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ANALYZING BANKS' FINANCIAL MANAGEMENT QUALITY IN TRNC: MABAC ANALYSIS¹

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ABSTRACT

The banking sector is in an important position due to the contribution of its functions to the economy. The banking sector provides the resources required for companies to carry out their operations to a significant extent. As with other companies, banks are also examined in terms of management quality. International standards for the caliber of management apply to banks. Following the Basel Agreement, the most significant international regulations in this area were established. The Third Basel Agreement establishes international standards for capital adequacy, stress testing, and bank liquidity. To address the shortcomings in financial regulation exposed by the 2008 financial crisis, the second Basel Agreement was developed into the third Basel Agreement. The banking law in the TRNC was amended in 2001 and the content of the capital structure was brought into line with the Basel Agreement. The minimum capital adequacy of banks is one of the most important aspects of the Basel Agreements. In this study, banks operating in the TRNC were examined using 5 different financial ratios used in the measurement of minimum capital adequacy as well as stress testing and liquidity. The comparisons were conducted using MABAC analysis. According to the findings of the study, which used the years 2018-2020 as the data period, foreign banks operating in the TRNC perform better than local banks. When individual performances are examined, it is observed that Ziraat Bank and Türkiye Garanti Bank are the banks that have given the best performance for 3 years.

Keywords: Banking, Financial Performance, TRNC.

JEL Codes: G21, G32.

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1. INTRODUCTION

Numerous factors influence how the global financial system affects national economies and how the global economy develops. A significant component of the global financial system, the banking industry is a for-profit business that acts as a middleman in the financing process between those who provide money and those who require it. By lending money to those who have extra money and those who wish to spend it for different purposes, banks help distribute the nation's resources. Banks must have a solid financial framework due to growing competitiveness on a national and worldwide scale. Both domestically and globally, these profitability and risk levels need to be carefully analyzed (Güzel, 2023).

The banking industry plays a significant role in the development of developing nations. Even the smallest economic players may have a negative impact on the whole economy due to the dangers that banks, a crucial component of the global economic system, confront. Bank failures have led to significant financial disasters, just as they did in previous decades. Therefore, systematic and unsystematic risks have an impact on how performance is measured and developed. Research on bank performance in developed nations has a larger presence in the literature than in developing nations, but because of the effects of the 2008 financial crisis, it has also begun to gain traction in developing nations. By increasing the variables and new models employed in performance evaluation in terms of quality and quantity, the crisis' catastrophic impacts have made alternative techniques more important than old ones (Sarı, 2020).

Banks can anticipate hazards, both systematic and unsystematic, and take preventative measures or lessen their impact. It is more probable to forecast unsystematic risks that will benefit banks' internal management than it is to forecast potential negative outcomes related to non-bank systematic risks. When unsystematic hazards are faced, decision-making procedures might benefit from an analysis of the present state of the banking industry. Banks must prepare utilizing information gathered from analysis techniques on corporate failures, existing loan status, and debt payment capability (Aksoy and Göker, 2018).

Some techniques to quantify risks and guarantee risk management include the establishment of continuous monitoring and evaluation systems, stress testing, analytical techniques, S-score MBAC, and Monte Carlo simulation. Expert perspectives on financial management and internal control should be incorporated into strategic planning, and scenarios pertaining to potential systemic risks should be developed with the use of quantitative analysis.

When assessing a bank's performance, it is crucial to examine its financial accounts (Ertürk, 2010). Analytical models should guide the selection of indicators, even when many methodological approaches are employed. Numerous investigations and analysis techniques are available in various literatures to reduce the potential risk of bank failure

and ensure a sustainable future. This study used the multi-criteria decision-making process to analyze the TRNC banking industry.

2. LITERATURE REVIEW

Many studies have used "Multi Criteria Decision Making" (MCDM) approaches to assess the performance of banks in the banking industry in recent years. The table below provides summary data on a few of these research.

Table 1. Summary of Literature

Author	Data	Method	Finding
Yayar and Baykara (2012)	2005-2011 / Turkish Banking Sector	TOPSIS	The most effective bank was determined to be Albaraka Turk.
Bağcı (2013)	2003-2011 / Turkish Banking Sector	TOPSIS	Islamic banks are more rewarding than commercial banks since they have achieved higher performance rankings.
Ecer (2013)	2008-2011 / Turkish Banking Sector	GREY RELATIONAL ANALYSIS	In terms of efficiency, Turkish Bank ranks last among private banks, while Garanti Bankasi ranks top.
Gümrah (2016)	2010-2013 / Turkish and Malaysian Banking Sector	TOPSIS	SC and Pubislamic ranked first in the analysis's first three years, but Albaraka Türk topped the performance rating in the final year.
Banu ve Santhiyavalli (2019)	1999-2015 / Indian Banking Sector	TOPSIS	The top-performing banks during the analysis period were Citibank, South Indian Bank, Deutsche Bank, State Bank of Travancore, and Bank of Baroda.
Işık ve Ersoy (2020)	2015-2018 / Turkish Banking Sector	CRITIC and EDAS	In comparison to other banks, it was determined that Akbank had the best performance over all years..
Çelik (2020)	2019 / Turkish Banking Sector	CRITIC and MABAC	The MABAC method's use led to Ziraat Participation Bank being named the bank with the best performance in 2019.
Işık (2020)	2014-2018 / Turkish Banking Sector	MABAC and WASPAS	Türk Eximbank (B2) is ranked first in the performance ranking of public capital development and investment banks based on the chosen criteria, per the results of applying the MABAC and WASPAS techniques.
Gülây et al. (2021)	2018-2020 / Turkish Banking Sector	MABAC	The results of the MABAC approach show that Garanti BBVA is the most effective bank throughout every period. It is

			evident that Yapı ve Kredi Bankası is the next most effective bank.
Oksuzkaya and Atan (2023)	2016-2021 / Turkish Banking Sector	CRITIC and MABAC	Turkish Development and Investment Bank Inc. and Turkish Eximbank are the two banks with the highest rankings, respectively..
Fidan (2023)	Turkish Banking Sector	MABAC	Based on the analysis, Vakıfbank came in third, İş Bank in second, and Ziraat Bank in top place.
Bayram et al. (2023)	2017-2022 / Turkish Banking Sector	MABAC	Conventional banks with private capital tend to score better on the financial strength index.

3. DATA AND METHODOLOGY

This study examined the financial quality level of banks in the TRNC using data from eight banks across various capital categories between 2018 and 2020. The table below lists the banks whose data was used.

Table 2. Banks

Domestic Banks	Foreign Banks
CAPITAL BANK	T.C ZİRAAT BANKASI A.Ş.
KIBRIS İKTİSAT BANK	TÜRKİYE HALK BANKASI A.Ş.
CREDITWEST BANK	TÜRKİYE İŞ BANKASI A.Ş.
	TÜRK EKONOMİ BANKASI
	TÜRKİYE GARANTİ BANKASI A.Ş.

Pamučar and Ćirović (2015) designed the MABAC (MultiAttributive Border Approximation Area Comparison) technique, which is based on calculating the distance between each alternative's criteria function and the border approach area. The method is used as an evaluation tool for both the selection and ranking of decision alternatives in a variety of fields, including agriculture, construction, the defense industry, education, energy, finance and human resources, health services, technology, production, and tourism, according to the systematic MABAC literature analysis carried out by Torkayesh et al. (2023). The subsequent stages make up the MABAC method's conceptual formulation:

Step 1: The choice matrix is constructed first. The choice alternative is denoted by m in the matrix, while the number of criteria is represented by n .

$$X = \begin{bmatrix} X_{11} & X_{12} & \dots & X_{1n} \\ X_{21} & X_{22} & \dots & X_{2n} \\ \cdot & & & \cdot \\ \cdot & & & \cdot \\ \cdot & & & \cdot \\ X_{m1} & X_{m2} & \dots & X_{mn} \end{bmatrix} \quad (1)$$

Step 2: The matrix is normalized using the formulas that follow after the minimum and maximum conditions have been established.

$$\text{Max, } n_{ij} = \frac{x_{ij} - \text{min } x_i}{\text{max } x_i - \text{min } x_i} \quad (2)$$

$$\text{Min, } n_{ij} = \frac{x_{ij} - \text{max } x_i}{\text{min } x_{ii} - \text{max } x_i} \quad (3)$$

Step 3: The formula that follows is used to determine the weighting the matrix.

$$V_{ij} = w_i (n_{ij} + 1) \quad (4)$$

Step 4: Formula number 5 is used to arrange the border proximity area matrix.

$$g_i = \left(\prod_{j=1}^m v_{ij} \right)^{1/m} \quad (5)$$

Step 5: The components of the choice matrix are separated from the components of the border proximity matrix.

$$Q = V - G \quad (6)$$

Step 6: Distance values are used to identify the available options.

$$S_i = \sum_{j=1}^n q_{ij} \quad (7)$$

4. FINDINGS

The financial performance of banks was compared in this study using the following financial ratios: Core Capital to Total Assets (CA), Equity to Total Assets (EA), Capital Adequacy Ratio (CAR), Non-Performing Loans to Total Loans (NPL), and Expenses to Income (CIR). The table below displays the results of the comparison using the MABAC approach.

Table 3. Bank Comparisons

Banks	2018	2019	2020
CAPITAL BANK	8	7	6
KIBRIS IKTISAT BANK	7	8	8
CREDITWEST BANK	6	6	7
T.C ZIRAAT BANK	1	1	3
TURKIYE HALK BANK	3	3	4
TURKIYE İŞ BANK	5	5	5
TURK EKONOMI BANK	4	4	2
TURKIYE GARANTI BANK	2	2	1

Foreign banks operating in the Turkish Republic of Northern Cyprus (TRNC) often performed better than local banks, according to the study's conclusions, which examined data from 2018 to 2020. This suggests that, in comparison to their local counterparts during this time, foreign banks may have had stronger financial measurements, better risk management, or more effective operational procedures.

Ziraat Bank and Türkiye Garanti Bank emerged as the top performers throughout the course of the three years when the individual performances of each bank were analyzed. It appears that these two banks have been especially successful in the TRNC market over the reviewed years since they have continuously produced better outcomes than other banks.

5. CONCLUSION

Banks and other financial intermediaries have a significant impact on economic growth in both industrialized and developing nations. These nations frequently have weak financial markets, making it difficult for enterprises to get the funding they want. In these situations, the significance of financial institutions is even more apparent, as stressed by Oncu (2021). By directing funds toward profitable ventures, banks support economic expansion by giving companies access to vital funding that may not otherwise be accessible. Banks contribute to preventing the loss of lucrative investment possibilities that can result from resource restrictions by providing credit and loans. The financial market is still in its infancy in places like the Turkish Republic of Northern Cyprus (TRNC). The financial system is still underdeveloped because of the nation's distinct economic structure, which is marked by a relatively closed economy, minimal sector diversity, and limited connectivity with global markets. Savings funds were the initial type of banking in the TRNC before evolving into full-fledged banking. Banking services have significantly improved, and there are now more domestic banks as well as banks from Turkey and a few other nations. One may argue that the numerous services offered by banks in the TRNC enable clients to complete several banking and other transactions more quickly and easily (Kanipek and Balıkcıoğlu, 2015).

The TRNC, like many other nations, is facing several economic challenges as a result of the Covid-19 outbreak, which has unexpectedly spread over the world. As a result of the COVID-19 epidemic, financial systems have passed a critical test. The funding structure and costs will change as a result of the crisis in the Turkish Republic of Northern Cyprus and beyond its borders, as well as shifts in the investment preferences and perceptions of financial institutions and corporate and individual clients (Kanizi and Oncu, 2021). Banks should conduct performance analyses at this time to guarantee better balance sheet management. In this regard, the purpose of this research was to track TRNC banks' performance.

There are several recommendations for enhancing banks' performance. However, today's first focus should be digitization. Expanding digital banking services and increasing technological investments are necessary to boost the performance of banks in the TRNC. Productivity will rise and fixed investments will fall as a result. There is also statistical evidence to support the notion that digitization will improve bank performance (Ulusoy and Demirel, 2022). Transparency is an essential value for every aspect of the financial industry, not just the central bank. Transparency and internal control mechanisms should also be enhanced, and banks' risk management procedures should be reinforced (Nasreen et al., 2024). Programs for financial education may be set up in this situation, and new goods and improved service quality can be provided to boost client happiness. Strengthening credit and investment incentives that promote international collaboration and the local economy is necessary. The structure of the TRNC economy keeps it walled off to the outside world (Kanizi and Oncu, 2021). The efficiency of the economy and bank profitability will both rise as a result of international collaboration.

The purpose of this study was to compare the management quality of banks in the TRNC using the MABAC technique. The study found that the banks' production scores fluctuated over time. Furthermore, it was shown that, on average, foreign-capital banks scored higher than domestic banks. Ziraat Bank and Türkiye Garanti Bank were found to be the top-performing banks for three years when individual performances were analyzed.

COMPLIANCE WITH ETHICAL STANDARD

Conflict of Interests: There is no conflict of interest between the authors or any third party individuals or institutions.

Ethics Committee Approval: This study uses publicly available data. Ethics committee approval is not required.

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