. (2019). Evaluation of factors influencing bank operating efficiency in Tanzanian banking sector. *Cogent Economics & Finance*, 7(1), 1664192. doi: <https://doi.org/10.1080/23322039.2019.1664192>
- Manurung, D. T. H., & Hardika, A. L. (2015). Analysis of factors that influence financial statement fraud in the perspective fraud diamond: Empirical study on banking companies listed on the Indonesia Stock Exchange year 2012 to 2014. In *Proceedings of the International Conference on Accounting Studies (ICAS) 2015* (pp. 279-286). School of Accountancy, Universiti Utara Malaysia. Retrieved from <https://repo.uum.edu.my/id/eprint/17583>
- Mbama, C. I., & Ezepue, P. O. (2018). Digital banking, customer experience and bank financial performance: UK customers' perceptions. *International Journal of Bank Marketing*, 36(2), 230-255. doi: <https://doi.org/10.1108/IJBM-11-2016-0181>
- Mohanram, P., Saiy, S., & Vyas, D. (2018). Fundamental analysis of banks: the use of financial statement information to screen winners from losers. *Review of Accounting Studies*, 23, 200-233. doi: <https://doi.org/10.1007/s11142-017-9430-2>
- Nawaz, T., & Haniffa, R. (2017). Determinants of financial performance of Islamic banks: an intellectual capital perspective. *Journal of Islamic Accounting and Business Research*, 8(5), 130-142. doi: <https://doi.org/10.1108/JIABR-06-2016-0071>
- Oyewumi, O. R., Ogunmeru, O. A., & Oboh, C. S. (2018). Investment in corporate social responsibility, disclosure practices, and financial performance of banks in Nigeria. *Future Business Journal*, 4(2), 195-205. doi: <https://doi.org/10.1016/j.fbj.2018.06.004>
- Ozkan, N., Cakan, S., & Kayacan, M. (2017). Intellectual capital and financial performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review*, 17(3), 190-198. doi: <https://doi.org/10.1016/j.bir.2016.03.001>
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. *Sustainability*, 11(4), 1113. doi: <https://doi.org/10.3390/su11041113>
- Paolini, A., Kollmannsberger, S., & Rank, E. (2019). Additive manufacturing in construction: A review on processes, applications, and digital planning methods. *Additive manufacturing*, 30, 100894. doi: <https://doi.org/10.1016/j.addma.2019.100894>
- Piprani, A. Z., Jaafar, N. I., & Mohezari, S. (2020). Prioritizing resilient capability factors of dealing with supply chain disruptions: an analytical hierarchy process (AHP) application in the textile industry. *Benchmarking: An International Journal*, 27(9), 2537-2563. doi: <https://doi.org/10.1108/BIJ-03-2019-0111>
- Platonova, E., Asutay, M., Dixon, R., & Mohammad, S. (2018). The impact of corporate social responsibility disclosure on financial performance: Evidence from the GCC Islamic banking sector. *Journal of Business Ethics*, 151, 451-471. doi: <https://doi.org/10.1007/s10551-016-3229-0>
- Robus, S. (2019). The Opportunities and Challenges of a Kaizen Implementation to the Decentralized Organized Network of Savings Banks in Germany. In *Leadership And Management Theory In Practice* (pp. 131-143). MATE Campus Kaposvár. Retrieved from <https://www.researchgate.net/publication/362545660>
- Scarborough, H., & Lannon, R. (1988). The successful exploitation of new technology in banking. *Journal of General Management*, 13(3), 38-51. doi: <https://doi.org/10.1177/030630708801300303>
- Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality: An International Journal*, 30(6), 1331-1344. doi: <https://doi.org/10.1108/MEQ-08-2018-0155>
- Shin, J., Badgwell, T. A., Liu, K.-H., & Lee, J. H. (2019). Reinforcement learning—overview of recent progress and implications for process control. *Computers & Chemical Engineering*, 127, 282-294. doi: <https://doi.org/10.1016/j.compchemeng.2019.05.029>
- Soltani, H., & Amanat, E. (2019). The mediating role of kaizen in the relationship between total quality management and organization's performance. *Journal of System Management*, 5(1), 61-78. Retrieved from https://sjsm.shiraz.iau.ir/article_545533.html
- Tan, K. S., Chong, S. C., Loh, P. L., & Lin, B. (2010). An evaluation of e-banking and m-banking adoption factors and preference in Malaysia: a case study. *International Journal of Mobile Communications*, 8(5), 507-527. doi: <https://doi.org/10.1504/IJMC.2010.034935>
- Vunjak, N., Zelenovic, V., Birovljev, J., & Milenkovic, I. (2012). Strategic Planning in Banking. *Technics Technologies Education Management*, 7(1), 196-203. Retrieved from <https://www.researchgate.net/profile/Vera-Zelenovic/publication/292442106>
- Weber, O. (2017). Corporate sustainability and financial performance of Chinese banks. *Sustainability Accounting, Management and Policy Journal*, 8(3), 358-385. doi: <https://doi.org/10.1108/SAMPJ-09-2016-0066>
- Xie, X., Huo, J., & Zou, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. *Journal of business research*, 101, 697-706. doi: <https://doi.org/10.1016/j.jbusres.2019.01.010>
- Zhao, Q., Tsai, P.-H., & Wang, J.-L. (2019). Improving financial service innovation strategies for enhancing china's banking industry competitive advantage during the fintech revolution: A Hybrid MCDM model. *Sustainability*, 11(5), 1419. doi: <https://doi.org/10.3390/su11051419>