



Journal of

TANMIYAT AL-RAFIDAIN

(TANRA)

A scientific, quarterly, international, open access, and peer-reviewed journal

Vol. 45 , No. 149

March 2026

© University of Mosul |
College of Administration
and Economics, Mosul, Iraq.



TANRA retain the copyright of published articles, which is released under a “Creative Commons Attribution License for CC-BY-4.0” enabling the unrestricted use, distribution, and reproduction of an article in any medium, provided that the original work is properly cited.

Citation: Zenad, Yaser S. Hasaballah, Ahmed S. (2026). Strategic IBM Planning Analytics Software as a Tool for Improvement International Financial Reporting: An Empirical Study in Iraqi Commercial Banks. *TANMIYAT AL-RAFIDAIN*, 45 (149), 250-280.

<https://doi.org/10.33899/tanra.v45i149.53920>

P-ISSN: 1609-591X
e-ISSN: 2664-276X
tanmiyat.uomosul.edu.iq

Research Paper

Strategic IBM Planning Analytics Software as a Tool for Improvement International Financial Reporting: An Empirical Study in Iraqi Commercial Banks

Yaser Saad Zenad¹, Ahmed Sami Hasaballah²

¹Ministry of Higher Education & Scientific Research, Iraq.

²Post-Graduate Institute for Accounting and Financial Studies, University of Baghdad, Iraq.

Corresponding author: Ahmed Sami Hasaballah

ahmed.s@pgiafs.uobaghdad.edu.iq

DOI: <https://doi.org/10.33899/tanra.v45i149.53920>

Article History: Received: 16/11/2025, Revised: 10/1/2026, Accepted: 3/2 /2026, Published: 1/3/2026.

Abstract

Financial reporting analysis plays an important role in providing useful information that helps investors and others make decisions, and it requires attention to improving the quality of these reports. Recently, confidence in the financial reports of Iraqi commercial banks has declined, following accounting scandals and high-profile financial frauds. This paper aims to investigate the role of strategic IBM planning analytics in improving International and Local financial reporting analysis in Iraqi commercial banks. A questionnaire was designed and distributed to the study sample, comprising 128 financial analysts and planners at Iraqi commercial banks. The data were then analyzed using SPSS and Smart PLS. The findings demonstrate the significant role of IBM's strategic planning analytics software in Iraqi commercial banks. In addition, the results show that strategic IBM planning analytics software plays a positive and effective role in improving financial reporting analysis in Iraqi commercial banks. Based on these findings, this paper recommends that the strategic IBM planning analytics software should be implemented carefully and accurately. Appropriate policies and procedures should be established, and employees should be trained to use the software effectively. Finally, greater importance should be given to the strategic planning function within the organizational and administrative structure of Iraqi commercial banks by establishing dedicated administrative departments for this purpose.

Keywords:

Strategic IBM Planning Analytics Software, International Financial Reporting, Financial reporting analysis, Iraqi Commercial Banks.

برمجيات IBM للتخطيط والتحليلات الاستراتيجية كأداة لتحسين تحليل التقارير المالية: دراسة تطبيقية في المصارف التجارية العراقية

ياسر سعد زناد¹ ID، احمد سامي حسب الله² ID

¹وزارة التعليم العالي والبحث العلمي، العراق.

²المعهد العالي للدراسات المحاسبية والمالية، جامعة بغداد.

المؤلف المراسل : احمد سامي حسب الله (ahmed.s@pgiafs.uobaghdad.edu.iq)

DOI: <https://doi.org/10.33899/tanra.v45i149.53920>

تاريخ المقالة: 2025/11/16، الاستلام: 2025/11/16، التعديل، التنقيح: 2026/1/10، القبول: 2026/2/3،

النشر: 2026/3/1

المستخلص

يؤدي تحليل التقارير المالية دورًا محوريًا في توفير معلومات مفيدة تساهم في مساعدة المستثمرين وغيرهم من أصحاب المصلحة على اتخاذ القرارات، الأمر الذي يتطلب اهتمامًا متزايدًا برفع جودة المعلومات الواردة في هذه التقارير. وفي الآونة الأخيرة، شهدت الثقة بالتقارير المالية للمصارف التجارية العراقية تراجعًا ملحوظًا، وذلك في أعقاب عدد من الفضائح المحاسبية وحالات الاحتيال المالي البارزة. يهدف هذا البحث إلى دراسة دور برمجيات IBM للتخطيط والتحليلات الاستراتيجية في تحسين تحليل التقارير المالية الدولية والمحلية في المصارف التجارية العراقية. ولتحقيق أهداف الدراسة، تم تصميم استبانة وتوزيعها على عينة الدراسة التي بلغت (128) محللاً ومخططًا ماليًا يعملون في المصارف التجارية العراقية. وقد جرى تحليل البيانات باستخدام برنامجي SPSS و Smart PLS. وأظهرت النتائج وجود دور جوهري وفعال لبرمجيات IBM للتخطيط والتحليلات الاستراتيجية في المصارف التجارية العراقية، كما بينت النتائج أن لهذه البرمجيات تأثيرًا إيجابيًا ومعنويًا في تحسين عناصر تحليل التقارير المالية في تلك المصارف. وبناءً على هذه النتائج، يوصي البحث بضرورة تطبيق برمجيات IBM للتخطيط والتحليلات الاستراتيجية بعناية ودقة، مع تحديد السياسات والإجراءات المناسبة، وتدريب العاملين على الاستخدام السليم لهذه البرمجيات. فضلًا عن ذلك، يؤكد البحث على أهمية إبقاء وظيفة التخطيط الاستراتيجي اهتمامًا أكبر ضمن الهيكلين التنظيمي والإداري للمصارف التجارية العراقية، من خلال استحداث وحدات أو أقسام إدارية متخصصة تُعنى بهذا الجانب.

الكلمات المفتاحية:

برمجيات IBM للتخطيط والتحليلات الاستراتيجية، التقارير المالية الدولية، تحليل التقارير المالية، المصارف التجارية العراقية.

تنمية الرافدين

(TANRA): مجلة علمية، فصلية،

دولية، مفتوحة الوصول، محكمة.

المجلد (45)، العدد (149)،

آذار 2026

© جامعة الموصل |

كلية الإدارة والاقتصاد، الموصل، العراق.



تحتفظ (TANRA) بحقوق الطبع والنشر للمقالات المنشورة، والتي يتم إصدارها بموجب ترخيص (Creative Commons Attribution) (CC-BY-4.0) الذي يتيح الاستخدام، والتوزيع، والاستساق غير المقيد وتوزيع للمقالة في أي وسيط نقل، بشرط اقتباس العمل الأصلي بشكل صحيح.

الإقتباس: زناد، ياسر سعد. حسب الله، احمد سامي. (2026). برمجيات IBM للتخطيط والتحليلات الاستراتيجية كأداة لتحسين تحليل التقارير المالية: دراسة تطبيقية في المصارف التجارية العراقية. تنمية الرافدين، 45 (149)، 250-280.

<https://doi.org/10.33899/tanra.v45i149.53920>

P-ISSN: 1609-591X

e-ISSN: 2664-276X

tanmiyat.uomosul.edu.iq

1. Introduction

Strategic planning is one of the hottest and rejuvenatable topics in management science (Mohammed & Bougatef, 2024). One of the most important reasons that helps to explain why strategic planning has spread in recent times is the evidence which shows that the failure rate in banks using it is significantly lower than in other ones. Consequently banks using strategic planning become more successful and efficient than those which are not using it (Vandanapu, 2024). It also gathers and processes data on costs, prices, volume sold and flows to study the compatibility of that bank's position in the field of activity where it operates. Hence, it is essential to make use of strategic planning methodologies resulting from a transformation with the bank environment and also because of rapid changes in the actual industrial sector. The essence is to minimize conflict, have control and ensure that the strategy employed in making resources available also corresponds with what goes on within the bank (Oyedokun, 2024). Financial reporting analysis is a key to knowing about the Bank performance and taking right financial decision making. A thorough and correct interpretation of financial statements can provide a full image about the health and performance state of the bank, and to facilitate strategic decision making (Gläserová, Otavová & Blažková, 2024).

Financial reporting analysis allows banks to see how financial resources are managed and distributed in a proper way. Financial report analysis could help commercial banks to forecast the tendency of upcoming market as well as make strategy about how much money is sufficient and also necessary for invest (Hong, 2023). In a situation where some bank is struggling with cash flow, or even eroding returns, the study of financial reporting analysis could identify problems that if corrected would allow for all banks to grow in a more sustainable and safe way. Also, financial reporting analysis is a vital instrument in the hands of leaders and managers for them to take rational strategic decisions and effectively realize bank objectives (Schröder, 2022). The analysis of financial reporting serves as an input into financial planning, performance assessment and investment decisions (Revsine, Collins and Johnson, 2021). Additionally, the audit provides financial reporting analysis and can help in verifying that the financial statement information is accurate. Audit is a process for which the organization opinions can be expressed and it helps in ensuring the quality of financial data, including conformance with accounting standards and market laws (Alonge Dudu & Alao, 2024).

Strategic planning tools seeks to identify areas which are to be improved or where value is to be added in the design of accounting systems as well as its role in contributing competitive advantage (Tefera & Abebe, 2024). The IBM planning analytics software strategic with has solved the problem of all financial information residing in different areas but within the bank. So I have to add them all twice over updating these and populating. Strategic IBM planning analytics software is tackling this issue by connecting the whole bank, straight into one universal database; therefore new developments can be responded quickly across the board. "With IBM Planning Analytics Software, finance teams can consolidate external data—such as market trends—with operational and financial information (Dietrich, Plachy & Norton, 2014).

To support the banks in their decision-making and offer them with advice, IBM planning analytics solutions can automatically track and analyze a variety of financial data such as sales, expenses, profit, working capital and cash flow. In support of enabling decision makers to understand the problem at hand and make informed decisions, IBM planning analytics software answers ad hoc questions which in data terms we can think of as a data narrative or story.

The lack of a defined structure for strategic planning analytics ideas is the basis in which the present study arises given increasing interest on these tools. The goal of this study is thus to develop a structured framework so as to delineate these notions, and hence show how one can learn from them. A focus of this study is to highlight the effect of IBM strategic planning software on enhancing financial reporting analysis in Iraqi commercial banks, which has not been extensively covered in previous studies. This study also adds value to the literature in terms of practical implications, by proposing guidelines for banks on how to improve disclosure and lower the risk of financial manipulation and the credibility of investors. Another important advance is in serving the growing number of investors at the ISE by providing them with up-to-date relevant financial information and helping them make reasonable investments. The last contribution is the use of path analysis modelling to test the propositions in our study. Legate et al. (2023) claim that the use of path analysis modeling is advantageous for business research. First, it allows researchers to discover relationships and structure in the relationship between variables in a dataset. Using this information, individuals can then be more informed of how a certain set of circumstances affects the outcomes of a certain choice or behavior. The path analysis may also be reported to understand how changes in a variable affect the results of other variables. When prioritising factors to focus on when researching, it may be useful information. Third, path analysis can help researchers to identify critical components of the results. This information can be used to craft new models or strategies that increase the chance of achieving desired effects. Nevertheless, a few path analysis modeling limitations need to be considered when using this approach. Path analysis is a complex and time consuming process. Second, in the absence of causal associations among the variables, path analysis may be misleading. Further, non-Ordinal data collections or those with a small number of measurement levels, are generally not ideal for path analysis. (Rahman, 2021).

2. Research Problems and Questions

Building Formulating a comprehensive and all-round vision of the business banks' operations, their attempts on connecting and interlinking them as well as rejecting -one-sided point of view- to the proceedings and activities in any single bank event are among its primary targets. For Iraqi state commercial banks to operate as a unique entity and maintain that constituent of strength with regard to an activity is consistently oriented toward upgrading the capabilities of other activities (Omer, 2022). Strategic planning is one of the changes that Iraqi commercial banks face due to these in external environment full of competitive challenges; Thus, becoming hard for those banks to acquire their competitive advantage and being effective by dealing with only managing their tangible resources (Mohammed & Bougatef, 2024). Faced with this situation, a

thought shift started pointing at intangible resources and activities that make the bank better than its competitors in order to face such situation (Abed et al., 2022).

It has been a frustration for Iraqi commercial bank planners, struggling with non-consistent data sets planning, budgeting and forecasting. Particularly, considering the requirements in handling a huge volume, variety, truthfulness, velocity and variability of data (Alharasis et al., 2024) in a rapid and adaptive way. In addition, many of the planning and forecasting analysts that work at Iraqi commercial banks prefer to leave the technical aspect to IT departments because they are more comfortable doing things in their same old way (Yousif, 2023). Planners want to focus on their core strengths such as overall channel planning/strategy, tactical implementation and operations, risk management, growth agenda (expansion of new lines or business), people aggregation and talent maximization amplification among other key performance indicators (KPI) in commercial, consumer and investment banking across traditional retail banks and digital banks sector. Planners, Predictors, And Risk Managers Use TK8 to Model What They Actually Do TKS is the easily useable interface that works with the familiar MS-EXCEL front end and is being used by planners, forecasters, analysts and risk managers to rapidly create and deploy working models of their work Processes plans budgets forecasts. In addition to error elimination, they can now collaborate on a one accurate data source and exploit the ease of establishing linkages, workflows, dependencies hierarchy roles and structures swiftly (Ibrahim &Khudair, 2024).

Several foreign and Arab studies have examined both local planning systems, in traditional or strategic ways and have identified the role of these planning techniques as well has their pros and cons within various countries. The findings have been mixed from country to country. Nevertheless, none of them investigated the practice and effect of strategic planning methodology in improving financial report quality of commercial banks under IBM planning analytics. Hence, the problem at issue was that none of those concerned entities indicated a need for directing such studies in light of commercial banking environment on one side and to measure the benefit taking place by adopting strategic IBM planning analytics includes its role when it comes to enhancing the quality with financial reports and thus reducing decision-making process straight after 414 that. As such, this study involves the following major question: **What is the role of strategic IBM planning analytics software in improving financial reporting analysis in Iraqi commercial banks?** Based on the main question, the following sub-questions can be formulated:

1. To explore the effect of strategic IBM planning analytics software on improving financial statements in Iraqi commercial banks.
2. To explore the effect of strategic IBM planning analytics software on improving ratio analysis in Iraqi commercial banks.
3. To explore the effect of strategic IBM planning analytics software on improving trend analysis in Iraqi commercial banks.
4. To explore the effect of strategic IBM planning analytics software on improving variance analysis in Iraqi commercial banks.

3. Aim and Objectives

This paper aims at investigating the role of strategic IBM planning analytics in improving International and Local financial reporting analysis in Iraqi commercial banks. From the main aim, the following objectives can be formulated:

- To explore the effect of strategic IBM planning analytics software on improving financial statements in Iraqi commercial banks.
- To explore the effect of strategic IBM planning analytics software on improving ratio analysis in Iraqi commercial banks.
- To explore the effect of strategic IBM planning analytics software on improving trend analysis in Iraqi commercial banks.
- To explore the effect of strategic IBM planning analytics software on improving variance analysis in Iraqi commercial banks.

4. Research Importance

The research has a scientific importance as one of the studies related to the strategic role of IBM planning analytics in enhancing financial reporting analysis in Iraqi commercial banks. Its significance is on the rise due to the problems and factors affecting management accounting and cost management systems in these banks towards achieving superior financial performance. To facilitate better financial reporting and analysis that can lead to improved forecasting and growing revenue, organizations need the kind of streamlined planning, budgeting and forecasting process that an improved plan would provide. This relevancy is even more true in today's corporate world, where disruptors are infiltrating on the most traditionally organized companies. Businesses enhance their strategic decision-making capabilities by leveraging data, analytics and tried-and-true planning and forecasting best practices. Through process improvement, error reduction, cooperation and disciplined management practices these tools and techniques can offer companies a tangible competitive advantage.

5. Literature Review

5.1 Strategic IBM Planning Analytics

Strategic IBM planning analytics software is considered one of the most important means by which business results are analyzed and presented to the owner of the institution. This software shows the efficiency of management in performing its function, as it is considered a tool for senior management to know the efficiency of executive departments in performing their function, evaluate the performance of departments and sections as well as administrative policies, and contribute to sound planning. Strategic business planning, budgeting, reporting, and forecasting are made easier with IBM planning analytics, a multifaceted, in-memory, online analytical processing (OLAP) business performance management solution. Because IBM planning analytics is designed for speed, it can produce results quickly even when dealing with Big data sets and intricate computations. Real-time what-if scenarios and lag-free reports are made possible by its in-memory processing, which helps to guarantee that data is prepared for prompt analysis and reporting. Thousands of users can be readily served with IBM planning analytics. Furthermore, even the most complicated computations can be handled with ease by a strong rules engine. Furthermore, within the past few years, IBM planning analytics has incorporated

fantastic features (Dehghan et al., 2017). Specifically, the new Excel add-in and web interface are excellent. One of the most important features of IBM planning analytics that made many banks adopt it is its scalability, as it succeeded in unifying all financial and operational data, in addition to forecasts, into a single organized platform where assumptions are allocated globally and the methodology is uniform across all departments (Chen et al., 2015). IBM planning analytics is most frequently used as a financial planning and forecasting tool, where users usually run many versions, multi-year views of their cash flow, balance sheet, and profit and loss, backed by thorough capital expenditure and staff modeling. All of this is wonderful and necessary, but it requires software that is quick, dependable, and strong (Dietrich et al., 2014).

IBM planning analytics integrates with Excel, providing advanced budgeting and planning capabilities. It enables real-time updates, scenario modeling, and rapid adjustments based on changing business conditions. The platform synchronizes financial data—income, balance sheet, and cash flow—using AI-powered forecasts and data visualizations to improve accuracy. In order to improve corporate outcomes, integrated corporate Planning (IBP) offers a thorough framework that combines financial, operational, and strategic planning, analysis, and reporting. A retail company's online sales suddenly increase as a result of a social media campaign that becomes viral. In order for the business to promptly evaluate the impact on inventory levels, supply chain logistics, production plans, and customer service capacity, integrated planning combines demand planning, supply chain planning, and demand predictions. With real-time data at their fingertips, decision-makers can maximize revenue while guaranteeing customer happiness by modifying their plans, allocating resources appropriately, and taking advantage of the sudden surge in demand (Kohn et al., 2014).

In addition, Zinovyeva et al. (2021) indicated that IBM planning analytics could provide reliable external financial reports. This is through its ability to display financial reports correctly and with great accuracy and in the form and content required by generally accepted accounting principles and prevailing accounting standards. In addition, Sohrabi et al. (2019) explained that the application of strategic IBM planning analytics would reduce the time taken to close accounts and prepare the final financial statements, whether monthly, quarterly or annually. In addition to the possibility of conducting calculations of similar and complex transactions in light of the huge amount of transactions for large banks. This leads to increasing the efficiency of issuing external accounting reports, such as providing comparative financial reports. Thus, achieving some of the enhanced characteristics of accounting information, such as the characteristic of comparability and timeliness. Moreover, Bogojeska et al. (2021) clarified that the application of strategic IBM planning analytics improves the quality of financial reports by preparing and making them available to beneficiaries in a timely manner and by facilitating the preparation of comparative financial statements. This is due to the availability of data in a single integrated database (Dehghan et al., 2017). The application of strategic IBM planning analytics has a positive impact on reducing the time required to obtain the necessary financial information, which contributes to providing financial reports at the appropriate time to decision makers (Dietrich et al., 2014).

5.2 Financial Reporting Analysis

Financial reporting analysis is one of the most important approaches for those interested in a firm's financial position to find out whether or not it is what it appears. Financial disclosure has become one of the most important contemporary accounting issues due to the conversion of financial accounting data into useful information for various user groups. Hasan (2024) described it as an inquiry that diagnoses and looks at the financial position of the institution in question with a view to providing those related to the institution with enough information for them to base their action, such as financiers, creditors, government agencies and institutions engaged in financial analysis and monitoring as well as the internal management of the organization relating to it. 1.2 FINANCIAL REPORTING ANALYSIS Financial reporting analysis is the process of observation and assessment applied to financial statements for making sense of performance and soundness (Maynard, 2017). Conceptual framework for financial reporting Information is useful if it has the following two fundamental qualities: relevance, and faithful representation. The usability aspect of financial information is also improved through being comparable, verifiable and comprehensible (Revsine et al., 2021).

Financial reporting analysis as a tool of management for financial performance evaluation is conceptualized as the management device adopted to spiral in all dimensions of finance by utilizing specific key performance indicators associated with these dimensions to communicate essential information about the finances to both internal and external stakeholders (Akai, Ibok & Akinninyi, 2023). The main purpose of financial reporting is providing high quality information about the business so that it can help stakeholders make decisions that will benefit them. As the accounting information is useful in enabling shareholders and other stakeholders to make better economic decisions, especially those that lead to an efficient stock market operation, then it is important (Sedighi et al., 2023). The key to fatality reports The main tool for informing the interested parties with accounting information (oriented mainly toward decision-making) about the extent of financial stability and growth of companies that they are investors in is reporting. Financial reporting analysis offers a summary of the financial performance of a commercial bank for a period based, also facilitates an understanding of how the funds were invested to actual time report writing period and encourages investors to invest in their money (Hong, 2023).

Financial statements form the basis for business decisions. The reports enable management, investors and creditors to have a prospective view of the future of a bank in financial terms (Moridu, 2023). Based on these reports, the organization can take remedial action, enhance investment and improve relationships with investors. Timely preparation of financial statements makes the bank more credible and attractive to investors and stakeholders. Regardless, bank investors and management need to know how a bank is doing. They find that from the financial reports data, the stakeholders can understand how the commercial bank strengthens its strategic goals and cash flow (Alshehadeh Et al., 2023). Performance actual versus target comparison supports in detecting potential shortfalls thereby allowing for informed decision making (Ayinla, Shehu Aliyu & Abdullah, 2022). These reports also play a role in liquidity monitoring so that the bank can fulfill its financial commitments. Hence, periodic and timely

preparation of accurate financial reports enable the bank to respond to new emergent developments in market and proactively address financial risks (Abed et al., 2022).

The level of financial reporting is an important factor that affects quality and transparency in commercial bank performance. This characteristic is impacted by a variety of factors, including regulation and accounting standards. The corporate governance commitment of these bank and conformity to the international accounting standards is a key factor for succeeded quality (Achmad et al., 2022). A strong internal control system in place and the existence of fraud detection mechanisms are also indicators for a more reliable financial reporting. Moreover, transparency and full disclosure of pertinent information have to be one of the major instruments that drive up the quality of financial reporting. The underpinning or foundation on which financial analysis is constructed, consists of a series of qualitative and quantitative details and facts pertaining to the bank including both its securities which can be categorized according to economic, financial aspects in particular all types of data that are then applied in evaluating functions (Maynard, 2017). Such information when including some data, the direct influence of which on a financial asset value cannot be directly determined, this one is treated as it will be explained below by analysing and statistical methods to apprehend such information (5) and its future impact (7) for perdition thus envisage the bank statuts or status of aiming financial assets. The financial statement analysis is an indispensable part of the evaluation bank's operating efficiency. By looking at the numbers within financial statements, management can spot several significant trends which are good indicators of how they're doing. This is indicating profitability, operational efficiency and capital structure. Such analyses help managers to make strategic decisions which in turn improve the organization's financial performance which pleases returns on investments within the bank Urban (2024) if the project fits their investment needs.

It is important to identify the purpose for financial analysis prior to analyzing, as such direction will guide focus toward the financial data that interrelate with the purpose and discard that which does not serve the special purpose of analysis. It also contributes to using the right tools, the right means to subject the analysis or establishing convincing outputs that serve both the beneficiary and decision-maker (Yousif, 2023). The analysis most likely needs to be constrained temporally in financial periods. To get accurate results through financial analysis, one or more than one periods are necessary as a single period may not represent the true financial picture (Revsine et al., 2021). In addition, the process of gathering required financial data and statements from its original sources is one of the key steps in any sort of proper budget analysis. This involves determining the financial data necessary for analysis such as income statements, inventory turnaround, expenditure as well as other information that might augment notation to Financial analysts with which it would enable them get a right analysis (Sedighi et al., 2023).

Financial and credit indexes are a very efficient tool for the analytic examination of the activity of banks since based on them conclusions can be drawn and undertaking measures to adjust work, or to make changes in planning and policy, or in both. 2.1 Significance of financial ratios The significance of financial ratio is that the accounting numbers become useless in final accounts when taken into others it does not give a clear

indication about the state of finance unless such figures are brought into relationship with some related figure, also attached to them they would yield such result as need to be compared. More specifically, the ratios allow to investigate the marginal effect of accounting numbers, which were attained by banks at different sizes. The numbers achieved can be big at large banks, but the financial ratios are weak and the reverse may be true for small banks. In general, the financial analysis when using ratios, provides control and follow-up in regard to the increase of grow the bank's financial indicators. Nowadays, this kind of analysis has become a very relevant well-known widespread and also worrying problem so much that it is almost impossible to analyze the bank data without applying technological financial ratios. Consequently, the making of ratios and their articulation in an integrated perspective (which refers to all dimensions of operation of bank) has become a matter that yells advanced thinkers and whose heads are financial analysts. Ratios are one of the most important subjects in financial analyses, because: By determinants of using ratios as a dynamic study that needs information more than for specific period to understand the behaviour of this period, or to compare the bank's ratios and indicators with other similar banks' which has the same size of work categories game on all levels. The major components of financial analysis for financial reporting are statements, ratios, trends and variances. All of these components provide key information about the bank's fiscal soundness. Financial Statements: Written documents that demonstrate a bank's operations and financial success are known as financial statements. Governmental organizations, financial firms, and accountants frequently audit financial statements. At the conclusion of the accounting cycle, every business governed by accounting law must prepare a summary statement that includes a restricted inventory count for legal purposes. A number of people, including creditors, financial analysts, and investors, use financial statements (Ibrahim & Khudair, 2024). This is because it is crucial for assessing the bank's financial performance, figuring out the share price's growth trend, assessing the financial standing, and estimating the possible profit rate. Reading and analyzing financial data contained in financial statements such as income statements, balance sheets, and cash flows can reveal critical aspects of a bank's performance and identify strengths and weaknesses (Alharasis et al., 2024). One of the most significant and trustworthy sources of financial information is the bank's annual report. Financial statements provide a summary of a bank's financial status (Tambunan et al., 2022). One of the important and necessary matters when preparing financial statements is compliance with the International accounting standards issued by the approved accounting authorities. This works to issue financial statements of high quality and with a high degree of transparency and mastery (Moridu, 2023). Therefore, the financial statements are unbiased towards certain matters, in addition to being free of errors. The degrees of compliance of banks with accounting standards vary according to several matters. In short, financial statements provide the essential information needed to make strategic financial decisions, help in seeing the full picture of the bank's performance, and determine future steps (Vandanapu, 2024).

1. Ratio Analysis: The performance of the bank can be tracked over time or compared to other businesses in the same industry or sector using ratio analysis. Therefore, it is used to examine a bank's financial accounts, since it entails figuring out ratios like

solvency, profitability, and liquidity ratios (Al Karim & Alam, 2013). It is considered one of the most important financial analysis tools used, and it is a quantitative method to know the bank's liquidity, operational efficiency, profitability, and financial solvency (Susanto et al., 2023). The term ratio refers to the mathematical relationship between two variables that are linked to each other, as the ratio can be defined as an arithmetic relationship between a numerator and a denominator, each of which represents a number from the numbers disclosed in the financial reports. This is done by relying on financial ratios to measure the relationships between the elements of the financial statements and their value over time. To have a better understanding of the bank's financial health, these ratios can also be connected to other metrics. By looking at both historical and present financial statements, financial analysts utilize the ratio analysis method to assess the banks' financial standing. Additionally, this data can be utilized to forecast future performance and explain the bank's performance over time (Bouakaz & Taibi, 2024).

2. **Trend Analysis:** Trend analysis means analyzing and forecasting the future financial position of the bank by studying and analyzing the financial data resulting from the financial statements. This analysis entails examining financial data over time, since it aids in spotting patterns in the financial performance of the bank. An indication that a bank is expanding is, for instance, if its revenue is rising over time. When it comes to bull and bear markets, trends can be either bullish or bearish (Kaium & Haq, 2016). Trend analysis becomes more evident the longer it has been in existence, however there is no minimum time required to be considered a trend. Trend analysis, a type of comparative analysis, is the process of examining current trends in order to predict future trends. This can include trying to ascertain whether a trend in one market area is likely to lead to a trend in another area, as well as whether the current market trend is likely to continue – such as increases in a particular market sector. Although trend analysis can use a lot of data, the accuracy of the conclusions is not guaranteed (Behera & Sood, 2024).
3. **Variance Analysis:** Variance analysis is an analytical tool that can be used to determine the cause and extent of differences between actual performance and planned performance. After a period of time, managers often check actual cost and sales figures or values to compare them to what was budgeted. This analysis is used to keep a business under control and monitored (Bergault et al., 2024). This method compares a bank's actual financial performance to its budgeted performance. It facilitates determining the causes of the disparities and implementing remedial measures (Yang et al., 2021). The bank must take action to boost its revenue, for instance, if real revenue falls short of budgeted revenue. Furthermore, banks may face several problems with variance analysis, which may prevent them from using it. Accounting staff calculates these variances at the end of the month before issuing the results to the management team, but management may need quick feedback several times during the month, which reduces the reliance on variance analysis and uses other warning signs and benchmarks that are created immediately when needed (Takino & Ishinagi, 2022). Accounting personnel must go through bills of materials, work instructions, overtime records, and other documents to find out the reasons behind issues because the accounting records do not contain a lot of information

regarding the causes of deviations. Only if management can successfully address the issues using all of this knowledge will this work be beneficial. In essence, variance analysis compares actual results to an estimated standard that may be inaccurate or improper, which may produce undesired outcomes (Wang & Zhang, 2024).

6. Proposed Study Model and Hypotheses

As shown in the Figure 1, a proposed study model consists of IBM planning analytics software as independent variable, as well as the elements of financial reporting analysis (financial statements, ratio analysis, trend analysis, and variance analysis) as dependent variables. This model begins with preparing for strategic planning, taking into account a number of factors, which are considered the basic structure in forming strategic planning. This preparation must stem from banks' mission and vision, and their internal and external environment.

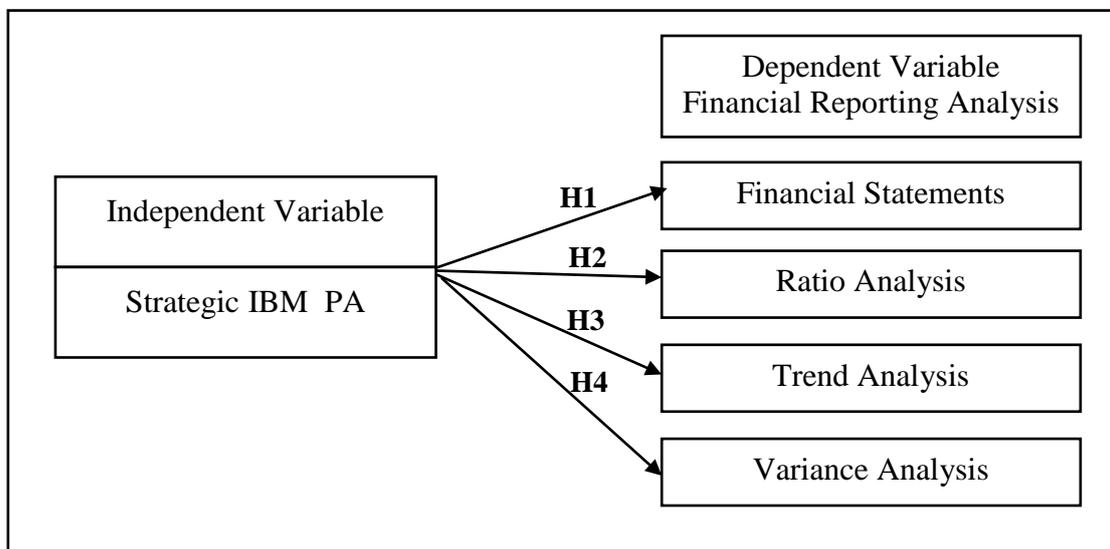


Figure (1). A Proposed Study Model.

Referring to the above model, the following hypotheses were formulated:

H1: There is statistically significant effect of strategic IBM planning analytics software on improving financial statements in Iraqi commercial banks.

H2: There is statistically significant effect of strategic IBM planning analytics software on improving ratio analysis in Iraqi commercial banks.

H3: There is statistically significant effect of strategic IBM planning analytics software on improving trend analysis in Iraqi commercial banks.

H4: There is statistically significant effect of strategic IBM planning analytics software on improving variance analysis in Iraqi commercial banks.

7. Research Methodology

This study adopts a descriptive quantitative approach to analyse analysts and planners' perceptions of the role of strategic IBM planning analytics software in improving financial reporting analysis. The methodology focuses on systematically collecting and analysing data to extract insights into the topic. The descriptive quantitative design facilitates in-depth exploration of analysts and planners'

perspectives through structured data collection and statistical analysis, enabling the identification of trends and relationships. Data is collected using a questionnaire due to its effectiveness in collecting large amounts of data from large numbers of analysts and planners in little time and effort and with limited resources. The questionnaire was carefully designed to avoid many problems including low response rates and problems related to the structure and wording of questions, and was written in both English and Arabic so that it is clear, simple, understandable, and easy to read and fill in answers. The questionnaire and its statements distributed over the dimensions of the study variables were presented to a number of experienced and specialized arbitrators from various Iraqi university professors to benefit from their suggestions and comments on the questionnaire statements. These suggestions and recommendations were collected and discussed for the purpose of reformulating the questionnaire statements within clear meanings.

This study targets analysts and planners in Iraqi commercial banks who have different levels of experience. A convenient sampling method is used to recruit participants, ensuring accessibility while capturing a variety of perspectives. The target sample size is 154 participants to ensure good representation, but a total of (128) financial analysts and planners participated in the study. The sample size was determined based on the feasibility of data collection and the need for statistical validity. The questionnaire included closed-ended and 5-point Likert-scale questions to facilitate quantitative analysis. This method was chosen because of its effectiveness in collecting large amounts of data from large numbers of analysts and planners in little time, effort, and limited resources. The questionnaire consists of three main sections; the first section contains questions about personal information that collect data about the participants' gender, age, job title, years of experience, and knowledge of strategic IBM planning analytics software. The second section is about the importance of strategic IBM planning analytics software (10 statements). While the third section is related to the most important elements of financial reporting analysis, which are financial statements, ratio analysis, trend analysis, and variance analysis, each element has five statements. The data collected from the questionnaire were analyzed using statistical programs such as SPSS and SmartPLS to summarize demographic data and general trends and to identify important relationships and patterns to visualize the results through charts, graphs, and tables to enhance interpretability. The Table 1 shows the demographic information of research sample.

Table (1). Demographic Information of Research Sample.

Variable	N (%)
Gender	
Male	96 (75.00%)
Female	32 (25.00%)
Age	
18-29	13 (10.16%)
30-39	38 (29.69%)
40-49	49 (38.28%)
+ 50	28 (21.87%)

Job Title	
Financial Analyst	88 (68.75%)
Financial Planner	40 (31.25%)
Years of Experience	
0-5	14 (10.94%)
6-10	21 (16.41%)
10-15	47 (36.72%)
>15	46 (35.93%)
Do you have knowledge in strategic IBM planning analytics software?	
Yes	89 (69.53%)
No	39 (30.47%)

Regarding assessment of construct reliability and validity, the results of the internal consistency coefficient test have shown that all items' values for the dimensions of the study tool were indicative of stability in that they were greater than the minimum, 0.70. In this case, the reliability index of the study tool is considered good, which confirms the reliability of the study tool statements for the purposes of conducting statistical analysis. The reason for this is that Cronbach's alpha necessitates a number of challenging requirements, such as one-dimensionality—that is, that each statement in the construct measures a single latent factor. Since Cronbach's alpha and composite reliability values vary from 0 to 1, a value of 0.70 or above is deemed appropriate and legitimate for statistical analysis. The ability of Iraqi commercial banks to measure what was applied is demonstrated by the fact that all constructs have composite reliability and Cronbach's alpha greater than 70, as shown in the Table 2. The degree of similarity between the statements used to measure a single variable is known as convergent validity. It conveys the degree of measurement of the target field's build. To ascertain how well the questionnaire captures the trait, behavior, or object to be measured, as well as to make sure the questions address every facet of the study topic, it is necessary to look at the questionnaire's content and analyze its questions. Stated differently, the degree to which the resolution captures the properties of the thing under study. In this research, the average variance extracted (AVE) was calculated to evaluate the correlation between the statements used to measure the variable in order to assess convergent validity. For every construct, the AVE value needs to be higher than (0.5). The statistical analysis's findings, which are summarized in the Tables 2, show that all AVE values are acceptable. The values vary from 0.732 to 0.829 in Iraqi commercial banks.

Table (2). Construct Reliability and Validity in Iraqi Commercial Banks.

<i>Construct</i>	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>	<i>Average</i>	<i>AVE</i>
Strategic IBM Planning Analytics Software	0.856	0.784	0.820	0.803
Financial Statements	0.903	0.793	0.848	0.829
Ratio Analysis	0.887	0.741	0.814	0.732
Trend Analysis	0.863	0.703	0.783	0.767
Variance Analysis	0.916	0.794	0.855	0.791

Additionally, this paper was based on the Fornell & Larcker (1981) criteria, which are among the most well-known criteria for assessing discriminant validity. The square root of the AVE value is compared to the correlation value of the variable with the

highest value in any row or column with the highest correlation value for any other variable using the Fornell-Larcker criterion. The accuracy with which the latent variables describe the item's variance in respect to the other latent variables is a prerequisite for this feature. The discriminant validity test for the path model in Iraqi commercial banks is displayed in Table 3 based on the Fornell-Larcker Criterion. It is seen that the correlation coefficients between the various latent variables, which account for the various potential structures, are high for the values associated with the square root of AVE for each latent variable, as shown by the tables' diagonal.

Table (3). Fornell-Larcker Criterion in Iraqi Commercial Banks

	Strategic IBM Planning Analytics Software	Financial Statements	Ratio Analysis	Trend Analysis	Variance Analysis
Strategic IBM Planning Analytics Software	0.743				
Financial Statements	0.756	0.754			
Ratio Analysis	0.723	0.742	0.703		
Trend Analysis	0.793	0.743	0.694	0.718	
Variance Analysis	0.783	0.725	0.681	0.676	0.712

8. Research Findings

8.1 Descriptive Statistics

In this study, descriptive analysis was used to show the sample's responses to each of the statements regarding strategic IBM planning analytics software, as shown in the Table 4.

Table (4). Strategic IBM Planning Analytics Software Construct

Statement	Mean	SD
1. Strategic IBM planning analytics software provides external requirements in a timely manner.	4.12	1.001
2. Strategic IBM planning analytics software provides outputs that help enhance transparency and trust.	4.01	0.997
3. Strategic IBM planning analytics software facilitates the verification of financial reports.	3.98	0.984
4. Strategic IBM planning analytics software considers the materiality of the information presented.	4.07	1.116
5. Strategic IBM planning analytics software affects the characteristics of financial statements in an organization.	4.09	1.034
6. Strategic IBM planning analytics software helps in verifying expectations and correcting proposals related to financial statements.	4.16	0.876
7. Strategic IBM planning analytics software provides additional information that gives a complete picture of financial events for a specific period.	3.97	1.047
8. Strategic IBM planning analytics software provides procedures that ensure the correctness of data processing.	4.02	1.132
9. Strategic IBM planning analytics software makes well-informed decisions by analyzing product profitability and operational efficiency.	4.01	1.139
10. Strategic IBM planning analytics software reduces support and training costs and eliminates operational inefficiencies.	3.94	1.009
Total Mean and Standard Deviation	4.04	1.021

It is clear from Table 4 that all statements of the strategic IBM planning analytics software construct achieved high arithmetic means, which reflects the great role of the

strategic IBM planning analytics software in Iraqi commercial banks. The sixth statement achieved the highest arithmetic mean (4.16), which states “Strategic IBM planning analytics software helps in verifying expectations and correcting proposals related to financial statements”. While the third statement, which states “Strategic IBM planning analytics software facilitates the verification of financial reports” achieved the lowest arithmetic mean (3.98). This result is in line with Zinovyeva et al. (2021); Bogojeska et al. (2021); Sohrabi et al. (2019). Strategic IBM planning analytics helps Iraqi commercial banks manage business risks that could result in higher expenses or volatile revenues. Therefore, through cost control and rationalization, strategic IBM planning analytics plays a crucial role in boosting earnings in Iraqi commercial banks. By streamlining the planning process for the entire bank, IBM planning analytics transforms financial and operational planning to speed up planning cycles, automating tedious, spreadsheet-driven planning processes. It creates a single, reliable source of information by dismantling silos and combining data. It also makes it possible for business and finance experts to work together on forecasts, budgets, and goals. Iraqi commercial banks can easily combine financial and operational planning, ensuring alignment of top-down corporate strategies and operational execution. Furthermore, IBM planning analytics gives Iraqi commercial banks greater planning flexibility by quickly managing plans and forecasts in real time to adapt to changing internal and external conditions or changing business strategies.

Table (5). International Financial Reporting Analysis Construct

Statement	Mean	SD
Financial Statements		
1. Financial statements aim to help Iraqi commercial banks understand their financial position.	4.02	0.896
2. Financial statements provide a summary of past financial data that helps Iraqi commercial banks make wise choices.	4.06	0.984
3. Financial statements help evaluate financial performance and identify strengths and weaknesses of Iraqi commercial banks.	4.05	1.025
4. Financial statements are an essential tool in Iraqi commercial banks to attract loans or financing from investors.	4.18	0.963
5. Financial statements play a crucial role in determining the extent to which Iraqi commercial banks comply with tax requirements.	4.09	0.856
Ratio Analysis		
1. Ratio analysis offers a comprehensive perspective on the financial well-being of Iraqi commercial banks.	3.99	1.114
2. Ratio analysis sheds light on Iraqi commercial banks' capacity to turn a profit, fulfil its short- and long-term commitments, and run effectively.	4.00	0.994
3. Ratio analysis assists Iraqi commercial banks in analysing their growth prospects, and estimating the possible return on investment.	3.90	0.986
4. Ratio analysis helps Iraqi commercial banks in strategic planning.	3.95	0.887
5. Iraqi commercial banks can make well-informed judgments by evaluating ratios over time or in comparison to industry standards.	4.02	1.125
Trend Analysis		
1. Trend analysis can assist Iraqi commercial banks in forecasting future trends and behaviours.	3.88	1.148
2. Trend analysis offers a historical viewpoint that is crucial for assessing how well Iraqi commercial banks are performing over time.	3.78	1.009

3. Trend analysis helps Iraqi commercial banks manage budget allocations, forecast revenue streams, and anticipate market volatility.	3.81	1.159
4. Trend analysis supports Iraqi commercial banks in managing risks, assessing the feasibility of proposed investments, and forecasting future financial positions.	3.89	1.163
5. Trend analysis helps Iraqi commercial banks maintain their financial health and ensure their liquidity.	3.74	1.134
Variance Analysis		
1. Variance analysis measures the financial performance of Iraqi commercial banks, and monitors over- and under-performing financial KPIs.	4.02	0.874
2. Variance analysis assists Iraqi commercial banks in tracking their financial results and pinpointing any problematic areas.	3.96	0.912
3. Variance analysis assists Iraqi commercial banks in controlling their expenses.	4.00	0.947
4. Variance analysis enhances Iraqi commercial banks in increasing the accuracy of their budgeting.	3.88	1.004
5. Variance analysis helps Iraqi commercial banks identify problems or opportunities and adjust as needed to enhance their profits.	4.01	0.997
Total Mean and Standard Deviation	3.91	1.067

It is clear from Table 5 that all elements of financial reporting analysis achieved high arithmetic averages from the point of view of financial analysts and planners in Iraqi commercial banks. The financial statements achieved the highest arithmetic average of (4.08), while the trend analysis achieved the lowest arithmetic average of (3.92). This result is in line with Vandanapu (2024); Moridu (2023); Tambunan et al. (2022). This illustrates the importance of financial statements in Iraqi commercial banks, which provide users with statistics on operations through the income statement, including net profit or loss for a specific period, and statistics on suppliers through the balance sheet so that users can assess the banks' assets, liabilities, and equity at a specific date. Here, financial statements are viewed as the responsibility of the management of the entity and as part of the financial disclosure system. On this basis, the predictive ability of financial statements prepared according to the different methods of accounting for inflation can be considered a criterion for choosing and comparing between these methods. This is because the various parties concerned with the financial statements use these statements for forecasting. Shareholders use current profits to forecast future profits, which are considered the basic factor for forecasting expected distributions, which are the basis for comparing different investments. Bondholders and creditors are also interested in forecasts of profits to estimate the ability of the entity to pay interest and debt installments when due. Financial statements prepared based on index information that enables investors to predict potential distributions to a higher degree than that provided by historical statements, and therefore investors can use this information to make their investment decisions.

8.2 Hypotheses Testing

A type of multiple regression statistical analysis called the path coefficient (β) is used to assess causal models by looking at the correlations between two or more independent variables and a dependent variable. This approach can be used to determine the strength and importance of causal relationships between variables. By following the impacts of one or more explanatory variables on one or more outcome variables, path

analysis modeling—a popular data analysis technique—infers links between variables. The path coefficient can be used to create causal models and is an effective tool for comprehending the links between variables (Douma & Shipley, 2023). Figure 2 demonstrates that all associations' β values are stable and positive with regard to Iraqi commercial banks. The IBM Planning Analytics \rightarrow Financial Statements pathway's β value is 0.637, the IBM Planning Analytics \rightarrow Ratio Analysis pathway's β value is 0.524, the IBM Planning Analytics \rightarrow Trend Analysis pathway's β value is 0.471, and the IBM Planning Analytics \rightarrow Variance Analysis pathway's β value is 0.551, all of which indicate a strong positive correlation. Additionally, there is a positive indirect association between the IBM planning analytics and financial statements, ratio analysis, trend analysis, and variance analysis, indicating that independent variable have a strong influence on dependent variables. All hypotheses are accepted when MANOVA confirms these results and the p-value is less than 0.05, which is regarded as statistically significant.

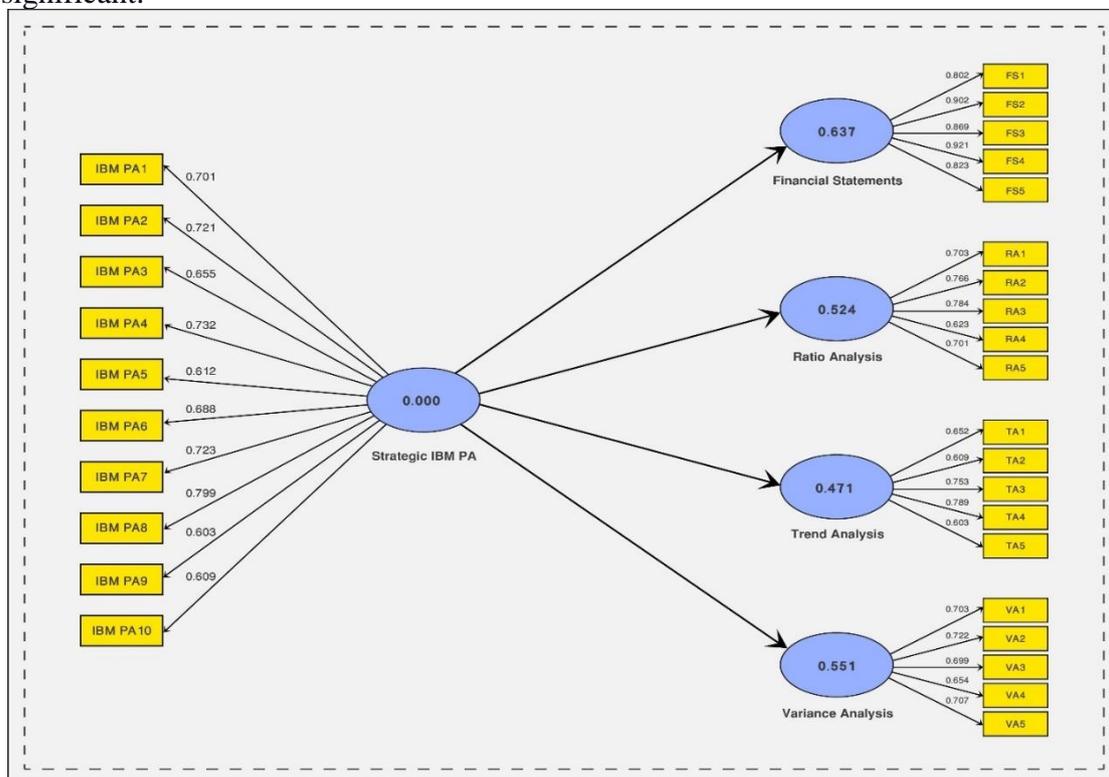


Figure (2). The PLS-SEM Structural Model with Results of the Path Analysis for Factors Influencing Performance with Loadings and β Values.

Table 6 reveals that the β of all of direct links is significant in Iraqi commercial banks. This indicates that there is a positive relationship between the research constructs. The result of the effect size for H1 (β) is positive significant at 0.637 and shows that there exists some significant impact of strategic IBM planning analytics software on enhancing the financial statements in Iraqi commercial banks. Another conclusion Table (6) leads to that the second hypothesis (H 2) is accepted as there is a positive significant relation between strategic IBM planning analytics software in

enhancing ratio analysis and Iraqi commercial banks, where $\beta=0.524$. As for the third hypothesis (H3), the β coefficient is positive and equals to 0.471, which means that there is statistically significant impact of strategic IBM planning analytics software on trend analysis in Iraqi commercial banks. 4Hypothesis (H4): The β value is positive ($\beta = 0.551$) In other words, there is significant effect of strategic IBM planning analytics software on variance analysis in Iraqi Commercial Banks at P-value < 0.05.

Table (6). Path Coefficients in Iraqi Commercial Banks

Hypothesis	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	P≤0.001, Two-tailed		Confidence Intervals	
					T Statistics	P Values	0.05 %	99.95 %
H01	IBM Planning Analytics -> Financial Statements	0.637	0.684	0.033	19.034	0.000	0.237	0.963
H02	IBM Planning Analytics -> Ratio Analysis	0.524	0.573	0.047	18.034	0.000	0.163	0.862
H03	IBM Planning Analytics -> Trend Analysis	0.471	0.494	0.063	20.974	0.000	0.301	0.763
H04	IBM Planning Analytics -> Variance Analysis	0.551	0.563	0.064	23.419	0.000	0.245	0.806

* P≤0.05, Two-tailed, Confidence Interval (2.5%, 97.5%)

8.3 Importance-Performance Map Analysis (IPMA)

RATING THE PERFORMANCE-IMPORTANCE ANALYSIS IPMA is a tool that implements significantly the results from analyses of PLS-SEM and also helps decision makers to identify the constructs that require further improvements (Haverila et al., 2023). To understand how Iraqi commercial banks are working and managing their cash, IPMA relies on technical analysis and financial information. These banks are able to uncover what is strong and weak, possibly also what is coming as a trend, in relation to past and current financial performance. It is essential to explain IPMA because they are the key of bank and source of performance. This evaluation transforms financial statements into a means to assist the banks in deciding what is the best action to follow, to learn from opportunities and difficulties in its market (Tailab, 2020). To help Iraqite commercial banks to direct their skills and know the steps that lead growth and continuity, IPMA has a great role to analyze financial data and details, make conclusion, satisfying ideasthen for future strategic plans. Nonetheless, IPMA helps in the short-, medium- and long-term versus bank financial performance monitoring as a result of which finance manager can observe changes and trends of financial performance as well as quickly manage to responds accordingly for adjusting or improving (Rehman et al. The Table 7 also indicates that all the constructs of the study have realized great effect and performance, which implies that they are important and play an enormous in enhancement of financial reports in Iraqi commercial banks. The

IPMA for Iraqi commercial banks is also provided in Figure 3. However, the findings reveal that financial statements (FS) are affected the most by adoption of strategic IBM planning analytics software in Iraqi commercial banks. Trend analysis was the least importance of strategic IBM planning analytics software in the Iraqi commercial banking sector.

Table (7). Construct Total Effects and Construct Performances for Research Constructs in Iraqi Commercial Banks.

Predecessors' Constructs	Construct Total Effects	Construct Performances
	Importance	Performances
Financial Statements	0.84	0.87
Ratio Analysis	0.77	0.72
Trend Analysis	0.73	0.68
Variance Analysis	0.75	0.71

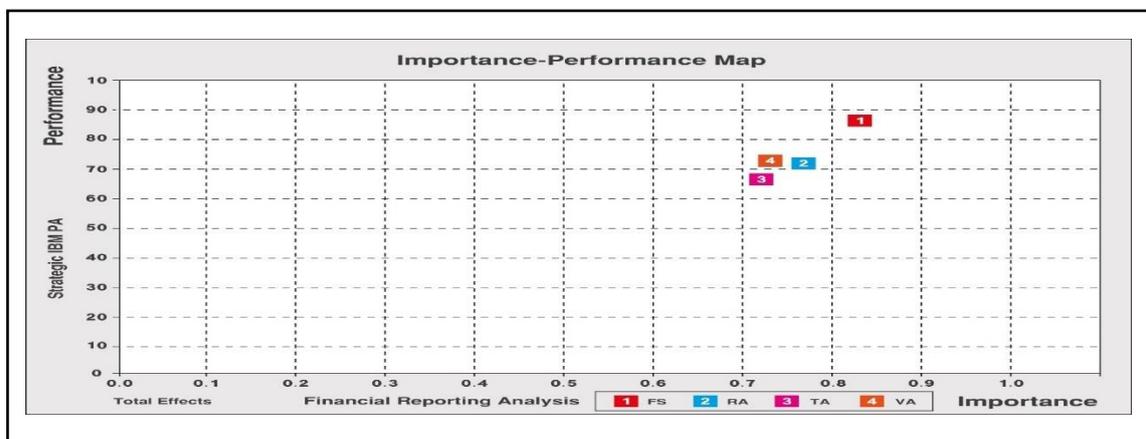


Figure (3). Importance-Performance Map Analysis (IPMA) in Iraqi Commercial Banks

9. Discussion

The results of this research reveal the vital role of strategic IBM Planning Analytics Software in Iraqi commercial banks and its promising effect on improving financial reporting analysis. This is in agreement with Pavlovic et. (2024); Adeniran et al. (2024). Strategic planning is a basic process that seeks to determine the long-term objectives of Iraqi commercial banks and how they should be reached in an efficient form and by using a range of strategies and methods. And last, in increasing percentages of all commercial banks are required to have the plans and it is considered long-range planning that culminates with a strategic plan document which direct banks and acts as an overall roadmap for all members of those banks (Mohammed & Bougatef, 2024). Strategic planning also involves the continuous review of performance to ascertain that targets are being met and if not plans are altered. Financial reporting analysis is one of the most important means in presenting the business results to supervising management, as it indicates how well they manage and execute their tasks in Iraqi commercial bank. It serves as a device for sound financial analysis planning, explained reasons of how well and bad management of the many policies affecting

profit affords realistic business plan in the future as aids to management in performance evaluation (Abed et al., 2022).

In contrast, Rahman et al. (2025) found lesser extent of value of the similar planning analytics software tools, and that introduction had little influence on improving banks financial reporting analysis. This variance can be due to differences in organisational culture, data quality, and training of individuals. It focuses on the need for appropriate implementation so that the software can be optimized, He, Hung & Liu (2023) found lack of direction and non-standard methods as one of constraints in financial reporting analysis. The introduction of analytics-driven systems in other banking environments had shown mixed efficiency, including poor results due to inadequate staff training and implementation effort not being aligned with existing financial process (Stanoevska, 2024). This discrepancy indicates that the success of IBM Planning Analytics is extremely situational and depends not only on its technical aspects, but also on human-related factors – the establishment of policies, procedures and individual competencies (Rahman et al., 2025). Contrary to Stanoevska (2024), the results of this study showed that financial reporting analysis assists the accounting application and enhances the quality of financial statements in Iraqi commercial banks. For the adoption of a powerful strategic planning software, Iraqi commercial banks have to follow the right principles and standards and they should be given special attention in order that it can play an important role in preparing and improving financial statements. Hence this research is a stepping stone of necessity to have the role of financial information reporting, which is providing relevance, representational faithfulness, substance over form and neutrality in accounting information. This results in high level of quality in this accounting information, which impacted at the end on financial performance efficiency Iraqi commercial banks.

The results of the current work indicate the ability of strategic IBM planning analytics software in significantly enhancing financial statements in Iraq's commercial banks. This finding is consistent with Alharasis et al. (2024); Moridu (2023). >> Reliable financial and accounting analysis of the informations and fincials data found in the carts d'identites is necessary. The data analysis process helps to overcome the reliability problems, and also assists in recognizing shortcoming and errors contained in the financial reports by providing a highly accurate and error-free report (Alharasis et al., 2024). The financial position of Iraqi commercial banks for which reports must be prepared should appear, without any ambiguity or partial ignorance or ignorance of details that may exist in the balance sheet. This needed information is required in the financial statements, and clarity has effects on accounting and financial reporting of information that appears in financial statements. There are two process in which strategic planning software can increase financial statement quality programs & applications that enhances the accuracy of financial statements and processing multiple finial statements at one time (Moridu 2023).

The results of the present study indicate the high impact of strategic IBM planning analytics software on enhancing ratio analysis in Iraqi commercial banks. This is in agreement with the finding of Susanto et al. (2023); Murtiningrum & Wahyuningsih (2024). Ratio analysis may also be demanded in Iraqi commercial banks by creditors and other external parties who establish standards, often linked to risk. It assists to

identify the areas that require improvement, budgeting the set targets and developing plans for improving in performance at every area (Susanto et al., 2023). This is important for assessing the present performance and forecasting future financial directions of Iraqi commercial banks as well, which in turn will be measured by their capability to expand and stabilize within the growing Iraqi market. Through financial statements, Iraqi commercial banks can know the composition of their assets and liabilities, as well as profit or loss achieved during a given period. Handling these specifics can allow them to have a good financial policy whilst also in a position to direct their future strategies around strong grounds (Murtiningrum & Wahyuningsih, 2024).

The results of this study reveal the considerable effect of strategic IBM planning analytics software on enhancing trend analysis in Iraqi commercial banks. This finding is consistent with that of Zulianty & Witono (2025); Behera & Sood (2024). With trend analysis, economic managers are in a better position to manage budget allocations, estimate expected revenue streams and forecast the likely instability in market values. It can also help them with their risk management, determine the viability of proposed investments, and forecast future financial positions. Through such preemptive adjustments, rerouting said funds into a good capital investment or preparing for an economic downturn (Zulianty & Witono, 2025), viewpoints from trend analysis help the businesses to sustain its financial health and a healthy liquidity position. This in turn supports human capital, inventory management, technology and integrated sales and operations planning making it easier to create business plans budgets comparisons of targets forecast at their various business levels. Trend analysis is enhanced and time better spent leveraging their core skills (no data science required). It allows flexible approaches and live calculations. Users point out the cost drivers, select the allocation alternates and then simulate scenarios in a safe environment to enable accurate financial reporting and improved decision-making (Behera & Sood, 2024).

The results of present study proved the significant impact of strategic IBM planning analytics software in enhancing variance analysis in Iraqi commercial banks. This finding is in line with Bergault et al. (2024); Takino & Ishinagi (2022). The analysis of variance is very important as it gives us an intuition about the financial soundness of banks. Iraqi commercial banks can assess their financial performance and be apprised of over or under-performing financial KPIs as well as the areas that need improvement by utilizing suitable variance analysis. Accordingly, Iraqi commercial banks may precisely know the general status quo and forecast future financial indicators and trends. With IBM planning analytics, commercial banks in Iraq can access timely and reliable financial data. As a result, these banks can readily monitor their business and commercial activity so that they in turn may make rapid decisions. This removes mistakes and obstacles for those banks and also saves them money in the form of retained liquidity (Wang & Zhang, 2024).

The principal drawbacks of this study are the potential biased data collection mechanism, since single-source responses came from analysts and planners working in Iraqi commercial banks, lack of uniform interpretations to items in the questionnaire. Since this was a descriptive analysis, no cross-sectional inference can be inferred. The study findings are significant for Iraqi commercial banks. Furthermore, the

generalizability of these results may be questionable for banks other than Iraqi commercial banks since those financial institutions operate in different functional, technological and institutional environments. The convenience sampling may not be generalisable to the rest of the sample for analysts and planners in Iraqi commercial banks as the respondents may not fully represent all analysts and planners within the Iraqi financial sector. There may be also external factors, such as the practices of Iraqi commercial banks where credits are data and resource-limited as well as interaction dynamics that might affect the results, limiting this study's capability to assess consistent practices across contexts. Last but not the least, due to potential biases of self-reported data and convenience sampling bias, the findings cannot be generalized. Further investigations may be undertaken using a mixed methods approach. This methodological template secures a broad knowledge of analysts and planners' perceptions regarding the role of strategic IBM planning analytics software in financial reporting analysis, which can be used by practitioners[researchers] as an action item[*note: not sure what you want on the bracketed section*].

10. Conclusions and Recommendations

Conclusion: The comprehension and analysis of financial information are a mandatory part of the management process in Iraqi commercial banks, as well as helping to reach clear and effective financial decisions. Financial reporting analysis provides information on the health of Iraqi commercial banks, thereby enabling informed-decision making. Financial reports, ratios analysis, trend analysis and variance analysis are the major elements of financial reporting. Each of these components provides essential information on the financial state of the bank. With the advancement of technology, IBM planning analytics software is just like a backbone in financial data analysis and providing information to the managers, investors and all other related parties authentic without any error. In summary, the IBM planning analytics software is a vital tool for analyzing financial data and generating financial reports. It helps in giving a clear, reliable and correct financial information for the Iraqi commercial banks to make a good financial decisions and achieve success in their business. IBM planning analytics software can be a functional mean of keeping track and documentation of payment processes in the organization and creating/submitted all necessary reports to make payments available for both parties. Software for accurately tracking revenues, expenses, assets and liabilities in accordance with accounting principles is provided. With the IBM planning analytics software, Iraq commercial banking institutions can comingle financial data for analyzing and create income and balance sheet statements as well as cash flow reports. This system helps the managers to get information on financial performance of the bank and they can take an informed strategic decision.

This study shows that there is a significant role for strategic planning IBM planning analytics software in Iraqi private sector banks. The use of IBM planning analytics depends on the reports it generates and how they fit a user. The primary purpose of IBM planning analytics is to ensure that those who use these systems have the needed information for decision making. The objective of IBM planning analytics is to generate good accounting information and now deliver it to the beneficiary's

accounts, whether outside or inside a bank as such, but still at the very least satisfy for quality in financial reports under the IBM planning analytics click mechanism. The results of IBM planning analytics tools are: Transparency- Honest representation - Neutral stance The sum of all this suggests that it has served to significantly improve the quality of financial reporting. With IBM planning analytics, it is possible to revolutionize forecasting, budgeting and planning. Domo's new data integration capabilities, real-time updates, collaboration tools, ease of scale and intuitive user interface enable organisations to make smarter decisions faster as their businesses adapt to the changing world and seek growth. Iraqi commercial banks' Planners are extending the tool beyond core planning, risk and compliance to cover more joined-up business planning with IBM based planning analytics. With IBM planning analytics, the savings are massive in terms of both support and training expenses as well as operational inefficiencies. They will no longer be mining for knowledge and can spend more time focusing on good projects. Automating repetitive tasks, IBM planning analytics can extract data quickly, reports from the data and even build dashboards according to your needs. Furthermore IBMs PA provides the Iraqi commercial banks to overcome traditional scoring systems and extend their client base significantly. Iraqi commercial banks often reject potential customers with scant credit histories, but by analyzing other data sources, IBM's planning analytics that allows them to develop more comprehensive risk assessments.

The main prerequisites that should be met for the successful adoption of IBM planning analytics strategic software at Iraqi commercial banks are top management support, expertise work team, predetermined plan and vision toward the implementation. This is besides good communication among the teams are they have all the details required to carry out their task. The commercial banks in Iraq have to be also interested, with controlling and assessment performance of strategic IBM planning analytics software best practice at all implementation stages, where the executed plans progress must be measured against of predefined objectives. It is very essential that Iraqi commercial banks attract elite personnel and help them occupy decision-making positions in order to push for technological development to be able to cope with demands of the competitive circumstances in today's world.

One important element of a good decision intelligence system in Iraqi commercial banks would be a flexible, powerful, user-friendly planning analytics tool. This is to provide for rapid and flexible response. IBM Planning Analytics Major contributor in the financial statements of commercial bank in Iraq. Using IBM planning analytics software, analysts as well as planners can utilize their time to concentrate on their strengths. But in the fast moving world of IT in today's banks IT teams can have confidence they will be ready for the future. It helps to provide a range of financial data and details about the financial condition (or position) of banks in terms of profit or loss, revenue or expenses, and assets or liabilities. 24): Financial statements assist Iraqi commercial banks to control their debts by mean of different kinds of financial information they furnish, expressing the state of affairs from different facets thereof. Banks owe a debt which can be barrier for the growth and proliferation of business forcing entity to adopt measures for dealing with their debts. According to the financial statements presented the Iraqi commercial banks can conduct –decisions in order to

maintain their debts. Iraqi commercial banks will be able to use financial statements in order to handle their multiple obligations and to see whether they need to borrow money so as to pay them. This is achieved, through which, cial loans and credit cards are the two most important items in terms to be paid by commercial banks when taking the borrowing decision.

This paper aims to provide Iraqi commercial banks with valuable information about financial reporting analysis, and how to use this analysis to make informed decisions about investing, financing, or planning. We cannot talk about financial statement analysis without mentioning the importance of financial reports. Budget, income and cash flow reports provide up-to-date and detailed information about the targeted financial return, which accurately reflect the real situation of these banks. Based on these reports, Iraqi commercial banks can make sound financial decisions and achieve sustainable growth and stability in the market. Based on these conclusions, this paper recommends the following:

1. The quality of financial reports, ensuring their integrity and enhancing their credibility are of great importance to raise the status of the economy in the Iraqi environment and ensure the quality of information provided to users of financial statements. This requires regulatory and legislative bodies to establish laws and legislation that work to ensure the preparation of financial reports in light of ensuring the availability of the characteristics of financial report quality before submitting them to relevant parties.
2. The IBM planning analytics software should be implemented carefully and accurately in the Iraqi commercial banks. The correct policies and procedures should be defined and employees should be trained to use the software correctly. Periodic audits should also be conducted to ensure that the recorded data is correct and that International accounting standards are complied with.
3. In order to analyze financial reports appropriately, it is necessary to support accounting professionalism in Iraqi commercial banks. This requires improving the skills of analysts and accountants. They must also have a high degree of awareness and interest, as well as maintaining the implementation of regulations, and the need for professional ethical awareness, in addition to focusing on accounting practices.
4. The study recommends paying attention to the elements of financial reporting analysis (financial statements, ratio analysis, trend analysis, and variance analysis). This is because these elements are important and useful in evaluating the growth and development of Iraqi commercial banks by auditors and users of financial statements from owners, investors and lenders, and also give a positive indication of the extent of continuity and sustainability of these banks.
5. Greater importance should be given to the strategic planning function in the organizational and administrative structure of Iraqi commercial banks by allocating special administrative departments for this purpose.
6. The necessity for Iraqi commercial banks to pay attention to the requirements for implementing the strategic IBM planning analytics software before making the decision to implement it, so as not to incur additional costs as a result of failure to implement the system.

7. Increasing interest of Iraqi commercial banks in preparing financial reports and relying on the analysis of financial ratios for these reports.

In light of the findings and recommendations reached, this paper proposes a number of different issues that could be areas for future research in the professional practice environment in Iraq. Future studies could build on this research by exploring additional software tools and methodologies that support financial reporting and decision-making processes in commercial banks. Moreover, comparative studies between different banking sectors or across countries could offer deeper insights into the effectiveness of strategic planning analytics. Another potential direction is to examine how emerging technologies, such as artificial intelligence and machine learning, can enhance the predictive capabilities of strategic planning systems. Longitudinal studies could provide valuable information on how these analytics frameworks influence bank performance and investor confidence over time. Finally, future research could focus on developing standardized metrics to assess the efficiency and reliability of financial analytics practices, thus contributing to more transparent and accountable banking operations. Overall, providing such recommendations would guide scholars and practitioners toward more comprehensive and practical applications of strategic planning analytics in the banking sector.

- **Acknowledgements:** The authors would like to express their sincere appreciation to the financial analysts and planners working in Iraqi commercial banks who participated in this study and provided valuable insights through their responses.
- **Funding:** This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.
- **Conflict of interest :** The author(s) declare that there are no conflicts of interest, financial or non-financial, associated with this research, and no relevant disclosures to report.

References

- Abed, I. A., Hussin, N., Haddad, H., Al-Ramahi, N. M., & Ali, M. A. (2022). The moderating impact of the audit committee on creative accounting determination and financial reporting quality in Iraqi commercial banks. *Risks*, 10(4), 1–22.
<https://doi.org/10.3390/risks10040077>
- Achmad, T., Ghozali, I., Helmina, M. R. A., Hapsari, D. I., & Pamungkas, I. D. (2022). Detecting fraudulent financial reporting using the fraud hexagon model: Evidence from the banking sector in Indonesia. *Economies*, 11(1), 5.
<https://doi.org/10.3390/economies11010005>
- Adeniran, I. A., Efunniyi, C. P., Osundare, O. S., Abhulimen, A. O., & OneAdvanced, U. K. (2024). Integrating business intelligence and predictive analytics in banking: A framework for optimizing financial decision-making. *Finance & Accounting Research Journal*, 6(8).
<http://www.creativecommons.org/licences/by-nc/4.0/>

- Akai, N. D., Ibok, N., & Akininyi, P. E. (2023). Cloud Accounting and the Quality of Financial Reports of Selected Banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 11(9), 18-42.
<https://doi.org/10.37745/ejafr.2013/vol11n91842>
- Al Karim, R., & Alam, T. (2013). An evaluation of financial performance of private commercial banks in Bangladesh: Ratio analysis. *Journal of Business Studies Quarterly*, 5(2), 65. <https://www.researchgate.net/profile/Rashed->
- Alharasis, E. E., Marei, A., Almakhadmeh, A. A. R., Abdullah, S., & Lutfi, A. (2024). An evaluation of financial statement quality in pre-versus post-IFRS-7 implementation: the case of Iraqi banking industry. *Discover Sustainability*, 5(1), 277. <https://doi.org/10.1007/s43621-024-00487-w>
- Ally, Z. (2024). The interplay of corporate governance, internal audit effectiveness, and sustainable financial reporting quality in Tanzanian commercial banks. *Business Strategy & Development*, 7(3), e70016. <https://doi.org/10.1002/bsd2.70016>
- Alonge, E. O., Dudu, O. F., & Alao, O. B. (2024). The impact of digital transformation on financial reporting and accountability in emerging markets. *International Journal of Science and Technology Research Archive*, 7(2), 025-049.
<https://doi.org/10.53771/ijstra.2024.7.2.0061>
- Alshehadeh, A., Elrefae, G., Belarbi, A., Qasim, A., & Al-Khawaja, H. (2023). The impact of business intelligence tools on sustaining financial report quality in Jordanian commercial banks. *Uncertain Supply Chain Management*, 11(4), 1667-1676. <https://doi.org/10.5267/J.USCM.2023.7.002>
- Ayinla, R. B., Shehu Aliyu, N., & Abdullah, A. A. (2022). Audit committee attributes and the financial reporting quality of listed deposit money banks in Nigeria. *Accounting and taxation review*, 6(2), 31-46.
<https://savearchive.zbw.eu/handle/11159/12658>
- Behera, M. B., & Sood, V. (2024). Two Decades Of Trend Analysis In Non-Performing Assets: A Bibliometric Synthesis. *Library Progress International*, 44(3), 4468-4480. <https://openurl.ebsco.com/EPDB%3>
- Bergault, P., Bertucci, L., Bouba, D., & Guéant, O. (2024). Automated market makers: Mean-variance analysis of Ips payoffs and design of pricing functions. *Digital Finance*, 6(2), 225-247. <https://doi.org/10.1007/s42521-023-00101-0>
- Bogojeska, J., Giurgiu, I., Stark, G., & Wiesmann, D. (2021). IBM predictive analytics reduces server downtime. *INFORMS Journal on Applied Analytics*, 51(1), 63-75.
<https://pubsonline.informs.org/doi/abs/10.1287/inte.2020.1064>
- Bouakaz, Y., & Taibi, A. (2024). Evaluation of the financial performance efficiency of commercial banks: A field study at bank of peace, Biskra Branch, Algeria (2021-2023). *International journal of economic perspectives*, 18(12), 2370-2384.
<https://ijeponline.org/index.php/journal/article/view/763>
- Chen, W. J., Kamath, R., Kelly, A., Lopez, H. H. D., Roberts, M., & Yheng, Y. P. (2015). *Systems of insight for digital transformation: Using IBM operational decision manager advanced and predictive analytics*. IBM Redbooks.
- Dehghan, A., Neal, A., Blincoe, K., Linaker, J., & Damian, D. (2017, May). Predicting likelihood of requirement implementation within the planned iteration: an

- empirical study at ibm. In *2017 IEEE/ACM 14th International Conference on Mining Software Repositories (MSR)* (pp. 124-134). IEEE.
<https://doi.org/10.1007/s42521-023-00101-0>
- Dietrich, B. L., Plachy, E. C., & Norton, M. F. (2014). *Analytics across the enterprise: How IBM realizes business value from big data and analytics*. IBM Press.
- Douma, J. C., & Shipley, B. (2023). Testing Model Fit in Path Models with Dependent Errors Given Non-Normality, Non-Linearity and Hierarchical Data. *Structural Equation Modeling: A Multidisciplinary Journal*, 30(2), 222–233.
<https://doi.org/10.1080/10705511.2022.2112199>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
<https://journals.sagepub.com/doi/abs/10.1177/002224378101800104>
- Gláserová, J., Otavová, M., & Blažková, J. (2024). Non-Financial Reporting by Banks in the Context of Current Development. *Montenegrin Journal of Economics*, 20(2), 117-130. <https://doi.org/10.14254/1800-5845/2024.20-2.10>
- Hasan, A. A. (2024). The Role of Internal Audit Practices in Improving The Quality of Financial Reporting for Commercial Companies. A Sample of Iraqi Commercial Banks. *Anggaran: Jurnal Publikasi Ekonomi dan Akuntansi*, 2(4), 01-21.
<https://journal.areai.or.id/index.php/anggaran/article/view/852>
- Haverila, M., Haverila, K. C., & Twyford, J. C. (2023). The influence of marital status on customer-centric measures in the context of a ski resort using the importance-performance map analysis (IPMA) framework. *European Journal of Management Studies*, 28(1), 49-68. <https://doi.org/10.1108/EJMS-05-2021-0034>
- He, W., Hung, J. L., & Liu, L. (2023). Impact of big data analytics on banking: a case study. *Journal of Enterprise Information Management*, 36(2), 459-479.
<https://doi.org/10.1108/JEIM-05-2020-0176>
- Hong, N. T. P. (2023). The Financial Reporting Quality for Commercial Banks- Empirical Evidence in Vietnam. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(6), 6.
<https://doi.org/10.26668/businessreview/2023.v8i6.1421>
- Ibrahim, M. A., & Khudair, R. M. (2024). The Role of IFRS Implementation and Trained Personnel on Financial Reporting Disclosure and Quality of Iraqi Commercial Banks. *International Journal of Economics and Finance Studies*, 16(2), 172-189. <https://doi.10.34109/ijefs.202416209>
- Kaium, M. A., & Haq, M. M. (2016). Financial soundness measurement and trend analysis of commercial banks in Bangladesh: An observation of selected banks. *European Journal of Business and Social Sciences*.
<https://ssrn.com/abstract=2732097>
- Kohn, M. S., Sun, J., Knoop, S., Shabo, A., Carmeli, B., Sow, D., ... & Rapp, W. (2014). IBM's health analytics and clinical decision support. *Yearbook of medical informatics*, 23(01), 154-162. <https://DOI.10.15265/IY-2014-0002>



- Legate, A. E., Hair Jr, J. F., Chretien, J. L., & Risher, J. J. (2023). PLS-SEM: Prediction-oriented solutions for HRD researchers. *Human Resource Development Quarterly*, 34(1), 91-109. <https://doi.org/10.1002/hrdq.21466>
- Maynard, J. (2017). *Financial accounting, reporting, and analysis*. Oxford University Press.
- Mohammed, B. I., & Bougateg, K. (2024). The Role of Strategic Planning in Making Credit Decision: The Case of Iraqi Commercial Banks. *Pakistan Journal of Life and Social Sciences*, 22(2), 1288-1296. <https://doi.org/10.57239/pjlss-2024-22.2.0090>
- Moridu, I. (2023). The Impact of Financial Statement Quality on Investment Decision Making: A descriptive study of the Banking Sector in West Java. *The ES Accounting and Finance*, 1(03), 169-175. <https://doi.org/10.58812/esaf.v1i03.109>
- Murtiningrum, W., & Wahyuningsih, E. (2024). Analysis of the effect of financial ratios on ROA at Commercial Banks on the IDX. *Asean International Journal of Business*, 3(1), 12-19. <https://doi.org/10.54099/aijb.v3i1.470>
- Omer, A. (2022). The Influence of the Bank Restructuring on the Financial Performance of Commercial Banks in Iraq. *Research Journal of Finance and Accounting*, 13, 82-91. <https://doi.10.7176/RJFA/13-14-09>
- Oyedokun, O. I. (2024). Forensic Accounting and Financial Reporting Quality of Listed Deposit Money Banks in Nigeria. *UMYU Journal of Accounting and Finance Research*, 6(1), 105-119. [https://doi.org/10.61143/umyu-jafr.6\(1\)2024.009](https://doi.org/10.61143/umyu-jafr.6(1)2024.009)
- Pavlovic, M., Gligoric, C., Zdravkovic, F., & Pavlovic, D. (2024). Revolutionizing management accounting: the role of artificial intelligence in predictive analytics, automated reporting, and decision-making. *Business & Management Compass*, 68(4), 23-42. <https://doi.org/10.56065/nxn2gx53>
- Rahman, M. H., Raquiba, H., Khan, M. A. M., Rahman, M., & Saroni, S. A. (2025). AI Applications in Sustainable Banking: A Review of Applications, Challenges and Opportunities. *South Asian Res J Bus Manag*, 7(6), 462-474. <https://doi.org/10.36346/sarjbm.2025.v07i06.001>
- Rahman, M. S. (2021). Analysis Regression And Path Model: The Influence of Both Instagram and TikTok in Improving Students' Vocabulary. *Sketch Journal: Journal of English Teaching, Literature and Linguistics*, 1(1), 10-22. <https://journal.universitaspahlawan.ac.id/index.php/sketch/article/view/3127>
- Rehman, U. H., Rehman, A., Ahmed, Z., Sajid, M. M., & Rehman, F. U. (2023). Importance-Performance Map Analysis of Capital Structure Using PLS-SEM: Evidence from Non-financial Sector. In *Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications* (pp. 417-451). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-37772-3_14
- Revsine, L., Collins, D. W., & Johnson, W. B. (2021). *Financial reporting & analysis*. McGraw-Hill.
- Schröder, P. (2022). Mandatory non-financial reporting in the banking industry: assessing reporting quality and determinants. *Cogent Business & Management*, 9(1), 2073628. <https://doi.org/10.1080/23311975.2022.2073628>



- Sedighi, R., Nikoomaram, H., Kordlouie, H., & Talebniya, G. (2023). Identification and investigation of the relationships between the indicators influenced by the application of international financial reporting standards by Iranian banks in the resistance economy framework. *International Journal of Finance & Managerial Accounting*, 8(30), 31-43. https://ijfma.ut.ac.ir/article_90558.html
- Sohrabi, S., Katz, M., Hassanzadeh, O., Udrea, O., Feblowitz, M. D., & Riabov, A. (2019). IBM scenario planning advisor: Plan recognition as AI planning in practice. *Ai Communications*, 32(1), 1-13. <https://doi.org/10.3233/AIC-180602>
- Stanoevska, E. P. (2024). Generative Artificial Intelligence, Threat or Challenge for the Modern Banking System. *Knowledge-International Journal*, 66(1), 53-59. <https://www.cceol.com/search/article-detail?id=1297449>
- Susanto, A., Rachman, F. S., Hidayat, T., & Sunardi, N. (2023). Financial Ratio Analysis and Financial Health Comparison Of Islamic Banks During The 2020-2022 Period. *Indonesian Development of Economics and Administration Journal*, 1(3), 237-251. <https://www.ojs.ideanusa.com/index.php/idea/article/view/62>
- Tailab, M. M. K. (2020). Using importance-performance matrix analysis to evaluate the financial performance of American banks during the financial crisis. *Sage Open*, 10(1), 2158244020902079. <https://doi.org/10.1177/2158244020902079>
- Takino, K., & Ishinagi, Y. (2022). On mean-variance analysis of a bank's behavior. *Finance Research letters*, 46, 102292. <https://doi.org/10.1016/j.frl.2021.102292>
- Tambunan, S., Wijaya, M., Siregar, A., & Pratama, I. (2022). The Effectiveness of Risk Management on Quality of Financial Statements with Profitability as a Mediator in Banking Companies. *Cuadernos de Economía*, 45(128), 165-175. <https://revistas.unal.edu.co/index.php/ceconomia/article/view/102046>
- Tefera, F. T., & Abebe, S. (2024). Impact of strategic planning on the performance of commercial banks: the case of public commercial banks in Eastern Hararge, Ethiopia. *Cogent Business & Management*, 11(1), 2336301. <https://doi.org/10.1080/23311975.2024.2336301>
- Vandanapu, M. K. (2024). Assessing the Impact of Financial Reporting On Banking Stability: Insights from The 2023 US Banking Sector Turmoil. *Educational Administration: Theory and Practice*, 30(4), 3936-3944. <https://doi.org/10.53555/kuey.v30i4.2147>
- Wang, Y., & Zhang, Y. (2024). Design of Composite Factor Variance and Component Analysis System Based on Data Analysis Algorithm. In *2024 IEEE 13th International Conference on Communication Systems and Network Technologies (CSNT)* (pp. 447-452). IEEE. <https://doi.org/10.1109/CSNT57963.2024.10584721>
- Yang, H., Zhuo, W., Shao, L., & Talluri, S. (2021). Mean-variance analysis of wholesale price contracts with a capital-constrained retailer: Trade credit financing vs. bank credit financing. *European Journal of Operational Research*, 294(2), 525-542. <https://doi.org/10.1016/j.ejor.2021.01.042>

- Yousif, A. H. (2023). Employing Strategic Planning in Making Financing Decisions: An Analytical Study on a Sample of Iraqi Commercial Banks. *International Journal Papier Public Review*, 4(1), 74-91. <https://doi.org/10.47667/ijppr.v4i1.247>
- Zinovyeva, E., Kuznetsova, M., Kostina, N., & Vasilyeva, A. (2021, November). Reducing the international risks of Russian industrial companies based on the transfer to the IBM Planning analytics platform. In *International Scientific and Practical Conference Digital and Information Technologies in Economics and Management* (pp. 27-38). Cham: Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-030-97730-6_3
- Zulianty, Z. F., & Witono, B. (2025). Analysis of Financial Statements as a Tool to Measure the Financial Performance of Islamic Banks in Indonesia (An Empirical Study of Islamic Commercial Banks Registered with the Financial Services Authority for the Period 2021–2023). *Majapahit Journal of Islamic Finance and Management*, 5(3), 3047-3058. <https://doi.org/10.31538/mjifm.v5i3.583>

Authors' Biographies

Dr. Yasser Saad Zenad: A researcher in the field of accounting, holding a Master's degree in Accounting – Analysis and Auditing, and a PhD from the University of Hull in the United Kingdom in the same specialization. His academic and professional work focuses on issues of auditing, accounting analysis, and governance, with an interest in developing oversight methodologies enhanced by integrity and efficiency.

Dr. Ahmed Sami Hasaballah: A researcher in the field of accounting, specializing in financial accounting and auditing. He received his Master's degree from the University of Baghdad, College of Administration and Economics in 2012, and his PhD from the same college in 2022. He focuses on financial accounting and auditing issues, having conducted numerous scientific research papers related to financial accounting, auditing, International Accounting Standards (IASs), International Financial Reporting Standards (IFRSs), International Standards on Auditing (ISAs), and related fields.