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# The Impact of Certain Financial Structure Indicators on Financial Efficiency and Their Reflection on Financial Balance: An Applied Study on a Sample of Iraqi Commercial Banks

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**Abstract:**
The study aims to determine the impact of certain financing structure indicators (reserves and retained earnings) on efficiency and its reflection on financial balance as represented by its indicators (profitability and activity). To achieve this objective, the study used content analysis of the annual financial statements published on the Iraq Stock Exchange website for banks. The study took five banks as a sample for the period from (2014 - 2023) to collect preliminary data for the purpose of measuring the study variables and dimensions. Correlation and regression models were used in the statistical program (SPSS) to examine the relationship and impact between these variables and dimensions. The study concluded that there is a significant and statistically significant impact of all dimensions of funding sources on the financial efficiency and financial balance of the banks in the study sample, and that the impact varied between negative and positive. The study recommended that Iraqi commercial banks invest their sources of financing in terms consistent with their maturities in order to achieve returns and improve profitability ratios in the banks in the study sample, and that they rank sources of financing in order to select the most beneficial and least costly source for the commercial bank. The study recommended that Iraqi commercial banks should invest financing sources in maturities that match their obligations to achieve returns and improve profitability ratios in the sampled banks. It also emphasized the need to prioritize financing sources to select the most beneficial and least costly option for commercial banks.

**Keywords:** Financing Indicators, Financial Efficiency, Financial Balance.

**Introduction:**

Commercial banks of all types are the beating heart of any banking system and an important pillar of economic activity in any country in the world. The most important feature that distinguishes commercial banks from other banks is that they accept all types of deposits, a large portion of which are invested in the form of loans, while retaining some as cash reserves. This means that banks are in constant need of funds for their operations, making the issue of financing structure one of the most important issues for commercial banks, given their reliance on various deposits as their main source of financing. These deposits are sometimes subject to fluctuations due to withdrawals, economic conditions and emergencies, which leads to a decline in their sources of financing. This has a significant impact on their profitability and liquidity, which in turn negatively affects their market value. It is worth noting that the primary role of financial management is concerned with making financial decisions and its main impact on and attention to everything related to the bank's funds. The financial manager seeks to increase financing in order to provide large capital for investment, increase customer confidence, raise the bank's value in the financial market, avoid financial difficulties, and strengthen and enhance financial balance.

**First Topic: The General Framework of the Research**

**Research Methodology**

**First: Research Problem**

In recent years, we have witnessed the continuous and rapid development of technology around the world and in various areas of life. Commercial banks have therefore found themselves forced to reorganize their activities to adapt to these changes, as they seek new and innovative sources of financing to ensure their continuity, growth and sustainability in the market. Sources of financing are therefore the lifeblood of commercial banking activities. The bank tries to arrange its sources of financing in a way that enables it to cope with liquidity and cash flow shortages (represented by deposits). Deposits are subject to fluctuations, and therefore the growth of banks is not limited to deposits, as they can use other sources of financing to improve their financial performance. They may not receive much attention, but they can generate very large amounts that can be used as a source of financing, and their cost of acquisition may be low compared to deposits. What is their importance, and are there regulatory or banking restrictions that limit these banks in their use of the sources studied? Based on this, our study discusses the following main questions:

- Is there a statistically significant moral effect of the financing structure on financial efficiency and its reflection in the financial balance of the commercial banks in the study sample?

**Second: Research Importance**

The importance of the study stems from the nature of the subject we are studying, as it addresses one of the most important topics for any commercial bank in the world, namely the sources of financing for commercial banks. The importance of the study stems from the following:

1- Highlighting the means and methods that commercial bank management can use in the process of managing sources of financing, as this is reflected in the profitability of commercial banks.

2- To highlight the pros and cons and problems that banks may face if they resort to sources of financing.

3- To focus on the importance of diversifying sources of financing for commercial banks in order to reduce risks and take advantage of the benefits of each source.

4- The importance of this study lies in its attempt to enrich the scientific and practical knowledge on which practices within commercial banks and society rely.

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
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5- The importance of this study also lies in the fact that profitability is a sensitive issue of great importance to commercial banks, their management and their customers.
6- The results of the study can be used to improve the financial performance of commercial banks in Iraq.

**Third: Research Objectives**

The study seeks to achieve the following objectives:
1- The study aims to highlight and provide a broad understanding of the sources of financing and their effectiveness in raising the efficiency of commercial banks in the study sample.
2- To give bank management and officials an idea of the need to diversify the sources of financing for commercial banks, as well as to try to utilize these sources and not leave them idle, and to achieve systematic development that ensures the safety and sustainability of bank management and its ability to improve its financial balance.
3- The researcher hopes that this study will be a scientific and real addition in this field to help student researchers and specialists in commercial banks understand sources of financing and financial efficiency.
4- Assess the financial balance of Iraqi commercial banks through a set of financial indicators.
5- Come up with recommendations that will improve the financial balance of commercial banks in Iraq.

**Fourth: Research Hypotheses**

This study includes several main and sub-hypotheses, as follows:
1- The first main hypothesis: There is no causal relationship between financing indicators in their various dimensions and financial efficiency and financial balance.
2- The second main hypothesis: There is no statistically significant correlation between financing indicators in their various dimensions and financial efficiency and financial balance.

**Second Topic: The Theoretical Framework**

**First: The Concept of Financial Structure**

The financing structure of banks consists of funds obtained from various sources, including retail deposits from individual depositors, which are relatively inexpensive and stable, and money markets, which are riskier and represent external financing. The other part depends on equity rights. (Asiri, 2020) It is a combination of debt and equity, and the accumulation of this ideal combination results in a reduction in the cost of capital and higher net profits, which leads to an increase in the value of the institution (Chaleeda, et al, 2019). Some sources of non-deposit funds come from within the bank, such as the sale of assets or the use of reserves and retained earnings, etc., while the other part comes from outside the bank, such as borrowing. These sources differ from deposits in many ways, the most important of which are:

1. A portion of these sources does not incur any interest payments by the bank, such as temporary accounts, insurance, unpaid salaries, retirees' wages, expenses, provisions, accrued but unpaid taxes, and similar items.
2. They are not subject to the control of the central bank, such as the statutory reserve ratio imposed on the total deposits of a commercial bank, or any central bank regulations concerning deposits-such as their ratio to capital or loans.
3. Lower interest rates apply to certain categories of loans, such as central bank loans, excess reserve loans, repurchase agreements, and external credit facilities.
4. Each bank has its own unique source of non-deposit funds, and every management team searches for new sources of funds in its own way. Therefore, there are many types of financing sources that vary across environments, regions, and the economic conditions of different countries (Dahham et al., 2019).

**Second: Indicators of the Financial Structure**

**• Reserves:**

These are rights for shareholders in commercial banks and are the primary source and safety net for protecting depositors' funds. Reserves are deducted from profits to cover any emergencies that the bank may face. They serve as an additional guarantee for depositors and creditors and help the bank to conduct its banking business. Reserves include: Legal reserves, special reserves, retained earnings, and capital surplus, which are amounts that the bank has deducted over the years from its annual profits and accumulated in the form of reserves to serve as an additional guarantee for depositors and other creditors and to help it conduct its banking business. There are two types of reserves. (Daham, 2024) These sources vary to include borrowing from central banks, other commercial banks, and others. The lender is determined by several factors, including the nature of the loan, the interest rate required, the extent of the need for it, the time required to obtain it, and the financial condition of the bank. (Hail Al-Janabi, 2015).

**• Retained Earnings:**

These are funds retained by the bank from its profits after paying dividends to shareholders. They are not distributed as profits but are reinvested in the bank. Banks allocate part of these profits for reinvestment in their business, such as financing growth projects, purchasing equipment, research and development, or debt repayment. These profits appear under equity in the balance sheet and are an important source of financing (zixue, 2020). Retained earnings are profits that the company does not distribute to shareholders in order to strengthen its financial position and help it grow. Financing from undistributed profits is a very important internal source, especially in successful banks, as commercial banks rely on their available internal resources (internal) resources from reserves and accumulated profits, as well as the cash liquidity in their vaults and the funds available from the profits and reserves of their branches to accumulate their savings and then use them to finance their previously prepared investment plans or take advantage of opportunities in the market (Ball, et. Al, 2020).

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
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**Third: The Concept of Financial Efficiency**

It is a set of standards that determine the efficiency of each bank according to the results of the mathematical model. Its comparative advantage over the widely used simple financial ratio analysis is that it helps management accountants measure changes in productivity and continuous improvement over time. The importance of using this technique in evaluating bank performance is evident, as it facilitates the comparison of the efficiency of a large sample of banks, providing an independent assessment of bank efficiency while taking into account a set of factors that affect bank performance. banks, as it facilitates the process of comparing the efficiency of a large sample of them, since it provides an independent judgement on the efficiency of banks, taking into account a set of ratios at once and combining them all into a measure of efficiency that allows for comparison taking into account a variety of ratios and combining them all into a measure of efficiency that allows for a relative comparison of the sample. The higher the efficiency ratio of a bank compared to that of another bank, the higher the performance of that bank. (Omondi-Ochieng, 2018) Business organizations seek to compare their financial statements and cash flows continuously and at different time periods to accurately compare changes in operating costs, revenue and net income, as this comparison provides information about the organization's dynamic ability to generate profits by increasing revenue or reducing costs. (Hussein et al., 2020)

**Fourth: Measurement of Financial Efficiency**

A. Inputs: Total deposits (1X), bank capital (2X), expenses (3X). Deposits include demand deposits, current accounts, savings deposits and savings accounts, while bank capital represents the value of funds contributed by the bank's shareholders.

B. Outputs: Total credit facilities (loans) (1Y), net income (2Y). Credit facilities represent direct cash facilities for transactions carried out directly or indirectly by the institution, including operations that entail an incidental obligation on the institution, such as guarantees and letters of guarantee. Net income is net profit. (Daham, 2024)

**Fifth: The Concept of Financial Balance**

The concept of financial balance is one that writers and researchers have differing opinions about. The traditional concept of equal expenditure and income is no longer valid for describing financial balance, because equal expenditure and income do not necessarily reflect the true financial position of the company, as it depends on a current view of the financial situation, which may be subject to financial risks due to a decline in profits, changes in exchange rates, negative repercussions of government fiscal and monetary policies, market conditions, and other circumstances and factors. (Ayash, 2018). The modern school of thought stipulates in its view of financial balance that it is a temporary balance and that it is possible to resort to borrowing, which must be controlled and planned in a realistic manner that reflects the efficiency of management in achieving returns higher than the cost of borrowing by reducing the cash cycle to the minimum possible. Otherwise, inefficient cash management will increase financial burdens through weak internal cash flows and increased external cash flows, loan instalments and interest, threatening the collapse and bankruptcy of financial systems. (Al-Hamdani, 2022).

**Sixth: Indicators of Financial Balance**

**• Concept of Profitability Indicator**

It is the relationship between the profits achieved by the enterprise and the investments that contributed to those profits. (Edson, 2015) Profitability is the goal of the enterprise and a measure of its performance at the overall unit or sub-unit level. Profitability is measured by the relationship between profit and sales or by the relationship between profit and the contribution of the investment (assets or equity) that contributes to it. (Al-Hussein and Hamdan, 2016) An indicator that reflects the bank's competitive position in the banking market and the quality of its management, enabling the bank to maintain a specific level of risk and provide hedging for short-term problems. Profitability also reflects the results of investment and banking operations, which are reflected in the form of dividends distributed to depositors and shareholders. (Al-Taie and Abdulhadi, 2013)

Commercial banks work to achieve their profitability goal through two decisions:

- Investment decision: A set of decisions related to how a commercial bank uses its available resources to acquire different types of assets. Investment decisions are made based on profitability through the optimal allocation of available resources to the institution's various assets. This approach can balance appropriate investment in each asset without causing a disruption in resources or a shortage. (Mohammed, 2014)
- Financing decision: This relates to how commercial banks show the source from which they need funds to finance their investments in assets. By arranging the sources of financing for deposits, owner's rights and debts, the project owner can obtain the highest possible return to reflect the impact of financing decisions on profitability. Profitability is a strategic goal for banks to grow and continue to develop, because profitability maintains the commercial bank's position in the market, and losses and the inability to obtain profits will ultimately lead to the erosion of owners' rights, and thus liquidation and closure. (Hazouri, 2018)

This ratio is measured by net profit to total assets, and can be calculated using many different definitions of profit before and after taxes and interest, profit excluding extraordinary profits, and others. It is widely used by market analysts as a measure of an organization's performance because it measures the efficiency of assets in generating income. This return is a measure of how efficiently management is achieving a satisfactory return on available resources.

**• Concept of the Activity Indicator**

The activity index can be defined as an index used to judge efficiency based on the results of a bank's use of its assets. It is one of the important indicators for evaluating the performance of banks and how they employ their funds and manage their assets by analysing the resources available to them, as well as how they are invested to achieve satisfaction among shareholders and customers. It shows the strengths and weaknesses, as well as how assets are managed in banks. It measures the company's ability to use its assets to generate revenue, as it is used to measure the relationship between sales and total assets. The higher this ratio, the better, as it means that banks are generating a lot of returns per unit of assets. (2015, Snehlata), as this indicator clarifies the extent to which the bank uses fixed

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
ISSN: 1053-7899
Vol. 36 Issue 1, Jan-June 2026, Pages: 1267-1274

assets to achieve sales, meaning that this indicator reflects the energy used and how long-term investments are managed. Therefore, any increase in the turnover ratio reflects the efficiency of the use of fixed assets (Westerfield, et.al. , 2013).

**• Importance of the Activity Indicator:**

1- Any increase in the activity index leads to an increase in profits, which naturally has a positive impact on share prices and returns, meaning that the relationship is proportional.

2-This ratio measures the efficiency of management in how it uses assets to increase sales or the efficiency of banks in investing and using their available resources.

3-This activity can be measured by indicators related to the turnover rate of some important elements, as this provides a judgement on the success of management in how it uses its resources.

4-The activity ratio creates an appropriate balance between bank sales, assets (debtors) and total assets, as well as revealing any risks that may arise in this balance. (Batchimeg, Bayaraa, 2017).

**Third Topic: The Practical Framework**

This section describes the chosen field of study and the nature of the study population and sample.

**First: Study Population and Sample**

The field of study is the banking sector, as it is a key driver of economic development in any country. The study population consists of all banks listed on the Iraq Stock Exchange, while the study sample consists of five selected banks for the period from 2014 to 2023. The sample was determined and selected based on two conditions: first, that the banks in the study sample continue to disclose their data during the study period without interruption, and second, that the data necessary to measure the study variables be available:

1. The continuous disclosure of data by the sampled banks throughout the study period without interruption.
2. The availability of sufficient data required to measure the study variables.

**Second:**

Table (1), in its two parts (A and B), presents the arithmetic mean and standard deviation of the three variables across the sampled banks in order to provide a descriptive analysis of these variables.

**Table (1): Description of the Variables According to the Sampled Banks**

**Part One (1-A): Description of the Financial Structure Variable According to the Sampled Banks**

| No. | Bank Name | **Financial Structure Indicators** | | |
|---|---|---|---|---|
| | | **X** | **$1X_1$** | **$2X_1$** |
| 1 | Ashur Investment Bank | 0.665 | 0.042 | 0.031 |
| 2 | Iraqi Investment Bank | 0.491 | 0.047 | 0.035 |
| 3 | Middle East Bank | 0.494 | 0.040 | 0.021 |
| 4 | Mansour Investment Bank | 0.323 | 0.027 | 0.022 |
| 5 | Mosul Development Bank | 0.649 | 0.036 | 0.052 |

| No. | Bank Name | **Financial Efficiency** | | **Financial Balance** |
|---|---|---|---|---|
| | | **DEA** | **$Y_1$** | **$Y_2$** |
| 1 | Ashur Investment Bank | 0.579 | 0.032 | 0.068 |
| 2 | Iraqi Investment Bank | 0.915 | 0.024 | 0.048 |
| 3 | Middle East Bank | 0.653 | 0.031 | 0.078 |
| 4 | Mansour Investment Bank | 0.605 | 0.018 | 0.029 |
| 5 | Mosul Development Bank | 0.431 | 0.018 | 0.035 |

It is noted from Table (1-A) that, based on the arithmetic mean for the five years, the banks showed relatively similar levels of reliance on financing from reserves and retained earnings. The highest level of reserve financing was recorded by the Iraqi Investment Bank, with a rate of 3.2%, while the highest rate of financing from retained earnings was observed in the Mosul Development Bank, amounting to 0.052%. Furthermore, Table (1-B) indicates that the banks recorded the highest level of financial efficiency at the Iraqi Investment Bank, with a financial efficiency ratio of 0.915, while the lowest level of financial efficiency was observed at the Mosul Development Bank, with a ratio of 0.431. Table (2) presents the descriptive analysis of the study variables at the overall level.

**Table (2): Descriptive analysis of study variables**

| Variables and Dimensions | Arithmetic Mean | Standard Deviation | Lowest Value | Highest Value | Coefficient of Variation |
|---|---|---|---|---|---|
| **$X_{11}$** | 0.470 | 0.161 | 0.161 | 0.806 | 34.3% |
| **$X_{12}$** | 0.032 | 0.031 | 0.001 | 0.162 | 97.2% |
| **$X_1$** | 0.526 | 0.163 | 0.172 | 0.812 | 31.1% |
| **DEA** | 0.581 | 0.241 | 0.192 | 1.000 | 41.4% |
| **$Y_1$** | 0.024 | 0.019 | 0.001 | 0.117 | 80.8% |
| **$Y_2$** | 0.049 | 0.034 | 0.000 | 0.229 | 69.0% |

Source: Table prepared by the researcher based on the outputs of the SPSS Ver. 22 programmer

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
ISSN: 1053-7899
Vol. 36 Issue 1, Jan-June 2026, Pages: 1267-1274

Table (2) shows that the average reserves as a source of financing was the highest among the other sources, at approximately 47% for the sample as a whole. This percentage may represent the sample as a whole, given the low level of dispersion indicated by the standard deviation and coefficient of variation. as the coefficient of variation recorded a value lower than the standard value of 34%, which means that there is no dispersion or variation between the observations, confirming the representativeness of the sample's arithmetic mean. The average financing from reserves did not exceed 3.2% However, this percentage cannot be generalized to the sample as a whole due to the high standard deviation and the coefficient of variation exceeding the standard value of 50%, which means that there is dispersion and variation between observations, limiting the possibility of generalizing the arithmetic mean of reserves to the sample as a whole. As for retained earnings, it is noted that they recorded a low percentage of only 1.9%. However, these percentages cannot be generalized to the sample as a whole due to the high level of dispersion and variation between observations, as indicated by the standard deviation and coefficient of variation. As for financial efficiency, there is a very low level of efficiency at the sample level as a whole, at 58.1%. This ratio can be generalized due to the consistency among the sample observations, as indicated by the low standard deviation and coefficient of variation. As for financial balance, the arithmetic mean of the return on assets of 2.4% indicates a decline in the level of financial balance in terms of the profitability index. It is also noted that the asset turnover ratio reached only 4.9%, which is a very small percentage.

**Third: Variation of Study Variables Among Banks**

Using the **Kruskal–Wallis test**, the level of variation of the study variables among the banks was examined, as illustrated in **Table (3)** in its two parts (A and B).

**Table (3): Variation of Variables Among the Sampled Banks**

**Part One (3-A): Variation of the Financial Structure Variable Among the Sampled Banks**

| Description | Financial Structure | | |
|---|---|---|---|
| | $X_{11}$ | $X_{12}$ | $X_1$ |
| (Chi-Square) | 67.505 | 56.305 | 65.522 |
| (Sig.) | 0.000 | 0.000 | 0.000 |

**Part Two (3-B): Variation of Financial Efficiency and Financial Balance Among the Sampled Banks**

| Bank | Financial Efficiency | Financial Balance | |
|---|---|---|---|
| | DEA | $Y_1$ | $Y_2$ |
| (Chi-Square) | 26.716 | 10.204 | 21.390 |
| (Sig.) | 0.002 | 0.334 | 0.011 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

It is observed from Table (3-A) and Table (3-B) that the Chi-Square value of 65.522 recorded a significance level lower than 5% for the variables of financing structure sources and financial efficiency, as well as for most financial balance indicators (except for the profitability indicator). This indicates that the levels of these variables differ among the banks. However, regarding the profitability indicator as a proxy for financial balance, no significant difference was observed among the banks, as the Chi-Square value recorded a significance level greater than 5%.

**Fourth: Variation of Study Variables Across Years**

Using the **Kruskal–Wallis test**, the variation levels of the study variables across different years were examined, as shown in **Table (4)** in its two parts (A and B).

**Table (4): Variation of Variables Across the Sampled Banks**

**Part One (4-A): Variation of the Financing Structure Sources Variable Across the Sampled Banks**

| Description | Financing Structure Indicators | | |
|---|---|---|---|
| | $X_{11}$ | $X_{12}$ | $X_1$ |
| (Chi-Square) | 4.027 | 21.612 | 7.685 |
| (Sig.) | 0.910 | 0.010 | 0.566 |

**Part Two (4-B): Variation of Financial Efficiency and Financial Balance Across the Sampled Banks**

| Bank | Financial Efficiency | Financial Balance | |
|---|---|---|---|
| | DEA | $Y_1$ | $Y_2$ |
| (Chi-Square) | 16.696 | 38.273 | 27.606 |
| (Sig.) | 0.054 | 0.000 | 0.001 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

It is observed from Table (4-A) and Table (4-B) that the Chi-Square value recorded a significance level greater than 5% for the variable of financing structure sources (except for reserves), as well as for the variables of financial efficiency and financial balance (except for the profitability and activity indicators). This indicates that the levels of these variables do not differ significantly across the years. However, regarding reserves as a component of the financing structure variable, and the profitability and activity indicators as proxies for financial balance, it is observed that they differ across the years since the Chi-Square value recorded a significance level lower than 5%. In order to determine the appropriate type of statistical tools to be used in hypothesis testing—whether parametric or non-parametric—the researcher relied on the skewness coefficient test to indicate the normality of data distribution. According to this test, if the calculated skewness coefficient lies between (+1 and -1) and the kurtosis coefficient lies between (+3 and -3), this indicates that the data are normally distributed. As shown in Table (5), the data for the mediating and dependent variables are normally distributed, which allows the use of parametric statistical tools in testing the hypotheses of the current study.

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
ISSN: 1053-7899
Vol. 36 Issue 1, Jan-June 2026, Pages: 1267-1274

**Table (5): Test of Normal Distribution**

| Variables and Dimensions | Skewness Coefficient (Skewness) | Kurtosis Coefficient (Kurtosis) |
|---|---|---|
| **DEA** | 0.378 | -0.988 |
| **$Y_1$** | 0.939 | 2.645 |
| **$Y_2$** | 0.839 | 2.419 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

**Fifth: Testing the Relationships**

Using the **Pearson correlation coefficient**, the level of relationships among the study variables and their dimensions was tested, as illustrated in the **correlation matrix** shown in **Table (6)**.

**Table (6): Correlation Matrix Between the Study Variables and Their Dimensions**

| Variables and Dimensions | $Y_1$ | $Y_2$ | DEA |
|---|---|---|---|
| **Pearson Correlation ($X_{11}$)** | 0.089 | 0.128 | -0.066 |
| **Significance (Sig.)** | 0.376 | 0.205 | 0.513 |
| **Pearson Correlation ($X_{12}$)** | **0.441**** | **0.313**** | **0.329**** |
| **Significance (Sig.)** | 0.000 | 0.002 | 0.001 |
| **Pearson Correlation ($X_1$)** | 0.254* | 0.250* | 0.052 |
| **Significance (Sig.)** | 0.011 | 0.012 | 0.605 |
| **Pearson Correlation (DEA)** | **0.450**** | **0.377**** | 1 |
| **Significance (Sig.)** | 0.000 | 0.000 | — |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

It is observed from Table (6) that there is a significant positive relationship between financial efficiency and both reserves and retained earnings as components of the financial structure, as well as with both the profitability indicator and the activity indicator. Regarding the profitability indicator as a proxy for financial balance, it shows a significant positive relationship with reserves and retained earnings within the financial structure variable. Similarly, the activity indicator also recorded a significant positive relationship with reserves and retained earnings within the financial structure variable.

**Sixth: Testing the Hypotheses of Overall Effect**

This section includes three main hypotheses as follows:

**First Main Hypothesis:**

There is a statistically significant effect of the sources of the financial structure on financial efficiency. From this, three sub-hypotheses are derived, where the indicators of the financial structure are represented by only two dimensions — reserves and retained earnings — due to the consistency of the significant relationship in the previous tests. These sub-hypotheses are as follows:

**First Sub-Hypothesis:**

There is a statistically significant effect of reserves as a financing source on financial efficiency. To test this hypothesis, a simple linear regression equation was formulated to estimate financial efficiency in terms of reserves as a financing source. Table (7) presents the results of the effect analysis.

**Table (7): Results of the Effect of Reserves as a Financing Source on Financial Efficiency**

| Variables | Constant Coefficient (β) | Regression Coefficient (β) | (T) Value | (Sig.) | (F) Value | (Sig.) | ($R^2$) |
|---|---|---|---|---|---|---|---|
| **Reserves** | 0.500 | 2.545 | 3.449 | 0.001 | 11.893 | 0.001 | 0.108 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

It is observed from Table (7) that the regression model is stable, as indicated by the F-value (11.893), which is significant at a level lower than 5%. This means that financial efficiency can be estimated in terms of reserves as a financing source. The T-value (3.449), also significant at a level below 5%, indicates that the effect of reserves as a financing source on financial efficiency is statistically significant. Furthermore, the positive regression coefficient ($\beta = 2.545$) confirms the positive direction of the effect, meaning that an increase in reserves as a financing source leads to an improvement in financial efficiency. The coefficient of determination ($R^2 = 0.108$) shows that reserves as a financing source explain 10.8% of the variation in financial efficiency. Therefore, the first sub-hypothesis is accepted.

**Second Sub-Hypothesis:**

There is a statistically significant effect of retained earnings as a financing source on financial efficiency. To test this hypothesis, a simple linear regression equation was formulated to estimate financial efficiency in terms of retained earnings as a financing source. Table (8) presents the results of the effect analysis.

**Table (8): Results of the Effect of Retained Earnings as a Financing Source on Financial Efficiency**

| Variables | Constant Coefficient (β) | Regression Coefficient (β) | (T) Value | (Sig.) | (F) Value | (Sig.) | ($R^2$) |
|---|---|---|---|---|---|---|---|
| **Retained Earnings** | 0.524 | 2.931 | 3.324 | 0.001 | 11.051 | 0.001 | 0.101 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

Table (8) shows the stability of the regression model with an F value of (11.051), which is significant at a significance level of less than (5%), meaning that financial efficiency can be estimated in terms of retained earnings as a source of financing, while the T value of (3.324) at a significance level of less than 5% indicates the significance of the effect of retained earnings as a source of financing on financial efficiency, while the positive beta coefficient (β) of 2.931 indicates a positive effect,

MSW MANAGEMENT -Multidisciplinary, Scientific Work and Management Journal
ISSN: 1053-7899
Vol. 36 Issue 1, Jan-June 2026, Pages: 1267-1274

meaning that the more retained earnings are used as a source of financing, the greater the increase in financial efficiency. while the coefficient of determination (R2) of (0.101) indicates that retained earnings as a source of financing explain (10.1%) of the changes in financial efficiency, thus accepting the second sub-hypothesis.

**Third Sub-Hypothesis:**

There is a statistically significant effect of reserves as a financing source on financial balance. To test this hypothesis, three simple linear regression equations were formulated based on reserves as a financing source:

- The first to estimate the profitability indicator,
- The second to estimate the activity indicator, and
- The third to estimate the liquidity indicator.

Table (9) presents the results of the effect analysis.

**Table (9): Results of the Effect of Reserves as a Financing Source on Financial Balance**

| Equation | Independent Variable | Dependent Variable | Constant Coefficient (β) | Regression Coefficient (β) | (T) Value | (Sig.) | (F) Value | (Sig.) | ($R^2$) |
|---|---|---|---|---|---|---|---|---|---|
| **First** | Reserves | Profitability | 0.015 | 0.271 | 4.863 | 0.000 | 23.647 | 0.000 | 0.194 |
| **Second** | Reserves | Activity | 0.038 | 0.342 | 3.265 | 0.002 | 10.663 | 0.002 | 0.098 |

**Source:** Prepared by the researcher based on the outputs of the statistical program (SPSS Ver. 22).

Table (9) shows that the regression model for the three equations is stable in terms of significance (F) at a significance level of less than (5%) for all models, meaning that profitability can be estimated using the first equation, activity using the second equation, and liquidity using the third equation in terms of reserves as a source of financing. Meanwhile, the significance (T) at a significance level of less than 5% indicates the significance of the effect in the first, second and third equations, while the positive beta (β) value indicates a positive effect, meaning that the more reserves are used as a source of financing, the higher the profitability and activity indices, i.e. the higher the level of financial balance. The coefficient of determination (R2) of (0.194) in the first equation, (0.098) in the second equation, and (0.158) in the third equation indicate that reserves as a source of financing explain 19.4% of the changes in the profitability index, 9.8% of the changes in the activity index, and 15.8% of the changes in the financial balance index. Therefore, the second sub-hypothesis is accepted.

**Conclusions and Recommendations**

**First: Conclusions**

The most important conclusions reached are:

1- The study concluded that there was a clear decline in the ratio of reserves to total assets for all commercial banks covered by the study for the period (2014-2023), as banks do not have sufficient reserves to cope with risks or due to their lack of liquidity.

2- The study showed that there was a clear decline in the ratio of retained earnings to total assets for all commercial banks in the study sample during the study period. This is due to the management and shareholders of the banks retaining a portion of the profits and keeping them to grow their revenues.

3- There is a clear decline in the profitability index for all commercial banks in the sample for the period (2014-2023), due to an increase in operating costs, i.e. banks are spending more on improving production, administrative and supervisory processes, which leads to increased costs and reduced profits.

4- There is a clear decline in the activity index for all commercial banks in the study sample during the period (2014-2023), as banks focus on controlling costs and improving their administrative structure, which leads to a reduction in the volume of activity and less expansion in some areas.

5- There is a clear decline in the financial efficiency index for all commercial banks in the study sample during the period (2014-2023), as most banks did not achieve full financial efficiency. This may be attributed to the decline in expenses and the weakness of deposits in these banks.

**Second: Recommendations**

1- The need to strengthen reserves in the sample banks due to their importance in achieving future financial security and conveying a more reliable and reassuring image of the bank's financial position to external stakeholders.

2- The need to strengthen retained earnings levels to face potential future risks and to enhance the potential to exploit opportunities that may arise for the bank in the local or international environment in the future. Moderate levels of retained earnings are the best way to face challenges and exploit opportunities in the environment surrounding the bank.

3- The need to balance the bank's financing structure in light of the strategies outlined in terms of prudence and risk, with the aim of achieving the objectives set for performance and financial balance.

4 The need to strengthen financial efficiency indicators by enhancing the levels of utilization of the bank's resources from financing sources to achieve the desired results, better performance and higher profits.

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