

## Evaluating the Operational Efficiency of Jordan Islamic Bank and Housing Bank -for Trade and Finance Using the ROE model

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### Abstract

This study aims to evaluate the operational efficiency of both Jordan Islamic Bank and Housing Bank for Trade and Finance using the Return on Equity (ROE) model during the period from 2021 to 2023. The study applied a set of financial analytical tools to assess financial performance, including Return on Assets (ROA), Asset Utilization (AU), Equity Multiplier (EM), and Profit Margin (PM). The findings revealed that Jordan Islamic Bank showed significant improvement in ROE in 2022 before experiencing a slight decline in 2023, while Housing Bank maintained positive stability throughout the period. In terms of Asset Utilization, Jordan Islamic Bank demonstrated gradual improvement, while Housing Bank experienced fluctuations. Regarding Financial Leverage, Jordan Islamic Bank showed a noticeable increase in debt reliance, raising its risk exposure, while Housing Bank maintained financial stability. The study recommends that Jordan Islamic Bank reassess its asset management strategies, while Housing Bank is advised to enhance its growth strategies to maintain financial stability.

**Keywords:** Operational efficiency, Jordan Islamic Bank, Housing Bank for Trade and Finance, Return on Equity (ROE), Return on Assets (ROA), Asset Utilization (AU), Financial Leverage (FL), Profit Margin (PM).

## Introduction:

Commercial banks play in the financial systems a crucial role of All countries, serving as key pillars for growth and economic stability, through their provision of financial and funding services, banks contribute to the support of businesses, small and medium-sized enterprises, as well as promoting both local and international investments. In this context, assessing the efficiency of banks in managing capital and generating returns becomes an essential area of focus, especially through the analysis of their financial performance using specific financial indicators. This research focuses on evaluating the operational efficiency of Jordan Islamic Bank and Housing Bank for Trade and Finance using the Return on Equity (ROE) model, a key financial metric that reflects a bank's ability to generate profit from shareholders' equity. By conducting this analysis, we aim to compare the performance of these two banks and gain insights into their effectiveness in managing capital and achieving profitability in a sustainable manner. This comparison will shed light on each bank's strengths and weaknesses in their strategic approach. The importance of this study lies in its ability to provide a deeper understanding of how these banks operate and assess their ability to efficiently utilize available resources to generate returns for investors. Moreover, the study will assist in enhancing investment and managerial decision-making for investors and policymakers in the financial sector. By doing so, this study will enable stakeholders in the banking sector to identify factors influencing financial performance and take necessary actions to improve operational efficiency and develop financial strategies that ensure sustainability and profitability

The study poses the following main question: Does Jordan Islamic Bank have better control over costs and profit generation compared to Housing Bank for Trade and Finance?

## Study Hypothesis:

The hypothesis of this study is that the Jordan Islamic Bank is better than Housing Bank for Trade and Finance in achieving profits and controlling costs.

## Importance of the Study:

The analysis of operational efficiency using Return on Equity (ROE) of the Jordan Islamic Bank and Housing Bank for Trade and Finance, one of the most important financial indicators to measure the bank's ability to generate profits using shareholders' funds, is crucial. Commercial banks are considered the backbone of the national

economy, particularly in Jordan, where the Jordan Islamic Bank and the Housing Bank are among the leading financial Institutions providing various banking services. By evaluating the performance of these two banks during the period from 2021 to 2023, this study will help shed light on the effectiveness of each bank's strategies in capital utilization efficiency and achieving profits. Moreover, it will provide stakeholders, such as investors and decision-makers, with a deeper understanding of the factors that affect the operational efficiency of both banks. This study adds value by answering the central question about the banks' ability to control costs and achieve profits, thus enhancing the ability to make sound investment and managerial decisions.

#### .Objectives of the Study:

**Evaluating Operational Efficiency:** The study aims to assess the operational efficiency of the Jordan Islamic Bank and the Housing Bank for Trade and Finance using the Return on Equity (ROE) indicator over the period from 2021 to 2023.

**Comparing Financial Performance of the Two Banks:** The study aims to compare the financial performance of both banks to determine which one is more efficient in utilizing equity to generate returns for its shareholders.

#### DuPont Model

When relying on input efficiency, the traditional methods of analyzing financial conditions and bank performance are considered a matter of great importance. Among these methods, return on Equity (ROE) stands out as a key tool for evaluating banking performance. ROE is a vital indicator that reflects the bank's ability to generate profits from the funds owned by shareholders (Hassan & Benito, 2009).

The DuPont Model was developed in 1918 by American Engineer F. Donaldson Brown from DuPont Company. Brown noticed a mathematical relationship between profit and return on capital, and how return on capital is closely related to return on assets. The model was later modified twice. The first modification introduced the concept of financial leverage (Leverage) into the model, allowing a distinction between return on assets and return on equity (ROE) by incorporating debt into the model. The second modification involved determining return on assets based on the relationship between five key measures, adding an extra dimension to the bank's performance analysis, making it more comprehensive (Musaed, 2019).

According to the DuPont Model, Return on Equity (ROE) is linked to Return on Assets (ROA) through what is known as the Equity Multiplier. This relationship allows for a more detailed explanation of the return on investment (Mohammadreza, et al., 2019).

When a bank has either a high or low return on equity, the reason for this increase or decrease can be attributed to three main factors: return on assets, financial leverage, or both (Abeer, et al., 2019).

This model provides a deeper understanding of how various factors impact the financial efficiency of a banking institution. It serves as a crucial tool for evaluating the financial performance of banks (Mihaela, ET AL., 2019).

#### **Importance of the Return on Equity (ROE) Model for Banks:**

**Profitability Efficiency Analysis:** The Return on Equity (ROE) model is a vital tool for measuring banks' efficiency in generating profits from shareholder equity. Through this model, a bank can determine how effectively it is utilizing its available financial resources to generate profits, which helps shareholders assess the expected returns on their investments (Mark, 2008).

**Comprehensive Financial Performance Evaluation:** The DuPont model provides a comprehensive method for analyzing a bank's financial performance. By breaking down ROE into components like Return on Assets (ROA), financial leverage, and profit margin, the bank can identify the key factors affecting its financial performance and make informed decisions to improve its financial position (Mihaela, 2011).

**Impact of Risks and Leverage Assessment:** The DuPont model helps banks understand the relationship between risks and profitability, particularly with regard to the use of financial leverage. By examining the impact of debt on returns, the bank can determine the level of risk associated with leveraging and make balanced investment decisions (Baksyova & Oriskoova, 2020).

**Operational Efficiency Analysis:** A bank can use the DuPont model to evaluate its operational efficiency by analyzing its profit margins. This helps the bank understand its ability to control costs and generate profits from operational revenues. It also serves as a tool to identify potential areas for improvement in day-to-day operations.

**Marketing Strategy Enhancement:** By improving operational efficiency using the DuPont model, a bank can refine its marketing strategies and increase revenues. The

analysis helps identify factors affecting profit margins, enhancing the ability to design more effective marketing campaigns and achieve higher returns (Myers-Bristol Squibb Company DuPont Analysis, 2020).

**Guiding Strategic Decisions:** The DuPont model provides a detailed analysis of the bank's performance, enabling management to make more accurate strategic decisions. By understanding the factors affecting ROE, the bank can develop strategies to improve performance in the future, such as investing in high-return assets (Mihaela, 2011).

**Asset Allocation Analysis:** The model assists banks in making informed decisions on how to allocate assets across different investments. By understanding how ROA and leverage impact overall performance, the bank can optimize investment decisions and ensure the best use of available assets (Nwuba, et al., 2021).

**Increased Transparency for Investors:** By applying the DuPont model, the bank can provide a comprehensive and transparent analysis of its financial performance to investors and shareholders. This can boost confidence in the bank by offering clear insights into how profits are achieved and resources are effectively utilized (Almazari, A., 2012).

**Improved Capital Management:** The model helps measure ROE and assess how efficiently invested capital is used. The bank can use these analyses to enhance capital management strategies and ensure that financial resources are allocated in ways that maximize returns while minimizing risks (Mihaela, et al., 2019).

**Achieving Sustainable Growth:** By using the DuPont model, a bank can enhance the sustainability of its financial growth over the long term. The model helps in identify the factors influencing long-term profits, allowing the bank to develop strategies that ensure continued high returns and maintain financial stability (Mihaela, et al., 2019).

#### Indicators of the DuPont Model:

The DuPont model is a financial analysis tool used for assess the performance of companies and the effectiveness of their management in generating returns on equity. The model aims to analyze the factors that contribute to profitability and identify the sources that affect return on equity. The DuPont model consists of a set of key indicators that provide comprehensive insights about the company's financial performance. These indicators can be summarized as follows:

### Return on Equity (ROE):

Return on Equity (ROE) is an indicator that measures the ratio of net profit achieved to shareholders' equity. This indicator is an important tool for evaluating the efficiency of the company's management in generating returns on shareholders' investment. The ROE is a significant metric for assessing management effectiveness and represents the return on capital invested by the shareholders. In general, the average ROE in the industry is around 15%, and the ROE for any company should not fall under this percentage to ensure that the company is generating good returns on shareholders' investments (Nwuba, et al., 2021).

### Return on Assets (ROA):

Return on Assets (ROA) measures the ratio of net income to the total assets used by the company. This indicator is used to determine the company's effectiveness in utilizing its assets to generate profits. The basic concept here is that the company should be able to generate the highest possible return using its assets. Typically, the average ROA in the industry ranges from 8% to 9%, and the company's ROA should be above this average to ensure effective asset management. This indicator consists of a set of sub-factors that show how assets are used to achieve profitability (Mihaela, 2011).

### Sub-Indicators within ROA:

**Profit Margin (PM):** This indicator measures the company's operational efficiency by analyzing profit margin, i.e., the ratio of net income to total revenues. It shows how well the company controls its costs and generates profits from its sales, thus contributing to analysis of the company's operational efficiency (Mihaela, et al., 2019).

**Total Assets Turnover:** This indicator measures the efficiency of the company in using its total assets to generate revenue. Whenever the total assets turnover is high, the return on assets (ROA) will be high. It is a key indicator for measuring the company's efficiency in utilizing its assets to generate income (Almazari, A., 2012).

**Financial Leverage (FL):** Also known as the equity multiplier, financial leverage is used to measure the company's dependence on debt to finance its operations. This indicator helps evaluate the risks associated with the use of equity in the capital structure. Usually, the average financial leverage in the industry is around 4, and this number should not be exceeded by companies to avoid increasing financial risks (Nwuba, et al., 2021).

Table 1: Indicators of Return on Equity (ROE) Model

Indicators	Ratios	Efficiency
Return on Equity (ROE)	Net Income / Shareholder's Equity	Profit Efficiency
Return on Assets (ROA)	Net Income / Total Assets	
Asset Utilization (AU)	Total Revenue / Total Assets	
Financial Leverage ( FL)	Total Assets / Total Equity	
Profit Margin (PM)	Net Income / Total Revenue	Cost Efficiency

The financial data used in the preparation of the tables were obtained from the annual reports of both Jordan Islamic Bank and Housing Bank for Trade and Finance for the period from 2021 to 2023, in addition to the data published on the official websites of both banks and the Jordan Securities Commission (JSC) reports.

### Analysis and Discussion of Study Results

#### First: Profit Margin (PM)

Table 2: Profit Margin (PM)

Profit Margin	2021	2022	2023
Jordan Islamic Bank	33.2%	35.1%	36.2%
Housing Bank for Trade and Finance	31.04%	35.03%	32.14%

As shown in Table 2, Jordan Islamic Bank experienced continuous improvement in its Profit Margin (PM) from 2021 to 2023. In 2021, the margin was 33.2%, which increased to 35.1% in 2022, and further rose to 36.2% in 2023. This steady increase in the profit margin indicates an improvement in the bank's performance in several aspects, including operational efficiency and its ability to manage costs effectively. This improvement could also be attributed to the bank's success in increasing its revenue while controlling costs or enhancing its ability to generate profits from banking operations. The sustainability of the profit margin growth reflects the bank's strong strategy and its ability to adapt to economic and financial challenges, thus boosting investor confidence in its continued growth.

On the other hand, Housing Bank for Trade and Finance experienced notable fluctuations in its profit margin from 2021 to 2023. In 2021, the margin was 31.04%, which increased to 35.03% in 2022, before dropping to 32.14% in 2023. The noticeable increase in 2022 suggests that the bank benefited from favorable conditions, such as improvements in operational processes or increased revenues. However, the slight decline in 2023 could be due to external economic or business impacts, such as market fluctuations, changes in the bank's strategy, or higher costs. Despite this decline in 2023, the profit margin in 2023 is still higher than in 2021, which indicates overall improvement in the bank's performance over the long term, despite the short-term challenges.

When comparing both banks, it is evident that Jordan Islamic Bank achieved continuous and stable improvement in its profit margin, reflecting effective management and a sustainable strategy. Meanwhile, Housing Bank for Trade and Finance saw a significant improvement in 2022, but the slight decline in 2023 reflects performance volatility, possibly due to economic factors or the bank's strategy.

Overall, an increase in the profit margin indicates that both banks have the ability to generate good profits from their revenues, reflecting the level of efficiency in managing operations. However, developments in the next year should be monitored to determine whether the decline in 2023 for Housing Bank is a temporary phenomenon or whether it requires a strategic review.

## Second: Asset Utilization (AU)

Table 3: Asset Utilization (AU)

Asset Utilization	2021	2022	2023
Jordan Islamic Bank	1.64%	3.2%	2.6%
Housing Bank for Trade and Finance	1.6%	1.67%	1.52%

As shown in Table 3, Jordan Islamic Bank experienced a slight improvement in its Asset Utilization (AU) over the three years. In 2021, the rate was 1.64%, then increased to 3.2% in 2022, and finally reached 2.6% in 2023. This gradual improvement suggests that the bank has become more efficient in using its assets over time, reflecting a successful strategy to increase returns from assets or improve their consumption. The generally stable rate indicates the bank's ability to manage its resources effectively and achieve sustainable growth in efficiency.

In contrast, Housing Bank for Trade and Finance showed slight fluctuations in its asset utilization rate. In 2021, the rate was 1.6%, which then improved slightly to 1.67% in 2022. However, in 2023, it saw a small decline to 1.52%. This decline in 2023 could reflect challenges in increasing returns or may result from asset growth outpacing the generated returns. This suggests that the bank may need to reassess its strategies in order to make better use of its resources in the future.

### Third: Return on Assets (ROA)

Table 4: Return on Assets (ROA)

Return on Assets	2021	2022	2023
Jordan Islamic Bank	1.11%	1.12%	0.94%
Housing Bank for Trade and Finance	1.33%	1.59%	1.64%

As shown in Table 4, the Return on Assets (ROA) for Jordan Islamic Bank remained relatively stable between 2021 and 2022 (1.11% and 1.12%, respectively). However, there was a noticeable decline in 2023, with the rate dropping to 0.94%. This decline may reflect challenges in generating returns from assets in the final year, suggesting that the bank might be facing difficulties in effectively utilizing its resources to generate profits. This could be due to various factors, such as a faster increase in assets compared to net income or a decline in returns from certain operational activities. The bank needs to analyze the reasons for this decline and take corrective actions to improve asset utilization efficiency.

In contrast to Jordan Islamic Bank, Housing Bank for Trade and Finance exhibited continuous improvement in its return on assets from 2021 to 2023. The return on assets increased from 1.33% in 2021 to 1.64% in 2023. This consistent increase indicates that the bank has successfully enhanced its efficiency in utilizing assets to generate profits. The bank may have adopted better strategies in asset management or expanded into high-return activities. Furthermore, the positive performance in 2023 reflects the bank's ability to adapt to economic and operational conditions, reinforcing its long-term financial stability.

When comparing both banks, Housing Bank for Trade and Finance shows a continuous improvement in its return on assets, reflecting the bank's ability to effectively increase profits from its assets. On the other hand, Jordan Islamic Bank experienced a slight decline in its return on assets, indicating the need to review its strategies and improve the efficiency of asset utilization. Although both banks show the ability to generate profits, Housing Bank demonstrates more stability and better performance in recent years.

It can be concluded that Housing Bank for Trade and Finance is in a better position in terms of asset utilization efficiency, as it has shown continuous improvement in return on assets. On the other hand, Jordan Islamic Bank needs to reassess its asset management strategies and work on improving performance to achieve higher levels of efficiency in utilizing its resources.

#### Fourth: Return on Equity (ROE)

Table 5: Return on Equity (ROE)

Return on Equity	2021	2022	2023
Jordan Islamic Bank	7.06%	11.74%	11.67%
Housing Bank for Trade and Finance	9.26%	10.69%	10.88%

The Jordan Islamic Bank showed a significant improvement in its Return on Equity (ROE), rising from 7.06% in 2021 to 11.74% in 2022. This improvement reflects the bank's ability to increase its profits relative to shareholders' equity, suggesting effective strategies in capital management and generating returns. Although the ROE remained high in 2023 (11.67%), there was a slight decline compared to the previous year. This slight drop may reflect operational challenges, changes in capital structure, or a decrease in net income due to external factors. Nevertheless, the ROE remains at a strong level, indicating that the bank is still able to generate value for its shareholders.

For Housing Bank for Trade and Finance, the ROE increased from 9.26% in 2021 to 10.69% in 2022, and then to 10.88% in 2023. This consistent rise indicates continuous improvement in the bank's efficiency in generating profits from shareholders' equity. This performance reflects the bank's ability to enhance its equity management and generate higher profits relative to the invested capital. It shows that the bank is continuously improving its financial and managerial strategies, and can generate stable and increasing returns for its shareholders over the years.

It is notable that the Jordan Islamic Bank experienced a more significant improvement in ROE between 2021 and 2022, whereas Housing Bank for Trade and Finance demonstrated continuous improvement in ROE over the three years. Although Jordan Islamic Bank started at a lower level in 2021, it managed to significantly increase its ROE in 2022, but with a slight decline in 2023. On the other hand, Housing Bank for Trade and Finance showed consistent stability and gradual improvement over the years.

In regard to Return on Equity 'ROE', it appears that Housing Bank for Trade and Finance has been steadily improving, suggesting that the bank performs well consistently. Meanwhile, Jordan Islamic Bank had an impressive improvement in 2022, only to experience a small decline in 2023. Both banks are doing well in terms of ROE, but in this case, Housing Bank for Trade and Finance has the upper hand in stability. The Bank's continuous improvement in this ratio indicates more profitability for the institution over the long term.

#### Fifth: Financial Leverage (FL)

Table 6: Financial Leverage (FL)

Financial Leverage	2021	2022	2023
Jordan Islamic Bank	4.27	10.51	12.42
Housing Bank for Trade and Finance	6.77	6.71	6.53

The Jordan Islamic Bank showed a significant improvement in financial leverage (Equity Multiplier), increasing from 4.27 in 2021 to 10.51 in 2022, and then reaching 12.42 in 2023. This sharp rise indicates a substantial increase in the bank's reliance on debt financing relative to shareholders' equity. This suggests that the bank is using more external funding (debt) to finance its assets. While this may reflect a strategy aimed at rapidly expanding assets, it also indicates a higher financial risk due to the increasing reliance on debt. Although this leverage may help boost profits if the debt is managed effectively, it also exposes the bank to higher risks in case of fluctuations in the financial markets or difficulties in servicing the debt.

In contrast, Housing Bank for Trade and Finance exhibited relatively stable financial leverage over the three years. The ratio started at 6.77 in 2021, decreased slightly to 6.71 in 2022, and further declined to 6.53 in 2023. This gradual decrease suggests that the bank has become less reliant on debt financing compared to equity. This could reflect a more conservative approach to financial leverage, where the bank prefers to maintain a better balance between debt and equity, potentially reducing financial risks and enhancing long-term financial sustainability.

Comparing the two banks reveals different strategies in the use of financial leverage. Jordan Islamic Bank is more heavily reliant on debt financing, which may accelerate asset growth in the short term but increases exposure to risks. On the other hand, Housing Bank for Trade and Finance appears more cautious in its use of debt, reflecting greater stability in its capital structure and a reduction in debt-related risks.

While Jordan Islamic Bank shows a significant increase in financial leverage, indicating potentially profitable expansion strategies if debt is well-managed, Housing Bank for Trade and Finance prefers to maintain a low and stable level of financial leverage, reflecting a more conservative financing policy. The strategy of Jordan Islamic Bank may be more vulnerable to risks in the event of economic fluctuations, whereas Housing Bank for Trade and Finance offers greater stability in its capital structure, enabling it to better cope with financial pressures.

### Conclusion:

The analysis of operational efficiency of Jordan Islamic Bank in addition to Housing Bank for Trade and Finance was conducted using key financial ratios such as Return on Equity (ROE), Return on Assets (ROA), Asset Utilization (AU), Financial Leverage (EM), and Profit Margin (PM) for the years 2021 to 2023. Comparison of the different periods showed that Jordan Islamic Bank showed improvement in Profit Margin among other indicators, but did experience a drop in Return on Assets during 2023. Conversely, Housing Bank for Trade and Finance remained steady in terms of improving Return on Assets and Return on Equity but, when compared to 2022, experienced a reduction in Profit Margin in 2023.

Reviewing the Return on Equity (ROE) analysis, it became evident that Jordan Islamic Bank had a very good ROE improvement in 2022, but slightly worse in 2023. At the same time, Housing Bank for Trade and Finance was able to show consistent stabilization in ROE over the period of three years. In respect to financial leverage, while Jordan Islamic Bank increased its dependency on debt for asset financing, therefore increasing its debt risk, Housing Bank for Trade and Finance's less debt reliant financing demonstrates a more prudent approach. With regards to Asset Utilization, Jordan Islamic Bank exhibited a progressive effective asset employment, whereas Housing Bank for Trade and Finance suffered a dip in 2023.

In light of these results, it is recommended that Jordan Islamic Bank should focus on improving its asset utilization efficiency and implement effective strategies to increase returns from its assets. The bank should also adopt more balanced strategies in financial leverage to reduce risks. As for Housing Bank for Trade and Finance, it should continue its financial stability strategy, with a focus on continuously improving operational efficiency. Overall, both banks need to review their cost management and profitability strategies to ensure sustainable growth in the future.

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