EMPIRICAL RELATIONSHIP BETWEEN GOVERNANCE AND FINANCIAL PERFORMANCE OF KOOP SAHABAT

[1]Shamsuri Salleh, [2]M. Azali*

[1]Cooperative Institute of Malaysia, 103 Jalan Templer, Petaling Jaya, Selangor Malaysia
[1,2]Graduate Business School, Universiti Keusahawanan Koperasi Malaysia, Petaling Jaya, Selangor, Malaysia

*Corresponding author email: azali@ukkm.edu.my
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ABSTRACT

This study investigates the relationship between governance practices and financial performance at Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad, a prominent Malaysian cooperative. Previous research has linked cooperative failures to poor governance, financial mismanagement, and a lack of member involvement. The primary aim of this study is to examine how board governance influences financial outcomes and to provide practical recommendations for improving cooperative performance. Adopting a quantitative design and case study approach, the research analyses Koop Sahabat's annual reports from 2018 to 2022. Descriptive and Pearson correlation analyses are employed to assess the relationships between board size, gender diversity, meeting frequency, and financial performance indicators. The findings reveal that board size has no significant effect on financial performance, whereas gender diversity and meeting frequency positively influence financial outcomes. These results suggest that incorporating diverse perspectives and conducting frequent board meetings improve decision-making and enhance management effectiveness. Overall, the study underscores the critical role of gender diversity and meeting frequency in driving financial performance, boosting competitiveness, and ensuring the long-term sustainability of Koop Sahabat.

Keywords: *Board governance, cooperative financial performance, board gender diversity, frequency of board meetings, quantitative analysis, Koop Sahabat.*

INTRODUCTION

Cooperatives are organisations established to meet the economic, social, and cultural needs of their members. They are typically formed to provide essential services, such as financial support, goods, or services that may not be readily available in the market. Historically, the failure of cooperatives is often linked to issues such as mismanagement, fraud, criminal breaches of trust, and poor governance. In many cases, these failures are further exacerbated by the lack or absence of member involvement, financial mismanagement, insufficient resources, market competition, internal conflicts, and failure to innovate or adapt to changing circumstances (Ekhorutomwen & Peters, 2021).

In larger cooperatives, the likelihood of member conflict increases, and issues such as distrust and poor governance tend to become more pronounced (Sebhatu et al., 2020). Furthermore, when members cannot exercise their democratic rights within the cooperative, participation and sustainability are often compromised (Magumula & Ndiege, 2019). Such challenges significantly impact the cooperative's ability to meet its goals. In many cases, they extend beyond the cooperative, negatively affecting the broader economy, market conditions, and social cohesion. The Malaysian government has previously had to intervene to rescue failing cooperatives, such as in 2005 when it allocated RM1 billion to bail out troubled cooperatives (Maslinawati et al., 2013).

Addressing the challenges facing cooperatives requires multifaceted approaches. These include improving governance practices, revising the regulatory framework, fostering cooperation between cooperatives, and raising public awareness and support for the cooperative sector. However, research on cooperatives, particularly in Malaysia, remains explorable despite their essential role in the country's economic development (Khairuddin Hashim & Ahmad Fawzi, 2015). Thus, more empirical contributions are needed to understand the governance issues better and improve the overall performance of cooperatives.

A cooperative is a unique business model owned and operated by its members, who are also the cooperative's customers, suppliers, or employees. This member-centred approach contrasts with private companies, where profit maximisation is the primary objective. Cooperatives, instead, aim to meet the needs and aspirations of their members while adhering to democratic governance principles, where each member holds one vote, regardless of their

capital investment (Yadav, 2018). While starting and running a cooperative can require considerable time, effort, and technical resources, effective governance is essential for success. Lack of knowledge, skills, and competence among board members can result in ineffective governance and poor organisational performance (Sallehhuddin et al., 2018).

Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad, established in 2012, is one of the top cooperatives in Malaysia, with a membership exceeding 450,000. Koop Sahabat's main business operations include financial services, real estate, treasury, strategic investments, and corporate investments. It has total assets of RM852.532 million and is ranked 7th in the national profile of Malaysia's top 100 cooperatives in 2022. Koop Sahabat is part of the Amanah Ikhtiar Malaysia (AIM) network, a government agency established in 1987 to alleviate poverty through microfinance and community development programs.

Koop Sahabat plays a crucial role in microfinance by providing small loans to low-income individuals, particularly women in rural and underserved areas. These loans support income-generating activities such as small businesses, agriculture, and handicrafts. By offering financial support to its members, Koop Sahabat helps break the cycle of poverty, enabling individuals to improve their livelihoods and contribute to the community's economic growth. Through its activities, Koop Sahabat not only enhances the welfare of its members but also supports Malaysia's broader development goals.

Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad is one of the 5,613 types of consumer cooperatives in Malaysia; this cooperative consists of five (5) main business cores with total assets of RM852.532 million and a total membership of 452,728 cooperative members. Koop Sahabat has been recognised as one 1 of the best cooperatives in Malaysia and was named the 7th best cooperative nationally in the profile of the 100 best cooperatives in Malaysia by the Suruhanjaya Koperasi Malaysia (SKM) in 2022 (Suruhanjaya Koperasi Malaysia, 2024; Awani, March 11, 2024). The five (5) main business cores of Koop Sahabat are financial services, real estate, treasury, strategic investment and corporate investment. In total, there are 14 business activities which have been classified under five (5) of Koop Sahabat's business cores (Koop Sahabat, 2022). Refer to the following diagram for the core business of Koop Sahabat (Figure 1)

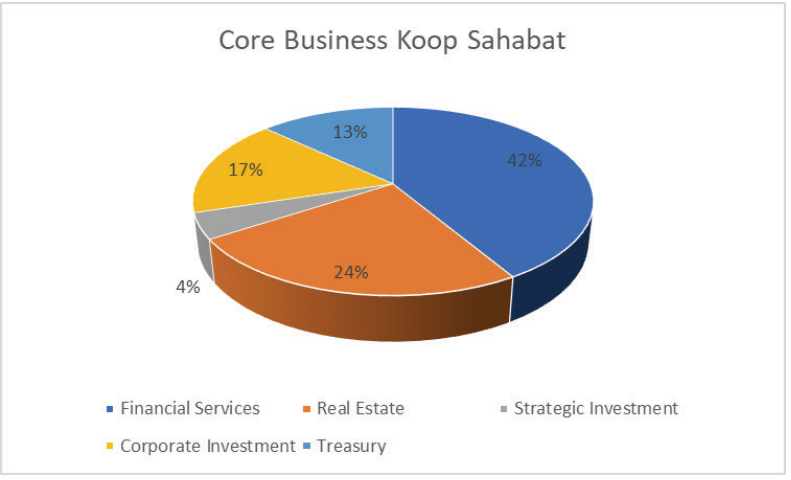

Figure 1: Core business of Koop Sahabat (Koop Sahabat, 2022)

PROBLEM STATEMENT

Better financial performance often leads to improved governance, which, in turn, can further enhance performance (Bhagat & Bolton, 2019). In cooperatives, fraudulent activities such as embezzlement, misuse of assets, or manipulation of financial records can severely impact financial performance and stability. Sebhatu et al. (2020) highlight that these fraudulent actions may involve the board of directors, employees, or members. Addressing these challenges is critical, as cooperative boards must implement preventive measures to mitigate financial difficulties.

Agency problems arise when managers prioritise their interests over those of cooperative members (Basterretxea et al., 2022). To address these issues, the composition of the board plays a significant role in mitigating the principal-agent problem, where cooperative members (the principals) delegate management responsibilities to the board (the agents) (Ahmed & Rugami, 2019). However, larger boards may exacerbate problems such as free-riding, inefficiency, and poor management, leading to conflicts, fraud, and distrust (Sebhatu et al., 2020). Conversely, smaller boards are often more effective in addressing these challenges.

Additionally, the qualifications and professionalism of board members are pivotal in promoting better governance and performance (Ahmed & Rugami, 2019). An effective board ensures the cooperative operates ethically and efficiently, maximising long-term value for its

members. A robust corporate governance system is essential to limit agency problems and improve performance (Almashhadani et al., 2022). Thus, an efficient and well-qualified board is crucial for fostering good governance and ensuring the cooperative's success (Pratiwi & Chariri, 2021).

This study examines governance mechanisms such as board size, board gender diversity, and board meeting frequency and their impact on cooperative performance. While governance encompasses various factors, this research specifically focuses on these three aspects, using Koop Sahabat as a case study. The objective is to investigate the relationship between these governance mechanisms and cooperative performance, providing valuable insights for academic literature and practical applications in the cooperative sector.

LITERATURE REVIEW – CONCEPTUAL FRAMEWORK AND EMPIRICAL EVIDENCE

The objective of a cooperative is to gather members to work together for shared economic benefits, requiring transparency and accountability in governance to foster trust. According to the International Cooperative Alliance (ICA), Section 2 of The Cooperative Societies Act 1993 defines a cooperative as "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise". A similar view by Islam et al. (2022) defines a cooperative society as an autonomous association of individuals who voluntarily cooperate for their common economic interests.

In Malaysia, the development of cooperatives is guided by the Cooperative Development Policy, which outlines the government's strategies and objectives for supporting their growth and sustainability. The Malaysian government has been integral to the cooperative movement, which plays a significant role in the country's socio-economic agenda. The Malaysian Cooperative Transformation Plan (TransKoM 2021-2025) was launched by the respective Ministry to increase the cooperative sector's Gross Domestic Product (GDP) contribution from 3% to 5% by 2025.

The conceptual framework of this study, illustrated in Figure 2, is an augmented Agency Theory developed by Jensen and Meckling (1976). In their seminal work, the authors delve into the concept of agency costs and their implications for corporate governance and financial performance. They argue that effective corporate governance mechanisms are designed to align these interests, thereby enhancing a firm's financial performance.

Agency theory can be applied to cooperatives to understand the dynamics between member-owners and managers. By implementing robust governance structures, cooperatives can mitigate potential conflicts of interest, improving financial outcomes.

In Figure 2.0, the two (2) left-side boxes show the independent variables for the cooperative governance mechanism. These mechanisms are related to the cooperative finances. The second box contains cooperative financial performance, which includes the cooperative's profit, return on assets (ROA), and return on equity (ROE). The arrow indicates that these independent variables will have a unidirectional causal relationship with the cooperative financial performance.

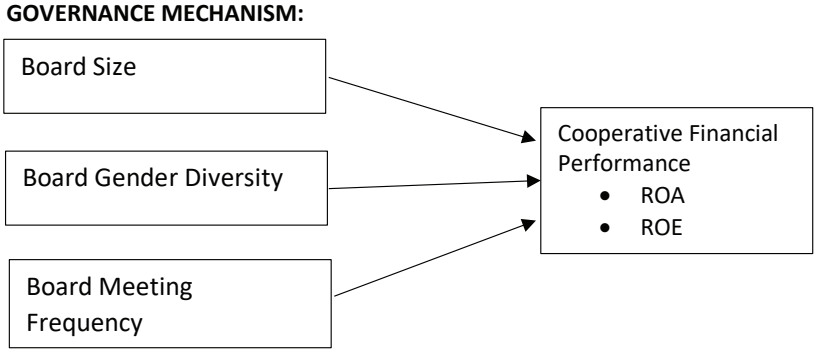

Figure 2: Conceptual framework of the study

The governance mechanism, as an independent variable, comprises numerous elements; however, this study focuses on three key aspects: board size, board gender diversity, and board meeting frequency.

Firstly, the size of the board of directors is a frequently analysed governance factor in organisations, including cooperatives. Research indicates that larger boards can contribute to a greater diversity of perspectives and skills in decision-making. Abdullah et al. (2022) assert that a large board enhances the ability to monitor and evaluate cooperative operations, improve decision quality, and mitigate risks. However, other studies suggest that overly large boards can hinder efficiency due to communication challenges and difficulty reaching decisions (Latif et al., 2023). In cooperatives, the benefits of a larger board may depend on the organisational structure and type of business.

On the other hand, smaller boards are often viewed as more effective for management and oversight. Smaller boards facilitate quicker decision-making and decisive actions when addressing emerging issues, as noted by Latif et al. (2023). Additionally, they allow directors to interact more closely and coordinate goals with greater ease. This study explores the relationship between board size and cooperative performance in a specific context to determine the optimal board size for enhancing financial and operational outcomes.

Secondly, gender diversity on the board of directors, reflecting representation of both men and women, is a vital governance element enhancing decision-making and organisational performance. Research shows that gender-diverse boards foster creativity, innovation, and various perspectives in decision-making. Gender diversity ensures sensitivity to diverse issues and promotes transparent and accountable governance practices (Post & Byron, 2022). Post & Byron (2022) concluded that gender-diverse boards enhance financial and organisational performance. They noted that diverse perspectives enrich strategic discussions, with women focusing on sustainability and employee welfare and men prioritising profitability and growth. For Koop Sahabat, exploring gender diversity offers insights into governance effectiveness. This analysis will examine the gender composition of the board and its influence on decision-making processes affecting cooperative performance. Gender diversity enhances decision-making, boosts the cooperative's image, and reflects its commitment to fairness and inclusivity (Hassan & Khairuldin, 2020).

Thirdly, the frequency of board meetings is widely recognised as a governance factor influencing cooperative financial performance. Kim et al. (2024) found that frequent meetings enable directors to address current issues, update information, and make more

informed decisions. Increased meeting frequency ensures timely responses to challenges, reducing delays that could affect financial performance. However, excessive meetings may be counterproductive, diverting attention from strategic tasks, as observed by Rahim et al. (2023).

Empirical studies examining the impact of board gender diversity on financial performance have yielded mixed results, with limited research focusing specifically on cooperatives. A study by Post and Byron (2015) found that female representation on corporate boards positively relates to accounting returns, suggesting that gender-diverse boards may enhance financial performance through improved decision-making and oversight. In addition, a study by Bernile, Bhagwat and Yonker (2018) discovered that firms with more diverse boards exhibit lower risk and higher valuation, indicating that gender diversity can contribute to financial stability and value creation. Conversely, a study by Adams and Ferreira (2009) reported that while gender-diverse boards are more active in monitoring, this increased oversight can sometimes lead to over-monitoring, potentially hindering performance. A systematic review by Pletzer et al. (2015) concluded that the relationship between board gender diversity and firm performance is generally small, suggesting that other factors may significantly influence financial outcomes.

However, research specifically targeting cooperatives is scarce. Given the unique governance structures of cooperatives, the effects of board gender diversity on financial performance may differ from those of traditional corporations. Further empirical studies are needed to explore this relationship within the cooperative sector. The impact of board gender diversity on financial performance varies across studies and organisational contexts. While some research indicates potential benefits, others suggest minimal or negative effects. In the context of cooperatives, more targeted research is necessary to draw definitive conclusions.

Effective governance requires aligning meeting frequency with the cooperative's needs and ensuring productive agendas. Rahim et al. (2023) emphasise that meeting frequency should align with strategic goals and maintain a clear purpose. Routine and overly formalised meetings may fail to impact financial performance positively. This study evaluates the impact of meeting frequency on Koop Sahabat’s financial performance, focusing on the appropriateness of meeting frequency in achieving cooperative objectives.

This research uses standard financial performance metrics such as return on assets (ROA) and return on equity (ROE). Good governance practices are expected to influence cooperative financial outcomes positively. Metrics such as ROA and ROE are essential for evaluating financial efficiency and goal achievement. These metrics will be employed to assess the financial performance of Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad from 2018 to 2022. Lopez and Carter (2022) highlight that ROA and ROE provide insights into how cooperatives manage their assets and equity to generate profits. High returns reflect effective management, while lower performance suggests a need for efficiency improvements or cost control.

Empirical studies frequently highlight the connection between organisational performance and board characteristics, particularly board size. Riyadh et al. (2019) found that larger boards improve effectiveness by offering broader support. However, Jenter et al. (2023) revealed that poorly structured boards could lead to significant costs, with larger boards often associated with reduced profit margins and returns. While larger boards may encourage creativity and collaboration, they also face challenges with productivity and efficiency. Thus, board effectiveness depends not only on size but on cohesive and accountable functioning.

Research by Aleqab and Ighnaim (2021) found no impact of board size on earnings management, supported by structural equation modelling. Almashhadani (2021) similarly reported that larger boards negatively affect performance. Other studies suggest that smaller boards have a positive influence on firm performance (Merendino & Melville, 2019). Effective boards balance skills, diversity, and leadership while adhering to sound governance practices. Additional research (Nawaz, 2019; Harun et al., 2020; Mukherjee & Sen, 2019) found that board size influences governance, disclosures, and performance. Aslam and Haron (2020) noted a negative correlation between board size and Islamic banks' performance. Kyere and Ausloos (2021) emphasised that governance mechanisms, including board size, impact financial performance indicators such as ROA. Nawaz & Ohlrogge (2023) demonstrated that larger boards reduce the effectiveness of intangible resources on financial performance, while Ullah et al. (2020) found no significant link between board size and firm value. Githaiga et al. (2022) and Sanga and Hajanirina (2023) observed that larger boards are less effective at preventing earnings manipulation and more likely to engage in it than smaller boards.

Some researchers argue that larger boards enhance firm performance by improving efficiency (Khatib & Nour, 2021; Adeabah et al., 2019). However, Zheng and Tsai (2019) warned that larger boards could exacerbate agency problems, negatively affecting firm performance. Yan et al. (2021) found that companies with smaller boards make better decisions and encounter fewer agency problems. María and Isabel (2019) and Merendino and Melville (2019) noted that larger boards contribute diverse skills and improve firm performance.

Effective monitoring by boards promotes transparency, accountability, and responsible governance. Board meetings provide a crucial platform for directors to fulfil fiduciary duties without excessive burden. Saiful et al. (2008) advocated disclosing meeting details, including attendance, in annual reports to enhance transparency. Al Farooque et al. (2020) stressed the significance of regular meetings for directors to share experiences and oversee executives. AlHares et al. (2020) observed that frequent meetings reduce firm risk. Jain and Zaman (2020) and Vitolla et al. (2020) found that meeting attendance correlates with effective monitoring. Khaireddine et al. (2020) suggested that frequent meetings improve corporate disclosure, reduce information asymmetry, and enhance accountability. Kanakriyah (2021) identified a positive relationship between meeting frequency and corporate performance metrics like ROA and ROE, indicating that frequent meetings boost performance. Conversely, Wang et al. (2020) found no significant effect of meeting frequency, while Hanh et al. (2018) reported negative impacts on financial performance.

Cooperative performance is often assessed using financial and operational metrics to gauge success and competitiveness. Rahim et al. (2023) emphasised using multiple financial metrics to understand cooperative performance comprehensively. This study thoroughly analyses financial metrics to identify trends in Koop Sahabat's performance and factors influencing it during the study period. In addition, a study by Nawi et al. (2022) highlighted that cooperative performance is influenced by board size, meeting frequency, management efficiency, and risk management. Key metrics such as ROA and ROE reflect effective resource management and profitability. Kim et al. (2024) suggested that cooperatives maintaining financial stability and increasing profits are better positioned to provide services and benefits to members.

Studies on cooperative performance in Malaysia have identified key internal and external factors. Latif et al. (2023) emphasised strong leadership and active board participation as critical to improving financial performance. Effective management and supervision drive strategic decisions and risk mitigation. Rahim et al. (2022) noted that external factors, such as economic shifts and government policies, also play a role. Consequently, cooperative performance is shaped by internal governance and external environmental factors.

RESEARCH METHODOLOGY

The research study design is an approach to achieving the study's objectives by integrating appropriate data collection and analysis strategies based on the defined research issues. It aims to provide a deeper understanding of the phenomenon under study, supported by theoretical references and relevant sources (Hassan & Khairuldin, 2020). This study adopts a case study design as its primary strategy. According to Coombs (2022), a case study is a methodological approach that allows researchers to understand issues or phenomena in-depth, particularly in a specific situation or system tied to the current circumstances.

The quantitative research design enables the researcher to explore relationships between various variables within a limited timeframe. This aligns with the study's objective of analysing the relationship between board governance and cooperative financial performance. The quantitative approach also provides a comprehensive overview of cooperative governance practices without needing a time-intensive longitudinal study.

Quantitative analysis methods will be employed to examine the relationships between board size, gender diversity, board meeting frequency, and the financial performance of cooperatives. This approach involves collecting measurable data that can be statistically analysed. This study will use statistical tools such as Pearson's correlation and multiple regression to evaluate the relationships between the variables. This method ensures that the results are objective and generalisable. Through this carefully selected study design and quantitative approach, the research aims to produce clear and meaningful findings on how board governance impacts the financial performance of cooperatives in Koop Sahabat, contributing to both academic literature and practical applications in the cooperative sector.

The data for this study were sourced from Koop Sahabat's annual reports spanning 2018 to 2022. These reports, obtained from the "Mesyuarat Agung Perwakilan Tahunan" (MAPT), were considered suitable for data collection because Koop Sahabat was ranked among Malaysia's top ten best cooperatives during this period. Three independent variables—board size, gender diversity, and board meeting frequency—were extracted. A consent letter was sent to Koop Sahabat's top management to collect relevant data. The cooperative governance mechanism forms the foundation for the board's involvement in cooperative activities, which is reflected in the cooperative's performance, measured by profit metrics such as Return on Assets (ROA) and Return on Equity (ROE).

Two dependent variables, ROA and ROE, were extracted from the annual reports to measure the cooperative's profit performance. These variables were calculated using the following formulas, which represent the cooperative's profitability:

Return on Equity = Net Income / Shareholder's Equity

Return on Assets = Net Income / Total Assets

In these formulas, profit before interest and tax (PBIT) represents the cooperative's net income. For the study period (2018–2022), profit data were extracted from the annual reports. The cooperative's profitability was analysed using different denominators, resulting in ten calculations—five for ROA (Return on Assets) and five for ROE (Return on Equity). A higher ROA indicates greater efficiency, as the cooperative generates more income with smaller investments. Similarly, a higher ROE reflects the cooperative's effectiveness in creating shareholder value, which enhances productivity and profitability. These metrics are associated with board size and meeting frequency, contributing to improved productivity and profitability.

The quantitative data from annual reports and MAPT were analysed using statistical tools. Descriptive statistical analysis was conducted using SPSS (Statistical Package for the Social Sciences). Frequency analysis was performed to identify data distribution and patterns.

Additionally, correlation analysis was used to examine relationships between board size, gender diversity, and board meeting frequency with cooperative performance. Bivariate correlation analysis, which measures the relationship between two variables, was employed to determine the extent and direction of these relationships. Specifically, Bivariate Pearson correlation analysis was conducted to assess the strength of relationships between variables by calculating correlation coefficients (Perinetti, 2019). Finally, Pearson's Correlation Coefficient was applied to evaluate the strength and direction of linear relationships between each independent variable and the cooperative's financial performance.

RESULTS AND ANALYSIS

This section presents the descriptive data analysis and hypothesis testing results using Pearson's correlation.

First, the study assessed the normality of the data distribution using two key parameters: skewness and kurtosis. Skewness measures the asymmetry of data relative to a normal distribution, while kurtosis assesses the height and thickness of the tails of a distribution relative to a normal distribution.

Based on the skewness values presented in Table 1, the following results were observed:

Skewness

- **Board size (-0.55):** The data on Koop Sahabat board member size leans slightly toward smaller boards, meaning there are somewhat this cooperative with fewer members than those with larger boards, but the difference is not dramatic.
- **Board gender diversity (-0.72):** Gender diversity on the board leans slightly toward boards with lower representation of women. However, the skewness is moderate, showing some balance in the data.
- **Frequency of board meetings (-0.17):** Board meetings are almost evenly distributed. This suggests that Koop Sahabat board meetings are held consistently, with no major tilt toward more or fewer meetings.

- **Return on assets (ROA) (-0.77):** The ROA values are concentrated on higher returns, but the data has a long tail of lower values. This means the Koop Sahabat perform well, with some exceptions.
- **Return on equity (ROE) (-0.24):** ROE data is fairly balanced, with a slight tendency toward higher values. This reflects a generally consistent performance across data periods, with minimal bias in the data.

Kurtosis

- **Board size (-0.15):** The distribution of board size is slightly flatter than a typical bell curve, meaning that there is a broader range of board sizes without extreme peaks or outliers.
- **Board gender diversity (-0.81):** Gender diversity is more evenly spread than standard distribution. This suggests a fair range of diversity levels but no extremely high or low diversity clustering.
- **Frequency of board meetings (-0.81):** Similar to gender diversity, the frequency of meetings is distributed evenly, with no extreme patterns. This indicates a variety of meeting schedules across the period chosen.
- **Return on assets (ROA) (0.79):** ROA shows a sharp peak around the average, meaning Koop Sahabat had similar performance levels across the period. However, there are also a few extreme cases with very high or low returns.
- **Return on equity (ROE) (-0.92):** ROE values are spread out, indicating that Koop Sahabat's ROE shows varied financial performance. The data lacks sharp peaks, meaning there is no strong clustering around any single value.

Although the data exhibited some asymmetry and variation in peak distributions, the skewness and kurtosis values were within acceptable ranges for further statistical analysis. However, if stricter normality assumptions are required, data transformation may be necessary to ensure more accurate and valid results (Coombs, 2022; Hassan & Khairuldin, 2020).

Table 1: Skewness and kurtosis data

Variable	Skewness	Kurtosis
Size of the board of directors	-0.55	-0.15
Board gender diversity	-0.72	0.22
Frequency of board meetings	-0.17	-0.81
Return on assets (ROA)	-0.77	0.79
Return on equity (ROE)	-0.24	-0.92

Table 2 presents descriptive statistics for this study's relevant variables: board size, board gender diversity, board meeting frequency, return on assets (ROA), and return on equity (ROE) from 2018 to 2022. These statistics provide an overview of the data distribution for each variable and help identify patterns and trends within the data.

Board size averages 6.75 members with a standard deviation of 1.02. This indicates that the size of the board of directors in this cooperative has been relatively consistent over the years, with minimal variation. The lowest number of board members is 6, and the highest is 14. This stability in board size is important for ensuring effective and competitive management.

Board gender diversity has a mean of 0.71 and a standard deviation of 0.96, with a minimum value of 0 and a maximum of 2. These values indicate considerable variation in the gender composition of the board of directors during the study period. A value of 0 implies that, in some cases, only one gender is represented, while a value of 2 signifies a more balanced gender representation. This suggests that the cooperative may need to re-evaluate its gender diversity policies to achieve better representation on the board of directors.

Board meeting frequency shows an average of 4.5 meetings per year with a standard deviation of 0.52. The minimum frequency is four meetings, while the maximum is six meetings. This suggests that the board of directors meets regularly, which is essential for conducting in-depth discussions on the cooperative's performance and making critical decisions.

Return on assets (ROA) averages 5.15% but a relatively high standard deviation of 9.12%, indicating significant year-to-year variation in the cooperative's performance. The minimum value is -20.23%, signifying years in which the cooperative incurred losses in terms of assets, while the maximum value of 21.11% reflects efficient asset utilisation and profitability in certain years. These findings suggest that the financial performance of the cooperative is unstable and influenced by external factors, warranting further investigation.

Return on equity (ROE) recorded an average of 6.05% with a standard deviation of 8.12%, similarly showing considerable variation. The minimum value of -20.23% and maximum value of 21.11% indicate fluctuations in the cooperative's equity performance throughout the study period. These highly varied results reveal years of significant losses alongside years of notable profits, highlighting the cooperative's financial volatility.

Table 2: Descriptive statistics – from 2018 to 2022

Variable	Mean	Standard Deviation	Minimum	Maximum
Size of the board of directors	6.75	1.02	6	14
Board gender diversity	0.71	0.96	0	2
Frequency of board meetings	4.5	0.52	4	6
Return on assets (ROA)	5.15	9.12	−20.23	21.11
Return on Equity (ROE)	6.05	8.12	−20.23	21.11

The financial performance of an organisation, including cooperatives such as Koop Sahabat, is one important aspect in assessing its success and stability. Analysis of financial metrics is the primary tool used to evaluate a cooperative's financial strength. This study employs two main metrics to analyse Koop Sahabat's financial performance: Return on Assets (ROA) and Return on Equity (ROE).

Return on assets (ROA) is a measure used to evaluate the effectiveness of a cooperative's assets in generating profit. ROA is calculated by dividing net profit by total assets. A higher ROA indicates the cooperative can generate greater profits from its assets. Based on data collected between 2018 and 2022, Koop Sahabat's ROA values show significant variation.

The average ROA is approximately 5.15%, but the high standard deviation (9.12%) indicates large fluctuations in the cooperative's financial performance. The minimum ROA value of -20.23% reflects years in which the cooperative experienced losses in asset utilisation, while the maximum value of 21.11% represents years of excellent performance. These fluctuations indicate that, despite several profitable years, Koop Sahabat's financial performance is influenced by various external and internal factors, necessitating effective management to mitigate the risks associated with this uncertainty.

Return on equity (ROE) is a metric that assesses the extent to which a cooperative generates profit based on the equity invested by shareholders. ROE is calculated by dividing net profit by total equity. A higher ROE signifies that the cooperative utilises capital to generate profit more effectively. From 2018 to 2022, Koop Sahabat's average ROE is 6.05%, with a standard deviation of 8.12%, also suggesting significant fluctuations. The lowest ROE value of -20.23% indicates substantial losses in certain years, while the highest value of 21.11% reflects excellent performance in other years. Similar to ROA, this data demonstrates that Koop Sahabat's financial performance is inconsistent, and factors such as management practices, economic conditions, and strategic decisions significantly impact the cooperative's financial outcomes.

Analysing financial metrics such as ROA and ROE provides valuable insights into Koop Sahabat's financial performance by highlighting variations and uncertainties. To improve financial stability and consistency, cooperatives need to evaluate the factors influencing financial results and enhance asset and equity management strategies to increase returns continuously.

Hypothesis Testing

This study tested six (6) hypotheses, and the results are presented in Tables 3 through 8, respectively.

Null Hypothesis 1: There is no relationship between board size and ROA

Table 3: Pearson correlation (r) between board size and ROA

Relationship	r	*p*-value
Board size *vs* ROA	-0.125	0.109

The first hypothesis aims to evaluate the relationship between the size of the board of directors and cooperative performance, measured through return on assets (ROA). Based on the Pearson correlation analysis presented in Table 3, the results indicate that the p-value is 0.109, which is greater than the significance level of 10%.

As the p-value exceeds the significance level, Null Hypothesis 1, which states that there is no relationship between board size and ROA, fails to be rejected. Consequently, hypothesis 1 is not rejected.

This analysis suggests that the size of the board of directors does not have a statistically significant effect on cooperative performance in this study. Other factors may influence the weak relationship observed.

Null Hypothesis 2: There is no relationship between board size and ROE

Table 4: Pearson correlation (r) between board size and ROE

Relationship	r	*p*-value
Board size *vs* ROE	-0.230	0.915

The second hypothesis aims to assess whether there is a relationship between the size of the board of directors and return on equity (ROE). However, the Pearson correlation analysis presented in Table 4 specifically examines the relationship between board size and ROE, not ROA. The *p*-value obtained is 0.915, which is significantly greater than the conventional significance level of 10%.

Given this very high *p*-value, null hypothesis 2, which states that there is no significant relationship between board size and ROE, is accepted. This finding indicates that, in the context of this study, there is insufficient evidence to conclude that the size of the board of directors affects the financial performance of cooperatives as measured by ROE.

Null Hypothesis 3: There is no relationship between gender diversity and ROA

Table 5: Pearson correlation (r) between gender diversity and ROA

Relationship	r	*p*-value
Board gender diversity *vs* ROA	0.345	0.001

The third hypothesis is to test the relationship between gender diversity and ROA. Based on the Pearson correlation analysis in Table 5, the r-value between gender diversity on the board and ROA is 0.345, with a *p*-value of 0.000. The *p*-value indicates that this relationship is statistically significant at the 1% level; therefore, null hypothesis 3 is rejected.

The positive r-value suggests a moderate positive relationship between gender diversity and cooperatives' financial performance, as measured by ROA. This implies that greater gender diversity on the board of directors is associated with improved financial performance.

In conclusion, this evidence demonstrates that gender diversity on the board of directors can positively influence the financial performance of cooperatives. Women's involvement on the board may enhance the organisation’s financial outcomes by bringing diverse perspectives and approaches to decision-making.

Null Hypothesis 4: There is no relationship between gender diversity and ROE

Table 6: Pearson correlation (r) between gender diversity and ROE

Relationship	r	*p*-value
Board gender diversity *vs* ROE	0.412	0.001

In this study, the fourth hypothesis examines the relationship between gender diversity on the board of directors and return on equity (ROE). The *p*-value obtained is 0.001, which is statistically significant at the 1% level, indicating that the relationship is statistically significant. Consequently, null hypothesis 4, which states that there is no relationship between gender diversity on the board of directors and ROE, is rejected.

The findings suggest a positive and significant relationship between gender diversity and ROE. This indicates that higher gender diversity on the board of directors is associated with improved financial performance of the cooperative, as measured by ROE.

Null Hypothesis 5: There is no relationship between board meeting frequency and ROA

Table 7: Pearson correlation (r) between board meeting frequency and ROA

Relationship	r	*p*-value
Board meeting frequency *vs* ROA	0.567	0.003

The fifth null hypothesis tests the relationship between board meeting frequency and return on assets (ROA). Based on the Pearson correlation analysis results shown in Table 7, the r-value between board meeting frequency and ROA is 0.567, with a *p*-value of 0.003. This result indicates that Null Hypothesis 5 is rejected at the 1% level of significance.

The findings demonstrate that the relationship between board meeting frequency and ROA is statistically significant. The positive r-value of 0.567 suggests a strong positive relationship between these two variables, indicating that more frequent board meetings are associated with higher financial performance of the cooperative, as measured by ROA.

Null Hypothesis 6: There is no relationship between board meeting frequency and ROE

Table 8: Pearson correlation (r) between board meeting frequency and ROE

Relationship	r	*p*-value
Board meeting frequency *vs* ROE	0.601	0.004

The sixth hypothesis evaluates the relationship between board meeting frequency and ROE. As shown in Table 8, the *p*-value obtained is 0.004, which is smaller than the standard significance level of 1%. Additionally, the r-value is 0.601, indicating a positive relationship between the frequency of board meetings and return on equity (ROE). Consequently, Null Hypothesis 6 is rejected, as the relationship is statistically significant.

The results of the Pearson correlation analysis presented in Table 8 show that the positive r-value suggests a moderate to strong positive relationship between the frequency of board meetings and the cooperative's financial performance, as measured by ROE. This indicates that more frequent board meetings are associated with improved financial performance, as reflected in ROE.

Overall empirical results are summarised in Table 9 as follows:

Table 9: The results of hypotheses testing

Null Hypothesis	Conclusion	Remarks
Null 1: There is no relationship between board size and ROA	Not Rejected	Board size does not directly influence financial performance; other factors should be considered.
Null 2: There is no relationship between board size and ROE	Not Rejected	Board size does not directly influence financial performance; other factors should be considered.
Null 3: There is no relationship between gender diversity and ROA	Rejected	Gender diversity on boards improves financial performance by providing a more holistic business strategy and better risk management.
Null 4: There is no relationship between gender diversity and ROE	Rejected	Higher gender diversity improves the cooperative's financial performance by offering diverse perspectives and more effective decision-making.

Null 5: There is no relationship between board meeting frequency and ROA	Rejected	Frequent meetings improve financial performance by allowing for better decision-making, more effective strategy formulation, and quicker problem resolution.
Null 6: There is no relationship between board meeting frequency and ROE	Rejected	Frequent meetings allow for more in-depth discussions and decision-making, enhancing financial performance. However, meetings must be well-organized to ensure effectiveness.

CONCLUSION

This study analysed the financial performance of Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad in relation to several governance factors, including board size, gender diversity, and meeting frequency. The analysis aimed to assess the extent to which these governance factors influence the cooperative's financial performance, measured through return on assets (ROA) and return on equity (ROE).

Descriptive analysis of financial performance data indicates that both ROA and ROE exhibit considerable variation, reflecting significant differences in financial performance across the analysed years. This variation may result from various external and internal factors affecting cooperative operations, such as management strategies and economic conditions. Overall, this descriptive analysis provides a deeper understanding of the board characteristics and financial performance evaluated in this study, laying a solid foundation for further exploration of the relationships between these variables.

Board Size and Financial Performance

The findings reveal no statistically significant relationship between board size and financial performance, as measured by either ROA or ROE. This result suggests that merely increasing or decreasing the number of board members does not directly influence the cooperative's financial performance. Other factors, such as board members' quality, expertise, and decision-making abilities, may play a more critical role than board size alone.

This finding emphasises the importance of focusing on the competence and engagement of board members rather than the number of individuals on the board. Alam et al. (2022) confirmed that the board size does not significantly impact financial performance, as factors like efficiency and board involvement in decision-making are more influential. Similarly, studies by Suryanto et al. (2021), Ramli and Ismail (2022), and Yasser et al. (2022) found no significant correlation between board size and ROA, highlighting that financial performance is more closely tied to management quality and operational innovation. These findings align with prior research indicating that board size is not the sole determinant of organisational financial performance. Instead, cooperatives should pay greater attention to factors like efficiency and management strategies to better understand financial outcomes.

Board Meeting Frequency and Financial Performance

Another critical governance factor examined was the frequency of board meetings. The results reveal a significant positive relationship between meeting frequency and financial performance, as measured by ROA and ROE. Frequent board meetings provide opportunities for regular and timely discussions, closer performance monitoring, and proactive responses to emerging challenges.

Lee et al. (2020) supported these findings, showing that frequent board meetings enable directors to adapt more effectively to environmental changes and develop strategic solutions. Their study demonstrated that organisations with frequent board meetings achieve higher financial performance than those with less frequent meetings. Similarly, Nguyen et al. (2021) highlighted that frequent meetings allow directors to monitor performance, make faster decisions, and adapt to market dynamics, leading to improved financial outcomes.

However, Lee and Jang (2022) caution that excessive meetings without clear objectives may result in hasty and ineffective decisions, potentially negatively impacting financial performance. Over-scheduling meetings can also create tension among directors if not managed effectively.

For Koop Sahabat, maintaining an active and engaged board that meets regularly can significantly enhance financial stability and overall success. Frequent meetings allow directors to discuss critical issues, such as investment strategies, risk management, and

financial controls, resulting in better decision-making and strategic planning. However, ensuring that meetings are conducted productively with clear objectives is essential to maximise their positive impact on financial performance.

Board Gender Diversity and Financial Performance

Interestingly, this study identifies a significant positive relationship between board gender diversity and financial performance. Specifically, higher gender diversity on the board is associated with improved financial outcomes, as evidenced by increased ROA and ROE. This finding underscores the value of diverse perspectives and experiences in decision-making processes. Gender diversity promotes balanced and comprehensive discussions, innovative solutions, and better alignment with stakeholder needs.

For Koop Sahabat, fostering gender diversity on its board can enhance governance practices and improve financial performance. These findings align with Hossain et al. (2021), who observed that gender-diverse boards contribute positively to financial performance, as women often bring holistic and innovative perspectives to decision-making. Similarly, Wijayanti et al. (2023) demonstrated that companies with gender-diverse boards outperform those dominated by men. Singh et al. (2022) also found that high gender diversity on boards positively influences financial performance, including ROE, due to better risk management and prudent investment strategies. Hossain et al. (2020) further noted that gender-diverse boards lead to more effective decision-making and enhanced financial performance.

Thus, this study confirms that the inclusion of women on the board enriches the diversity of perspectives and significantly enhances cooperatives' financial performance.

Implications for Governance Practices

The findings of this study underscore the critical role of governance factors in driving the financial performance of cooperatives. While board size alone may not significantly impact performance, factors such as gender diversity and active participation during board meetings are pivotal. Koop Sahabat and similar cooperatives can benefit from adopting governance practices that prioritise inclusivity and active engagement. Enhancing gender diversity on the

board and ensuring regular, purposeful meetings can foster a governance environment conducive to improved decision-making and sustainable financial growth.

This study offers significant implications for governance and financial performance for Koperasi Sahabat Amanah Ikhtiar Malaysia (Koop Sahabat) Berhad. By understanding the relationship between board size, gender diversity, and meeting frequency with financial performance, cooperatives can take proactive steps to optimise their governance practices. For instance, cooperatives could consider restructuring their board of directors or increasing the frequency of meetings to facilitate more effective decision-making and consistent performance monitoring. Notably, the findings emphasise the importance of gender diversity on the board, which can introduce more varied perspectives and approaches to management strategies and financial decisions.

The study also carries important implications for the government, particularly in shaping policies that support the management and development of cooperatives in Malaysia. These findings can guide the government in revising policies related to board size, gender diversity, and meeting frequency to enhance cooperative performance. Additionally, policies encouraging the participation of women on boards of directors can enhance diversity and contribute to improved financial outcomes for cooperatives. Furthermore, the results can inform government efforts to increase the competitiveness of cooperatives through strengthened governance frameworks.

This study highlights opportunities for further research on governance and financial performance in cooperatives for educational institutions, particularly universities. Universities can leverage these findings to develop modules or courses on cooperative management, corporate governance, and gender diversity in organisational leadership. This study also serves as a valuable reference for academic research, particularly case studies examining the effectiveness of various governance models in improving financial outcomes. By integrating these insights, universities can prepare graduates who are more attuned to the challenges and needs of cooperative management in Malaysia.

In conclusion, the study underscores the importance of effective governance practices in enhancing Koop Sahabat's financial performance. By harnessing the advantages of gender-diverse leadership and regular board engagement, cooperatives can improve their operational efficiency, adapt to evolving environments, and achieve superior financial performance.

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