*Short communication*

**Responsibility Accounting Indicators and their Role in Incentive System**

**Abstract:**

**The three responsibility accounting indicators (rate of return on investment, residual income, economic value added) are factors that have a direct impact on designing the incentive system in economic units and thus linking employee incentives to the net profits they achieve in their operational activities, which leads to increasing production capacity and improving the quality of products for economic units that adopt this approach. Indeed, the responsibility accounting indicators of the Bank of Baghdad (case study) have an important role in determining the material and non-material incentives in the bank, and this was reflected in the income statement.**

**Keywords: Responsibility accounting indicators, return on investment, residual profit, economic value added, incentive system**

**Introduction:**

**Tools for evaluating various economic entities have evolved and diversified. The goal of these tools is to maintain the sustainability, continuity, and development of economic entities. It is impossible to imagine the success of any economic entity without monitoring the implementation of its plans and identifying and addressing deviations toward achieving the objectives set out in the economic entity's main budget. Wherever there is economic activity, there are budgets, accompanied by monitoring tools for the implementation of these budgets, whether in the government, private, service, industrial, or commercial sectors. Among the tangible and material indicators that can be used for financial and regulatory measurement are responsibility accounting indicators, which are important tools for evaluating the performance of activity centers within any economic entity. Return on investment, residual income, and economic value added are important tools for evaluating the feasibility of investment. Flexible budgets, standard costs, benchmarking, and the balanced scorecard are also important tools for evaluating the performance of economic entities as individuals, departments, activity centers, and the economic entity as a whole.**

**Research Problem:**

**The research problem lies in the fact that some economic units design incentive systems without taking into account accountability indicators, which negatively impacts employee performance and productivity. Responsibility accounting indicators play an important role in measuring the efficiency and effectiveness of management, departments, individuals, and economic units in general. In light of these indicators, employee incentive systems should be designed. A fairer and more just incentive system enhances employee loyalty and increases employee productivity.**

**Research objective:**

**The research goals to highlight the importance of accountability indicators as a key tool for measuring performance efficiency and, consequently, their impact on employee incentive systems.**

**Research Hypothesis:**

**The main hypothesis can be identified: There is a significant relationship between responsibility accounting indicators and the design of the incentive system in economic units. This leads to the following sub-hypotheses:**

**1. A good incentive system is built on the basis of responsibility accounting indicators.**

**2. There is a significant relationship and correlation between responsibility accounting indicators and the employee incentive system.**

**Significance of the Research:**

**The importance of this research lies in its addressing a critical issue for economic units, regardless of the nature of their activity—whether industrial, commercial, or service—which is motivating employees to increase productivity and job loyalty, both of which impact the future of the economic unit, its development, and employee turnover.**

**Research Limits:**

**The research aims to extract responsibility accounting indicators through analyzing the financial statements of an economic unit and measuring their impact on the design of the incentive system.**

**Research Method:**

**Adopting an analytical and inductive approach to analyzing the financial statements of economic entities, the study aims to extract responsibility accounting indicators, represented by return on investment, residual income, and economic value added. The study then examines the impact of these indicators on the design of the employee incentive system at Bank of Baghdad (a private joint-stock company).**

**The Theoretical Framework for Responsibility Accounting**

**The concept of responsibility accounting: It is one of the managerial accounting tools used to measure the performance efficiency of individuals and departments in the economic unit by dividing the economic unit into several activity centers such as cost centers, profit centers and investment centers according to the homogeneity of the nature of work. In order for the evaluation to be meaningful, department managers should be evaluated on the activities under their responsibility. This type of evaluation is called responsibility accounting, as the responsibilities and powers of departments and individuals are clearly defined and not open to interpretation. There are three basic conditions for applying the concept of responsibility accounting, which are as follows: (Jiambalvo, 2020, p 444)**

**1- Determine the costs and revenues associated with each activity center within the economic unit.**

**2- The extent to which activity center managers within the economic unit control the costs and revenues associated with them.**

**3- Adopt a flexible budgeting mechanism to assess the manager's ability to control the costs and revenues associated with his activity center.**

**Responsibility accounting centers are divided into three types based on their responsibilities and the nature of their work:**

**First : Cost Centers**

**Second: Profit Centers**

**Investment Centers**

**The manager is usually only responsible for the costs that occur in his activity center, and the goal of this center is to reduce the total costs to a minimum while maintaining the same quality of the products of goods or services that he provides to customers. The production departments are considered cost centers in industrial companies as they are responsible for the costs of direct materials, direct wages and related indirect industrial costs. Also, the service departments in service units are considered cost centers, such as the nutrition department and the laboratory department in hospitals and the current account, savings and credit card departments in banks are also considered cost centers. To measure the efficiency of performance in these centers, two important tools are used to measure costs, which are: (Weygandt** **&others, 2018:479)**

**1- Flexible Budget**

**2- Standard Cost**

**By comparing the actual costs incurred by the center with the costs under the flexible budget, as well as measuring the deviations in the quantity and price of materials and wages between the actual and standard amounts. Such centers that do not generate revenue or invest in assets are considered cost centers. The company's accounting department is also considered a cost center.**

**(Hilton,2019, p 411)**

**The objective of responsibility accounting is to design an accounting system that achieves effective control over performance by linking the objectives and costs according to the budget with the actual objectives and costs achieved in the various economic units of the establishment, according to the administrative organizational structure of the economic unit at all its administrative levels. There are tools for measuring the efficiency of performance in investment centers called indicators. These indicators measure the efficiency of investment and are included in the responsibility accounting tools used to measure the efficiency of performance in the investment center, and they are as follows:**

**First : Rate of Return on Investment**

**Second: Residual Income**

**Third : Economic Value Added**

**Responsibility accounting can also be viewed as a system whereby actual and estimated financial statements are prepared for specific financial periods and for each responsibility center separately. The purpose is to assess the center's efficiency in utilizing available investments to achieve a specific objective, as well as to detect deviations between actual and estimated data, identify the causes of deviations, and make decisions to address them. When performance reports are linked to the various responsibility accounting centers within an organization, it is possible to assess the extent to which these centers achieve their objectives. This helps management assess the efficiency of investment.**

**Objectives of Responsibility Accounting**

**Responsibility accounting goals to achieve the following:**

**1. Directly linking the accounting system with the organizational structure. The responsibility accounting system classifies, aggregates, and analyzes the cost and revenue components of each responsibility center separately to independently evaluate the performance of each administrative level within the organizational structure, thereby evaluating the performance of the economic unit as a whole.**

**2. Dividing cost and revenue items into controllable and non-controllable items, creating a direct relationship between controllable items and the individuals responsible for them. This achieves effective control because it tracks cost and revenue items at the point where they occur. That is, control occurs when costs are incurred and revenues are realized.**

**3. Implementing the Management by Objectives (MBO) system. Responsibility accounting links the objectives that the economic unit seeks to achieve within a specific time period, as specified in the estimated budgets, with the achievements of the various responsibility centers within the economic unit. This is achieved by comparing actual results with those stated in the estimated budgets.**

**4. The principle of management by exception is applied. The item that does not have relative importance is excluded, and the responsibility center only practices and monitors the operations that its organizational position qualifies it to practice and monitor.**

**The Importance of Responsibility Accounting:**

**1. It encourages economic units to adopt a decentralized management approach by delegating authority, enabling individuals in various positions of responsibility to make decisions based on their authority.**

**2. It provides important, timely, and reliable information that assists management in decision-making and planning. It also enables management to identify significant deviations early enough to take corrective action in a timely manner.**

**3. The responsibility accounting system serves as a tool for motivating the performance of all administrative levels, as it fosters a spirit of competition and innovation among the positions of responsibility within the economic unit, leading to the achievement of the overall objectives of the economic unit. It also helps management select the appropriate competencies for positions within the economic unit and adopt an appropriate incentive system.**

**Requirements for the Success of Responsibility Accounting:**

**To achieve the desired objectives of a responsibility accounting system, the following requirements must be met:**

**First: A clear organizational chart that outlines the responsibilities, duties, and powers of the various responsibility centers that comprise the economic unit. Each responsibility center contains a logical set of operations performed by the economic unit. This management approach is known as decentralized management, whereby senior management delegates authority to the heads of responsibility centers to enable them to carry out the tasks assigned to them.**

**Fig 1 : Organizational chart that outlines the responsibilities, duties, and powers**

**University Council**

**University President**

**Assistant to the President for Academic Affairs**

**Assistant to the President for Administrative Affairs**

**College of Dentistry**

**College of Business Administration**

**College of Engineering**

**College of Pharmacy**

**Second: Adopting performance evaluation monitoring standards for each element of costs and revenues in each responsibility center, by comparing actual performance with budgeted performance for each responsibility center and identifying deviations from planned performance, which enables the economic unit to address the causes of these deviations and take the necessary measures to correct or even avoid them. Economic units use standard costs as a measure to compare actual performance costs with budgeted performance.**

**Third: Identifying controllable cost elements at each administrative level from non-controllable costs. An element is considered controllable by a specific person if that person has an effective influence on the element's cost or quantity during a specific period. Some costs are controllable before they occur and become uncontrollable afterwards, such as depreciation and rent. Some costs are easy to track and allocate to a responsibility center because there is a clear relationship between the element and the responsibility center. These elements are known as direct elements, examples of which are direct materials, wages of workers working in the responsibility center, and depreciation of machinery and equipment belonging to the responsibility center. Note that controllable costs are not necessarily variable costs but are linked to a specific administrative level. For example, depreciation costs may not be considered controllable costs for a revenue center manager in an economic unit, while they are considered controllable costs for a higher administrative level. General expenses, such as management salaries and advertising costs, which benefit several responsibility centers, are distributed among these departments using various distribution methods. The division into controllable and non-controllable expenses depends on the ability of department heads to influence these expenses.**

**Responsibility Accounting Indicators:**

**Responsibility accounting indicators play a vital role in evaluating the performance of individuals or departments within economic units. They help determine incentives that encourage employees to increase production capacity or improve production quality through the use of specific indicators, such as return on investment (ROI). This is a measure used to evaluate the efficiency of a particular investment or to compare multiple investments. It expresses the percentage return achieved from a particular investment compared to the cost of the investment. Management can provide appropriate incentives based on the ROI indicator. These incentives include financial and non-financial rewards, such as promotions and others. (Weygandt &others,2018, p490)**

**First: Return on Investment (ROI)**

**It can be expressed using the following equation:**

**ROI = Operating Profit / Average Operating Assets.**

**Or = Margin / Average Operating Assets**

**Average Operating Assets = (Operating Assets at the Beginning of the Period + Operating Assets at the End of the Period) ÷ 2**

**ROI is the most widely used financial indicator for assessing investment efficiency or comparing the efficiency of multiple investments. It is easy to calculate and understand, but it is not without its drawbacks, as follows:**

**- It does not take into account the time value of money.**

**- It does not fully reflect the size of the investment. A small investment may have a high rate of return, while a large investment may yield a higher return, but the rate of return is low.**

**- It does not take into account risk. The rate of return may be high, but it does not reflect the extent of the risk.**

**- It is not suitable for comparing short-term and long-term investment projects.**

**- It does not provide an accurate picture of the cash flows of the investment project.**

**The DuPont Model**

**This model divides the return on assets equation into two parts. The first focuses on the income statement, and the second focuses on linking income to the balance sheet. This can be expressed as follows:**

**(Davis & Davis, 2020, p532)**

**ROI = margin (profit ratio) × asset turnover**

**= (operating profit ÷ net sales) \*( net sales ÷ operating asset ratio)**

**This model helps determine how a company can improve its return on assets. This can be improved either by increasing the profit ratio by reducing costs or increasing sales, or by improving asset turnover by increasing sales or decreasing the value of assets.**

**(Garrison & others, 2024, P479)**

**Targeted Increase in ROI:**

**This method represents a significant improvement over the concept of the rate of return on investment (ROI) because it forces investment center managers to consider the opportunity cost of capital. It also avoids biasing the ROI rate in favor of large divisions within the economic unit by setting a target return on net invested assets. This can be expressed using the following equations:**

**Target increase in ROI = Operating Profit - Total Operating Assets Ratio \* Target Rate of Return**

**= Operating Profit - Minimum Return on Net Invested Assets**

**Comparing Performance Evaluation Results in Investment Centers**

**There are multiple alternatives for calculating income. For example, economic unit profit, economic unit profit adjusted for changes in price levels, cash flow, and income before interest and taxes (EBIT) are used. It should be noted that the measurement basis must be unified to compare the results of different centers. The definition of invested assets may vary across economic units. Some may use total assets or operating assets, excluding any unused assets, such as unused land owned by the economic unit. Working capital may also be used in addition to the remaining assets. There are several considerations for calculating the elements included in the investment, as follows:**

**• Historical cost: The value of the asset at purchase.**

**• Replacement cost: The cost of replacing the asset with a new one.**

**• Market value: The value obtained when the asset is sold in the market.**

**• Present value: The value of a set of future cash flows at the present time.**

**Second: Residual Income**

**This is the amount of income remaining after deducting all necessary expenses, such as taxes, bills, and living expenses. Residual income is used to evaluate performance within economic units, particularly when assessing the performance of divisions when making investment decisions. It is also used as a basis for granting incentives because it provides a way to measure whether management is generating returns that exceed the cost of capital. Residual income is used as a more accurate measure of performance, as it takes into account the cost of capital rather than relying solely on operating profit. It is calculated as follows: (Garrison & others , 2024, p 483)**

**Residual income = Operating profit after taxes – (Cost of capital x investments used)**

**• If residual income is positive, it means the division generates profits that exceed the cost of capital, indicating good performance.**

**• If residual income is negative, it means profits do not cover the cost of capital, indicating poor performance.**

**Residual Income and Incentives:**

**Companies can use residual income as the basis for an incentive system, awarding bonuses to employees who generate high residual income.**

**The advantages of linking incentives to residual income include:**

**• Motivating management to make sound investment decisions, as they will seek investments that generate returns that exceed the cost of capital.**

**• Reducing the focus on operating profits, as some units may generate high profits but not cover the cost of capital, while other units generate lower profits but with a higher economic value, i.e., cover the capital.**

**• Balancing profitability and risk, as managers avoid investments that may generate profits in the short term but are not economically viable in the long term.**

**Third: Economic Value Added (EVA)**

**Economic Value Added is a financial measure used to determine the extent to which an economic unit generates additional value for its shareholders. It is calculated by subtracting the cost of capital from net operating profit after taxes. (Davis& Davis, 2020, p 539)**

**Economic Value Added = Net Operating Profit – (Invested Capital x Weighted Average Cost of Capital)**

**What does Economic Value-Added mean?**

**• If the economic value added is positive, it means that the economic unit generates profits that exceed the cost of capital, indicating value creation for shareholders.**

**• If the economic value added is negative, it indicates that profits are less than the cost of capital, meaning that the economic unit does not add value to shareholders.**

**The importance of economic value added:**

**It helps evaluate the actual performance of an economic unit, encourages management to make decisions that achieve long-term value, and is used to compare the performance of an economic unit with the performance of economic units in the same sector of activity.**

**Economic Value Added and Its Impact on the Incentive System:**

**Economic value added is a measure used to determine the financial value generated through business operations after deducting the cost of invested capital. Economic value added indicates whether an economic unit generates profits higher than the cost of capital. It is a measure that reflects the economic unit's ability to generate added value that exceeds the cost of invested capital. It also indicates whether the economic unit has achieved performance that exceeds shareholders' expectations.**

**As for the relationship between economic value added and the employee incentive system, there is a close connection between the two. The following are some points that clarify the relationship between economic value added and the employee incentive system:**

**1. Motivating employees to create value:**

**1. An incentive system based on economic value added helps direct employees toward achieving profits that exceed the cost of capital, promoting sustainable growth for the economic unit.**

**2. Linking rewards to the amount of value employees add to the economic unit, rather than relying solely on operating profits.**

**2. Achieving transparency and fairness in awarding rewards:**

**1. Economic value added provides an objective measure for performance evaluation, as employees are rewarded based on the actual economic value they generate.**

**2. It aids in making short-term decisions aimed at increasing profits and moving toward financial sustainability.**

**3. Promote Effective Decision-Making:**

**1. An incentive system based on economic value added helps employees optimize resource utilization and reduce unnecessary costs, increasing operational efficiency.**

**2. It encourages managers to invest in projects that generate a return higher than the cost of capital.**

**4. Increase Loyalty and Commitment:**

**1. When employees see that their efforts translate into fair rewards based on their value, this motivates them to work hard and encourages innovation.**

**2. It helps reduce employee turnover and motivate employees over the long term.**

**It can be argued that linking incentive systems to economic value added enhances the economic unit's ability to motivate employees in a way that contributes to improving the economic unit's performance and increasing its value in the long term. There is a direct link between economic value added and the incentive system, making it an effective tool for determining employee incentives and rewards. Linking the incentive system to economic value added is an effective strategy for motivating employees to achieve sustainable growth and improve the financial performance of the economic unit, which serves the mutual interests of both the economic unit and its employees.**

**The relationship between the rate of return on investment, residual income, and economic value added and the employee incentive system**

**The relationship between the rate of return on investment (ROI), residual income, and economic value added (EVA) and the employee incentive system lies in the fact that they are all tools used to evaluate financial and economic performance within an economic unit, and contribute to determining how employees are rewarded based on their performance within the economic unit. (Weygandt &Others ,2018, p447)**

**Return on Investment (ROI):**

**A measure of the profitability of an investment and is used to determine how efficiently investments are being used to generate profits.**

**• Relationship to the incentive system: ROI can be linked to employee incentives by determining rewards based on the extent of improved ROI. An increase in ROI may indicate improved overall economic performance, thus providing incentives to employees.**

**2. Residual Income:**

**The profit remaining after deducting the cost of capital from the profits of the economic unit. It represents the amount of profit the company generates after taking into account the cost of invested capital. Residual income is the amount the employee receives after deducting all deductions, such as taxes, social security, and health insurance. It represents the actual amount left over after deducting all deductions. An employee incentive system aims to reward employees based on their performance or achievements. Incentives can include financial rewards, bonuses, or even non-financial awards such as appreciation, recognition, or promotions.**

**The Relationship Between Residual Income and the Incentive System:**

**1. Increasing Residual Income: When an employee receives additional financial incentives, they contribute to increasing their residual income. For example, if an employee receives a bonus or commission based on performance, these incentives will be added to their base salary before deductions.**

**2. Motivating Performance: Through the incentive system, employees strive to increase their performance to achieve specific goals in order to receive financial or other rewards and incentives, which contributes to improving their residual income.**

**3. Encouraging Productivity: When residual income is linked to additional rewards or incentives as a result of good performance, employees are more motivated to work more efficiently, benefiting everyone.**

**How to Link Responsibility Accounting Indicators to the Incentive System:**

**These metrics are used in an integrated manner to effectively motivate employees. When employee rewards are determined based on financial performance, they can be motivated to achieve improvements in the rate of return on investment, increase residual income, and thus increase the economic value added to the economic unit. Incentives typically take the form of cash bonuses, promotions, or other benefits aligned with the economic unit's financial objectives. The goal of these tools is to encourage employees to focus their efforts on improving the overall financial performance of the economic unit, leading to increased profitability and the long-term value of the economic unit.**

**A practical example from Bank of Baghdad (a private joint-stock company) on how to use return on investment (ROI), residual income, and economic value added (EVA) and their relationship to the incentive system.**

**The bank aims to improve its financial performance and provide employee incentives to motivate them to improve high performance. The bank uses three main evaluation indicators: return on investment (ROI), residual income, and economic value added (EVA).**

**First: Return on Investment (ROI) = Net Profit / Total Cost of Investment**

**If the bank invests $1,000,000 and achieves a net profit of $200,000,**

**ROI = $200,000 / $1,000,000**

**= 20%**

**Second: Residual Income: = Net Profit - (Required Rate of Return x Investment Cost)**

**If the net profit is $200,000, the required rate of return is 10%, and the investment cost is $1,000,000, then:**

**Residual Income = $200,000 - (0.10 x 1,000,000)**

**= $100,000**

**Third: Economic Value Added (EVA):**

**Steps to Extract Economic Value Added: (Davis & Davis, 2020, p. 541)**

**1. Calculate Net Operating Profit.**

**2. Calculate Invested Capital.**

**3. Calculate the Weighted Average Cost of Capital**

**4. Calculate Economic Value Added**

**Economic Value Added = Net Operating Profit After Taxes - (Cost of Capital x Total Investment)**

**If the net operating profit after taxes is $250,000, the cost of capital is 12%, and the total investment is $1,500,000, the result is:**

**Economic Value Added = $250,000 - (12% x 1,500,000)**

**= $70,000**

**The relationship between these indicators and incentives:**

**Bank of Baghdad can offer incentives to employees based on these indicators, as follows:**

**Achieving a certain level of return on investment: Employees may receive bonuses if the return on investment exceeds, for example, 15%.**

**1. Increasing residual profit: Incentives may be based on the increase in residual profit over the previous year.**

**2. Improving economic value added: Employees may receive incentives if they are able to sustainably increase economic value added.**

**In this way, incentives are directly linked to achieving specific financial goals, motivating employees to continually improve the bank's financial performance**

**The Third Topic: Employee Incentive System**

**The employee incentive system is a set of mechanisms adopted by the economic unit to motivate employees to improve their performance and raise productivity with the aim of achieving goals. This results in granting financial and non-financial rewards to employees. The incentive system built on sound foundations helps reduce employee turnover. This system consists of several basic components, which are:**

**(Khalida and Muhammad, 2019, p. 5)**

**1. Financial components, which consist of:**

**- Bonuses: Bonuses are awarded based on employee performance or achievements.**

**- Competitive salaries: Economic units offer additional salaries, which enhances employee loyalty and encourages them to perform better.**

**- Commissions or results-based incentives: In some functions, such as checking and savings accounts, credit cards, and foreign transfers, employees may receive a performance-related commission**

**2. Moral components, which consist of:**

**- Appreciation and Thanks: Through public and private praise of good employees and the issuance of letters of thanks and appreciation, this leads to competition among employees and improves their performance.**

**- Promotions: Providing outstanding employees with opportunities for professional growth and advancement will motivate them to be creative and increase their productivity.**

**- Certificates of Appreciation and Rewards: Providing rewards or certificates of appreciation to employees who excel compared to their peers helps build employee loyalty and positively impact employee turnover.**

**3. Social components, which consist of:**

**- A positive work environment: Providing a comfortable and stimulating work environment that promotes cooperation among employees.**

**- Social activities: Organizing cultural and social events and periodic celebrations that contribute to building good relationships among employees.**

**4. Educational and development components, which consist of:**

**- Training and development: Supporting employees and engaging them in training programs to improve their skills and enhance their performance.**

**- Guidance and counseling: Providing leadership support to guide employees toward success and achieving goals.**

**5. Health and well-being components, which include:**

**- Health programs: Providing health services or comprehensive health insurance for employees and their families.**

**- Personal well-being: Offering incentives such as additional vacations, tourist trips, or financial assistance plans.**

**These components help motivate employees to improve their performance, increase loyalty, and achieve the shared goals of the economic unit.**

**One of the effects of incentives is that they work to:**

**Material incentives are the financial rewards or returns employees receive as a form of encouragement for performing a specific task, such as salaries, commission wages, bonuses, immediate cash incentives, and in-kind incentives such as health insurance, housing allowances, travel tickets, and use of the economic unit's vehicles.**

**Intangible incentives are the non-material rewards employees receive to motivate them and increase their job satisfaction and sense of belonging to the economic unit. Examples include appreciation and praise, job promotions, granting greater powers, and providing training and development opportunities within or outside the economic unit.**

**(Muhammad et al., 2023, p. 238)**

**The Practical Aspect**

**An overview of the research sample (Bank of Baghdad - a private joint-stock company) , Bank of Baghdad was established in 1993. It is one of the Iraqi banks operating under the supervision of the Central Bank and provides various services to customers and businesses. It is one of the most prominent private commercial banks in Iraq. Its capital was 100 million Iraqi dinars and it performs the following activities:**

**1. Current and savings accounts**

**2. Personal and commercial loans**

**3. Domestic and international transfers**

**4. Electronic payment services (MasterCard, Visa Card)**

**5. Internet and mobile banking services**

**The bank has an extensive network of 36 branches within Iraq and a branch in Lebanon, in addition to regional and international companies. This enhances its ability to provide modern and advanced banking services. In 2024, it was awarded the Best Commercial Bank in Iraq award.**

**Table 1 : Bank of Baghdad (Private Joint Stock Company)**

**Income Statement for the Year Ending December 31, 2023**

|  |  |  |
| --- | --- | --- |
| **Details** | **2024/12/31 Amounts in thousands of Dinars** | **2023/12/31 Amounts in thousands of Dinars** |
| **Interest payable** | **75906174** | **52903454** |
| **Interest payable** | **(13076391)** | **(9896291)** |
| **Net interest income** | **12829783** | **43007163** |
| **Net commission income** | **260906747** | **134163500** |
| **Net interest and commission income** | **323736530** | **177170663** |
| **Net foreign exchange gains** | **142280831** | **53528587** |
| **Other investment income** | **299461** | **287539** |
| **Net capital gains (losses)** | **(1298117)** | **3116135** |
| **Total Income** | **465018705** | **234102927** |
| **Employee Salaries** | **(17526740)** | **(15702774)** |
| **Other Operating Expenses** | **(27884057)** | **(10753678)** |
| **Depreciation and Amortization** | **(3304749)** | **(2937149)** |
| **Miscellaneous Provisions** | **(5216350)** | **(3657404)** |
| **Total Expenses** | **(53931896)** | **(33051005)** |
| **Earnings Before Expected Credit Losses** | **411089809** | **201051922** |
| **Expected Credit Loss Provision Expense** | **(47357722)** | **(19221111)** |
| **Net Profit Before Tax** | **363729087** | **181830811** |
| **Tax** | **(56896722)** | **(26048820)** |
| **Net profit after tax** | **306832365** | **155781991** |
|  |  |  |
| **Basic and diluted earnings per share** | **0.877** | **0.613** |

**Source: From the Internet - Securities Commission – Baghdad**

**Table 2 : Bank of Baghdad (Private Joint Stock Company)**

**Financial position as of December 31, 2024**

|  |  |  |
| --- | --- | --- |
| **Details** | **2024/12/31 Amounts in thousands of Dinars** | **2023/12/31 Amounts in thousands of Dinars** |
| **Cash and balances with the Central Bank (net)** | **2020046204** | **1294042234** |
| **Balances with banks and other financial institutions (net)** | **416469828** | **661476219** |
| **Investments in affiliates (net)** | **1871084** | **1372128** |
| **Financial assets at fair value (net)** | **4723549** | **8025607** |
| **Financial assets at amortized cost (net)** | **936827726** | **622465491** |
| **Direct credit facilities at amortized cost (net)** | **50259551** | **61630568** |
| **Property and equipment (net)** | **75114334** | **76063684** |
| **Intangible assets (net)** | **1205589** | **1082496** |
| **Right-of-use leased assets (net)** | **1302328** | **1834864** |
| **Other assets (net)** | **38141071** | **20504645** |
| **Total assets** | **3545961264** | **27484979450** |
| **Liabilities and Shareholders' Equity** |  |  |
| **Liabilities** |  |  |
| **Bank and Financial Institution Deposits** | **920976** | **11137855** |
| **Customer Deposits** | **2679348533** | **2170254205** |
| **Cash Margins** | **32684095** | **21458164** |
| **Income Tax Provision** | **56896722** | **26048820** |
| **Miscellaneous Provisions** | **9959276** | **6565149** |
| **Borrowed Funds** | **3363** | **19502** |
| **Lease Obligations** | **1231068** | **1897509** |
| **Other Liabilities** | **37401182** | **37398280** |
| **Total Liabilities** | **2818445215** | **2274779484** |
| **Shareholders' Equity** |  |  |
| **Capital** | **400000000** | **300000000** |
| **Legal Reserve** | **40869040** | **25547375** |

**Source: From the Internet - Securities Commission – Baghdad**

**Responsibility Accounting Indicators for Bank of Baghdad (Private Joint Stock Company):**

**(Jiambalvo, 2020, pp. 446-455)**

**First: Return on Investment for 2024 = Operating Income / Operating Assets (Invested Capital)**

**= 306832365 / 3545961264**

**= 0.0865**

**Return on Investment for 2023 = Operating Income / Operating Assets (Invested Capital)**

**= 155781991 / 27484979450**

**= 0.0567**

**Second: Residual Income Measure = Operating Income – (Investment Cost x Total Assets – Current Liabilities)**

**Residual Income for 2024 = 306,832,365 - (12% x 354,596,1264 - 281,844,5215)**

**= 306,832,365 - 239,298,63**

**= 282,902,502**

**Residual Income for 2023 = 155,781,991 - (12% x 274,849,794,50 - 227,477,9484)**

**= 155,781,991 - 102,341,7650**

**= (867,635,659)**

**Table 3 : Residual Income Measurement**

|  |  |  |
| --- | --- | --- |
| **Details** | **2024**  **Net profit after tax** | **2023**  **Net profit after tax** |
| **Operating Income** | **306832365** | **155781991** |
| **Operating Assets** | **3545961264** | **27484979450** |
| **Return on Investment** | **0.0865** | **0.0567** |
| **Operating Income** | **306832365** | **155781991** |
| **Cost of Capital** | **12%** | **12%** |
| **Total Assets** | **3545961264** | **27484979450** |
| **Current Liabilities** | **2818445215** | **2274779484** |
| **Residual Income** | **282902502** | **( 867635659)** |

**Third: Economic Value-Added Measure for 2024**

**= Net Operating Income - (Invested Capital x Weighted Average Investment Balance)**

**= 306,832,365 - (354,596,1264 - 281,844,5215 x (10%)**

**= 306,832,365 - 72,751,605**

**= 234,080,760**

**Note: Invested Capital = Total Assets - Current Liabilities**

**Economic Value-Added Measure for 2023**

**= 155,781,991 - (274,849,794,50 - 227,477,9484 x 10%)**

**= 155,781,991 - 252,101,997**

**= (236,523,800)**

**Conclusions and Recommendations**

**Conclusions**

**1. Most economic units grant employees financial or moral rewards when the economic unit achieves operating profits that exceed the cost of investing in operating assets.**

**2. Employee incentives are usually designed to consider several aspects of employee activity, with the financial aspect being the cornerstone.**

**3. The design of the incentive system usually takes into account the impact of several accounting subsystems that collectively constitute the accounting system adopted by the economic unit, such as the internal control system, the costing system, and other subsystems.**

**4. Adopting a scientific methodology in designing the incentive system provides a reasonable basis and logical argument for the management of the economic unit to establish objective foundations for determining the points earned by all employees and determining the appropriate amount for each point.**

**5. By studying the financial statements of the Bank of Baghdad (a private joint-stock company), it became clear that the bank does not display the number of financial incentives under the name of incentives, but rather grants an additional salary as incentives to employees.**

**Recommendations**

**1. Financial or moral incentives should be granted based on specific indicators under an incentive system that takes into account all aspects of activity within the economic unit.**

**2. Fairness in granting employee incentives increases job loyalty and raises employee productivity.**

**3. An incentive system designed to take into account all employee activities motivate employees to continuously improve and enhance the quality of their activities within the economic unit.**

**4. Some economic units may resort to adopting evaluation indicators other than those presented in this research, such as the balanced scorecard system or other systems. However, ultimately, fairness should be maintained in evaluating employee activities and awarding them rewards accordingly.**

**5. For the purpose of proper accounting disclosure in accordance with international accounting standards, the number of incentives should be shown in a separate account without being merged with any other account.**

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