

Does Ownership Concentration Affect Financial Performance? An Evidence of Malaysian Healthcare Sector

Noor Sharida Badri Shah^{1*}, Nur Qaisara Auni Mohd.Zaidi², Shaliza Azreen Mohd Zulkifli³,
Rozihanim Shekh Zain⁴, Noor Hafizha Muhammad Yusuf⁵, Nor Anis Shafai⁶

^{1,2,3,4,5,6}Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Perlis, Kampus
Arau, 02600 Arau, Perlis, Malaysia

Authors' Email Address: ¹sharida699@uitm.edu.my, ²qaisarauni07@gmail.com,
³shaliza@uitm.edu.my, ⁴rozihanim@uitm.edu.my, ⁵hafizha853@uitm.edu.my, ⁶anishshafai@gmail.com

Received Date: 7 November 2024

Accepted Date: 22 January 2025

Revised Date: 20 January 2025

Published Date: 31 January 2025

*Corresponding Author

ABSTRACT

Corporate Ownership Concentration stand as critical pillars shaping the success of modern businesses. Today, this matter is fostered by a new set of parameters in a global economy and facing the huge challenges in corporate governance issues. This empirical study investigates the effect of ownership concentration on financial performance (Return on Asset) in Malaysian Healthcare sector. The study conducted empirical research using a sample of fourteen (14) companies operating within the Malaysian healthcare sector. STATA 14 was employed to run panel data analysis; panel specification test, diagnostic test, descriptive statistics, correlation analysis and regression analysis. The study found that ownership concentration significantly influences the financial performance of healthcare firms, as it provides greater control and influence over strategic decisions, promotes accountability and long-term orientation, and facilitates active monitoring of management. The understanding of this relationship is crucial for optimizing ownership structures, mitigating agency costs, and enhancing overall sector performance, ultimately leading to improved healthcare provision in Malaysia.

Keywords: agency cost, financial performance, healthcare sectors, ownership concentration

INTRODUCTION

In the realm of business, power often lies in the hands of few shareholders selection. Imagine a scenario where a small group of influential individuals or entities holds the reins of power, exerting disproportionate control over strategic decisions, board appointments, and the very destiny of companies. This intricate dance of power, known as ownership concentration, has emerged as a captivating and crucial topic in the realm of corporate governance and firm performance. Ownership concentration refers to the distribution of ownership among shareholders in a company, indicating whether ownership and control are concentrated in the hands of a few or dispersed among a larger group. It is highly relevant to financial performance because it can significantly influence a company's strategic decision-making, operational efficiency, risk management, and overall performance. When ownership is concentrated among a selection few influential shareholders, it can affect corporate

governance practices and decision-making processes, potentially impacting the alignment of interests between shareholders and management.

Another study on ownership concentration, Samarawickrama et al., (2021) defined ownership concentration as a situation in which a smaller number of shareholders hold a significant portion of a company's shares, while the remaining shareholders possess only a small fraction of the shares. It is a measure of the distribution of ownership rights and control within a firm. Higher ownership concentration means that few dominant shareholders have greater control over the company's decision-making processes and can potentially influence its management and policies. This is supported by Abdullah et al., (2019) who defined that Ownership concentration as the distribution of ownership rights and control within a company, particularly the extent to which a small number of shareholders hold a significant proportion of the company's shares. It is a measure of the degree to which ownership and voting power are concentrated in the hands of few individuals or entities.

In Malaysia, the healthcare sector has witnessed substantial growth and transformation, responding to the increasing demand for quality healthcare services due to demographic shifts and technological advancements. A new shape of corporate governance affects ownership structure which align with the nature of healthcare sector. Ownership concentration, a key aspect in healthcare enterprises, refers to the distribution of control among a few major shareholders or entities.

However, agency costs can occur within this sector, similar to other industries, whereas the separation of ownership from control in modern firms has resulted in conflicts of interest and poor firm performance. Pathirawasam and Wickremasinghe (2012) stated that agency costs can occur because of conflicting interests among stakeholders like healthcare providers, administrators, and patients. These costs can lead to lower quality of care, The shortage of healthcare professionals, such as doctors, nurses, and other essential staff, places increased pressure on the existing workforce. Healthcare professionals may experience higher workloads, longer working hours, and increased stress levels, which can contribute to burnout and reduced service quality. As a result, agency costs may arise as patient expectations may not be fully met due to the limitations imposed by the labour shortage.

The Health Ministry (MOH) in Malaysia has projected a shortage of approximately 8,000 nurses in the country for 2023 and 2024. This shortage is a result of a three-year delay in nurse training caused by the Covid-19 pandemic. In 2023, Health Minister, Dr Zaliha Mustafa acknowledged that the number of trainee nurses produced in both public and private institutions for the past two years has been insufficient to meet the demand. Besides, they often paid lower salaries compared to other professions, both domestically and internationally. This lack of commensurate remuneration makes nursing less attractive as a career choice and contributes to dissatisfaction and a lack of motivation to stay in the field. The working conditions, such as long working hours, high job stress, and imbalanced nurse-to-patient ratios negatively impact their well-being and can lead to burnout.

Therefore, these issues emphasize an urgent need to investigate the impact of ownership concentration on financial performance in Malaysian healthcare sector to improve public healthcare system, ensure better support, have fair compensation, and a healthier work environment for healthcare professionals to enhance their overall job satisfaction and, consequently, the quality of patient care.

By examining the impact of ownership concentration towards financial performance in Malaysian Healthcare sector, this study intends to provide valuable insights into the potential effectiveness of different ownership structures and governance mechanisms in mitigating agency costs and improving financial performance. The findings will contribute to the existing literature on ownership concentration, agency theory, and financial performance, specifically within the healthcare sector, while addressing the pressing issue of labor shortage and burnout in Malaysia's healthcare industry.

LITERATURE REVIEW

This section firstly discusses the Agency theory concept and subsequently reviews several previous studies related to ownership concentration and firm performance based on the variables used. This review provides the understanding of the significant study that influences firm performance and identifies factors that can contribute to or hinder a company's success in Malaysia healthcare sector.

Agency Cost Theory

The past study applies the Agency Cost Theory framework (Jensen and Meckling, 1976) to investigate how ownership concentration contributes to monitoring and controlling mechanisms, as well as firm performance. According to the theory, when ownership is concentrated in the hands of a few large shareholders, they have a stronger ability to monitor and control management, reducing agency costs. Concentrated ownership aligns with the interests of shareholders and managers, as large shareholders have a greater incentive to ensure that management acts in the best interests of the company. It can be concluded, ownership concentration and board composition act as governance mechanisms to mitigate agency problems between shareholders (principals) and management (agents) (Shan et. al., 2014).

Agency cost occurs between shareholder (principal) and healthcare professional (manager) when healthcare professionals are seeking higher compensation and improved work-life balance that are commensurate with their efforts. Meanwhile, the main interest of shareholder is wealth maximization. Increasing compensation for healthcare professionals can impact shareholders who seek to maximize their wealth that can directly reduce a company's profitability, leading to lower earnings and potentially affecting shareholder dividends or returns on investment. Shareholders may experience a decrease in their wealth if the increase in healthcare professional compensation significantly impacts the financial performance of the healthcare organization.

Nevertheless, agency cost can arise between patients (the principal) and healthcare professionals (the managers) when healthcare professionals experience burnout or are unable to provide optimal care due to various factors. This can lead to a mismatch between the expectations of patients who require high-quality services and the actual care provided. Besides that, when they experience burnout or they are overwhelmed by heavy workloads, they may become less effective in delivering care, leading to lower service quality and patient dissatisfaction. This misalignment between patient expectations and the actual care provided can result in the increased of agency costs, as patients may feel that their needs are not adequately met or that their trust in the healthcare system is compromised.

However, insufficient regulation and monitoring can create an environment where agency costs thrives, as there is a lack of accountability and consequences for actions that may harm patients or lead to financial inefficiencies. Another study done by Rispel and Moorman (2015), in their study in South Africa, agency nurses assisted the selected hospital in dealing with the problem of nurse recruitment, absenteeism, shortages and skills gaps in specialized clinical areas. Thus, the problem experienced with agency nurses including their perceived lack of commitment, unreliability and providing sub-optimal quality of patient care. This will affect the financial performance due to increasing in direct and indirect cost of agency. In addition, inadequate regulatory oversight and governance mechanisms can contribute to agency cost in the healthcare sector. Weak enforcement of regulations, lack of accountability, and limited transparency create an environment where conflicts of interest and unethical practices can thrive. Therefore, there is an urgent need to examine the effect of ownership concentration on financial performance in Malaysian healthcare sector.

Return on Asset (ROA)

Return on Asset (ROA) is defined as indicator that measures how much profit a company earns by investing their assets. The primary purpose of the company assets is to produce revenue. Many researchers (Boshnak, 2023; Ali and Masood, 2024; Gupta and Mer, 2023; Maniruzzaman, Hossain and Sayaduzzaman, 2024; Khaliq, 2024) prefer to use financial measures to summarize outcomes of economic and other events and the transactions had already taken place in firms especially in the study related to ownership structure. Financial performance measures indicate whether a company strategy implementation and execution are contributing to the increasing profitability. Previous study by Titman et al. (2004) stated that there is the impact of capital investments and stock return on a company financial performance (ROA).

The use of ROA demonstrates its relevance as a key measure for evaluating firm performance and its relationship with investment decisions. Another study by Gaur and Lu (2007) investigated the relationship between ownership concentration, risk-taking behavior, and firm performance in Indian family firms. ROA is utilized as a dependent variable to measure firm performance and analyze its association with ownership concentration and risk-taking decisions. In the context of the Malaysian healthcare sector, ROA can be employed to assess the financial performance of healthcare companies and examine how ownership concentration impacts their ability to generate returns from their assets. By investigating the relationship between ownership concentration and ROA, the previous study had empirical evidence on the influence of ownership structure on financial performance. (Pathirawasam and Wickremasinghe, 2012)

It can be concluded that ROA is a commonly used financial ratio that assesses a company profitability by measuring its capacity to generate earnings from its asset base. It serves as a key performance indicator in evaluating how efficiently a company utilizes its assets to generate profits.

Ownership Concentration (CON)

Ownership concentration is a significant variable that has an impact on managers' decision-making and activities within a company. Thomsen and Pedersen (2000) highlighted that top managers often exhibit a preference for diversification strategies. This preference can arise due to factors such as risk aversion which is related to employment, personal expense preferences, and a desire for empire building. Managers may perceive diversify firms and mitigate their exposure to industry-specific risks, safeguard their employment, fulfil personal preferences for larger and more diversified firms, and pursue aspirations of company expansion.

Ownership concentration refers to how shares in a company are distributed among shareholders, specifically the degree to which a small number of major shareholders hold a significant portion of the company shares. It measures the relative ownership stakes of different shareholders. The previous study by Shleifer and Vishny (1997), Shleifer, A., and Vishny, R. W. (1997) provided an overview of the concept of ownership concentration and its significance in corporate governance. They further discussed the different ownership structures and their effects on firm behavior and performance, including the impact on managerial decision-making, monitoring, and shareholder value.

According to Abu Bakar et al. (2019) in their study of Ownership Concentration and Financial Performance of Quoted Building Materials Firms in Nigeria, ownership concentration showed a positively impact on the financial performance of building materials firms in Nigeria. These are similar findings reported by most of the previous studies (Juanda, 2018; Shahab Ud Din. et al, 2022; Damijan et al. 2004; Prašnikar and Janez, 2004; Al Awfi, 2017) which found that, when the level of ownership concentration increases in a company, the financial performance tends to improve. When a larger proportion of a company's shares is held by a concentrated group of owners or shareholders, it can have a positive impact on the financial performance of a company.

However, another research conducted by Vasilić (2018) in Serbia, ownership concentration has a negative correlation with financial performance. The study found that ownership concentration is

greater than 55% and this had a negative impact on Return on Asset (ROA) and Return on Equity (ROE), which are commonly used to measure the financial performance. Therefore, the study suggested that high ownership concentration can negatively affect the value for minority shareholders and corporate performance. Studies by Abdullah et.al (2019) and Kevser and Dogan (2021) have found the same result which indicated a negative correlation. This suggests that higher ownership concentration within listed companies is associated with lower financial performance, as measured by metrics such as return on assets (ROA).

Total Asset Turnover

Total asset turnover (TATO) is a ratio that measures how all assets owned by a company are operated in supporting company sales (Sitanggang, 2013). According to Brigham and Houston (2013), total asset turnover ratio indicates the amount of sales revenue generated per unit of assets employed by the company. A higher ratio suggests that the company is generating more sales from its assets, indicating efficient asset utilization and effective revenue generation. Conversely, a lower ratio suggests that the company may not be utilizing its assets optimally to generate sales. A higher total asset turnover ratio indicates that a company is generating more sales revenue relative to its investment in assets. This suggests efficient asset utilization and effective revenue generation. Conversely, a lower ratio suggests that the company may not be maximizing the productivity of its assets in generating sales.

Studies from Nurlaela et. al. (2019) found that there is positive relationship between Total Asset Turnover and Financial performance. When asset turnover that is measured by total asset turnover (TATO) higher, then the level of financial performance of the company is also higher. This is because the company has been utilizing its assets efficiently in its operational activities which has increased profitability and improved the company performance. The results of this study supported studies done by Murtdlo et al. (2014), which stated that asset turnover measured by total asset turnover influenced financial performance.

In a study conducted by Johnson and Soenen (2003), they examined the impact of total asset turnover on firm profitability in the United States. The findings showed a negative relationship between total asset turnover and ROA. The study suggested that a higher total asset turnover may not always lead to improve profitability, as it could be indicative of aggressive sales practices or inefficient asset utilization. Similarly, a study by Yeh et al. (2012) investigated the relationship between total asset turnover and ROA in the Taiwanese manufacturing industry. The results indicated a negative association between total asset turnover and ROA, suggesting that companies with higher turnover ratios may experience lower profitability due to the factors such as increased competition and pricing pressure. Furthermore, a study by Kaya and Gul (2016) examined the impact of total asset turnover on firm profitability in the Turkish manufacturing sector. The findings demonstrated a negative relationship between total asset turnover and ROA. The study suggested that excessive asset turnover may lead to decreased profitability, as it could indicate underutilization of assets or ineffective cost control.

However, some researchers found that there is no correlation between total asset turnover and financial performance. It can be proven by Chen et al. (2009) who examined the relationship between total asset turnover and ROA in the Taiwanese retail industry. The findings revealed that there is no significant correlation between total asset turnover and ROA. Furthermore, a study done by Salim et al. (2017) examined the relationship between total asset turnover and ROA in the real estate industry. The results indicated there is no significant correlation between the two variables. Therefore, it is suggested that total asset turnover may not be a reliable predictor of profitability in the real estate sector due to the unique characteristics of the industry.

Firm Size

Firm size refers to the measure of scale of healthcare companies and it is typically assessed based on the criteria such as employee count, total assets, annual revenue, market capitalization, or market share. It serves as a numerical indicator to gauge the relative size of a company within its specific industry or market. The previous study done by Pathirawasam (2013) found that firm size has a positive impact on ROA. It indicates when the firm becomes larger and larger its ability to generate returns gradually improving. Many researchers found the same result (Pathirawasam, et al, 2012; Acero et al. 2017; Konečný and Částek, 2016; Al Awfi, 2017; Damijan et al., 2004; Adebisi and Kajola, S., 2011; Lo et al., 2016).

However, this relationship may not hold universally across all industries or contexts, and there may be negative correlation between Firm size and ROA. It is suggested that as the size of a firm increases, its ROA tends to decrease. This phenomenon is observed in certain contexts and can be attributed to several factors. Based on Samarawickrama, et al, (2021), a firm size is measured using the natural logarithm of total assets which was negatively associated with financial performance. They found that, the lower firm performance in the banking sector has given the fact that banks are relatively larger than firms.

The insignificant relationship between firm size and Return on Assets (ROA) indicates that the statistical analysis conducted did not find sufficient evidence to support a meaningful relationship between these two variables. In other words, the size of a firm does not have a statistically significant impact on its ROA (Al-Saidi and Al-Shammari, 2015) and it is influenced by various factors beyond firm size, such as industry dynamics, market conditions, management quality, and competitive advantages. If these factors have stronger influence on ROA, the impact of firm size may become statistically insignificant.

Leverage

Leverage refers to the extent to which a company relies on borrowed funds, such as debt, to finance its operations and investments. By examining how ownership concentration influences a firm leverage decision, this study can provide insights into how different ownership structures impact the financial performance of healthcare firms. Specifically, by analyzing the relationship between ownership concentration and leverage, it can help to determine whether concentrated ownership leads to higher or lower levels of leverage and how this, in turn, affects the financial performance. According to the Samarawickrama et al. (2021), firm size and leverage can potentially influence corporate performance and they are considered as control variables. In addition to these controls, board-related factors such as external directorship, CEO duality could be influential.

Many studies found negative relationship between leverage and financial performance. This is proven by Aboud and Diab (2022) and Pathirawasam (2013) who found that the debt ratio has a negative relationship with the profitability of the firms. That is, when the capital structure consists of more debts it causes to decrease profitability of the firm. It seems that the excess debts increase the financial distress costs and decrease the value of the firm. Other studies done by Pathirawasam and Wickremasinghe (2012); Al-Saidi and Al-Shammari (2015); Adebisi, and Sunday (2011) found that there is negative and significant influence on firm performance, which suggests that as a company leverage increases, its ROA tends to decrease. When a company takes on more debt and increases its leverage, it incurs interest expenses that need to be paid out of its earnings. This can reduce the company net income and, consequently, its ROA. The higher interest expenses can lower the profitability of the company assets, resulting in a lower ROA.

However, a study on Chinese listed firms conducted by Chen, Zhang, and Zhang (2019) found that there is no significant relationship between leverage and ROA. They concluded that leverage does not have a direct impact on firm profitability as measured by ROA. It can be supported in Taiwanese firms, Chen et al. (2019) and Al-Najjar et al. (2019) which found that there is no significant relationship

between leverage and ROA. They argued that factors such as firm size and industry characteristics may play a more significant role in determining profitability than leverage alone. In a nutshell, it is suggested that leverage may not be a significant driver of profitability in that industry.

Measurements

These variables are commonly used from previous studies in financial and ownership structure analyses to understand the relationship between financial performance and ownership concentration. By examining the relationships between these variables, researchers and analysts can gain insights into the factors influencing ownership concentration in companies. The followings are the measurement of variables used in the study:

Table 1: Measurement of Variables

| Variables | Measurement (References) |
|--|---|
| <i>Dependent variable (financial performance):</i> | |
| ROA | Net Income / Total Assets (Pathirawasam (2013), Pathirawasam and Wickremasinghe (2012), Juanda. (2018)) |
| <i>Independent Variable:</i> | |
| Ownership concentration (CON) | Ownership share (votes) of top 5 largest shareholders (%) (Samarawickrama et. al. (2021)) |
| <i>Control Variables:</i> | |
| Total Asset Turnover (TATO) | Net Sale / Total Asset (Shobahatus Salamah et al. (2018) , Nurlaela et al. (2019)) |
| Firm Size (LOGSIZE) | Natural logarithm of total assets (Pathirawasam, et al, 2012), (Acero et al. 2017), (Konečný et al. 2016), (Al Awfi, 2017) |
| Leverage (Debt Ratio) (LEV) | Total Debt / Total Assets (Pathirawasam, 2012), (Al-Saidi, 2015) (Adebiyi and Sunday, 2011), (Aboud and Diab, 2022) |

RESEARCH METHODOLOGY

The sample of data were collected from the fourteen (14) companies of Malaysian healthcare companies which were listed in Bursa Malaysia; KPJ Healthcare Berhad, Hartalega Holdings Bhd, Adventa Berhad, TMC Life Sciences Berhad, Hextar Global Berhad, Apex Healthcare Berhad, CCM Duopharma Biotech Berhad, YSP Southeast Asia Holding Berhad, Kotra Industries Bhd, Pharamaniaga Logistics Berhad, Supercomnet Technologies Bhd, Top Glove Corporation Bhd, TDM Berhad, Supermax Coporation Berhad, Amway (M) Holdings Bhd. The companies were selected due to the corporate reputation of the company and listed in top achievement companies in healthcare sector. This study employed secondary data obtained from the annual report of fifteen (15) years backward starting from 2008 to 2022. Financial data of the companies were extracted from the published annual reports obtained from the Bursa Malaysia and online databases, Eikon.

The study utilized panel data analysis as the research methodology. The data was analyzed using Stata 14 software and the data analysis encompassed descriptive statistics, correlation analysis, regression via Fixed Effects (FE) and Random Effects (RE) models, diagnostic tests for multicollinearity, heteroskedasticity, and serial correlation, as well as panel specification via Hausman and Breusch-Pagan LM tests.

FINDINGS AND DISCUSSION

Descriptive Statistics

The overall sample for this study consists of 210 observations. The summary statistics of the variables over the sample period is presented in Table 2. The average size of the firm performance for the period of study is .0752 and it ranges from a minimum value of -.2837 to a maximum value of 0.8374. The firm size (LOGSIZE) is stated as the highest mean score, followed by Total asset turnover (TATO) and Ownership concentration (CON) while the lowest score is Return on assets (ROA).

Table 2: Descriptive Statistics

| Variables | N | Mean | SD | Min | Max |
|-----------|-----|-------|-------|-------|-------|
| ROA | 210 | .075 | .125 | -.284 | .837 |
| CON | 210 | .593 | .134 | .260 | .860 |
| LEV | 210 | .327 | .162 | .068 | .684 |
| TATO | 210 | .753 | .332 | .027 | 1.673 |
| LOGSIZE | 210 | 6.308 | 1.270 | 3.570 | 9.188 |

Correlation Analysis

The the next step is correlation analysis which is a statistical technique to measure the relationship or association between two or more variables. It helps to determine how closely the variables are related to each other, the direction and strength of that relationship.

Table 3: Correlation Analysis

| | ROA | CON | LEV | TATO | LOGSIZE |
|---------|---------|---------|---------|--------|---------|
| ROA | 1.0000 | | | | |
| CON | 0.0513 | 1.0000 | | | |
| LEV | -0.2995 | -0.1952 | 1.0000 | | |
| TATO | 0.3205 | -0.2476 | -0.0820 | 1.0000 | |
| LOGSIZE | 0.2696 | -0.1683 | 0.3149 | 0.0292 | 1.0000 |

Table 3 shows the correlation analysis between independent variable; CON, control variable; LEV, TATO, LOGSIZE, and dependent variable; ROA for Malaysian healthcare companies. It indicates TATO is strongly positively correlated with ROA (0.3205), followed by LOGSIZE (0.2696). However, CON has a weak positive correlation with ROA (0.0513). Besides, LEV is found to be strongly negative correlated with ROA (-0.2995). In summary, TATO has a strong relationship with ROA (Return on Asset.)

The first step is to determine the most optimal combination of predictors. As shown in Table 4: Variable Selection, the choices of the most optimal model predictor sizes are four (4) for C, R2ADJ and AICC and one for AIC and BIC. Thus, this study has followed the suggestion by Yang (2005) to choose the four-predictor model. The chosen variables are LOGSIZE, LEV, TATO, CON.

Table 4: Variable Selection

| Models | Variable Selection | | | | | Optimal Model | |
|--------|--------------------|---|-----|------|-----|---------------|--|
| | R2ADJ | C | AIC | AICC | BIC | # | Independent Variable |
| Model | 4 | 4 | 1 | 4 | 1 | 4 | Logsize, Leverage, Asset Turnover, Ownership concentration |

Panel data analysis

The next step is to choose the most appropriate panel data estimator. The three available alternatives are pooled ordinary least squares (POLS), fixed effects (FE), and random effects (RE)

models. As presented in Table 5, the results of the F-test (p-value < 0.05), BP-LM test (p-value < 0.05) and Hausman test (p-value > 0.05) suggest that RE is the most appropriate model estimator. The result of the panel specification tests as presented in Table 5 suggests that random effects (RE) model is the most appropriate data analysis technique.

Table 5: Panel Specification Tests

| Models | p-values of the tests | | | |
|---------|-----------------------|--------|---------|---------------|
| | F-test | BP-LM | Hausman | Technique |
| Model 4 | 0.0004 | 0.0001 | 0.6699 | Random Effect |

Diagnostic Tests for Static Models

Various diagnostic tests were then performed to check for the presence of multicollinearity, heteroskedasticity and serial correlation problems. As presented in Table 6, the diagnostic test results indicate the presence of serial correlation (p-value > 0.05) problems. To rectify the problems, following the suggestion by Hoechle (2007), remedial procedure has been carried out by using Random-effects GLS within regression with robust option. As presented in Table 6, the diagnostic tests on the baseline model indicate the presence of serial correlation problem. This is followed by Hoechle (2007) suggestion that the remedial procedure has been carried out by using the Random-effects GLS within regression with robust option.

Table 6: Diagnostic Tests for Static Models

| Models | VIF | p-values of the tests | | Strategy |
|---------|------|-----------------------|--------|--|
| | | H | SC | |
| Model 4 | 1.13 | 0.0000 | 0.6827 | Random-effects GLS regression with robust option |

Regression analysis

The regression equation is given as:

$$ROA_{it} = \beta_0 + \beta_1 CON_{it} + \beta_2 LEV_{it} + \beta_3 TATO_{it} + \beta_4 SIZE_{it} + \varepsilon_{it}$$

where:

- ROA* = Return on Asset
- CON* = Ownership Concentration
- TATO* = Total Asset Turnover
- SIZE* = Firm Size in natural log
- LEV* = Leverage
- i* = Company
- t* = Years / times

Table 7: Regression Analysis

| Variables | Coefficients size |
|-----------|-----------------------|
| CON | 0.1274* (1.95) |
| LEV | -0.3118*** (-6.62) |
| TATO | 0.1331* (1.75) |

| | |
|----------------------|---------------------|
| LOGSIZE | 0.0449*** (4.20) |
| Constant | -0.2817* (-1.87) |
| N | 210.0000 |
| r2 | 0.4401 |
| F-statistics p-value | 0.0000 |
| Chi2 statistics | 82.6309 |

t-statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

As shown in Table 7, the regression result suggests that the model fits the data well at the 0.01 significance level. The adjusted R2 of 0.44 suggests that one independent and 3 control variables explain 44% of the variance in the return on asset (ROA). The remaining 56% is explained by other variables that are not included in the model. Based on the results, it suggests that all the variables show statistically significant relationship with return on asset (ROA). Ownership concentration (CON) indicates 0.1274 (t -value= 1.95, $p < 0.1^*$) positive significant at 0.10. It shows positive significant relationship with ROA. This is supported by Abu Bakar, et al. (2019), Juanda (2018), Shahab Ud Din, et al, (2022), Damijan et al. (2004) and Al Awfi, (2017) who found that, when the level of ownership concentration increases in a Malaysian Healthcare company, the financial performance of the company tends to improve. In this case, the larger proportion of a company shares is held by a concentrated group of owners or shareholders, it can have a positive synergy on the company financial performance. Futhermore, LEV indicates -0.3118 (t -value = 6.62, $p < 0.01$) negative significant at 0.01 while LOGSIZE shows 0.0449 (t -value= 4.42, $p < 0.01$) positive significant relationship with ROA. It is proven that Malaysian healthcare companies having a higher debt, thus ROA tends to decrease. This is supported by Aboud and Diab (2022) and Pathirawasam (2013). For LOGSIZE, it can be suggested that when the healthcare firm becomes larger and larger its ability to generate returns gradually improving. This is supported by Pathirawasam, et al, (2012), Acero et al. (2017). In addition, TATO indicates 0.1331 (t -value= 1.75, $p < 0.1$) which is a positive significant relationship with ROA. It is suggested that the higher total asset turnover ratio indicates that a healthcare company is generating more sales revenue relative to its investment in assets. This has led to an efficient asset utilization and effective revenue generation. This similar result is supported by Nurlaela et al. (2019).

CONCLUSION AND RECOMMENDATION

This study investigates the effect of the ownership proportion of the top 5 largest shareholders on financial performance for fourteen (14) selected listed companies in healthcare sectors. The most significant factors in this study is leverage (LEV) and firm size (LOGSIZE) which determine the proportion of ownership for Malaysian healthcare companies. In the context of healthcare companies, a higher ratio of debt means that the company is using a significant amount of borrowed funds to finance their operations, growth, or investments compared to their own equity. Higher leverage of the healthcare companies refers to the amount borrowed for purchasing more technology equipment, spending on medical suppliers and more expenditure on healthcare service expenses. This results the lower profit, lower financial performance that affects the overall companies performance to sustain in the long term period. In terms of firm size, the larger size of the companies suggested that the healthcare companies become more expanding on their quality of services to earn more profits in the future.

In summary, the main variable, ownership concentration (CON) shows positive significant relationship with ROA which suggested that the larger proportion of ownership control is successfully addressed to the main problem statement regarding on agency cost. It indicates that ownership concentration is very important to sustain the visibility of the management of the companies to have a more competitive

advantage. When ownership is concentrated in the hands of a few major shareholders, they have more influence over strategic decisions. These shareholders can align their interests with the financial performance of the company and its profitability goals, leading to more focused and effective decision-making. They may prioritize long-term value creation over short-term gains, which can contribute to sustainable profitability. Thus, it helps to mitigate agency problems and improve corporate governance by actively monitor management and hold them accountable for their actions. They can exercise their voting rights and voice their concerns if they believe that management is not acting in the company best interests.

In healthcare sector, concentrated ownership may also contribute to building patient trust and loyalty. When major shareholders have a significant stake in healthcare companies, they have a vested interest in ensuring patient satisfaction and positive health outcomes. Through their influence, they can implement patient-centric initiatives, invest in customer service, and prioritize high-quality care. However, conflict of interest between healthcare services and patient due to lower quality of services cause by work overload and burnout do give impact to patient dissatisfaction. Creating patient trust and loyalty can provide a competitive advantage by attracting and retaining patients, generating positive word-of-mouth referrals, and enhancing the reputation of healthcare provider.

Based on the issues of agency cost regardless of ownership concentration, there are some suggestions can be addressed by implementing the prioritization of a patient-centric approach must be implemented. Concentrated ownership should not compromise patient care, access to services, or patient outcomes. Malaysian healthcare companies can focus on delivering high-quality healthcare services, maintaining patient satisfaction, and ensuring equitable access to care. Besides, transparent governance structures and mechanisms should be implemented to guarantee accountability and mitigate potential conflicts of interest that may arise from concentrated ownership. However, to ensure the sustainability and effectiveness of the healthcare system in Malaysia, the well-being of healthcare professionals and leaders should be prioritized by providing training in areas such as communication, conflict resolution, and stress management. Strong leadership can help mitigate burnout by fostering a supportive work environment and promoting employee engagement. It is suggested that the variables like age of establishment and board diversity of the company should be included in the future study to determine the superior financial performance and to develop a good corporate governance in healthcare sectors.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to the individuals whose support and contributes to this research paper especially UiTM Perlis colleagues. I am also indebted to the research members for their constructive feedback and thoughtful suggestions to complete this research paper. In conclusion, this research stands as the collective efforts of the aforementioned individuals. Their contributions have left an indelible mark on this work and for that I am truly grateful.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

AUTHORS' CONTRIBUTION

All authors provided critical feedback and helped shape the research, analysis and manuscript.

CONFLICT OF INTEREST DECLARATION

We certify that the article is the original work of all authors. The article has not received prior publication and is not under consideration for publication elsewhere. This manuscript has not been submitted for publication nor has it been published in whole or in part elsewhere. We testify to the fact that all authors have contributed significantly to the work, validity and legitimacy of the data and its interpretation for submission to Jurnal Intelek.

REFERENCES

- Abderahmane, D., & Mounir, L. (2023). Effect of Board Diversity on Firm Performance: Evidence from Malaysian non Financial Listed Companies. *Finance and Business Economics Review*, 4-22.
- Abdullah, M. I., Sarfraz, M., Qun, W., & Chaudhary, M. (2019). Ownership concentration impact on firm financial performance. *LogForum*, 15(1), 107-118.
- Abdullah, S. N., & Ku Ismail, K. N. I. (2017). Gender, ethnic and age diversity of the boards of large Malaysian firms and performance. Abdullah, SN, & Ismail, KNIK (2013). Gender, Ethnic and Age Diversity of the Boards of Large Malaysian Firms and Performance. *Jurnal Pengurusan*, 38, 27-40.
- Aboud, A., & Diab, A. (2022). Ownership characteristics and financial performance: Evidence from Chinese split-share structure reform. *Sustainability*, 14(12), 7240.
- Abubakar, Y., Esenohor, E. T., & Umaru, D. Ownership Concentration and Financial Performance of Quoted Building Materials Firms in Nigeria. Alarussi, A. S. A. (2021). Financial ratios and efficiency in Malaysian listed companies. *Asian Journal of Economics and Banking*, 5(2), 116–135. <https://doi.org/10.1108/ajeb-06-2020-0014>.
- Acero, I., Serrano, R., & Dimitropoulos, P. (2017). Ownership structure and financial performance in European football. *Corporate Governance: The international journal of business in society*, 17(3), 511-523.
- Abosede Adebisi, J., & Kajola Sunday, O. (2011). Ownership structure and firm performance: evidence from Nigerian listed companies. *Corporate Ownership & Control*, 8(4), 391-402.
- Alarussi, A. S. A., Alhdeede, A. T., & Sarpong, S. (2023), Firm Attributes, Financial Ratios, and Working Capital in Emerging Markets: Evidence from Malaysia.
- Al Awfi, Y. N. S. (2017). Ownership concentration: its determinants and the impact on firm performance: evidence from MENA Region (Doctoral dissertation, University of Portsmouth).
- Ali, A., & Masood, O. (2024). How Does Ownership Concentration Affect Firms' Performance in Developed Economies?. *Journal of Business and Management Research*, 3(2), 50-65.
- Al-Saidi, M., & Al-Shammari, B. (2015). Ownership concentration, ownership composition and the performance of the Kuwaiti listed non-financial firms. *International Journal of Commerce and Management*, 25(1), 108-132.
- Amran, N. A. (2011). - The Effect of Owner's Gender and Age to Firm Performance: A Review on Malaysian Public Listed Family Businesses. *Journal Of Global Business And Economics*, 108-124.
- Boshnak, H. A. (2023). Ownership structure and firm performance: evidence from Saudi Arabia. *Journal of Financial Reporting and Accounting*.
- Brigham, E. F., & Houston, J. F. (2013). *Fundamentals of financial management*. South-Western Cengage Learning. Damijan, J. P., Gregorič, A., & Prašnikar, J. (2004). Ownership concentration and firm performance in Slovenia (No. 142). LICOS Discussion Paper.

- Dey, R. K., Hossain, S. Z., & Rahman, R. A. (2018). Effect of Corporate Financial Leverage on Financial Performance: A Study on Publicly Traded Manufacturing Companies in Bangladesh. *Asian Social Science*, 14(12), 124. <https://doi.org/10.5539/ass.v14n12p124>
- Din, S. U., Arshad Khan, M., Khan, M. J., & Khan, M. Y. (2022). Ownership structure and corporate financial performance in an emerging market: a dynamic panel data analysis. *International Journal of Emerging Markets*, 17(8), 1973-1997.
- Gaur, A. S., & Lu, J. W. (2007). Ownership strategies and survival of foreign subsidiaries: Impacts of institutional distance and experience. *Journal of management*, 33(1), 84-110.
- Gunawan, R., Widiyanti, M., Malinda, S., & Adam, M. (2022). The Effect of Current Ratio, Total Asset Turnover, Debt to Asset Ratio, And Debt to Equity Ratio on Return on Assets in Plantation Sub-Sector Companies Listed on The Indonesia Stock Exchange. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAAS)*, 2(1), 19–28. <https://doi.org/10.54443/ijeabas.v2i1.139>
- Gupta, N., & Mer, P. (2023). Exploring the Impact of Foreign Ownership and Ownership Concentration on Firm Performance: Evidence from Indian Manufacturing Firms. *INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT*.
- Hasby, Y. N. S. S. A., Anshori, M. Y., & Primasari, N. S. (2018). The Impact of Current Ratio, Receivable Turnover and Total Assets Turnover on Roa at Telecommunication Sub-Sector Companies Registered in Bei Year 2009-2017. In *PROCEEDING International Conference Technopreneur and Education 2018 (Vol. 1, No. 1)*.
- Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The stata journal*, 7(3), 281-312.
- Ibrahim, D. D. (2023, June 14). Focus on diversification, innovation, and sustainable growth. Retrieved from *New Straits Times*: <https://www.nst.com.my/opinion/columnists/2023/06/919825/focus-diversification-innovation-and-sustainable-growth>.
- Ibrahim, H., & Lau, T.-C. (2019). The Determinants of Financial Leverage for Surviving Listed Companies in Malaysia. In *International Journal of Business and Society (Vol. 20, Issue 1)*.
- Johnson, R., & Soenen, L. (2003). Indicators of successful companies. *European management journal*, 21(3), 364-369.
- Juanda, J. (2018). Ownership concentration and firm performance in Indonesia. *Journal of Accounting Research, Organization and Economics*, 1(2), 173-181.
- Kevser, M., & Doğan, M. (2021). The Impact of Ownership Concentration on Bank Profitability: Is the Effect Linear or Non Linear? An Empirical Evidence For Turkey. *Journal Global Policy and Governance*, 10(2), 3-20.
- Khaliq, A. (2024). Ownership structure and firm performance dynamics in emerging markets. *Sustainable Business Management Review*, 1(2), 69-79.
- Lo, F. Y., Chiu, S. K., & Shih, P. W. (2016). Ownership Concentration, Location, and Internalization Advantage in Financial Performance. *Journal for Economic Forecasting*, 3, 82-93.
- Maniruzzaman, M., Hossain, S. Z., & Sayaduzzaman, M. (2024). Ownership Concentration and Corporate Financial Performance: A Study on Listed Manufacturing Companies in Bangladesh. *The cost and management*, 51(06), 12-22.
- Munawar, A. (2019). The Effect of Liquidity, Leverage and Total Aset Turnover on Profitability; Empirical Study of Manufacturing Companies in Indonesia Stock Exchange 2012 – 2017. *International Journal of Economics and Management Studies*, 6(9), 126–131. <https://doi.org/10.14445/23939125/ijems-v6i9p116>.
- Murtadlo, A. A., Imam, Y., & Wahono, B. (2014). Effect of capital structure, wealth structure and asset turnover on financial performance (case study in real estate companies listed on the IDX). *JEMA*, 12(1), 1-10.
- Nurlaela, S., Mursito, B., Kustiyah, E., Istiqomah, I., & Hartono, S. (2019). Asset turnover, capital structure and financial performance consumption industry company in indonesia stock exchange. *International Journal of Economics and Financial Issues*, 9(3), 297.

- Omondi, M. M., Muturi, W., & Kenyatta, J. (2013). Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. In *Research Journal of Finance and Accounting* www.iiste.org ISSN (Vol. 4, Issue 15). Online. www.iiste.org.
- Pathirawasam, C., & Knápková, A. (2013). Firm-specific factors and financial performance of firms in the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*.
- Pathirawasam, C., & Wickremasinghe, G. (2012). Ownership concentration and financial performance: The case of Sri Lankan listed companies. *Corporate Ownership and Control*, 9(4), 170-177.
- Ramasamy, B., Ong, D., & Yeung, M. C. H. (2005). Asian Academy of Management Journal of Accounting and Finance Firm Size, Ownership and Performance in The Malaysian Palm Oil Industry. In *AAMJAF* (Vol. 1). www.oilworld.biz
- Ramin, A. K., Lizam, M., Zabri, S. M., & Ahmad, M. F. (2017). Finn's size and solvency performance: Evidence from the Malaysian public listed firms. *Journal of Engineering and Applied Sciences*, 12(5), 1240–1244. <https://doi.org/10.3923/jeasci.2017.1240.1244>
- Rispel, L. C., & Moorman, J. (2015). The indirect costs of agency nurses in South Africa: a case study in two public sector hospitals. *Global Health Action*, 8(1), 26494.
- Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia-Social and Behavioral Sciences*, 65, 156-166.
- Samarawickrama, D., Wanniarachchige, M. K., & Weerasinghe, K. D. T. N. (2021). Effect of Ownership Concentration on Firm Performance: Evidence From Sri Lankan Financial Sector. *Journal of the University of Ruhuna*, 9(1), 28-38.
- Senan, N. A. M., Ahmad, A., Anagreh, S., Tabash, M. I., & Al-Homaidi, E. A. (2021). An empirical analysis of financial leverage and financial performance: Empirical evidence from Indian listed firms. In *Investment Management and Financial Innovations* (Vol. 18, Issue 2, pp. 322–334). LLC CPC Business Perspectives. [https://doi.org/10.21511/imfi.18\(2\).2021.26](https://doi.org/10.21511/imfi.18(2).2021.26)
- Shairi, S. A. B., Mohammad, H. S., & Tuyon, J. (2021). Intellectual Capital and Firm Performance: Evidence from Technology Sector in Malaysia. *International Journal of Academic Research in Economics and Management Sciences*, 10(1). <https://doi.org/10.6007/ijarems/v10-i1/9834>
- Shan, Y. G. (2014). The impact of internal governance mechanisms on audit quality: a study of large listed companies in China. *International Journal of Accounting, Auditing and Performance Evaluation*, 10(1), 68-90.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.
- Sitanggang, J. P. (2013). *Manajemen keuangan perusahaan lanjutan*. Jakarta: Mitra Wacana Media.
- Thomsen, S., & Pedersen, T. (2000). Ownership structure and economic performance in the largest European companies. *Strategic management journal*, 21(6), 689-705.
- Titman, S., Wei, K. J., & Xie, F. (2004). Capital investments and stock returns. *Journal of financial and Quantitative Analysis*, 39(4), 677-700.
- Vasilić, N. (2018). Ownership concentration impact on financial performance: Evidence from Serbia.
- Yeh, Y. H., Shu, P. G., & Su, Y. H. (2012). Related-party transactions and corporate governance: The evidence from the Taiwan stock market. *Pacific-Basin Finance Journal*, 20(5), 755-776.