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Evaluating Banking Efficiency in Saudi Arabia: A Comprehensive Analysis of Return on Assets and the Risk-Return Dynamics (2002–2022)

Taibi Abdelatif [1] Ben Amor Mohammed Bachir[2] Abi khalida [3]

[1] University Kasdi Merabah Ouargla (Algeria). Email: Taibi.abdelatif@univ-ouargla.dz
[1] informer Belonging: Finance Laboratory, Market Finance and Corporate Finance.
[2] University Echahid Hamma Lakhdar Eloued (Algeria). Benamor-medbachir@univ-eloued.dz
[2] Laboratory of economic growth and développement in Arab countries,
[3] University Echahid Hamma Lakhdar Eloued (Algeria). Abi-khalida@univ-eloued.dz

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Abstract:

The purpose of this study is to evaluate the banking efficiency of Saudi banks through a comprehensive analysis of 12 banking institutions operating within the Kingdom of Saudi Arabia, including 4 Islamic banks. The Return on Equity (ROE) index is utilized as a comprehensive model for performance evaluation, serving as a key metric to assess the reciprocal relationship between return and risk. The analysis places a strong focus on the dual impact of cost management efficiency and asset productivity on the overall profitability of assets, measured through the Return on Assets (ROA) index.The findings of this study reveal several critical insights into the financial performance of Saudi banks. Firstly, financial analysis is shown to be a fundamental tool in providing a detailed examination of the financial data presented in the statements of Saudi banking institutions. This in-depth analysis facilitates the interpretation of financial results and aids in identifying the strengths and weaknesses inherent in the financial policies employed by these banks. Secondly, banking efficiency across various operational dimensions reflects the bank's capability to optimize production output through the effective use of available technology and resources. The results indicate that major Saudi banks exhibit strong financial performance, largely driven by profits resulting from effective cost management strategies and high productivity levels. In comparison, medium-sized banks demonstrate moderate financial performance, while recently established banks show relatively lower efficiency metrics. Overall, the analysis underscores the significance of aligning cost management with productivity enhancements to bolster profitability in Saudi banks. The insights gained from this study offer valuable perspectives on the financial stability and operational efficiency of both conventional and Islamic banks operating within the region.

Keywords: Banking efficiency, Return on Equity (ROE), Return on Assets (ROA), Saudi banks, conventional banks, Islamic banks.

Classification JEL: G21, F66.

Introduction:

In recent years, financial systems have witnessed numerous developments both locally and globally within the framework of globalization and financial liberalization, in addition to the notable advancements in information technology and administrative political systems. Financial markets and the banking industry are among the fundamental pillars of the financial system, which includes Islamic financial institutions, representing the essential foundation for the economic and social development of some countries.

With the occurrence of financial crises, many countries around the world have been affected by disruptions in global credit markets and a decline in bank credit, leading to a reassessment of the importance of ensuring the availability of regulatory standards and the necessity of reviewing the systems used to measure and evaluate the performance of banks or the banking sector comprehensively.

Despite the existence of numerous financial indicators used by commercial banks to express their objectives and financial results, as well as how they utilize financial data and information to assess bank performance especially in Islamic banks using their financial statements (balance sheet and income statement) there is a need to interpret the relationship between a set of indicators and to judge the performance and efficiency of the bank.

A- The study's problem.

In this study, we use the return on equity model as a comprehensive framework for evaluating performance to assess the performance of the Saudi banks under study in terms of return or profitability, efficiency in managing and controlling costs, and the productivity of the bank's assets. This is done by attempting to answer the following question:

To what extent can the return on equity model explain banking efficiency in Saudi banks?

In light of this issue, we raise the following partial questions:

- To what extent are Saudi banks capable of controlling their costs and maximizing their profitability?

- To what extent can Saudi Islamic banks achieve banking efficiency that surpasses the performance of traditional banks?

- What is the impact of financial fluctuations on the performance of Saudi banks?

B- Research Objectives;

The main objective of the research is to evaluate banking efficiency across multiple stages in the Saudi banking system, which is characterized by a mix of Islamic and traditional banking institutions, according to the return on equity model. This is achieved through the following sub-objectives:

- Islamic financing and highlighting its key characteristics;

- Banking efficiency, its evaluation mechanisms, and types;

- Performance evaluation indicators according to the return on equity model;

- Evaluating and comparing the performance of Islamic banking institutions with their traditional banking counterparts and assessing their efficiency in terms of returns and cost control.

C. Importance of the Research;

The significance of the study arises from the importance of the topic concerning efficiency and its relationship to the performance of banks and their crucial role in economic development, especially as modern regulatory and supervisory trends for banks increase in the context of financial globalization, such as the trend towards universal banking, mergers, and privatization.

Therefore, evaluating the financial and banking efficiency of banks aims to identify any deviations or obstacles, followed by correcting and overcoming the weaknesses they face, which leads to the improvement of their performance. Thus, we hope that this study will assess the levels of cost control on one hand and the enhancement of profitability on the other.

I. Theoretical Literature of the Study.

I.1 - Concept of Islamic Financing.

Islamic financing is a term derived from the comprehensive perspective of Islam towards life, which aims to connect God's governance with sound living and adherence to the principles of Sharia. It indicates a relationship where righteous transactions are linked with religion, and all parts of religion are interconnected in a close integration. In this section, we attempt to highlight the concept of financing along with a set of its distinguishing characteristics.

Al-Sartawi defined Islamic financing as "a process in which a natural or legal person provides funds to another natural or legal person either as a donation (such as aid and assistance) or as a collaboration between the two parties for investment with the aim of obtaining profits that are divided between them according to a pre-agreed ratio, based on the nature of their work and their contribution to the capital and decision-making regarding management and investment." (Al-Sartawi, 1999, p. 97)

Yousef Idris and others defined it as "a process of exchanging present value in return for a promise of an equivalent future value, which is often money in the traditional system and an asset in the Islamic system, especially in cases of Salam, Musharaka, and Mudarabah, while it is paid in cash in the case of Murabaha." (Idris, 2006, pp. 07-08)

Mounzer Qahaf defined it as "a process in which a tangible or monetary asset is offered, with the intention of profiting from its owner to another person who manages and operates it in exchange for a return that is permitted by Sharia rules." (Munther, 2003, p. 14)

Islamic finance possesses several characteristics, with the most important features outlined in the following points: (Talha & other, 2006, p. 31)

- The direct source of Islamic finance stems from the comprehensive Islamic worldview of the universe, with the jurisprudence of transactions representing the appropriate vessel and framework through which the guidelines of Islamic finance are defined;

- It forms a comprehensive and flexible framework for a variety of different patterns, models, and formats that cover all aspects of life;

- Genuine financing where funds and services are provided in reality, not artificial financing, is based on Islamic law which prohibits fictitious activities and disregard for the value of real assets, which are not given due attention;

- The primary means of facilitating exchanges and real activities (exchanges for investment or consumption purposes) that achieve added value to the economic activity and serve as a source of wealth development (Al-Suwailm, 2006, p. 02); thus, Islamic finance in its various forms does not see itself as separate from investment, meaning it is real financing for genuine investment, not for paper or speculative investment - in reference to stock market speculation;

- The basis for profit distribution in Islamic finance is the principle of sharing risk and reward, which reinforces that profit is deserved in Sharia based on ownership, serving as an objective and legal reason due to ownership, and it is a system for shares of ownership that treats deposits as shares without guaranteeing their nominal value. It also relies on a predetermined fixed return and an indirect return based on rewards, depending on the financing formula involved (Khaldi, 2006, p. 159);

- The significant absence of guarantees relied upon in lending systems, which acts as a barrier for small investors who must meet all guarantees and conditions imposed by interest-based lending institutions;

- Financing that is free of interest-based financing forms - that is, lending through interest - as it also finances lawful businesses and legitimate activities.

I.2 - Indicators for Evaluating Banking Efficiency:

Banking efficiency is defined as the expression of how successful a bank is in achieving the highest level of output at a certain level of technology and available resources. The importance of efficiency increases in the context of competition, as only efficient banks can survive in the market.

It is also defined as the direction of available economic resources towards achieving the maximum possible returns with the least possible waste, meaning successful control over its physical and human capacities on one hand, and achieving optimal size while offering a wide range of financial products, which makes the banking institution efficient, Banking efficiency includes several aspects, such as: (Rais and Naoui, 2012, p. 61)

- Efficiency in using available resources by controlling costs, known as cost efficiency;

- Efficiency in distributing costs by striving to achieve optimal size, referred to as scale efficiency;

- Efficiency in diversifying financial products through activity diversification, known as scope efficiency.

Traditional methods of measuring banking efficiency include return on equity and economic value added.

A- The return on equity is a comprehensive model for performance evaluation:

It was used in the 1970s by David Cool in the United States as a procedure for assessing the performance of banks, serving as a comprehensive indicator to describe and measure the reciprocal relationship between return and risk by analyzing a set of ratios in various forms.

This enables the analyst to evaluate the sources and sizes of profits in the bank, particularly through selected risks such as credit risk, liquidity risk, interest rate risk, capital risk, and operational risk.

- The Modified DuPont Formula: Its aim is to study the dual effect of cost management efficiency and asset productivity on asset profitability, known as the return on assets (ROA) indicator, while demonstrating the ability of financial leverage (EM) to elevate the return on equity (ROE) to a level higher than the return on assets for overall performance measurement.

- The first step of the DuPont Model: The return on assets (ROA) indicator is determined by two indicators: the profit margin (PM), which reflects the efficiency in managing and controlling costs, as an increase in it indicates the institution's efficiency and ability to control its costs. The asset turnover ratio (AU), or what is known as asset utility, shows the optimal utilization of assets represented in asset productivity, where a higher value indicates the quality of the assets. These two are measured by the following relationships (Qureshi, 2006, p. 91):

Return on Assets (ROA) = Profit Margin (PM) × Asset Turnover Rate (AU).....(1)

Profit Margin (PM) = Net Income ÷ Total Revenues.....(2)

Asset Turnover Rate (AU) = Total Revenues ÷ Total Assets.....(3)

Return on Assets (ROA) = (Net Income ÷ Total Revenues) × (Total Revenues ÷ Total Assets) .....(4).

That is = Net Income ÷ Total Assets

These relationships explain the source of better or worse performance. For example, if a company achieves a high return on assets (ROA), it may be due to increased efficiency in cost control and monitoring, as reflected in a high profit margin, or better utilization of assets, as indicated by the asset utility ratio, or through improvements in both areas. Conversely, weak performance may stem from one or both of these aspects.

- The second step of the Dupont model: clarifying the relationship between return on assets (ROA) and return on equity (ROE) according to the following relationships (Qureshi, 2006):

Return on Equity (ROE) = Return on Assets (ROA) × Financial Leverage (EM)..... (5)

Financial Leverage Indicator (EM) = Total Assets ÷ Equity.....(6)

Return on Equity = (Total Revenue ÷ Total Assets) × (Net Income ÷ Total Revenue) × (Total Assets ÷ Equity).....(7)

That is, ROE = UA × PM × EM

The model is characterized by flexibility through the analysis of each indicator into partial indicators that reflect decision areas in detail, linking the relationship between return and risk, as is the case with the leverage ratio. If the institution achieves a high return on equity, the reason for the increase may be attributed to either the return on assets, leverage, or both.

If leverage is the reason, this serves as an indicator for management regarding the level of risk associated with achieving that level of return. On the other hand, if the reason is attributed to the return on assets, this provides management with an indication of the level of operational efficiency.

B- The Economic Value Added (EVA) model; known for its top-down approach in risk management, it is also recognized as a financial performance measure for estimating true profit, as it is linked to maximizing shareholder wealth over time. It represents the difference between adjusted net operating profit after taxes and the cost of owned and borrowed capital.

The Economic Value Added (EVA) formula can be translated as follows:

EVA=Net Operating Profit After Tax (NOPAT)−(Capital×Cost of Capital)

Where:

- Net Operating Profit After Tax (NOPAT) refers to a measure of net profits.

- Capital: This encompasses the book value of all capital elements, including shareholders' equity, general provisions for loan losses, any deferred tax balances, and amortized goodwill.

- Cost of Capital: The Beta model employs the existing capitalization beta, which can be either the actual (historical) beta or the expected beta.

I.3- Previous Studies:

1- Measuring the Technical Efficiency of GCC Banks (Onur Ibrahim Ahmed, 2011);

The researcher aims to assess the technical efficiency levels of commercial banks in the GCC countries during the period 2006-2008, focusing on the competitiveness of 36 commercial banks operating within the region, out of a total of approximately 50 banks by 2008, thereby enhancing the comprehensiveness of the study's findings. Data envelopment analysis was employed to evaluate Gulf banks' efficiency, grounded in the premise that banks generate financial services utilizing input factors such as deposits and operating expenses to yield profitable returns and facilitate investment loans. A review of the technical efficiency indicators reveals that Gulf banks attained peak efficiency levels in 2007, followed by a decrease in 2008.

The volume efficiency indicator allowed for the calculation of productivity losses attributable to inefficiency, with an estimated 16% loss in production in 2008 compared to 5% in 2007. The significant decline in technical efficiency can primarily be attributed to reduced volume efficiency rather than diminished pure technical efficiency.

Research findings indicate an inverse relationship between volume efficiency and the volume index, suggesting that a key source of inefficiency among Gulf banks stems from the misalignment between deposit volumes and profitable financing activities.

Additionally, an inverse correlation was observed between the volume efficiency index and the risk index, underscoring the necessity for effective financial tools to manage risks within the Gulf banking sector and illustrating the potential for enhancing the technical efficiency index of Saudi banks by addressing both the risk and volume indices.

2-The Status of Islamic Banks as an Alternative to Traditional Banks from an Efficiency Perspective Using Data Envelopment Analysis (DEA) (Talha, Yazid, and Swar, 2016) ;

The article aims to compare Islamic banks to traditional banks from an efficiency perspective using the non-parametric Data Envelopment Analysis (DEA) approach. The goal is to assess the viability of Islamic banks as an alternative to traditional banks by evaluating their efficiency in utilizing inputs (resources) to maximize outputs.

To achieve reliable results, a sample of Islamic and traditional banks in the Middle East was selected, evenly split between the two types.

The analysis relied on three inputs; total costs, average worker wage, and real capital cost, and three outputs tailored to the nature of the banks. Using the XLDEA program, the study reached several key conclusions:

- Traditional banks are generally more efficient than Islamic banks, both in optimizing inputs to achieve outputs (input-oriented approach) and in maximizing outputs with available inputs (output-oriented approach).

- When applying the Constant Returns to Scale (CCR) model, which assumes that all banks operate under constant returns to scale, approximately 66% of Islamic banks failed to achieve full relative efficiency compared to only 33% of traditional banks.

- Using the Variable Returns to Scale (BCC) model, which considers banks' differing scale efficiencies, the study found that around 33% of Islamic banks did not reach full efficiency, compared to only 16% of traditional banks.

3-Evaluating the Efficiency of Islamic Banks in Arab Countries Using Data Envelopment Analysis (DEA) (Ashraf Lotfi Al-Sayed, 2017);

This study highlights the importance of evaluating the efficiency of banks, especially Islamic banks in developing countries, over the period from 2005 to 2010.

It aims to measure the cost efficiency of Islamic banks in developing countries, breaking down efficiency into technical efficiency and allocative efficiency using the non-parametric Data Envelopment Analysis (DEA) approach.

The study focused on Arab countries and conducted comparisons between them, analyzing cost efficiency into allocative and technical efficiency.

This allows for an assessment of whether the cost inefficiency in Islamic banks stems from the relative weakness of these banks in utilizing inputs to produce financial goods and services.

- The DEA results indicated that the main reason for cost inefficiency in the majority of Islamic banks studied was due to technical inefficiency, primarily related to poor resource allocation under management control rather than external economic factors.

- The study recommends examining the impact of macroeconomic variables, such as global economic integration, market depth, financial market structure, economic growth rate, inflation, and legal and regulatory differences across countries, to understand their influence on the efficiency of Islamic banks.

Third: The Applied Study

I. Population and Sample of the Study;

The bank performance evaluation models are based on financial, accounting, and activity reports of the banks. This applied study surveyed all Saudi banks, using all available data over a lengthy period, excluding two banks that went bankrupt in 1998. In total, the study focused on twelve (12) Saudi banks, of which four (4) are Islamic banks and the remainder are conventional. These banks are:

- Al Rajhi Bank
- National Commercial Bank
- Saudi French Bank
- Alinma Bank
- Samba Financial Group
- Union National Bank
- Bank AlJazira
- Riyad Bank
- Saudi Hollandi Bank
- Bank AlBilad
- Saudi British Bank (SABB)
- Saudi Investment Bank

The study covered the period from 2002 to 2022.

II. Research Methods and Procedures:

- Calculating the Return on Average Equity (ROAE) for Saudi banks.

- Calculating the Equity Multiplier for Saudi banks.

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- Calculating the Profit Margin for Saudi banks.

- Calculating the Asset Utilization Ratio for Saudi banks.

III. Study Results:

This section analyzes the study results according to the following points:

- Analyzing each indicator individually.

- Analyzing indicators for Islamic banks separately.

- Analyzing indicators for traditional banks separately.

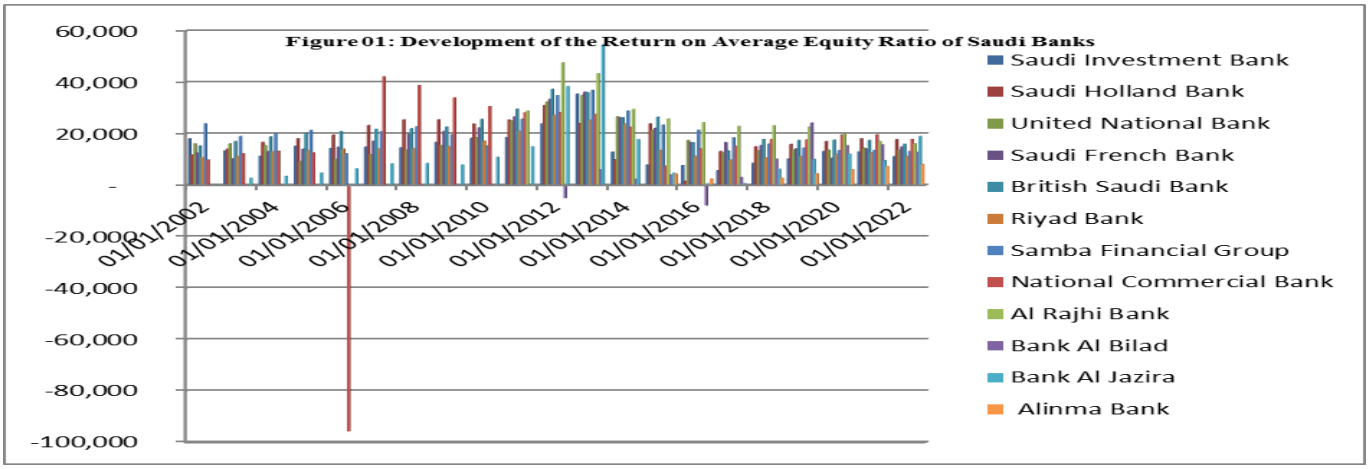
- Analyzing the indicators of the banks under study during the 2007–2009 period.

- Comparing the results of Islamic banks with traditional banks.

III.1. Analysis of the Return on Average Equity (ROAE) Indicator:

To analyze the ROAE indicator for the Saudi banks under study, we refer to Figure (01), which provides a comparative view of this indicator across the banks over the study period. The figure illustrates the variations in ROAE among the banks, allowing for a detailed analysis of each bank's performance trends in terms of average equity return over time.

Figure (1): Evolution of the Return on Average Equity (ROAE) Indicator for Saudi Banks



Source: Prepared by the researcher

Figure (1) shows the development of the ROAE indicator for Saudi banks over the study period. This figure highlights trends and fluctuations in the return on equity for each bank, enabling a comparative analysis of performance among Saudi banks from 2002 to 2022. The figure serves to visualize how each bank's efficiency in generating returns on equity has changed over time, providing insights into both Islamic and traditional banks' relative performance in terms of shareholder profitability.

The results of the Return on Average Equity (ROAE) indicator in Figure (01) show that the highest rate was achieved by Bank AlJazira at 54.6% in 2013, followed by Al Rajhi Bank at 47.6% in 2012. Al Rajhi Bank consistently achieved high results in this indicator throughout the study period, followed by Bank AlJazira, Bank AlBilad, and Alinma Bank.

For traditional banks, the highest ROAE was recorded by the National Commercial Bank in 2008, with a rate of 38.9%, followed by the Saudi British Bank at 37.3%, and the Saudi French Bank at 36.2%.

The lowest rate recorded during the study period was -95.8%, at the National Commercial Bank in 2006, indicating a negative result for that year. The second lowest rate was -8.00% for Bank Al Bilad in 2016, followed by -5.00% for the same bank in 2012.

During the years 2014–2016, which marked the peak of the global financial crisis, there was noticeable fluctuation in the ROAE indicator among Islamic banks to varying degrees, with the exception of Al Rajhi Bank, which maintained relatively stable and acceptable rates during these three years.

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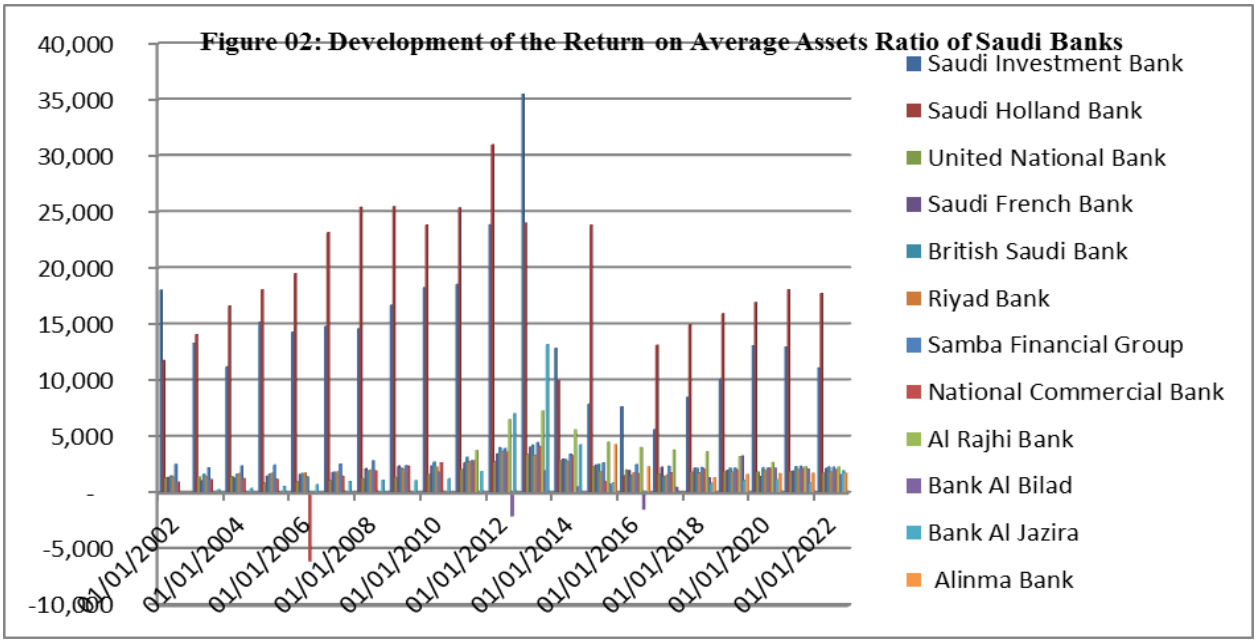
For traditional banks, the lowest rate was recorded by the Saudi Hollandi Bank in 2016 at 1.50%. Overall, the ROAE values for traditional banks during these years were generally acceptable compared to those achieved by Islamic banks.

III.2. Analysis of the Return on Average Assets Ratio;

To analyze the Return on Average Assets (ROA) ratio for the Saudi banks under study, we rely on Figure (02), which illustrates a comparison of this ratio over the study period for all banks, comparing them with one another.

Figure (2): Development of the Return on Assets (ROA) Ratio for Islamic Banks.



Source: Prepared by the researcher

The results of the Return on Average Assets (ROA) ratio in Figure (02) show that the highest rate of 13.25% was achieved by Bank Al Jazira in 2013, followed by Al Rajhi Bank with 7.30% in the same year. Al Rajhi Bank is considered one of the banks with high results and better performance based on this indicator during the study years, followed by Bank Al Bilad and then Alinma Bank.

For conventional banks, the highest ROA was achieved by the Saudi Investment Bank in 2013, with a rate of 35.51%, followed by the Saudi Holland Bank at 31.40%. The lowest rate was recorded by the National Commercial Bank at 0.980% in 2002.

The lowest indicator during the study period was -2.110% at Bank Al Bilad in 2012, a negative result for this bank in that year. This was followed by a rate of -1.50% for the same bank in 2016, and a rate of 0.010% for Bank Al Jazira in 2002.

For the years 2007-2009, during the peak of the global financial crisis, a noticeable fluctuation in the ROA was observed across Islamic banks, with varying degrees, except for Al Rajhi Bank, which achieved fairly acceptable rates during these three years.

For conventional banks, the lowest rate was recorded by the National Commercial Bank in 2009 at 0.98%. Overall, the values of this indicator for conventional banks were relatively acceptable during these years compared to the results achieved by Islamic banks.

III.3. Analysis of the Equity Multiplier Indicator;

To analyze the Equity Multiplier indicator for the Saudi banks under study, we refer to Figure (03), which provides a comparison of this indicator across the banks over the entire study period. This figure illustrates the variations in the Equity Multiplier among the banks, allowing for a detailed comparison of each bank's leverage and reliance on equity versus debt financing over time. This analysis helps in understanding the financial structure and risk levels associated with each bank's capital management practices.

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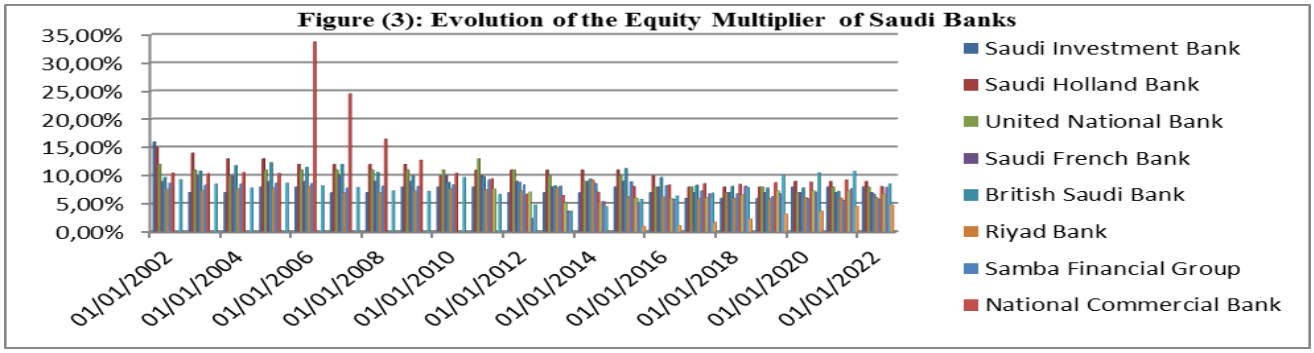
Figure (3): Evolution of the Equity Multiplier for Saudi Banks



Source: Prepared by the researcher

The previous figure demonstrates the extent to which the banks under study rely, or do not rely, on the Equity Multiplier to achieve a high Return on Equity (ROE).

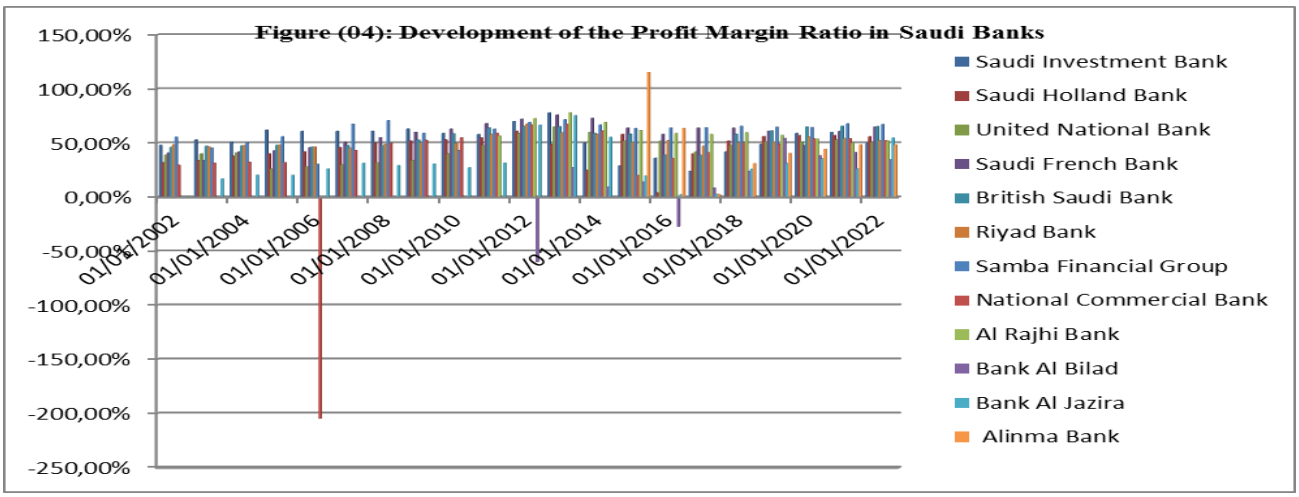
The data indicates that the Islamic banks in the study did not rely heavily on the Equity Multiplier to generate their ROE. The highest reliance among Islamic banks was recorded at 10.75 times by Bank Al Jazira in 2021.

In contrast, traditional banks showed varying degrees of reliance on the Equity Multiplier. The highest reliance was recorded by a single bank over three consecutive years—the National Commercial Bank (NCB)—with the highest value during the study period reaching 33.75 times in 1999, followed by 24.55times in 2000, and 16.54 times in 2008, all by NCB. This reliance indicates a greater use of leverage in traditional banks compared to Islamic banks.

III.4. Analysis of the Profit Margin Indicator

To analyze the Profit Margin indicator for the Saudi banks under study, we refer to Figure (04), which provides a comparison of this indicator across the banks over the entire study period. This figure illustrates the differences in Profit Margin among the banks, allowing for an in-depth analysis of each bank's ability to convert revenue into profit over time. By comparing the Profit Margin across the banks, we can assess efficiency levels in cost management and profitability strategies for each bank from 2002 to 2022.

Figure (4): Evolution of the Profit Margin Indicator in Saudi Banks



Source: Prepared by the researcher

Figure (4) shows the development of the Profit Margin indicator for Saudi banks over the study period. This figure provides a visual representation of the changes in profitability among the banks, highlighting their efficiency in converting revenue into net profit. By comparing Profit Margins, the figure offers insights into the cost management effectiveness and profitability trends of each bank from 2002 to 2022. This allows for a clearer understanding of how each bank's operational and financial strategies impacted its overall profitability.

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The previous figure illustrates the extent to which the banks under study rely, or do not rely, on the Profit Margin indicator to achieve a high Return on Assets (ROA).

The data reveals that the Islamic banks in the study generally did not rely heavily on the Profit Margin to achieve their ROE, with the exception of Al Rajhi Bank, which consistently recorded profit margin rates exceeding 49.55%. Al Rajhi Bank's highest contribution was in 2013, with a rate of 77.86%, while Alinma Bank achieved a notable reliance of 115.01% in 2015. The lowest reliance on this indicator was observed in 2002 at Bank Al Jazira, with a rate of 0.75%.

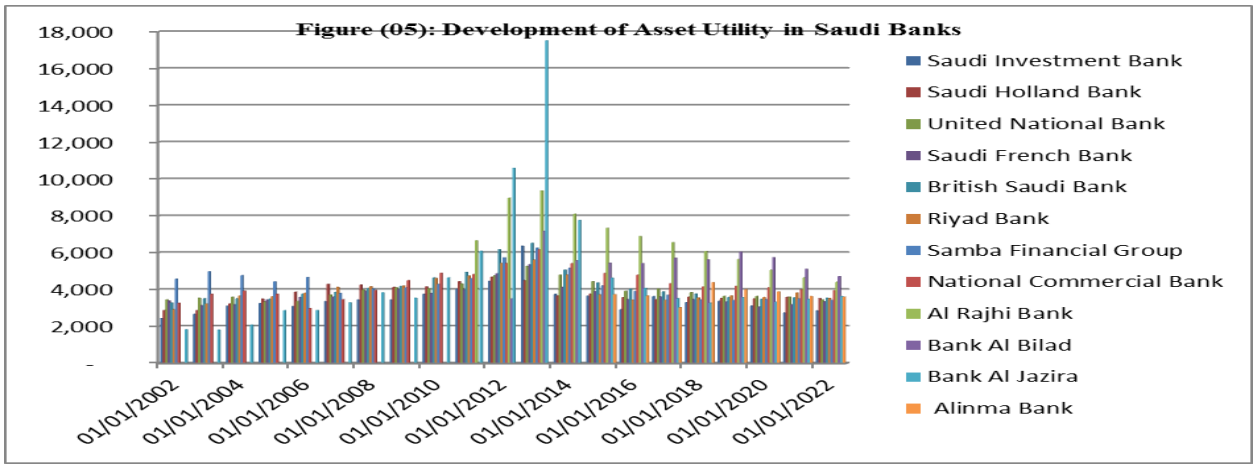
Traditional banks, on the other hand, showed varying and generally acceptable levels of reliance on the Profit Margin. The highest reliance was recorded by the Saudi Investment Bank at 78.05% in 2013, while the lowest was -204.75% in 2006 by the National Commercial Bank.

These results suggest that traditional banks demonstrate higher efficiency compared to Islamic banks in managing and controlling costs, as reflected by their relatively higher and more consistent profit margins.

III.5. Analysis of the Asset Utilization Indicator

To analyze the Asset Utilization indicator for the Saudi banks under study, we refer to Figure (05), which provides a comparison of this indicator across the banks over the entire study period. This figure illustrates the differences in asset utilization efficiency among the banks, allowing for a detailed examination of how effectively each bank used its assets to generate revenue. By comparing the Asset Utilization rates, we can gain insights into the operational efficiency and revenue-generating capabilities of each bank from 2002 to 2022.

Figure (5): Evolution of Asset Utilization in Saudi Banks



Source: Prepared by the researcher

Figure (5) shows the development of the Asset Utilization indicator for Saudi banks over the study period. This figure visually represents changes in the efficiency of asset use across the banks, highlighting each bank's ability to generate revenue from its assets. By comparing the Asset Utilization across banks, we can observe trends in operational efficiency and effectiveness in maximizing asset productivity from 2002 to 2022.

This comparison provides insights into each bank's performance in using its resources to drive income and growth.

The study data reveals that Islamic banks in the sample show similar asset utilization levels to those of traditional banks. Al Rajhi Bank achieved the highest Asset Utilization rates over multiple years, reflecting strong performance in this area. Additionally, most traditional banks demonstrated a degree of stability in this indicator throughout the study period.

This suggests that both Islamic and traditional banks are generally efficient in utilizing their assets to generate revenue.

IV. Summary of Return Indicators:

Based on the previous analysis of the results, the following key points can be summarized:

"IV.1. Aspect of Profitability:"

The Saudi Investment Bank, Saudi Hollandi Bank, Saudi British Bank, and Al Rajhi Bank are identified as the most profitable banks among the others, as shown by the three profitability indicators (ROEA, ROAA, PM) over the study period (2002–2022). This profitability may be due to the distinct business models these banks follow.

Al Rajhi Bank, for instance, employs profit-assured financing methods across various sectors and continues to expand through diversified income sources, investment growth, corporate banking, and individual banking services.

The bank also emphasizes developing financial programs and projects, focusing on innovative electronic banking and investment products to provide a comprehensive array of modern banking and investment services. Al Rajhi Bank is a robust financial institution with assets worth 367.9 billion SAR (98 billion USD), a capital base of 16.30 billion SAR (4.3 billion USD), and over 9,600 employees. Its extensive network includes more than 545 branches, 5,189 ATMs, 106,079 point-of-sale devices, and 232 remittance centers, boasting the largest customer base among Saudi banks.

The Saudi Investment Bank's high profitability indicators stem from its broad range of banking services, catering to both corporate and individual clients, along with investment services. The bank is actively involved in industrial and trade financing, including import and export processes, reflecting its commitment to supporting and developing the private industrial and commercial sectors.

Saudi Hollandi Bank's leadership lies in its role as the first bank in Saudi Arabia to offer tailored banking products and services for large corporations, leading firms, and fast-growing small businesses. This role is critical in advancing the Saudi economy, with a reported net profit of 2,02 million SAR and total investment income of 3,644 million SAR at the close of the 2022 fiscal year. The bank provides specialized brokerage, investment services, and asset management through its subsidiary, Saudi Hollandi Financial.

IV.2. Aspect of Efficiency:

The efficiency indicator in cost management and control (PM) has shown that Samba Financial Group, along with the British Saudi Bank and the Saudi French Bank, are among the most effective banks in managing, controlling, and reducing operational costs compared to other banks. Overall, the majority of banks demonstrate good control in monitoring and reducing costs, with the exception of two banks: Alinma Bank and Bank Al bilad, both of which are Islamic banks. This is attributed to the good levels of control over fixed costs on one hand and the development of management efficiencies on the other.

IV.3. Aspect of Productivity:

Data from the Asset Productivity Index (UA) indicate strong levels for Al Rajhi Bank and Bank Al bilad, driven by the continuous increase in revenues for both banks in relation to their good control over the expansion of their assets. Generally, most banks show similar performance throughout the study period, with the exception of specific cases in 2012-2013 for Bank Al jazira.

This reflects the convergence of return rates and interest rates applied in this context, as well as the diversity in the banking portfolio and the presence of a real financial market where Saudi banks compete with varying degrees.

IV.4. Aspect of Leverage:

The Leverage Index (EM) reveals the differences in the levels of banks' reliance on their own funds to finance their assets, and thus the extent of risk involved with other people's money in their investments. The study shows that Alinma Bank is the least risky compared to other banks, a finding that is supported by the Asset Productivity Index.

The relationship in banking activities between risk and asset profitability is a direct one, as evidenced when comparing the low productivity levels in some banks with this index, and conversely in banks with high productivity.

V. Conclusion

Based on what has been presented, we summarize the findings of this work in the following points:

V.1. Theoretical Aspect:

- Islamic finance is a financing process that adheres to Sharia-compliant methods, aiming to achieve acceptable returns that contribute to global economic prosperity and stability.
- Banking efficiency, at various levels, reflects the success of a bank in achieving the highest level of production with a certain level of technology and available resources.
- Financial analysis involves a detailed study of the data contained in financial statements, as well as an examination of business results to interpret them and identify the strengths and weaknesses in the applied financial policies.
- Among the key financial analysis tools used in banking evaluation are the return on equity and the economic value added metric.

V.2. Practical Aspect:

- The Asset Utility Index aims to measure the ability of assets to generate revenues for the bank. An increase in this index indicates the ability of both Islamic and traditional banks' assets to contribute to the bank's revenues. Overall, they are relatively close, reflecting the convergence of return rates, interest rates, diversity in the banking portfolio, and the presence of a real financial market in which Saudi banks compete with varying degrees.

- Islamic and traditional banks were relatively similar in terms of asset utilization. Both types demonstrated efficiency in using assets to generate revenue, with Al Rajhi Bank achieving particularly high utilization rates among Islamic banks.

- The profit margin serves as an indicator of the relative importance of the net profits generated by the bank in relation to total revenues. An increase in profit margins indicates enhanced financial performance efficiency and reflects the level of control over expenses and tax reductions. The larger the profit margin, the more it indicates the bank's efficiency in reducing expenditures and taxes. By considering the previous points, we conclude that the efficiency of banks in managing and controlling costs varies at different levels.

- Traditional banks showed higher consistency and efficiency in managing costs and achieving profitability, as indicated by their generally stable Profit Margins. Islamic banks, except for a few cases, had less reliance on Profit Margin to achieve high returns on equity.

- The return on assets is a crucial metric for measuring net income per unit of average assets and reflects the bank's ability to utilize financial and real resources to generate net income. It indicates the efficiency in managing and controlling costs, demonstrating clear differentiation in asset productivity among the banks studied, whether Islamic or conventional, small or large.

- Return on Average Equity (ROAE): Both Islamic and traditional banks showed variations in ROAE, with certain banks consistently achieving high returns. Traditional banks generally demonstrated higher reliance on leverage, while Islamic banks, with exceptions like Al Rajhi Bank, achieved returns without significant leverage.

- The equity multiplier is an index for comparing assets with equity. A higher value of this multiplier indicates a greater degree of financing through debt relative to equity, serving as a measure of leverage, profit, and risk. Consequently, the operations of the majority of banks relied heavily on debt financing, which was very weak except in specific and temporary cases.

- Traditional banks displayed a broader range of Equity Multiplier values, indicating varying degrees of reliance on debt financing. Islamic banks, however, tended to use lower leverage, relying less on the Equity Multiplier to boost returns.

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