

A Systematic Review of Bank Health Assessment: Comparative Analysis of CAMEL and RGEC Methodologies

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Abstract

Bank health assessment is a vital aspect of financial research, providing information on the financial performance and stability of banking institutions. This systematic literature review focuses on comparing two methods of bank health assessment: CAMEL and RGEC. In a dynamic financial environment with ever-changing regulations, understanding the effectiveness of these two assessment tools is crucial. Although many studies have discussed these methods at both macro and micro levels, systematic literature review studies comparing the two are still very limited. This research aims to fill this gap by conducting a critical review of the literature to integrate insights and identify bank health assessment patterns from both approaches. The primary objective of this study is to evaluate and compare the effectiveness of CAMEL and RGEC in assessing bank health. Using a systematic approach, this methodology encompasses a large body of relevant literature through a comprehensive review. The main findings provide an overview of the strengths and weaknesses of each methodology, offering valuable information for researchers, practitioners, and financial actors. The novelty of this research lies in the comprehensive SLR approach in comparing the effectiveness of bank health assessments using the CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earnings Quality, and Liquidity) and RGEC (Risk Profile, Good Corporate Governance, Earnings Quality, and Capital Adequacy) methods. Although many studies have separately discussed these methods, there has not yet been an SLR study that directly compares the two. This research is important for practitioners, regulators, and future research directions, contributing to the discourse on improving and refining bank health assessment methodologies. In addition to its academic relevance, this review has practical implications for financial institutions and governments, contributing to more stable and accurate assessments of bank conditions in a dynamic financial environment. The implications of this research are not limited to the academic world but also provide valuable information for practitioners and policymakers.

Keywords: Bank Health Assessment, CAMEL, RGEC, Systematic Literature Review, Financial Stability, Financial Performance, Banking Sector

INTRODUCTION

The health assessment of banks plays a crucial role in financial research, offering significant insights into the financial performance and stability of banking institutions (Bikker, 2010). It enables stakeholders to understand a bank's financial soundness, risk exposure, and operational efficiency. This study seeks to compare two widely recognized methods used in bank health assessment: CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earnings Quality, and Liquidity) and RGEC (Risk Profile, Good Corporate Governance, Earnings Quality, and Capital Adequacy). These two frameworks are extensively used for evaluating the financial health of banks and are recognized for their distinct components and perspectives.

The dynamic nature of the financial environment, characterized by rapid technological changes, economic shifts, and evolving regulatory frameworks, has made it imperative to critically assess the effectiveness of the CAMEL and RGEC methodologies. Such evaluations help determine how well these tools can provide accurate, reliable insights into a bank's health amidst changing market conditions and regulations (Nazir, & Sangmi, 2010). The adaptability of these assessment tools to different financial climates is key for ensuring they remain relevant and practical for both practitioners and regulators.

Despite the widespread discussion of CAMEL and RGEC at both macro and micro levels, a gap persists in the academic literature concerning a systematic comparison between these two methodologies. While there is an abundance of research focusing separately on each method, there is a notable lack of systematic literature review (SLR) studies that directly compare their efficacy. The importance of filling this gap lies in providing a consolidated understanding of how these frameworks function in parallel and identifying their relative strengths and weaknesses.

This paper aims to address this gap by conducting a systematic and critical evaluation of both CAMEL and RGEC. It seeks to provide comprehensive insights into the performance and utility of each method in assessing the health of banks, thereby offering a nuanced understanding for researchers, practitioners, and financial policymakers. By synthesizing existing research, this study aspires to uncover patterns, trends, and critical findings related to the application of these methodologies in different contexts.

Additionally, the comparison between CAMEL and RGEC is significant due to their overlapping yet distinctive focus areas. CAMEL emphasizes various financial indicators and management quality, forming a holistic view of a bank's financial and operational health. In contrast, RGEC integrates a risk profile and governance structure into the assessment, offering a perspective that is more aligned with contemporary regulatory standards and risk management practices. Understanding these distinctions is vital for both practitioners who implement these frameworks and academics who analyze their effectiveness.

The ultimate goal of this research is to enhance the understanding of bank health assessment tools by comparing the core elements of CAMEL and RGEC. This will not only provide clarity on their practical applications and limitations but will also contribute to the discourse on developing more effective, integrated approaches to evaluating bank health in a dynamic and ever-changing financial environment. Consequently, this study aims to serve as a valuable resource for financial institutions, regulators, and scholars looking to improve the methods used for assessing the financial stability and performance of banking institutions.

METHODS

This study adopts a systematic literature review (SLR) methodology, meticulously collecting and analyzing a comprehensive array of scholarly articles that focus on the CAMEL and RGEC frameworks for bank health assessment. A well-defined and methodical approach is implemented to ensure thoroughness and accuracy in identifying, selecting, and critically appraising relevant literature. This rigorous process guarantees that all essential aspects of both CAMEL and RGEC methodologies are comprehensively explored. The review specifically targets research articles published within a designated timeframe, with the objective of discerning key trends, patterns, and thematic developments in the field of bank health assessment. By concentrating on these themes,

the study aims to construct a cohesive understanding of the evolving nature and effectiveness of these assessment methods.

The SLR methodology employed in this study includes specific selection criteria to filter relevant literature, robust data extraction techniques to gather pertinent information, and a well-structured comparative framework. This framework is designed to facilitate a critical evaluation of the effectiveness of both CAMEL and RGEC approaches. The analysis encompasses various dimensions of bank health, such as financial performance, risk management, governance practices, and overall operational soundness. By systematically comparing these dimensions across the two methodologies, the study aims to provide a balanced perspective on their respective strengths and limitations, contributing valuable insights to researchers, practitioners, and policymakers in the field of banking and finance.

RESULTS

The findings of this systematic literature review present a comprehensive comparative analysis of the CAMEL and RGEC methodologies, emphasizing their respective strengths and weaknesses in assessing bank health. The study reveals key trends in how each method is applied and assesses their ability to measure various dimensions of a bank's stability and performance. Specifically, CAMEL is identified as a framework with a concentrated focus on specific financial indicators, such as capital adequacy, asset quality, management efficiency, earnings quality, and liquidity. In contrast, RGEC encompasses a broader perspective by incorporating elements of corporate governance and a bank's risk profile, in addition to its financial indicators. This broader approach reflects a more holistic evaluation of a bank's operational soundness and compliance with governance standards.

The study's results indicate that while both CAMEL and RGEC are effective in evaluating the health of banking institutions, each possesses unique advantages that make them suitable for different analytical contexts within the financial sector. CAMEL's strong emphasis on traditional financial ratios makes it particularly useful for assessing the financial strength of a bank in terms of capital and asset quality. Conversely, the RGEC methodology, with its inclusion of corporate governance and risk assessment, provides a more comprehensive view, making it valuable in regulatory environments where governance practices and risk exposure are of significant concern.

Moreover, the analysis suggests that practitioners and researchers can benefit from understanding the situational applicability of each methodology. CAMEL's simplicity and focus on financial metrics make it an accessible tool for preliminary assessments or for institutions where financial indicators are primary concerns. Meanwhile, RGEC's broader scope is better suited for environments that require detailed insights into corporate governance practices, risk management strategies, and the overall financial health of a bank. Therefore, both methodologies contribute uniquely to the assessment of bank health, and their application can be adapted to the specific needs of different stakeholders within the banking sector.

DISCUSSION

The study delves deeply into the implications of the findings regarding the assessment of bank health across various financial environments. The discussion highlights the significance of utilizing both the CAMEL and RGEC methodologies effectively, considering their respective strengths and

limitations. These implications extend beyond mere theoretical assessment and touch on practical applications in banking supervision, financial stability analysis, and regulatory compliance. The detailed evaluation of each methodology aims to enhance the understanding of how these frameworks operate under different financial conditions and how they can be adapted to suit specific institutional needs (Nsengiyumva, 2016).

In examining the application of CAMEL and RGEC, the study underscores the importance of recognizing their unique contributions. CAMEL's framework, focusing primarily on financial metrics such as capital adequacy, asset quality, and liquidity, is particularly advantageous in environments where financial ratios are the primary indicators of health. On the other hand, RGEC's broader inclusion of risk assessment and corporate governance aspects makes it a more holistic approach, especially in environments where governance practices and risk profiles play a crucial role in determining bank stability. This comparative understanding enables financial institutions to choose an appropriate methodology based on their specific context, whether it be for internal assessments or regulatory compliance.

The discussion further explores the potential for an integrated approach to bank health assessment. By combining the specific strengths of both CAMEL and RGEC, an integrated model could provide a more comprehensive and nuanced view of a bank's health. Such an approach would leverage the financial metric focus of CAMEL while incorporating the governance and risk management features of RGEC, allowing for a more balanced and detailed analysis. This integration would not only improve the accuracy of assessments but also enhance their applicability in diverse financial environments, contributing to the stability of banking institutions on a global scale.

The significance of these findings is not limited to the academic domain but also has practical relevance for financial practitioners and policymakers. For practitioners, an integrated framework allows for more robust internal evaluations of bank health, aiding in strategic decision-making and risk management. For policymakers and regulators, understanding the strengths and limitations of both CAMEL and RGEC provides a foundation for developing more effective regulatory standards and supervisory frameworks. This holistic perspective can help in creating policies that foster a more stable banking sector, enhancing both public confidence and market integrity.

Furthermore, the study identifies key areas for future research that could build upon the current findings. One area of focus is the development of methodologies that integrate the best elements of CAMEL and RGEC, creating a more comprehensive and adaptable framework for bank health assessment. Another important area is the exploration of these frameworks in diverse financial markets and regulatory environments, assessing how they function in emerging markets compared to more established financial systems. Such research would contribute to the global discourse on improving bank health assessment tools and methodologies.

Overall, the implications of this study are multifaceted, impacting academic research, practical application within financial institutions, and policy formulation. By enhancing the understanding of CAMEL and RGEC methodologies and proposing an integrated approach, the study aims to contribute to more accurate, stable, and reliable assessments of bank health. This, in turn, supports the broader goal of fostering a resilient and well-supervised banking sector that can adapt to the ever-changing dynamics of the financial landscape.

CONCLUSION

This systematic literature review presents a novel and in-depth comparison between the CAMEL and RGEC methodologies for assessing bank health. Through a detailed analysis, the study

elucidates the strengths and weaknesses inherent in each approach, thus enriching the ongoing scholarly and practical discourse aimed at enhancing bank health assessment tools. The comprehensive nature of the review offers valuable insights into how each methodology can be applied in varying financial contexts, fostering a clearer understanding of their respective applications. By highlighting the differences and complementarities between CAMEL and RGEC, the study provides a solid foundation for practitioners and policymakers who seek to implement more effective and reliable bank evaluation techniques.

The review also underscores the practical and policy implications of applying these methodologies in real-world financial settings. By thoroughly examining both the CAMEL and RGEC frameworks, the study supports the argument for more accurate and stable assessments of financial sector health. This is particularly relevant for institutions aiming to improve their regulatory compliance, governance standards, and risk management practices. The discussion concludes by suggesting avenues for future research, particularly in exploring integrated models that combine the key elements of both CAMEL and RGEC methodologies. Such integration has the potential to improve the robustness and reliability of bank health assessments, addressing the need for dynamic and comprehensive evaluation tools in the evolving financial landscape.

REFERENCES

- Bikker, J. A. (2010). Measuring performance of banks: An assessment. *Journal of Applied Business and Economics*, 11(4), 141–159.
- Hewaidy, A. M., Elshamy, M. A., & Kayed, M. A. (2020). Bank Performance and the Association Between Accounting Income and the CAMEL Framework: Evidence from Kuwait. *Journal of Accounting and Finance*, 20(3), 73–85. <https://doi.org/10.33423/jaf.v20i3.3010>
- Ishaq, A. B., Karim, A., Ahmed, S., & Zaheer, A. (2016). Evaluating performance of commercial banks in Pakistan: An application of CAMEL model. *Journal of Business & Financial Affairs*, 5(1), 1–30. <https://doi.org/10.2139/ssrn.2716691>
- Kumari, I. G. S. (2017). A study on the financial performance of foreign commercial banks in Sri Lanka: An application of camel rating system. *Economics, Commerce and Trade Management: An International Journal (ECTIJ)*, 1(1), 59–70.
- Nazir, T., & Sangmi, M. (2010). Analyzing financial performance of commercial banks in India: An application of CAMEL model. *Pakistan Journal of Commerce and Social Sciences*, 4(1), 40–55.
- Nouaili, M., Abaoub, E., & Ochi, A. (2015). The determinants of banking performance in front of financial changes: Case of trade banks in Tunisia. *International Journal of Economics and Financial Issues*, 5(2), 410–417.
- Nsengiyumva, J. (2016). Does Government Ownership Negatively Affect Soundness of Banks? New Evidence. *International Review of Management and Business Research*, 5(3), 743–765.
- Pekkaya, M., & Demir, F. E. (2018). Determining the Priorities of CAMELS Dimensions Based on Bank Performance. In Dincer, H., Hacıoglu, Ü., & Yüksel, S. (Eds.), *Global Approaches in Financial Economics, Banking, and Finance*. Cham: Springer. https://doi.org/10.1007/978-3-319-78494-6_21
- Ping, K. G., & Kusairi, S. (2020). Analysis of CAMEL Framework in Banking Performance. *Copernican Journal of Finance & Accounting*, 9(3), 21–33.
- Puspitasari, D., & Dinuka, V. (2023). Analysis of Bank Health Level Assessment Using the RGEC Method Before and During the Covid-19 Pandemic. *Accounting Analysis Journal*, 11(2). <https://doi.org/10.15294/aaj.v11i2.59677> (Journal Unnes)

- Santoso, W., & Herbert, G. (2020). Bank health examination with camel approach to achieve competitive advantage: a case study in Bank National Nobu, Tbk. *International Journal of Research and Analytical Reviews*, 7(4), 542–549.
- Zarrouk, H., Nouaili, M., & Boujelbene, Y. (2016). Determinants of bank performance in a developing country: Evidence from Tunisia. *Journal of Financial Regulation and Compliance*, 24(2), 144–159.