Evaluation of the Relevance of Accounting Information in Financial Reports for Predicting Financial Failure of Banks According to the CAMELS Model: An Applied Study on Yemeni Commercial Banks

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INTRODUCTION

The subject of banking risks is considered one of the most important issues that concern bankers and attract their full attention at the global level, especially in recent years following the financial and banking crises that struck the economies of many countries. It has become evident that one of the main reasons for these financial and banking crises is the increasing banking risks faced by banks on the one hand, and the lack of proper management of these risks on the other hand. In addition, the rapid pace of financial globalization and the growing openness of financial and banking markets worldwide, accompanied by the introduction of new financial instruments and the expansion of their use, have further increased the magnitude and diversity of banking risks.

Among these risks is the phenomenon of financial failure or bankruptcy, which is considered one of the most serious threats faced by banks, and one of the issues that has drawn the attention of many specialists and researchers. Therefore, it is necessary to give due importance to financial analysis by keeping up with the latest developments and practical applications introduced by field studies and research on this subject, and by seeking to identify indicators with a stronger ability to evaluate the financial performance of banks through the use of accounting information contained in financial reports, in order to make appropriate decisions at the right time. Financial failure is neither a sudden occurrence nor a mere future possibility; rather, throughout history, banks have grown and developed, then fluctuated and eventually failed (Khan, 2003).

Since accounting information is the backbone of any economic entity, the success or failure of decisions made by the concerned parties depends on the accuracy and reliability of the information provided to them. Analyzing the accounting information contained in the financial statements of an economic entity over one or several periods helps financial statement users and decision-makers to predict financial failure and also to identify its causes. Financial failure is reflected in the process whereby the economic entity begins to follow a long path of financial difficulties that may ultimately lead to insolvency or bankruptcy. Therefore, management should adopt procedures and methods to detect it at an early stage, with the aim of alerting the entity before it occurs and taking the necessary corrective measures to prevent the entity from reaching the stage of bankruptcy or liquidation (Lewis, 2007).

Evaluating the financial soundness of banks is essential for the smooth functioning of the banking sector, as it serves to identify and eliminate potential weaknesses. The banking system provides the framework for economic transactions, and any disruption in its activities affects not only depositors and creditors but also the overall economy. This makes it imperative to effectively evaluate the soundness of banks to ensure timely corrective actions against exposure to fragility.

In response to the increasing instability in the financial sector in many countries, and the exposure of the banking industry to crises and bankruptcies due to recurring and looming risks—particularly during the 1990s and the 2007–2008 crisis and its aftermath with the globalization of such crises (Hoti et al., 2010)—numerous evaluation systems have been developed to predict banking failure. Among these is the CAMELS rating system, which has proven its ability to identify a bank's level of risk months before such risks are revealed by market mechanisms and prices. This allows for improved evaluation and enables stakeholders to choose to

engage with banks that demonstrate lower risk and better performance, given the system's evaluative role and predictive capacity.

Accordingly, the importance arises of analyzing the relationship between the relevance of accounting information, in line with International Financial Reporting Standards (IFRS), and the prediction of financial failure based on the CAMELS model in Yemeni commercial banks. This issue has not been tested empirically by prior studies in the Yemeni context, which gives this research additional significance, especially in light of the conflicting results of previous studies on the impact of accounting information relevance in financial reports on predicting financial failure using the CAMELS model. Such outcomes may depend on the extent of compliance with international financial reporting standards, a matter that this study aims to examine through its hypotheses.

Research Problem

The Yemeni banking sector lacks a formal insolvency system for debtors and creditors (World Bank, 2020). In addition, the Yemeni Commercial Companies Law is not aligned with international best practices. Settling insolvency cases in Yemen is both burdensome and costly, taking up to three years compared to an average of less than two years in OECD economies and about one year in major economies. The cost of resolving insolvency cases amounts to 15% of assets, compared to an average of 9.3% in OECD economies, with a recovery rate of only 21 cents on the dollar, compared to 70.2 cents per dollar in OECD economies.

Furthermore, due to the current unstable conditions resulting from ongoing conflicts, the banking industry is exposed to numerous risks related to the nature of funding sources and their uses, as the environment in which banks operate continues to change. Yemeni banks are thus facing negative consequences stemming from broader economic conditions, such as recession, inflation, and exchange rate fluctuations. As a result, Yemeni banks suffer from the problem of non-performing loans and doubtful debts.

To mitigate these risks, banks adopt several precautionary measures to strengthen their capital base in line with the risks they face. Against this backdrop, the researcher seeks to study and evaluate the performance of commercial banks using the CAMELS model, which serves as an early warning system (Gaoual and Geryville, 2021), for detecting signs of failure at the early stages of their emergence, in order to enable timely corrective actions. This will be applied to a sample of Yemeni commercial banks.

Based on the above, the research problem lies in the need to establish systems or indicators to predict and reduce financial risks, and to evaluate banking soundness systems using a set of standard indicators and criteria. This is aimed at preventing financial crises and avoiding their recurrence in the future through the use of banking evaluation models and integrating their results into the annual financial statements, in order to achieve transparency, ensure market discipline, strengthen confidence in financial reports, and identify strengths and weaknesses within them. The objective is to reinforce areas of strength, avoid weaknesses, reduce financial risks, and enhance their management by relying on tools that provide supervisory risk assessment and support prediction and hedging to mitigate risks (Ghasempour and Salami, 2016).

Accordingly, the central problem addressed in this study revolves around the following question:

"What is the impact of the relevance of accounting information in financial reports on predicting the financial failure of banks according to the CAMELS model, in the context of adopting International Financial Reporting Standards (IFRS)?"

Objectives of the Study

The study aims to evaluate the effectiveness of the CAMELS banking evaluation model in banking supervision and in predicting financial failure in banks, with a particular focus on the role of International Financial Reporting Standards (IFRS) in improving the quality of accounting information. This is achieved through analyzing the indicators of the CAMELS model as a supervisory tool for assessing bank performance and enhancing financial stability, as well as studying the financial risks faced by commercial banks and their

impact on banking efficiency, while highlighting supervisory shortcomings that have contributed to financial crises and cases of fraud.

Furthermore, the study seeks to evaluate the impact of IFRS on the relevance of accounting information presented in financial reports, and the extent to which this affects the accuracy of applying the CAMELS model in predicting financial failure. It also aims to analyze the effect of the CAMELS model on banking supervision and predicting financial failure in Yemeni banks, and to determine the extent of its contribution to improving performance and reducing risks.

Significance of the Study

The scientific significance of this study arises from the importance of adopting International Financial Reporting Standards (IFRS) and the increasing use of accounting information prepared in accordance with these standards by users when making decisions. This contributes to understanding the effect of the relevance of accounting information in predicting financial failure, which has become a crucial issue impacting banks but has not received sufficient attention from researchers.

The practical significance lies in raising banks' awareness of the importance of applying systems and indicators to predict and reduce financial risks, as well as to evaluate banking soundness using a set of standard indicators and criteria to prevent financial crises and avoid their recurrence in the future. This includes the adoption of the CAMELS banking evaluation model and the integration of its results into annual financial statements to achieve transparency, ensure market discipline, and enhance trust in financial reports. Furthermore, it supports identifying strengths and weaknesses, deterring and detecting fraud in financial statements, improving overall performance, and maximizing the value of the banking sector so that it is prepared to absorb shocks, gain competitive advantage, and achieve sustainability in the financial system.

Research Hypotheses

Based on the research problem and in order to achieve its objectives, the researcher formulates the following alternative hypotheses:

1. **First Alternative Hypothesis:** There is a significant impact of applying International Financial Reporting Standards (IFRS) on the relevance of accounting information in Yemeni commercial banks.
2. **Second Alternative Hypothesis:** There is a significant impact of the relevance of accounting information on the effectiveness of using the CAMELS model to evaluate the performance of Yemeni commercial banks.
3. **Third Alternative Hypothesis:** There is a significant impact of the relevance of accounting information, under the application of IFRS, on the effectiveness of using the CAMELS model to evaluate the performance of Yemeni commercial banks.
4. **Fourth Alternative Hypothesis:** There is a significant impact of using the CAMELS model in performance evaluation on the financial failure of Yemeni commercial banks.

Scope and Delimitations of the Study

The present study is limited to the following:

1. The use of the CAMELS banking evaluation model with the objective of predicting financial failure in Yemeni banks, with the application of the study confined to the Yemeni context through surveying the opinions of a sample of bank employees.
2. Finally, the researcher will address the most relevant International Financial Reporting Standards (IFRS 7, 9, and 13) that affect the relevance of accounting information in banks, in order to contribute to improving the efficiency of evaluation in the banking sector.

Study Variables

The following model presents the study variables, which consist of the independent variable (relevance of accounting information), the dependent variable (prediction of financial failure using the CAMELS model), and the moderating variable of the relationship (application of International Financial Reporting Standards – IFRS). The researcher can summarize the analytical model of the relationship between the study variables through the following figure.
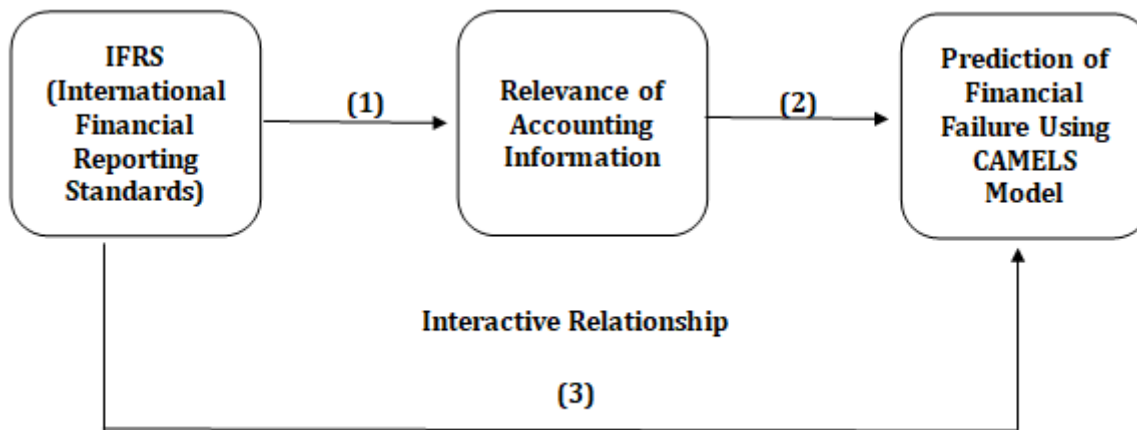

Figure (1-1): Study Model

RESEARCH METHODOLOGY

In light of the research problem and its objectives, the researcher adopted the inductive approach through desk studies, including the review of books, articles, and other sources that addressed the CAMELS banking evaluation model with the aim of predicting financial failure, and subsequently identifying the variables that represent the problem under investigation. In addition, the deductive approach was applied by deriving the relationship between the CAMELS banking evaluation model and the relevance of accounting information presented in financial reports after the application of International Financial Reporting Standards (IFRS).

This was achieved through conducting a field study using questionnaires to collect data related to the scope of the research, in order to test the suitability of applying the CAMELS banking evaluation model in banks and to assess its impact on predicting financial failure by surveying the opinions of the study sample.

Study Plan

The chapters of the research have been structured according to the research problem and study variables as follows:

1. General Framework of the Study
2. Chapter One: The Nature and Importance of Financial Risks in Banks and Their Implications
3. Chapter Two: The Role of the CAMELS Model in Predicting Financial Failure in Banks
4. Chapter Three: The Impact of Adopting International Financial Reporting Standards (IFRS) on Improving the Accuracy of the CAMELS Model in Predicting Financial Failure
5. Chapter Four: The Applied Study
6. General Conclusion

Previous Studies

There are many studies related to the current research on predicting the financial failure of Yemeni banks using the CAMELS model in light of the adoption of International Financial Reporting Standards (IFRS). These studies (both Arabic and foreign) enabled the researcher to determine the research directions and to formulate the research problem, in addition to understanding the methodologies applied and the challenges faced by previous researchers.

The reviewed literature showed that a number of studies addressed the prediction of financial failure using various models. However, there is a shortage of local studies that employ the CAMELS model to predict financial failure in banks after the adoption of IFRS, as well as studies that examine the relevance of accounting information in financial reports.

Accordingly, the researcher reviewed 22 previous studies, from which the following conclusions were drawn for the purposes of the present research:

1. Most studies agreed on the importance of the CAMELS model in assessing the financial strength of banks and identifying weaknesses in order to correct them.
2. Accelerating the application of the CAMELS model during times of economic crisis is essential to ensure the improvement of bank performance.
3. Impact of IFRS on the relevance of accounting information: there are no comprehensive studies on the effect of IFRS standards on the financial indicators of the CAMELS model and on testing their suitability in predicting financial failure.
4. Integration of CAMELS with IFRS: in most studies, the CAMELS model has not been integrated with International Financial Reporting Standards (IFRS), which limits its effectiveness in predicting financial failure.
5. Accordingly, the research gap lies in integrating IFRS with the CAMELS model to develop a framework capable of enhancing the relevance of accounting information and improving the prediction of financial failure in banks.

Bank failure is neither a sudden occurrence nor merely a bet on the future. Throughout history, banks have grown and developed, while international markets have experienced a series of financial crises and defaults across the world. The recent wave of global financial distress represents a continuation of similar events that economies in different regions have witnessed in recent years. Two prominent examples during that period include the Barings Bank crisis of 1890, caused by excessive risk-taking in weak investments in Argentina, which bore clear similarities to the Mexican crisis that occurred between 1994 and 1995. In addition, the United States experienced a currency crisis between 1894 and 1896 (Basel Committee, 2000).

In the second half of 2008, the credit crisis escalated as a result of the U.S. subprime mortgage bubble, following the shocking collapse of Lehman Brothers, the fourth-largest investment bank in the United States (Al-Sharah, 2009). This collapse became a major turning point in the global financial crisis, which had begun violently in the United States as a consequence of the mortgage meltdown and the associated credit crunch that shook the very foundations of financial institutions and the banking system. The crisis rapidly spread, due to the strong interconnection and overlap of global financial markets, across the European Union and other countries around the world.

The emergence of this crisis was largely the result of mismanagement of mortgage financing in the United States, where mortgage loans exceeded the actual value of properties by approximately USD 2.3 trillion (Francis, 1986).

The 2008 financial crisis and the subsequent events marked the beginning of a series of local and international banking failures. According to statistics collected by the researcher, the failed U.S. banks were as follows:

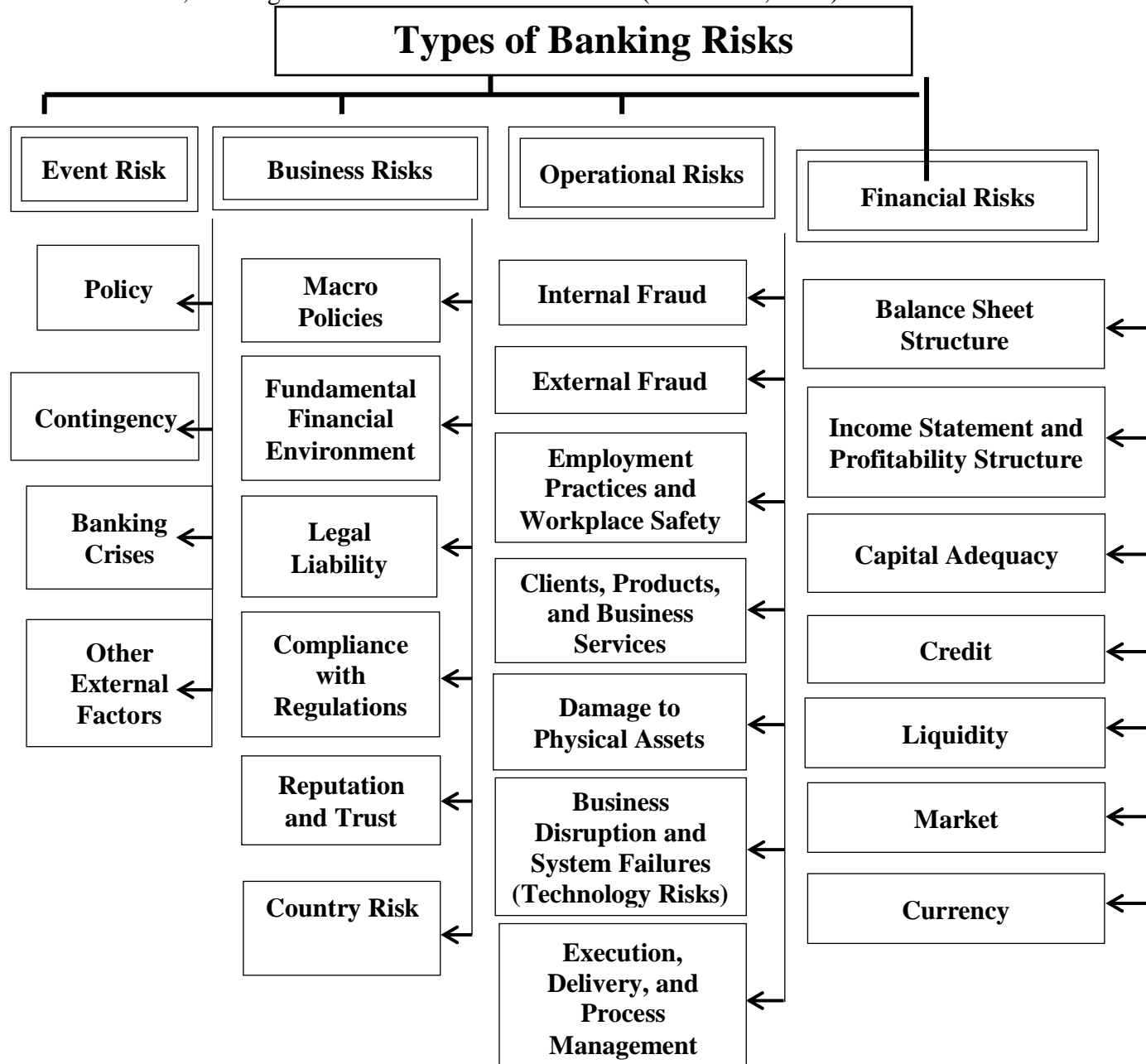| Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Number of Failures	25	140	157	92	51	24	18	8	5	8	0	4	4

Source: Federal Deposit Insurance Corporation (FDIC)

The statistics of losses incurred by global banking institutions as a result of their exposure to the 2008 subprime mortgage credit market amounted to the following (value in billions of USD) (Al-Hamwi, 2016).

Bank	CITY GROUP	U.P.S	Merrill Lynch	HSBC	Bank of America	MORGAN STANLEY	Royal Bank of Scotland	Lehman Brothers
Losses	40.7	38.0	31.7	15.6	14.9	12.6	12.0	46.0

Source: Al-Hamwi, Narmin Mohammed Ghassan, A Proposed Model for the Early Prediction of Financial Failure in Syrian Private Banks: Master's Thesis, 2016, p.24.

Based on this, banking risks can be classified as follows (Al-Hamwi, 2016).

Types of Banking Risks

- Event Risk
  - Policy
  - Contingency
  - Banking Crises
  - Other External Factors
- Business Risks
  - Macro Policies
  - Fundamental Financial Environment
  - Legal Liability
  - Compliance with Regulations
  - Reputation and Trust
  - Country Risk
- Operational Risks
  - Internal Fraud
  - External Fraud
  - Employment Practices and Workplace Safety
  - Clients, Products, and Business Services
  - Damage to Physical Assets
  - Business Disruption and System Failures (Technology Risks)
  - Execution, Delivery, and Process Management
- Financial Risks
  - Balance Sheet Structure
  - Income Statement and Profitability Structure
  - Capital Adequacy
  - Credit
  - Liquidity
  - Market
  - Currency

Risk Monitoring Strategy

In order to monitor risks, it is first necessary to develop a proper understanding of the bank's characteristics (Desta, 2016), followed by an assessment of the bank's main risks. Accordingly, supervisory authorities, represented by the central bank, can design an appropriate plan for risk monitoring in line with the following steps:

Step One: Proper understanding of the bank's characteristics.

A sound understanding of the bank's characteristics constitutes the first step in risk monitoring. This step is essential to establish a supervisory program that aligns with the specific attributes of each bank. To achieve this, it is necessary to ensure effective communication between supervisory authorities and the bank, in order to provide sufficient information about the bank's activities and its risk profile (Bitar et al., 2013).

Step Two: Risk Assessment.

The risk assessment process covers all types of risks faced by the bank, as previously discussed. Accordingly, the risk assessment should reveal both the strengths and weaknesses of the bank. To achieve this, it is necessary to provide sufficient information so that the supervisory authority — represented by the central bank inspector — can prepare an inspection report and assess the risks faced by the bank. Once the supervisory authority completes the overall risk assessment for each major activity (Bessler and Kurmann, 2013).

Step Three: Supervisory Plan ("Risk Mitigation").

The supervisory plan serves as the link between risk assessment and the areas of inspection conducted within the bank. The plan must outline all activities (Botten, 2007) to be undertaken during the inspection and should clearly specify the objectives and scope of these activities, while giving inspection priority to the activities with the highest level of risk.

It can be stated that there are three legislative and regulatory sources governing risk disclosure in commercial banks, which must be aligned with each other:

a. First Source: Risk disclosure in commercial banks according to International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS).

IAS and IFRS mainly focus on achieving consistency and comparability in financial reporting. Among the most important accounting standards related to risk disclosure in banks are the following (Polizzi and Scannella, 2020):

- IAS 32 – Financial Instruments: Presentation, which addresses the issue of classifying financial instruments as equity instruments, financial assets, or financial liabilities.
- IFRS 9 – Financial Instruments: Recognition and Measurement.
  This standard sets out the requirements for recognition, derecognition, measurement, impairment, and hedge accounting of financial instruments. It replaces IAS 39 and includes updates regarding the classification of financial instruments, the treatment of expected credit losses, and how changes in fair value are measured. IFRS 9 aims to enhance transparency and reduce estimates and inconsistencies in financial transactions.
- IFRS 7 – Financial Instruments: Disclosures.
  This standard requires entities to disclose information relating to the significance of financial instruments, as well as the extent and nature of the risks arising from them.
- IFRS 13 – Fair Value Measurement.
  This standard provides a clear definition of fair value and guidance on how it should be measured. It also establishes the fair value hierarchy, which reflects the priority of the inputs that can be used in measurement.
- IAS 1 – Presentation of Financial Statements.
  This standard sets out the basis for presenting general-purpose financial statements in order to ensure their comparability. It requires financial statements to be of high quality, containing relevant, reliable, and credible information, and to be prepared and presented in accordance with IFRS.

From the above, the researcher concludes that linking measurement methods and risk disclosure with the Basel III framework and accounting standards assists accountants in addressing practical application challenges. Furthermore, International Financial Reporting Standards (IFRS) contribute to improving the comparability of

banks' financial statements worldwide, thereby enhancing investors' ability to make well-informed investment decisions.

b. Second Source: Risk disclosure in commercial banks according to the Basel Accords on banking supervision.

Following the global financial crisis, several studies found that the provisions of Basel II did not provide sufficient protection for banks, as some lacked adequate capital to manage risks, others faced insufficient liquidity, and several encountered problems related to capital erosion due to poor asset quality and the losses incurred.

As a result, the Basel Committee on Banking Supervision introduced major amendments to Basel II aimed at strengthening regulation, supervision, and risk management in banks. These amendments culminated in the issuance of Basel III at the end of 2010, which came in three main sections:

First Section: Focuses on the minimum capital requirements of banks to protect against market, credit, operational, and liquidity risks. The purpose of setting these capital requirements is to improve banks' ability to absorb shocks caused by financial stress and to reduce the likelihood of potential bankruptcies.

Second Section: Requires international and national supervisors to monitor banks' ability to independently determine their own capital requirements and related risk management strategies.

Third Section: The section most relevant to the objectives of this study, as it concerns market discipline. It specifies the minimum requirements for quantitative and qualitative information that banks must disclose in their financial reports. In addition, it requires banks to prepare the Basel Pillar 3 Disclosure Report (Liao, 2013), which contains a wide range of information on banking risks, including regulatory capital, capital adequacy, risk monitoring tools, and risk management processes.

It is important to ensure consistency and alignment between accounting disclosure and disclosure under Basel III, or at least to avoid significant conflicts between them. There may be certain commonalities between the two, and in some cases they may complement each other. This is closely related to the interrelationship between IFRS 7 and Basel III disclosure. In this regard, it can be noted that disclosure in financial statements according to IFRS 7 does not need to be repeated in order to comply with Pillar 3. In this context, it is useful to have guidelines to achieve such consistency, or to identify parts of accounting disclosure that can be considered equivalent to disclosure under Pillar 3. These reforms and standards aim to emphasize the need for comprehensive risk management and disclosure practices (Abou-El-Sood, 2017).

Specifically, the Basel Accords (I, II, and III), governance rules (Altfest, 2007), and the International Financial Reporting Standards (IFRS 7 and IFRS 9), along with International Accounting Standards (IAS 32 and IAS 39), focus on both qualitative and quantitative disclosure with respect to credit risk, liquidity risk, and market risk. However, only the Basel framework explicitly identifies operational risk as a separate category, whereas IFRS and IAS lack sufficient precision in addressing certain major risk areas (such as operational and strategic risks).

c. Third Source: Risk disclosure in banks according to the regulations of the Central Bank of Yemen.

At the Yemeni level, the instructions issued since 1997 and thereafter up to the present confirm that the Board of Directors of the Central Bank sets rules for banking supervision and oversight, as well as controls related to banking activities, in line with international banking practices. Among the most important elements of these rules are: setting the minimum capital adequacy requirement, determining liquidity and reserve ratios, credit risk management standards, foreign currency position limits, credit concentration risk limits, and loans in foreign currencies (Yemeni Banks Association, 2025). These rules also include disclosure requirements and the publication of data mandated by the Central Bank of Yemen.

The Central Bank of Yemen has continued to apply the Basel I framework for banking supervision in banks operating in Yemen. However, these instructions are outdated, given that subsequent updates were introduced

internationally, such as Basel II in 2006, Basel III in 2013, in addition to amendments to the International Financial Reporting Standards (IFRS) related to banks.

The Central Bank also issued a resolution implementing Law No. 7 of 2015 on the prohibition of usurious transactions, and it stopped recording banks' profits in their current accounts with the Central Bank, which indeed had a significant impact on the liquidity of commercial banks in general (National Information Center, 2025). Furthermore, Resolution No. 8/2/2022 dated 22 March 2022, issued by the Central Bank of Yemen – Aden, required raising the minimum capital of banks to YER 45 billion, with annual increases of 20% of the required capital, to be completed no later than 31 January 2027. This measure was intended to strengthen coverage against risks faced by Yemeni banks amid adverse economic indicators, as well as against credit defaults, foreign currency exposures, and declining banking liquidity.

In addition, Circular No. 9/2/2022, also issued by the Central Bank of Yemen, required banks to retain 25% of annual post-tax profits as legal reserves until the legal reserve equals the paid-up capital, as the ceiling for the legal reserve of local banks (Gaoual and Geryville, 2021).

The researcher concludes that the delay of the Central Bank in implementing Basel II and Basel III has led to a lack of alignment between published financial information and the requirements for controlling banking risks, thereby hindering the ability to reduce banking failures. Yemeni banks face significant challenges in risk measurement and disclosure, most notably the exclusion of government debts and treasury bills from risk-weighted asset calculations, which results in misleading data. In addition, delays in publishing financial reports, lack of transparency, and the absence of international credit ratings further increase risks. Coordination between accounting standards, the Basel Accords, and the Central Bank regulations would enhance the quality of financial reporting.

The Impact of Applying IFRS and Basel III on the Accuracy of Predictions and the Relevance of Accounting Information in the CAMELS Model for Predicting Financial Failure in Yemeni Banks

The CAMELS model is an important tool used to assess the ability of banks to predict financial failure, as it relies on analyzing a set of key financial indicators such as asset quality, capital adequacy, liquidity, management quality, and market risk. With the development of the global accounting environment, and particularly with the adoption of International Financial Reporting Standards (IFRS), it has become necessary to reassess the weights used in this model in order to improve the accuracy of predictions and the relevance of the accounting information available (Al-Haddad, 2014; Al-Kassar, 2009).

IFRS standards, such as IFRS 9 (Expected Credit Losses) and IFRS 13 (Fair Value), have contributed to fundamental changes in the way assets and risks are evaluated. Through these standards, accounting information has become more accurate and transparent, thereby enhancing the ability of the CAMELS model to more effectively predict financial failure. These standards also improve the relevance of accounting data within the model, making it more aligned with modern financial disclosure requirements.

Accounting literature has confirmed that the overall framework for measuring and disclosing information in commercial banks is subject to multiple regulations, including Basel guidelines (I, II, and III), international and local accounting standards such as IFRS 7, IFRS 9, IFRS 13 and IAS 32, IAS 39, in addition to governance rules. These guidelines and standards focus on both qualitative and quantitative disclosures related to capital adequacy and associated risks, which significantly contribute to the forward-looking assessment of banks and help reduce the impact of banking shocks on the real economy. Moreover, actual compliance by banks with the requirements of measuring and disclosing capital adequacy, asset quality, management quality, profitability, liquidity, and market risk sensitivity necessitates precise mechanisms for verifying such data (Basel Committee, 2000).

In this context, it should be noted that part of the measurement and disclosure requirements appearing in financial statements is subject to mandatory auditing. However, questions arise regarding the measurement and disclosure elements not covered by such auditing. Among the most widely used modern models, both internationally and in specific jurisdictions, is the CAMELS evaluation model, which is applied by most

countries for assessing banking soundness and stability. In this model, C stands for Capital Adequacy, A for Asset Quality, M for Management Quality, E for Earnings Quality, L for Liquidity Quality, and S for Sensitivity to Market Discipline.

The Central Bank of Yemen also uses this model but does not apply the S (Sensitivity to Market Discipline) indicator, due to the absence of financial markets in Yemen. It is worth mentioning that the Reserve Bank of India also applies these indicators (Desta, 2016).

The CAMELSC model is used, where C stands for the Compliance Quality indicator. The CAMELS model is an important tool for evaluating the quality of financial assets in banks through a comprehensive analysis of banking conditions, including the examination of asset soundness and the effectiveness of banking operations (Ghasempour and Salami, 2016).

This analysis is carried out through on-site inspection visits conducted by central bank inspectors or regulatory authorities, during which the bank's ability to properly manage financial risks is verified. During these inspections, the administrative capacity of the bank to assume and manage risks is evaluated through the following:

1. Assessing the quality of banking assets via the capital adequacy indicator.
2. Measuring managerial performance through asset quality and management quality indicators.
3. Measuring returns on net assets (liquidity and profitability) and market risks.

Asset quality, in general, involves an examination of the bank's assets to determine the level and magnitude of credit risks associated with their operation. Asset quality is a highly sensitive factor that measures the financial soundness, operational stability, and profitability of banks (Abata, 2014). Asset quality primarily focuses on loans, which represent the main asset of banks and generate revenues and profits (Ihsan et al., 2016). The increase in the level of total non-performing loans poses a significant threat to banks, the financial sector, and the economy as a whole. Furthermore, failure to manage non-performing loans gradually affects the efficiency and profitability of banks (Kingu et al., 2018).

The concept of accounting harmonization and the unification of accounting practices emerged with the issuance of the International Financial Reporting Standards (IFRS) through the convergence between the International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB) (Wafer, 2016). The idea of convergence is based on reducing differences in accounting practices adopted across various countries in order to ensure a reasonable level of relevance and reliability in accounting information and to improve the quality of published financial statements, serving all stakeholders.

Moreover, convergence represents the blending and unification of accounting practices followed in different countries into a systematic and structured form aimed at meeting the needs of investors for decision-making purposes and overcoming the difficulties and restrictions associated with the flow of investments between countries (Amelio, 2016).

The issuance of IFRS 9, which replaced IAS 39, was intended to address the shortcomings revealed after the recent financial crisis and to contribute to improving accounting recognition and measurement methods for financial assets, while also enhancing the transparency, reliability, and controllability of financial statements. On the other hand, the introduction of this standard has raised numerous challenges in accounting literature regarding the proper implementation of the new requirements, both in entities in general and in financial institutions in particular.

Ministerial Resolution No. (74) of 2020, issued by the Minister of Trade and Industry in Sana'a, established a committee for the adoption and implementation of International Financial Reporting Standards (IFRS). However, these decisions may only be binding on banks under the control of the government in the north of Yemen, while banks under the authority of the legitimate government in the south have neither endorsed, rejected, nor issued equivalent decisions regarding the adoption of IFRS and International Auditing Standards.

Such gaps represent one of the reasons for the lack of quality and relevance of financial information published in financial reports.

Subsequently, the Central Bank issued instructions to local banks to implement this resolution, but without setting out clear methods, stages of application, or mechanisms for monitoring implementation and ensuring compliance with disclosure requirements in their published financial statements.

The present study aims to highlight the role of accounting measurement of financial asset quality in improving the prediction of financial failure in Yemeni banks, particularly under the application of the Expected Credit Losses model (IFRS 9). The researcher will also review the most relevant studies available in this field.

One such study examined the impact of hedging using the Expected Credit Losses model on predicting loan loss provisions in banks operating in Egypt during the period 2016–2020. The study found that the expected loss model contributes to enhancing the ability to predict loan loss provisions, improving credit quality and net income, and increasing the ability of the fair value of collateral to cover non-performing loans after the application of the model (Polizzi and Scannella, 2020).

In this research, the methodology, research design, data collection methods, and timeframe for data gathering will be presented. It will also cover the design of the questionnaire, study measures, population and sample, and the primary data collection tool, as well as validity and reliability testing. The design further specifies the objectives of the study, sources of information, data collection methods (such as surveys or experiments), sampling methodology, and data analysis techniques.

Research is typically classified according to its purpose into three main categories: exploratory research, causal research, and descriptive research. The present study adopts a causal (explanatory) research approach, given its focus on explaining cause-and-effect relationships between the study variables. The research strategy therefore aims to identify data sources, provide answers to research questions, and achieve the study objectives.

There are several types of research strategies, including experimentation, survey, and activity study. This study adopted the survey strategy, as it is most closely related to the deductive approach and helps collect quantitative data that can be used to propose potential causes for specific relationships between variables (Al-Baghdadi, 2020).

The study adopts the survey method as the primary tool for data collection. This method is characterized by its effectiveness, as it includes questions that reflect the study variables. Surveys may be distributed face-to-face, by regular or electronic mail, or by telephone (Al-Hamwi, 2016). Surveys can also be administered through personal or telephone interviews, where questions are asked directly to respondents, or they may be self-administered through mail, fax, computer, e-mail, the internet, or a combination of these methods, whereby respondents answer the questions themselves without direct intervention (Ghasempour and Salami, 2016).

In the present study, both approaches were used to ensure faster access to the study population, represented by professionals working in Yemeni commercial banks who are directly related to the study variables. The study also relied on a cross-sectional design, where data was collected from professionals working in Yemeni commercial banks—namely, the International Bank of Yemen, the Cooperative and Agricultural Credit Bank (CAC Bank), the Yemen Bank for Reconstruction and Development, the Yemen National Bank, the Yemen and Kuwait Bank, the Yemen Commercial Bank, and the Yemen and Gulf Bank—during a single specified period.

With regard to the design of the questionnaire, it consisted of a single section aimed at ensuring that respondents expressed their opinions on the dimensions of the research, by gathering the views of academics and professionals working in Yemeni commercial banks who are directly related to the study variables. The questionnaire included 20 items to measure the level of application of International Financial Reporting Standards (IFRS) in Yemeni banks; 23 items to measure the relevance of accounting information disclosed in the financial statements of Yemeni commercial banks, based on information from the cash flow statement, forward-looking information on financial distress, and value-at-risk information; 39 items to measure the use of the CAMELS model in evaluating bank performance through assessing management quality, earnings,

sensitivity to market risks, asset quality, capital adequacy, and liquidity; and 5 items to measure financial failure.

Reliability Test:

Cronbach's Alpha coefficient is considered an appropriate indicator for measuring reliability, and it is regarded as one of the most dependable measures of internal consistency. According to Francis (1986), acceptable Alpha values range between 0.6 and 0.7, while values above 0.7 indicate a high degree of reliability of the applied scales. Based on this, the researcher calculated the reliability level of the scale on a sample of 388 professionals working in Yemeni commercial banks. The results of the reliability test were as follows:

1. **First Variable: Application of IFRS in Yemeni Banks**

   The overall Alpha coefficient for the scale was 0.962, indicating a high degree of reliability.

   The Alpha coefficients for the sub-dimensions (fair value, financial instruments IFRS 7, IFRS 9, and IAS 39) ranged between 0.852 and 0.886, reflecting high reliability.

2. **Second Variable: Relevance of Accounting Information in Yemeni Banks**

   The overall Alpha coefficient for the scale was 0.962, also indicating a high degree of reliability.

   The Alpha coefficients for the sub-dimensions (cash flow statement information, forward-looking information on financial distress, and value-at-risk information) ranged between 0.888 and 0.928, confirming high stability.

3. **Third Variable: Use of the CAMELS Model in Evaluating Bank Performance**

   The overall Alpha coefficient for the scale was 0.980, which indicates a very high degree of reliability.

   The Alpha coefficients for the sub-dimensions (management quality, earnings, sensitivity to market risk, asset quality, capital adequacy, and liquidity) ranged between 0.822 and 0.935.

4. **Fourth Variable: Financial Failure in Yemeni Banks**

   The overall Alpha coefficient for the scale was 0.841, which indicates a high degree of reliability, especially considering that an Alpha coefficient ranging between 0.6 and 0.7 is considered sufficient and acceptable.

In addition, it was found that the overall correlation coefficients between items across all dimensions and statements were greater than 0.3, which indicates the importance of retaining all items in the questionnaire without deletion or modification.

Statement	Fair Value	Financial Instruments – IFRS 7	Financial Instruments – IFRS 9	Financial Instruments – IAS 39	Cash Flow Statement Information	Forward-Looking Information on Financial Distress	Value-at-Risk Information	Management Quality	Earnings	Sensitivity to Market Risk	Asset Quality	Capital Adequacy	Liquidity	Financial Failure
Fair Value	0.808													
Financial Instruments	0.662	0.836												

– IFRS 7														
Financial Instruments – IFRS 9	0.593	0.627	0.798											
Financial Instruments – IAS 39	0.628	0.642	0.649	0.879										
Cash Flow Statement Information	0.639	0.627	0.602	0.653	0.802									
Forward-Looking Information on Financial Distress	0.611	0.632	0.637	0.642	0.665	0.797								
Value-at-Risk Information	0.571	0.617	0.605	0.593	0.625	0.611	0.779							
Management Quality	0.498	0.555	0.582	0.545	0.555	0.532	0.639	0.826						
Earnings	0.461	0.518	0.502	0.469	0.517	0.494	0.629	0.683	0.823					
Sensitivity to Market Risk	0.59	0.621	0.633	0.629	0.648	0.692	0.731	0.669	0.628	0.849				
Asset Quality	0.654	0.7	0.628	0.701	0.714	0.637	0.632	0.57	0.501	0.653	0.836			
Capital Adequacy	0.72	0.642	0.622	0.591	0.597	0.567	0.54	0.504	0.434	0.563	0.625	0.815		
Liquidity	0.433	0.502	0.509	0.467	0.506	0.46	0.631	0.73	0.732	0.634	0.517	0.431	0.869	
Financial Failure	0.64	0.647	0.624	0.649	0.72	0.6777	0.677	0.579	0.563	0.662	0.663	0.593	0.542	0.791

Source: Prepared by the researcher based on the results of statistical analysis

Hypotheses and Study Results:

The first main statistical hypothesis states:

There is a significant effect of applying International Financial Reporting Standards (IFRS) on the relevance of accounting information in Yemeni commercial banks.

This hypothesis was divided into three sub-hypotheses:

- H (1/1): There is a statistically significant effect of applying IFRS on the relevance of cash flow statement information.
- H (1/2): There is a statistically significant effect of applying IFRS on the relevance of forward-looking information on financial distress.
- H (1/3): There is a statistically significant effect of applying IFRS on the relevance of value-at-risk information.

Result of Sub-Hypothesis (1/1):

There is a significant effect of applying IFRS on the relevance of cash flow statement information.

Main Hypothesis	Sub-Hypothesis	Hypothesis Direction			Path Coefficient	Significance Value	Result
The Effect of Applying International Financial Reporting Standards (IFRS) on the Relevance of Accounting Information	The Effect of Applying International Financial Reporting Standards (IFRS) on the Relevance of Cash Flow Statement Information	(A)	Fair Value	Cash Flow Statement Information	0.307	0.000	Accepted
			Financial Instruments – IFRS 7		0.155	0.004	Accepted
		(B)	Financial Instruments – IFRS 9		0.117	0.014	Accepted
		(C)	Financial Instruments – IAS 39		0.369	0.000	Accepted
	The Effect of Applying International Financial Reporting Standards (IFRS) on the Relevance of Forward-Looking Information on Financial Distress	(A)	Fair Value	Forward-Looking Information on Financial Distress	0.167	0.000	Accepted
			Financial Instruments – IFRS 7		0.214	0.000	Accepted
		(B)	Financial Instruments – IFRS 9		0.297	0.000	Accepted
		(C)	Financial Instruments – IAS 39		0.271	0.000	Accepted
	The Effect of Applying International Financial Reporting Standards (IFRS) on the Relevance of Value-at-Risk Information	(A)	Fair Value	Value-at-Risk Information	0.099	0.079	Accepted
			Financial Instruments – IFRS 7		0.339	0.000	Accepted
		(B)	Financial Instruments – IFRS 9		0.304	0.000	Accepted
		(C)	Financial Instruments – IAS 39		0.168	0.004	Accepted

According to the results of the statistical analysis, there is a significant effect of the fair value standard, IFRS 7 (Financial Instruments), IFRS 9 (Financial Instruments), and IAS 39 (Financial Instruments), where the path coefficient values were 0.307, 0.155, 0.117, and 0.369 respectively, all of which were statistically significant at a significance level of 0.000. Accordingly, the researcher concludes that there is a confirmed significant effect of applying International Financial Reporting Standards on cash flow statement information, and therefore the first sub-hypothesis is accepted in its alternative form.

Result of Sub-Hypothesis (1/2):

There is a significant effect of applying International Financial Reporting Standards (IFRS) on the relevance of forward-looking information on financial distress. According to the results of the statistical analysis, there is a significant effect of the fair value standard, IFRS 7 (Financial Instruments), IFRS 9 (Financial Instruments), and IAS 39 (Financial Instruments), where the path coefficient values were 0.167, 0.214, 0.297, and 0.271 respectively, all of which were statistically significant at a significance level of 0.000. Accordingly, the researcher confirms the existence of a significant effect of applying IFRS on the relevance of forward-looking information on financial distress, and therefore the second sub-hypothesis is accepted in its alternative form.

Result of Sub-Hypothesis (1/3):

There is a significant effect of applying International Financial Reporting Standards (IFRS) on the relevance of value-at-risk information. According to the results of the statistical analysis, there is a significant effect of IFRS 7 (Financial Instruments), IFRS 9 (Financial Instruments), and IAS 39 (Financial Instruments), where the path coefficient values were 0.339, 0.304, and 0.168 respectively, all of which were statistically significant at a significance level of 0.000. Accordingly, the researcher confirms the existence of a significant effect of applying IFRS on the relevance of value-at-risk information, and therefore the third sub-hypothesis is accepted in its alternative form.

Based on the results of the sub-models of the first statistical hypothesis of the study, the researcher can <u>fully</u> accept the first main statistical hypothesis of the study in its alternative form as follows:

There is a statistically significant effect of applying International Financial Reporting Standards (IFRS) on the relevance of accounting information presented in the financial statements of Yemeni commercial banks.

Second Main Statistical Hypothesis:

There is a significant effect of the relevance of accounting information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

This main hypothesis was divided into three sub-hypotheses:

- H (2/1): The effect of the relevance of cash flow statement information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.
- H (2/2): The effect of the relevance of forward-looking information on financial failure on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.
- H (2/3): The effect of the relevance of value-at-risk information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

Main Hypothesis	Sub-Hypothesis	Hypothesis Direction			Path Coefficient	Significance Value	Result
The Effect of the Relevance of Accounting Information on	The Effect of the Relevance of Cash Flow Statement	(A)	Cash Flow Statement Information	Management Quality	-0.020	0.738	Rejected
		(B)		Earnings	0.176	0.001	Accepted

the Effectiveness of Using the CAMELS Model in Evaluating the Performance of Yemeni Commercial Banks	Information Disclosed in Financial Reports on the Effectiveness of Using the CAMELS Model in Performance Evaluation	(C)		Sensitivity to Market Risk	0.214	0.000	Accepted
		(D)		Asset Quality	0.653	0.000	Accepted
		(E)		Capital Adequacy	0.086	0.014	Accepted
		(H)		Liquidity	0.140	0.041	Accepted
	The Effect of the Relevance of Forward-Looking Information on Financial Failure Disclosed in Financial Reports on the Effectiveness of Using the CAMELS Model in Performance Evaluation	(A)	Forward-Looking Information on Financial Distress	Management Quality	0.031	0.619	Rejected
		(B)		Earnings	0.193	0.000	Accepted
		(C)		Sensitivity to Market Risk	0.816	0.000	Accepted
		(D)		Asset Quality	0.220	0.000	Accepted
		(E)		Capital Adequacy	0.104	0.004	Accepted
		(H)		Liquidity	0.452	0.000	Accepted
	The Effect of the Relevance of Value-at-Risk Information Disclosed in Financial Reports on the Effectiveness of Using the CAMELS Model in Performance Evaluation	(A)	Value-at-Risk Information	Management Quality	-0.105	0.053	Rejected
		(B)		Earnings	0.137	0.005	Accepted
		(C)		Sensitivity to Market Risk	0.657	0.000	Accepted
		(D)		Asset Quality	0.131	0.000	Accepted
		(E)		Capital Adequacy	0.030	0.344	Rejected
		(H)		Liquidity	0.140	0.024	Accepted

The results of the first sub-hypothesis: The effect of the relevance of cash flow statement information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks:

The results indicate that cash flow statement information has no significant effect on management quality, where the path coefficient was (-0.020) with a significance value of (0.738), which indicates rejection of the effect.

There is, however, a significant effect of cash flow statement information on earnings (0.176, 0.001), sensitivity to market risk (0.214, 0.000), asset quality (0.653, 0.000), capital adequacy (0.086, 0.014), and liquidity (0.140, 0.041).

Result: Based on these findings, it can be confirmed that the relevance of cash flow statement information disclosed in financial reports has a significant effect on the effectiveness of using the CAMELS model in performance evaluation of Yemeni commercial banks, with the exception of management quality.

The statistical results of the second sub-hypothesis: The effect of the relevance of forward-looking information on financial failure on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks:

The results indicate that forward-looking information on financial failure has no significant effect on management quality, where the path coefficient was (0.031) with a significance value of (0.619), which indicates rejection of the effect.

There is, however, a significant effect of forward-looking information on financial failure on earnings (0.193, 0.000), sensitivity to market risk (0.816, 0.000), asset quality (0.220, 0.000), capital adequacy (0.104, 0.004), and liquidity (0.452, 0.000).

Result: Based on these findings, it can be confirmed that the relevance of forward-looking information on financial failure disclosed in financial reports has a significant effect on the effectiveness of using the CAMELS model in performance evaluation, with the exception of management quality.

The statistical results of the third sub-hypothesis: The effect of the relevance of value-at-risk information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks:

The results indicate that value-at-risk information has no significant effect on management quality, where the path coefficient was (-0.105) with a significance value of (0.053), which indicates rejection of the effect.

There is, however, a significant effect of value-at-risk information on earnings (0.137, 0.005), sensitivity to market risk (0.657, 0.000), asset quality (0.131, 0.000), and liquidity (0.140, 0.024).

Value-at-risk information had no significant effect on capital adequacy, where the path coefficient was (0.030) with a significance value of (0.344).

Result: Based on these findings, it can be confirmed that the relevance of value-at-risk information disclosed in financial reports has a significant effect on the effectiveness of using the CAMELS model in performance evaluation of Yemeni commercial banks, with the exception of management quality and capital adequacy.

Based on the results of testing the three sub-hypotheses, it can be concluded that:

There is a significant effect of the relevance of accounting information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks, with noted exceptions concerning management quality (in all three sub-hypotheses) and capital adequacy (in the third sub-hypothesis).

Third Main Statistical Hypothesis:

There is a significant effect of the relevance of accounting information, under the application of International Financial Reporting Standards (IFRS), on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

This main hypothesis was divided into three sub-hypotheses:

1. H (3/1): There is a significant effect of the relevance of cash flow statement information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

2. H (3/2): There is a significant effect of the relevance of forward-looking information on financial distress, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.
3. H (3/3): There is a significant effect of the relevance of value-at-risk information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

The results indicate the following:

First Sub-Hypothesis: The effect of the relevance of cash flow statement information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

1. The interaction of cash flow statement information with IFRS has no significant effect on management quality: Path Coefficient = -0.047, Significance Value = 0.709 → Rejected.
2. The interaction of cash flow statement information with IFRS has no significant effect on earnings: Path Coefficient = 0.048, Significance Value = 0.709 → Rejected.
3. The interaction of cash flow statement information with IFRS has a significant effect on sensitivity to market risk: Path Coefficient = 0.217, Significance Value = 0.037 → Accepted.
4. The interaction of cash flow statement information with IFRS has a significant effect on asset quality: Path Coefficient = 0.724, Significance Value = 0.000 → Accepted.
5. The interaction of cash flow statement information with IFRS has a significant effect on capital adequacy: Path Coefficient = 0.402, Significance Value = 0.000 → Accepted.
6. The interaction of cash flow statement information with IFRS has a significant effect on liquidity: Path Coefficient = 0.376, Significance Value = 0.000 → Accepted.

Accordingly, the researcher confirms the existence of a significant effect of the relevance of cash flow statement information, under the application of IFRS, on the effectiveness of using the CAMELS model in performance evaluation, and thus the first sub-hypothesis is accepted.

Main Hypothesis	Sub-Hypothesis	Hypothesis Direction			Path Coefficient	Significance Value	Result
The Effect of the Relevance of Accounting Information under the Application of IFRS on the Effectiveness of Using the CAMELS Model	The Effect of the Relevance of Cash Flow Statement Information under the Application of IFRS on the Effectiveness of Using the CAMELS Model.	(A)	Cash Flow Statement Information * IFRS	Management Quality	-0.047	0.709	Rejected
		(B)		Earnings	0.048	0.709	Rejected
		(C)		Sensitivity to Market Risk	0.217	0.037	Accepted
		(D)		Asset Quality	0.724	0.000	Accepted
		(E)		Capital Adequacy	0.402	0.000	Accepted
		(H)		Liquidity	0.376	0.000	Accepted
	The Effect of Forward-Looking Information under the Application of IFRS on the Effectiveness	(A)	Forward-Looking Information on Financial Distress * IFRS	Management Quality	0.008	0.945	Rejected
		(B)		Earnings	0.092	0.428	Rejected
		(C)		Sensitivity to Market Risk	0.525	0.000	Accepted
		(D)		Asset Quality	0.460	0.000	Accepted

of Using the CAMELS Model.	(E)		Capital Adequacy	0.290	0.017	Accepted
	(H)		Liquidity	0.392	0.005	Accepted
The Effect of Value-at-Risk Information under the Application of IFRS on the Effectiveness of Using the CAMELS Model.	(A)	Value-at-Risk Information * IFRS	Management Quality	0.266	0.024	Accepted
	(B)		Earnings	-0.003	0.978	Rejected
	(C)		Sensitivity to Market Risk	0.414	0.000	Accepted
	(D)		Asset Quality	0.254	0.002	Accepted
	(E)		Capital Adequacy	0.287	0.000	Accepted
	(H)		Liquidity	0.586	0.000	Accepted

Second Sub-Hypothesis: The effect of the relevance of forward-looking information on financial distress, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

1. The interaction of forward-looking information on financial distress with IFRS has no significant effect on management quality: Path Coefficient = 0.008, Significance Value = 0.945 → Rejected.
2. The interaction of forward-looking information on financial distress with IFRS has no significant effect on earnings: Path Coefficient = 0.092, Significance Value = 0.428 → Rejected.
3. The interaction of forward-looking information on financial distress with IFRS has a significant effect on sensitivity to market risk: Path Coefficient = 0.525, Significance Value = 0.000 → Accepted.
4. The interaction of forward-looking information on financial distress with IFRS has a significant effect on asset quality: Path Coefficient = 0.460, Significance Value = 0.000 → Accepted.
5. The interaction of forward-looking information on financial distress with IFRS has a significant effect on capital adequacy: Path Coefficient = 0.290, Significance Value = 0.017 → Accepted.
6. The interaction of forward-looking information on financial distress with IFRS has a significant effect on liquidity: Path Coefficient = 0.392, Significance Value = 0.005 → Accepted.

Result: Accordingly, the researcher confirms the existence of a significant effect of the relevance of forward-looking information on financial distress, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks, and thus the second sub-hypothesis is accepted.

Third Sub-Hypothesis: The effect of the relevance of value-at-risk information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

1. The interaction of value-at-risk information with IFRS has a significant effect on management quality: Path Coefficient = 0.266, Significance Value = 0.024 → Accepted.
2. The interaction of value-at-risk information with IFRS has no significant effect on earnings: Path Coefficient = -0.003, Significance Value = 0.978 → Rejected.
3. The interaction of value-at-risk information with IFRS has a significant effect on sensitivity to market risk: Path Coefficient = 0.414, Significance Value = 0.000 → Accepted.
4. The interaction of value-at-risk information with IFRS has a significant effect on asset quality: Path Coefficient = 0.254, Significance Value = 0.002 → Accepted.
5. The interaction of value-at-risk information with IFRS has a significant effect on capital adequacy: Path Coefficient = 0.287, Significance Value = 0.000 → Accepted.
6. The interaction of value-at-risk information with IFRS has a significant effect on liquidity: Path Coefficient = 0.586, Significance Value = 0.000 → Accepted.

Result: Accordingly, the researcher confirms the existence of a significant effect of the relevance of value-at-risk information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks, and thus the third sub-hypothesis is accepted.

Based on the results of testing the three sub-hypotheses, it can be concluded that:

There is a significant effect of the relevance of accounting information, under the application of International Financial Reporting Standards (IFRS), on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.

The fourth statistical hypothesis of the study states that:

There is a significant effect of using the CAMELS model in performance evaluation on predicting the financial failure of Yemeni commercial banks.

Main Hypothesis	Sub-Hypothesis	Hypothesis Direction			Path Coefficient	Significance Value	Result
The Effect of Applying the CAMELS Model on the Effectiveness of Predicting Financial Failure	The Effect of the Relevance of Cash Flow Statement Information under the Application of IFRS on the Effectiveness of Using the CAMELS Model	(A)	Financial Failure	Management Quality	-0.031	0.644	Rejected
		(B)		Earnings	0.275	0.000	Accepted
		(C)		Sensitivity to Market Risk	0.321	0.000	Accepted
		(D)		Asset Quality	0.370	0.000	Accepted
		(E)		Capital Adequacy	0.169	0.000	Accepted
		(H)		Liquidity	-0.125	0.102	Rejected

According to the results of the statistical analysis, there is a significant effect of earnings, sensitivity to market risk, asset quality, and capital adequacy, where the path coefficient values were 0.275, 0.321, 0.370, and 0.169 respectively, all of which were statistically significant at a significance level of 0.000. Accordingly, the researcher confirms the existence of a significant effect of using the CAMELS model in performance evaluation on financial failure, and the fourth main hypothesis is therefore accepted in its alternative form.

Thus, the fourth main hypothesis of the study can be accepted in the following alternative form:

There is a significant effect of using the CAMELS model in performance evaluation on predicting the financial failure of Yemeni commercial banks.

Summary of Hypotheses Testing Results

No.	Hypothesis	Result
H 1	There is a significant effect of applying financial reporting standards on the relevance of accounting information in Yemeni commercial banks.	Partial Acceptance of the First Hypothesis
H (1/1)	There is a significant effect of applying International Financial Reporting Standards (IFRS) on cash flow statement information.	Full Acceptance of the Alternative Hypothesis
H (1/2)	There is a significant effect of applying International Financial Reporting Standards (IFRS) on forward-looking information on financial distress.	Full Acceptance of the Alternative Hypothesis
H (1/3)	There is a significant effect of applying International Financial Reporting	Partial Acceptance of the Alternative

	Standards (IFRS) on value-at-risk information.	Hypothesis
H 2	There is a significant effect of the relevance of accounting information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Second Hypothesis
H (2/1)	The effect of the relevance of cash flow statement information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H (2/2)	The effect of the relevance of forward-looking information on financial failure on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H (2/3)	The effect of the relevance of value-at-risk information on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H 3	There is a significant effect of the relevance of accounting information, under the application of International Financial Reporting Standards (IFRS), on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Third Hypothesis
H (3/1)	The effect of the relevance of cash flow statement information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H (3/2)	The effect of the relevance of forward-looking information on financial distress, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H (3/3)	The effect of the relevance of value-at-risk information, under the application of IFRS, on the effectiveness of using the CAMELS model in evaluating the performance of Yemeni commercial banks.	Partial Acceptance of the Alternative Hypothesis
H 4	There is a significant effect of using the CAMELS model in performance evaluation on predicting the financial failure of Yemeni commercial banks.	Partial Acceptance of the Fourth Hypothesis

Findings of the Applied Study:

1. Financial disclosure in accordance with IFRS standards is a key factor in enhancing the credibility of financial data, which in turn improves the accuracy of the CAMELS model in predicting risks and supporting corrective decision-making.
2. Regulatory standards play a fundamental role in ensuring the quality of financial disclosure by strengthening the credibility of accounting information and reducing the likelihood of financial failure.
3. The CAMELS model is an effective analytical tool for assessing the stability of banks and evaluating the likelihood of exposure to financial failure risks, particularly when integrated with Basel III requirements.
4. Developing the Yemeni capital market and applying appropriate regulatory standards can contribute to increasing market efficiency and strengthening the competitiveness of banks.
5. The results demonstrated that forward-looking information on financial distress plays a critical role in improving the accuracy of the CAMELS model, confirming its essential role in enhancing predictive capacity. Forward-looking financial data on distress and future risks enable banks to take preventive actions and reduce the likelihood of financial failure. Enhancing the quality of such information through the adoption of advanced standards for financial disclosure and forecasting is one of the key factors in raising the efficiency of the CAMELS model.

6. Including value-at-risk information in financial reports contributes to improving banking risk management; however, it still requires further development to ensure its accuracy in predicting financial failure.

7. Although the application of IFRS improves the quality of financial disclosure, it does not necessarily guarantee the effective use of the CAMELS model, which calls for greater integration between disclosure standards and banking evaluation requirements.

8. The study showed that the relevance of accounting information under IFRS only partially affects the accuracy of the CAMELS model, indicating the need to develop certain components of financial information to enhance the prediction of financial failure with greater precision.

9. The study confirmed that the use of the CAMELS model has a significant impact on the predictive capacity of financial failure in Yemeni commercial banks; however, it may require adjustments to account for local economic and political factors. Incorporating additional standards that consider economic fluctuations, currency risks, and political stability, as well as enhancing credit risk and liquidity indicators in line with the Yemeni market context, could make banking evaluation more accurate and efficient.

RECOMMENDATIONS

1. Based on the theoretical and applied results of the study, the researcher proposes a set of recommendations for various stakeholders in the Yemeni banking environment, the most important of which are as follows:

2. Strengthening compliance with International Financial Reporting Standards (IFRS) in the Yemeni banking sector to ensure improved quality and relevance of accounting information for the application of the CAMELS model in financial performance evaluation.

3. Requiring commercial banks to disclose forward-looking indicators of financial failure in greater detail, as the study demonstrated that such information assists in predicting financial failure and enhances investment decision-making.

4. Developing disclosure mechanisms for value-at-risk information due to its partial impact on the accuracy of the CAMELS model, while providing clearer guidelines on how it should be calculated and presented in financial reports.

5. Improving the use of the cash flow statement in banking evaluation by increasing the focus on analyzing operating and investment cash flows, given their prominent role in enhancing the predictive capacity of the CAMELS model.

6. Updating the CAMELS model to fit the nature of the Yemeni banking system by incorporating new variables related to economic and political risks that may affect bank performance.

7. Enhancing the role of regulatory authorities in ensuring the effective application of accounting disclosure standards by imposing stricter supervisory mechanisms to verify that banks comply with disclosing financial information relevant to investment efficiency and banking risks.

8. Conducting training programs for accountants and auditors in commercial banks on how to apply IFRS in the Yemeni banking environment, in order to provide more accurate financial information that supports predicting financial failure.

9. Carrying out further studies on the relationship between financial disclosure and banking evaluation standards, with a focus on developing an integrative model that combines financial disclosure requirements with banking performance evaluation tools.

10. Promoting the use of modern financial analysis techniques, such as artificial intelligence and machine learning, in analyzing financial data and predicting financial failure risks.

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