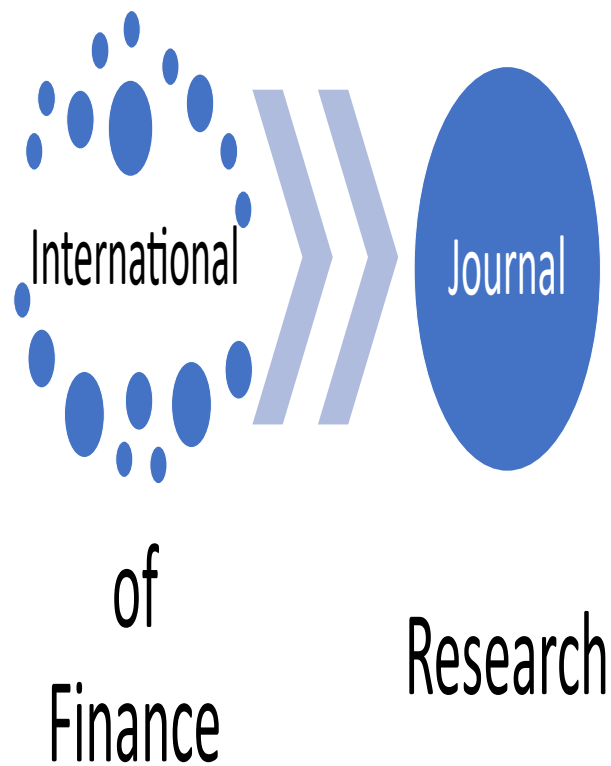




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The Influence of Revenue, Operational Expenses, and Tax Expenses on Financial Performance in Construction Services Companies Listed on The Indonesian Stock Exchange

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Abstract

This study aims to determine the influence of revenue, operating, and tax expenses on financial performance in construction service companies listed on the Indonesia Stock Exchange in 2017-2020. The variables tested in this study consisted of the influence of income, operating expenses, and tax expenses as independent variables and proxied financial performance with operating profit margin as the dependent variable. The population in this study are construction service companies listed on the Indonesia Stock Exchange for the period 2017-2020. The sampling technique used in this study was purposive sampling, and a sample of 48 data from 12 construction service companies listed on the Indonesia Stock Exchange for the period 2017-2020 that met specific criteria was obtained. The data analysis technique used in this research is panel data regression analysis and classical assumption test. The results of this study indicate that income has a positive and significant effect on the company's financial performance, operating expenses have not a positive and not significant impact on the financial performance of the company, and tax expenses have not a positive and not significant effect financial performance and revenue, operating expenses and tax expense together do have a simultaneous and significant effect on the Company's Financial Performance.

Keywords: Revenue, operating expenses, tax expenses, and financial performance

JEL Codes: P30, P33, P34

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1. Introduction

Every entity, whether operating in the manufacturing industry (manufacturing), construction services, or trading, in its corporate activities cannot be separated from recording all financial events or transactions to regulate its business activities. These activities/activities occur continuously, and the journal and recording system is adjusted to the procedures and mechanisms that apply to each company.

Companies can see the success or financial performance of the company, one of which is from the company's financial performance report. The information shown in the financial report is part of the information that can assess the company's financial performance in a certain period. A company's financial performance can be seen from various financial ratios. Financial ratios are fundamental in carrying out the analysis process of the company's financial condition (Harahap, 2013:297).

A company's financial report's performance has several elements, namely income, expenses, and taxes. The difference between revenue and costs for that period measures a company's profit or loss. Net profit is the excess of income (revenue) over expenses (expenses), whereas net loss (net loss) is the excess of expenses (expenses) over revenues (Santoso, 2009:196).

Income is an increase in the amount of assets or a decrease in liabilities for an expense, which arises from the delivery of goods and services or other business activities during a certain period originating from the delivery or production of goods. According to Soemarso (2009:277), Income is an increase in economic benefits during a specific accounting reporting period in the form of income and additions to assets or decreases in liabilities resulting in increases in changes in capital/ equity, which do not originate from investment contributions.

Operating expenses are costs related to the company's operational activities, which include sales and administration costs, depreciation costs, and repair and maintenance costs. Werner (2014:37) states "Expenses are costs related to company operations which include sales and administration costs, advertising costs, depreciation costs, and repairs and maintenance".

Tax is a source of income for the country, and income tax (PPh) is a tax levied in Indonesia. This is used as a reference in the tax and financial audit process, whether the amount of tax paid by the company matches the taxable profit obtained. In this research, taxes are projected by tax expenses.

2. Literature Review

2.1 Financial Report Performance

Weston, Copelan, and Thomas (1992:36) explain that financial performance is a tool for measuring a company's capital structure and becomes a benchmark for a company's financial position in the business life cycle.

Thus, it can be concluded that performance is the result of many individual decisions made continuously by company management in using capital or potential effectively and efficiently to obtain maximum results.

2.2 Revenue

The definition of income according to Kartikahadi, et al (2012: 186) is that income is an increase in economic benefits during one accounting period in the form of income or additions to assets or decreases in liabilities which results in an increase in equity that does not come

from investors' contributions.

According to Sodikin and Riyono (2014:37), "Income is an increase in economic benefits during the reporting period in the form of inflows or increases in assets or decreases in liabilities which result in an increase in equity that does not come from investor contributions. Income includes income (revenue) and profit (gain). Revenue is income that arises during the ordinary activities of an entity and is known by different names such as sales, fees, interest, dividends, royalties, and rent."

2.3 Operational Expenses

According to Sodikin., Slamet, S., & Riyono, B. (2012:92), expenses are a decrease in economic benefits during a period in the form of outflows or decreases in assets or the occurrence of liabilities that result in a reduction of equity unrelated to distribution to investors.

Hanafi, M., & Halim, A. (2009:57) state that operational expenses are outgoing assets or other parties utilizing company assets or the emergence of debt or a combination of the three during the period when the company produces and delivers goods, provides services or carries out activities others which are the main operations of the company.

2.4 Tax Expenses

Tax expense is the last expense reported after profit before tax. PSAK 46 (Revised 2010) states that the definition of the tax burden is the aggregate amount of current and deferred taxes that are considered in determining the profit or loss of a company (Pramitasari & Christiawan, 2017). According to Pramitasari and Christiawan (2017), what is meant by tax burden is what is borne by the company in one year, which is calculated based on the company's net profit before income tax. The tax burden in a company is considered a burden that must be paid by the company, where this burden can reduce the net profit that the company can obtain. The company's tax burden can be seen in the company's profit and loss statement. Erawati and Ndoen (2019) prove that their research found significant results of the tax burden on company financial performance.

3. Research Method

The research method used in this scientific research is a descriptive quantitative research method.

Based on the type, the variables in this research are divided into:

Independent Variables

In this research, the independent variables used are income, operational expenses, and tax expenses.

1. Revenue
Revenue is the official recording of financial transaction amounts in the bookkeeping method to reflect these amounts in financial statements/reports.
2. Operational expenses
Costs are defined as economic resources that must be expended for the business's continuity. Meanwhile, expenses are defined as a decrease in economic value in the form of spending money or depreciation of asset value.
3. Tax expenses
The aggregate amount of current and deferred taxes determines a company's profit or loss.

Dependent Variable

The dependent variable used in this research is the operating profit margin (OPM). Operating profit margin (OPM) is a ratio that measures a company's ability to generate profits before interest and tax with the sales achieved by the company.

$$\text{Financial performance (OPM)} = \text{Operating Profit} / \text{Net Sales}$$

The conceptual framework used to describe the relationship between income, operational expenses, and tax expenses on a company's financial performance is as follows:

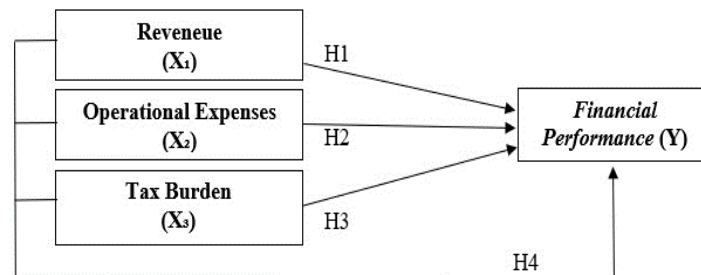


Figure 1.1. Research Model

The sample for this research is all construction service companies listed on the Indonesia Stock Exchange in 2017-2020. The research sample was obtained using a purposive sampling technique, with established criteria, criteria are as follows:

1. Companies that consistently operate during the research period 2017-2020.
2. Companies that have a financial year-end period as of December 31.

Based on these criteria, one company out of 15 companies cannot be used as a sample in this study. The tool used to manage data for this research is multiple linear regression analysis, which produces coefficients of determination and correlation coefficient values.

Multiple linear regression tests the influence of two or more variables.

The hypotheses in this research are:

Hypothesis 1:

Ho1: It is suspected that income does not influence financial performance.

Ha1: It is suspected that income influences financial performance.

Hypothesis 2:

Ho2: It is suspected that there is no influence of operational expenses on financial performance.

Ha2: It is suspected that there is an influence of operational expenses on financial performance.

Hypothesis 3:

Ho3: It is suspected that tax expenses do not influence financial performance.

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Ha3: It is suspected that tax expenses influence financial performance.

Hypothesis 4:

Ho4: There is no influence of income, operational expenses, and tax expenses together on financial performance.

Ha4: There is an influence of income, operational expenses, and tax expenses together on financial performance.

4. Result and Discussions

4.1 Findings

The data used is panel data, so its use must meet panel data regression testing, namely:

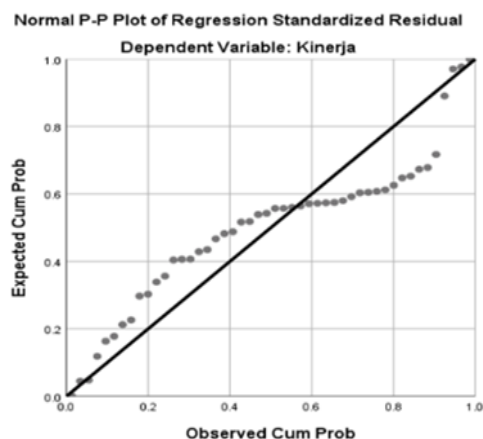
1. Classic Assumption Test

The following are the results of the classic assumption test:

Normality Test

The following are the results of the normality test:

Figure 1 Normality Test



From Figure 1 in the form of a graph, you can see that the dots are spread across the diagonal graph, and the distribution follows the direction of the diagonal line, so the regression model is suitable to be used to predict the company's financial performance which is projected using the operating profit margin (OPM).

Multicollinearity Test

The following are the results of the multicollinearity test:

Table 1 Multicollinearity Test Results

		Collinearity Statistics	
		Tolerance	VIF
1	Revenue	,539	1,857
	Operational expense	,524	1,909
	Tax expense	,934	1,071

Source: Analyze results from secondary data

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a. Tolerance

1. The income variable on financial performance is $0.539 > 0.1$, so it is concluded that there is no multicollinearity problem in the regression model.
2. The operational expense variable on financial performance is $0.524 > 0.1$, so it can be concluded that the regression model does not have multicollinearity problems.
3. The tax expense variable on financial performance in construction services companies listed on the Indonesia Stock Exchange (BEI) is $0.934 > 0.1$, so it can be concluded that there is no multicollinearity problem in the regression model.

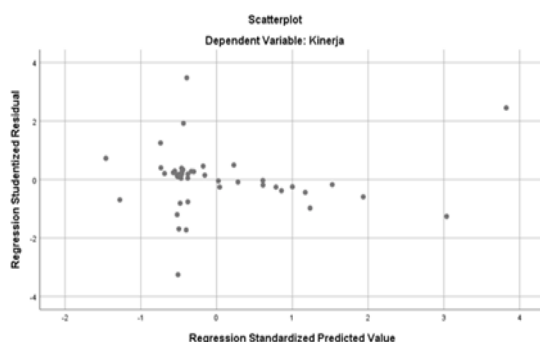
b. Variance Inflation Factor (VIF)

1. The income variable on financial performance is $1.857 < 10$, so it is concluded that the regression model does not have multicollinearity problems.
2. The operational expense variable is $1.909 < 10$, so it is concluded that the regression model does not have multicollinearity problems.
3. The tax expense variable on financial performance is $1.071 < 10$, so it was concluded that the regression model did not have multicollinearity problems.

Heteroscedasticity Test

The following are the results of the heteroscedasticity test:

Figure 2 Heteroscedasticity Test



From Figure 2 above, the points are distributed randomly and do not form a clear pattern. They are distributed both above and below the number 0 on the Y-axis. This means that heteroscedasticity does not occur in the regression model, so the regression model is suitable for predicting a company's financial performance as proxied by the operating profit margin (OPM) based on the input of the independent variables.

Autocorrelation Test

The following are the results of the autocorrelation test:

Table 2 Autocorrelation Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,995 ^a	,990	,989	1247493,220	2,223

a. Predictors: (Constant), Tax expense, Operational expense, Revenue

b. Dependent Variable: Financial performance

Source: Analyze results from secondary data

The DW (Durbin-Watson) value of 2.223 is in the area $4-dU < dw < 4-dU$, so H_0 is accepted, meaning there is no autocorrelation.

2. Hypothesis Testing

The following are the results of the hypothesis test:

1. t-test (Partial Test)

The following are the results of the t-test:

Table 3 T-Test Results

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-159829,440	239312,109		-,668	,508
	Revenue	1,135	,024	,968	47,302	,000
	Operational expense	1,849	1,133	,034	1,633	,110
	Tax expense	793796,776	774551,801	,016	1,025	,311

a. Dependent Variable: Financial performance

Source: Analyze results from secondary data

Regression equation:

$$Y = -159,829.440 + 1.135X_1 + 1.849X_2 + 793,796.776X_3$$

Based on the results of the t-test in the table above, each variable shows different significance values, so the regression equation can be explained as follows:

a. Constant (a)

Constant (a) = -159,829.440 If there is no effort to address the variables of income, operational expenses, and corporate tax expenses, the company's financial performance will decrease by (-159,829.440).

b. The influence of revenue on financial performance

The results of testing the income variable on financial performance have a significant probability value of 0.000, which means $0.000 < 0.05$, and the comparison of the t-count is 47.302 and the t-table is 1.680. So, $t\text{-count} > t\text{-table}$ means that H_0 is rejected and H_a is accepted, and this means that income partially has a significant effect and has a positive relationship with financial performance. The regression coefficient (B) value for income is 1.135, meaning that for every increase of one unit, performance will increase by 1.135 units.

c. The influence of operational expenses on financial performance

The results of testing the operational expense variable on financial performance have a significant probability value of 0.110, which means $0.110 > 0.05$ and the comparison of the t-count is 1.633 and the t-table is 1.680. So, $t\text{-count} < t\text{-table}$ means that it shows that H_0 is accepted and H_a is rejected, and this means that partial operational expenses have no significant effect and have a positive relationship with financial performance. The regression coefficient (B) value for operational expenses is 1.849, meaning that for every

increase of one unit, performance will increase by 1.849 units.

d. The influence of tax expenses on financial performance

The results of testing the tax expenses variable on financial performance have a significant probability value of 0.311, which means $0.311 > 0.05$ and the comparison of the t-count is 1.025 and the t-table is 1.680. So, $t\text{-count} < t\text{-table}$ means that H_0 is accepted and H_a is rejected, and this means that the partial tax expenses have no significant effect and have a positive relationship with financial performance. The regression coefficient (B) value of the tax expenses is 793,796.776, meaning that for every increase of one unit, the performance will increase by 793,796.776 units.

2. F-Test (Simultaneous)

The following are the results of the F statistical test in table 4 as follows:

Table 4 F-Test Results

ANOVA ^a						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6825536561046865,000	3	2275178853682288,000	1461,972	,508 ^b
	Residual	68474530691446,300	44	15562393338		
	Total	6894011091738311,000	47			

a. Predictors: (Constant), Tax expense, Operational expense, Revenue

b. Dependent Variable: Financial performance

Source: Analyze results from secondary data

Based on Table 3.4 above, the calculated $F = 1461.972$ and $N = 48$, the F-table can be seen as 0.05 with degrees of freedom $(k-1) = 4 - 1 = 3$, with the denominator $(n-k)$, $48 - 4 = 44$, then F-table $(3.44) = 2.82$. $F\text{-count} > F\text{-table}$, it can be concluded that H_0 is rejected and H_a is accepted; this means that the dependent variables are income, operational expenses, and tax expenses simultaneously or together have a significant influence on the company's financial performance.

3. Coefficient of Determination Results

The following are the results of the hypothesis test:

Table 5 Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,995 ^a	,990	,989	1247493,220	2,223

a. Predictors: (Constant), Tax expense, Operational expense, Revenue

b. Dependent Variable: Financial performance

Source: Analyze results from secondary data

Based on Table 4 above, the summary model of the Adjusted R square is 0.989 or 98.9%, this means that the dependent variable of financial performance is influenced by variations in the three independent variables: income, operational expenses, and tax expenses. Meanwhile, the remaining 1.1% is influenced by other variables not included in this research.

4.2 Discussion

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The Influence of Revenue on Financial Performance

The results of testing the income variable on financial performance show that H_0 is rejected and H_a is accepted, and this means that income has a significant effect and has a positive relationship with financial performance. This shows that the increasing company income will affect the company's economic performance. The test results are the results of research conducted by Utami Puji Lestari (2018), who explained that implementing revenue recognition based on PSAK No. 72 made the company's financial performance look no better than the previous standard.

The Influence of Operational Expenses on Financial Performance

The results of testing the operational expense variable on financial performance show that H_0 is accepted and H_a is rejected, and this means that partial operational expenses have no significant effect and do not have a positive relationship with the company's financial performance. The test results are the results of research conducted by Dewi and Kusuma (2019), which stated that operational costs do not significantly influence financial performance.

The Influence of Tax Expenses on Financial Performance

The results of testing the tax expenses variable on financial performance show that H_0 is accepted and H_a is rejected, and this means that the partial tax expenses have no significant effect and do not have a positive relationship with financial performance. The test results are the results of research conducted by Erawati and Ndoen (2019), which states that tax expenses affect financial performance.

The Influence of Revenue, Operational Expenses, and Tax Expenses on Financial Performance

The results of the F-count = 1,461.972 and $N = 48$, the F-table can be seen to be 0.05 with degrees of freedom $(k-1) = 4 - 1 = 3$, with the denominator $(n-k)$, $48 - 4 = 44$, then F-table $(3,44) = 2.82$. F-count > F-table, then income, operational expenses, and tax expenses together or simultaneously significantly influence the financial performance of construction services companies listed on the Indonesia Stock Exchange (BEI). The test results are the results of research conducted by Dewi and Kusuma (2019) which explains that operational costs do not have a significant effect on the level of financial performance, income has a significant effect on financial performance, operational expenses, and revenue together do not influence on financial performance.

5. Conclusion

Based on the results of research and discussion regarding the influence of income, operational expenses, and tax expenses on the financial performance of construction services companies listed on the Indonesia Stock Exchange (BEI) in 2017-2020, the following conclusions were obtained:

1. The income variable has a partially significant effect and has a positive relationship with financial performance. The results of this research are consistent with research by Utami Puji Lestari (2018) which states that the implementation of revenue recognition based on PSAK No. 72 makes the company's financial performance look no better when compared to using the previous standard.
2. The operational expense variable has no significant effect and has a positive relationship with financial performance. The results of this research are consistent with research by Dewi and Kusuma (2019) which states that operational costs do not have a significant influence on the level of financial performance.
3. The partial tax expense variable has no significant effect and has a positive relationship with financial performance. The results of this research are consistent with research by Erawati and Ndoen (2019) which states that tax expenses affect financial performance.
4. The variables income, operational expenses, and tax expenses simultaneously or together

significantly influence the company's financial performance. The results of this research are consistent with research by Dewi and Kusuma (2019), which explains that operational costs do not have a significant effect on the level of financial performance, income has a significant effect on financial performance, and operational expenses and income together do not affect financial performance.

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Earnings Management: Boon or Bane for Growth in Indonesia Consumer Sector?

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Abstract

This study investigates the relationship between earnings management and financial risk on company growth in the Primary Consumer Goods Industry sector listed on the IDX from 2017 to 2021. The findings show that earnings management practices positively and significantly impact company growth, indicating that companies implementing management profits tend to experience higher growth (Growth Companies). Enhancing positive and efficient earnings management practices can improve company performance and overall business growth. The statistically significant effect indicates that this relationship is not coincidental, emphasizing the strong relationship between earnings management and firm growth. However, financial risk does not significantly affect company growth and cannot moderate the relationship between earnings management and company growth. This observation highlights the complexity of the impact of financial risk on corporate growth, which various unmeasured factors, including changes in interest rates, market fluctuations, and credit risk, may influence. Other internal and external factors that affect the relationship between financial risk and firm growth may not be considered in this regression model, limiting its ability to capture the subtleties of this relationship fully. Nonetheless, this study shows that Financial Risk and Earnings Management significantly affect the dependent variable, Company Growth. The results show that companies that apply better earnings management practices in their financial reporting experience better or higher growth. However, this study had limitations, and future research should explore a different sector, as this may yield different results. In addition, future research may consider including control variables such as firm size, liquidity, leverage, industry growth, and other economic factors to understand their impact on firm growth better.

Keywords: Company Growth, Earnings Management Practices, Financial Risk, Agency Theory

JEL CODES: G32, M41, L21

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1. Introduction

In recent years, the field of accounting and finance has witnessed a growing interest in understanding the factors that influence earnings management practices within companies (Zeff & Dyckman, 2020; Cokins, 2016). Earnings management refers to the manipulation of financial information by managers to meet specific objectives, such as smoothing reported earnings, avoiding earnings declines, or maximizing executive compensation (Hemmer & Labro, 2019; Wilson, 2015). It is a complex phenomenon with significant implications for financial reporting quality, investor decision-making, and overall market efficiency (Easton, 2015).

One crucial aspect that has garnered considerable attention in the literature is the impact of company growth on earnings management practices. Company growth, characterized by increases in sales, assets, market share, or expansion into new markets, is often seen as a positive signal of firm performance and prospects (Bertomeu et al., 2021). However, the relationship between company growth and earnings management remains controversial and requires further investigation (Callao et al., 2014; Bereskin et al., 2018).

The consumer goods industry includes companies producing, distributing, and selling consumer products, including food and beverages, personal care goods, household goods, and retail products. Consumer goods companies often pursue a growth strategy by expanding into new markets or introducing new product lines to capture a more extensive customer base. This growth can incentivize managers to engage in earnings management practices to meet performance expectations, secure investor confidence, or support fundraising efforts (He et al., 2022; Sax and Andersen, 2019). Earnings management becomes especially relevant as companies navigate the complexities of market expansion in the consumer goods industry (He et al., 2022). In addition, this sector often relies on complex supply chains involving multiple suppliers and distribution channels. Managing inventory levels, procurement costs, and supplier relationships can influence financial performance. There may be instances where companies engage in earnings management practices to mitigate the impact of supply chain-related challenges or to present an excellent financial picture to stakeholders (Gomez-Mejia et al., 2021). Exploring the relationship between supply chain management, financial risk, and earnings management provides valuable insights into the consumer goods industry (He et al., 2022; Gomez-Mejia et al., 2021).

The uniqueness of this study lies in its focus on the interaction between company growth, financial risk, and earnings management. By assessing the role of financial risk, the study aims to uncover how the level of risk exposure within a firm's financial structure influences the relationship between company growth and earnings management. Financial risk, encompassing leverage, liquidity, and volatility, is crucial in shaping a firm's financial decisions and strategies (Lotfaliei, 2021; Elkhail, 2019). Understanding how financial risk interacts with company growth to influence earnings management practices can provide valuable insights into the underlying mechanisms (Chakraborty et al., 2021; Elshandidy and Zeng, 2022).

Previous research on earnings management has predominantly concentrated on various determinants such as firm size, industry-specific characteristics, corporate governance, and external monitoring mechanisms (Callao et al., 2014; Cudia et al., 2021). However, limited attention has been given to the interplay between company growth, financial risk, and earnings management. Consequently, this study aims to fill this research gap by assessing whether

company growth significantly impacts earnings management and investigating the potential moderating role of financial risk.

Existing research on earnings management has focused on factors such as firm size, industry-specific characteristics, corporate governance, and external monitoring mechanisms (Szudejko, 2015). However, limited attention has been given to the interplay between company growth, financial risk, and earnings management (Srivastava, 2014; An, 2017). As a result, this study seeks to address this research gap by addressing whether company growth positively and significantly affects earnings management while investigating the potential moderating role of financial risk.

By exploring this relationship, this research will contribute to the existing literature on earnings management by shedding light on the specific conditions under which company growth affects earnings management practices. Moreover, including financial risk as a moderating factor will provide a more nuanced understanding of the complex dynamics involved.

Ultimately, the findings of this study will not only advance theoretical knowledge but also have practical implications for financial managers, auditors, regulators, and investors. By identifying the factors that influence earnings management practices, stakeholders can better assess the reliability and transparency of financial statements, make informed investment decisions, and design suitable policies and guidelines to mitigate earnings management practices.

2. Literature Review

Jensen and Meckling (1976) define the agency relationship as a relationship between the company's owner (principal) and the agent, who delegates decision-making authority to the agent. The principal and agent may have conflicting interests in an agency relationship. Shareholders demand increased corporate profitability and dividends. At the same time, managers are agents who are motivated to maximize the fulfillment of economic and psychological needs. Based on the agency and principal relationship, management is encouraged to perform earnings management in presenting financial statements. For this reason, one way that can be used to monitor contractual issues between management and investors and limit management's opportunistic behavior is through the implementation of Good Corporate Governance (Nagar and Schoenfeld, 2021).

Earnings management refers to companies' discretionary manipulation of financial statements to achieve specific financial goals or influence stakeholders' perceptions about the company's performance (Marinakis, 2011; Zhao, 2000). It is an area of concern as it can distort the accuracy and reliability of financial information, potentially misleading investors and other stakeholders. Understanding the factors contributing to earnings management is crucial for investors, regulators, and researchers (Dechow and Skinner, 2000). One crucial factor that may influence earnings management is company growth. Earnings management is a complex and multidimensional phenomenon widely studied in accounting and finance literature. Researchers have examined various motivations and techniques used by companies to manage earnings, including income smoothing, income-increasing or decreasing strategies, and discretionary accruals (Healy, 1985; Dechow et al., 1995; Cohen et al., 2008; Roychowdhury, 2006; McNichols, 2000). The consequences of earnings management can range from distorted financial statements to reduced investor confidence and increased agency costs (Young, 2015).

Company growth is an essential factor that can influence earnings management practices. Growing companies often face pressure to meet financial expectations and maintain favorable

growth rates (Madhogarhia et al., 2009; Lee et al., 2011). In this context, managers may manage earnings to portray a favorable financial performance and meet market expectations. Previous studies have found mixed results regarding the relationship between earnings management and company growth (Marinakis, 2011; Gunny, 2011; Bisogno and Donatella, 2021; Gurendrawati, 2015). The relationship between earnings management and company growth has been a subject of interest in academic literature (Giosi et al., 2017). Companies experiencing rapid growth may face increased pressure to demonstrate consistent financial performance and meet market expectations (Lee et al., 2011). As a result, managers may be tempted to engage in earnings management to portray a positive image of the company's financial health. However, the impact of earnings management on company growth is only sometimes straightforward, and conflicting findings exist in the literature.

Financial risk, encompassing factors like leverage, liquidity, and solvency, is crucial in shaping a company's decision-making process. High levels of financial risk can lead to more significant financial uncertainty, making earnings management more enticing for managers seeking to mitigate the risk of financial distress or covenant violations (Khlif and Hussainey, 2016). Conversely, low financial risk may encourage transparent financial reporting to build investor trust and reduce agency costs. The relationship between financial risk and earnings management is complex and context dependent. Financial risk as a mediator in the relationship between earnings management and firm growth has gotten little attention in the research (Gunny, 2011; Lee et al., 2011).

Nonetheless, it is reasonable to assume that financial risk can influence how earnings management impacts company growth. For example, companies with high financial risk may be more susceptible to negative growth consequences if uncovered earnings management practices reduce investor confidence (Kanodia and Sapra, 2016). Understanding the moderating role of financial risk can provide valuable insights into the interplay between earnings management and company growth.

This literature review sheds light on the relationship between earnings management and company growth, specifically focusing on the role of financial risk. Earnings management refers to a complex practice that can impact a company's growth prospects, both positively and negatively. The interplay between earnings management, company growth, and financial risk is an area that requires further investigation and can provide valuable insights for investors, regulators, and company stakeholders. By understanding the implications of earnings management on company growth, researchers can contribute to the ongoing discussions on transparent financial reporting practices and promote sustainable growth strategies for businesses. The hypothesis is, therefore, as follows:

- H1: There is a significant positive relationship between earnings management practices on company growth in the consumer noncyclical industry.
- H2: There is a significant positive relationship between financial risk on company growth in the consumer noncyclical industry.
- H3: Financial Risk and earnings management practices simultaneously affect Company Growth
- H4: Financial risk moderates the influence of earnings management on company growth.

3. Research Method

This study adopts a quantitative research design to examine the relationships between corporate growth, financial risk, and earnings management in the consumer noncyclical industry sector. The research design allows the collection of numerical data to test hypotheses and draw statistical inferences. The data for this study is secondary data sourced from financial reports of manufacturing companies in the primary consumer goods industry sector listed on the Indonesia Stock Exchange. The study population comprises all manufacturing companies in the primary consumer goods sector that were publicly listed and operational from 2017 to 2021. The study employs a purposive sampling technique to select companies that meet specific criteria. Companies in the sample must have published financial reports successively throughout the study period (2017-2021) and not reported any losses. This sampling technique ensures that the selected companies have consistent financial reporting practices and stable financial performance, reducing the potential for biased results. The final sample size in this study is 110 manufacturing companies in the primary consumer goods industry sector that meet the defined criteria. The sample size is sufficient to achieve statistically meaningful results and increase the study's generalizability. A conceptual model will be developed to illustrate the relationships between the key variables of interest: corporate growth, financial risk, and earnings management. The model will be a theoretical framework for data analysis and hypothesis testing. The collected data will be analyzed using statistical software, specifically SPSS 26, to explore the relationships outlined in the conceptual model. Descriptive statistics will be used to summarize the characteristics of the sample.

Measurement of earnings management uses the discretionary accrual model proposed by (Healy, 1985). It is designed to estimate the level of discretionary accruals, which are non-cash accounting adjustments that managers can use to manipulate reported earnings. This model is based on the idea that specific changes in current assets and liabilities are expected to be driven by regular business operations and tend to be influenced by managerial discretion. On the other hand, changes in other accounts, such as inventories, receivables, accounts payable and certain reserves, are more likely to be subject to managerial manipulation. Models can represent the following:

$$\text{Discretionary Accruals} = \Delta \text{Current Assets} - \Delta \text{Cash} - \Delta \text{Current Liabilities}$$

Where:

$\Delta \text{Current Assets}$ = Change in current assets from the previous period to the current period
 ΔCash = Change in cash from the previous period to the current period
 $\Delta \text{Current Liabilities}$ = Change in current liabilities from the previous period to the current period.

To measure financial risk, this study uses the Altman Z-score method. This model is an analytical model used to predict the potential for bankruptcy of a company with a relatively reliable level of accuracy. Therefore, this analysis can be used to measure a company's financial risk level (Liu et al., 2021). The Altman Z-Score model consists of five financial ratios, each weighted according to its relative importance in predicting bankruptcy risk. The Altman Z-Score model consists of five financial ratios, each weighted according to its relative importance in predicting bankruptcy risk. The formula for calculating the Z-Score is as follows:

$$\text{Z-Score} = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

Where:

Published by:

A = Working Capital / Total Assets
 B = Retained Earnings / Total Assets
 C = Earnings Before Interest and Taxes (EBIT) / Total Assets
 D = Market Value of Equity / Total Liabilities
 E = Sales / Total Assets

The Asset Growth Ratio is a financial metric used to measure a company's growth in total assets over a specific period. It provides insights into the expansion or contraction of a company's asset base and is often used to assess the company's overall growth trajectory (Ferliana and Agustina, 2018). The formula for calculating the Asset Growth Ratio is as follows:

Asset Growth Ratio = (Total Assets in Current Period - Total Assets in Previous Period) / Total Assets in Previous Period

Where:

Total Assets in Current Period = Total assets of the company at the end of the current period.

Total Assets in Previous Period = Total assets of the company at the end of the previous period (e.g., the previous year or quarter).

4. Findings and Discussions

Descriptive statistics is used to provide descriptions or descriptions of research variables which include maximum values, minimum values, mean, and standard deviation.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev
Earning Management	110	-.24	.22	-.0361	.07597
Financial Risk	110	1.24	22.53	6.2788	4.72712
Growth Company	110	-.16	.41	.0753	.09544
Valid N (listwise)	110				

Source: Data Process

Table 1 shows variable Earnings Management has 110 valid data. The average value (mean) of this variable is -0.0361. The standard deviation (std. deviation) of 0.07597 indicates that the data tends to be close to the average because the standard deviation is relatively small. The range of values from -0.24 to 0.22 shows a relatively small variation. The average Earnings Management is -0.0361, which means that overall, companies tend to have lower profits than expected or desired. However, the variation in earnings between firms is also relatively small, indicating that the firms in the dataset tend to have similar or consistent earnings management practices. The average Financial Risk is 6.2788, which indicates that the companies in the dataset tend to have a relatively high level of financial risk. A large standard deviation indicates significant variation in risk levels between companies. The wide range of scores indicates companies with low financial risk (value of 1.24) and companies with high financial risk (value of 22.53).

The average (mean) of this variable is 0.0753. The standard deviation (std. deviation) of 0.09544 indicates considerable variation between the values in this variable. The range of values from -0.16 to 0.41 shows a wide variation in the data, with the lowest values below zero and the highest values exceeding zero.

The average Growth Company is 0.0753, which shows that overall, companies tend to have positive growth, but with low growth rates. A relatively high standard deviation indicates significant variation in growth performance between firms. A wide range of values indicates that there are companies with negative growth (value -0.16) and companies with relatively high growth (value 0.41).

Table 2. Coeffisient

		B	Std. Error			Tolerance	VIF
1	(Constant)	.101	.015	6.768	.000		
	Earning Management	.433	.114	3.806	.000	1.000	1.000
	Financial Risk	-.002	.002	-.902	.369	1.000	1.000
	Moderation_FR	-.059	.032	-1.831	.070		

Table 2 shows the constant (intercept) has a B value of 0.101 in this regression model. The constant represents the value of the dependent variable Growth Company when all predictor variables in the model are at zero values. The t value of 6,768 indicates that the constant significantly affects the dependent variable with a significance value (Sig.) of 0,000.

The Earnings Management variable has a B value of 0.433. The Beta (Standardized Coefficient) value of 0.344 indicates that every one unit increase in the Earnings Management variable is associated with an increase of 0.344 units in the dependent variable Growth Company. The t value of 3.806 indicates that the variable Earnings Management statistically affects the dependent variable with a significance value (Sig.) 0.000. Tolerance and VIF are 1,000, indicating no collinearity problem (multicollinearity) between the predictor variables in the model. Companies that do-good earnings management tend to have higher growth (Growth Company). Improvements in positive and efficient earnings management practices can contribute to improved company performance and overall business growth. In addition, the statistically significant effect indicates that this relationship does not occur by chance, and there is a strong relationship between earnings management and company growth. The results of this study are in accordance with previous studies which showed the same results (Giosi et al., 2017; Marinakis, 2011; Gunny, 2011; Bisogno and Donatella, 2021; Gurendrawati, 2015). This result also follows Madhogarhia et al. (2009) paper, where this research finds that developing companies tend to manage their earnings up and down more aggressively than value-added companies.

In the context of agency theory, earnings management practices can positively and significantly influence company growth due to conflicts of interest between shareholders (principals) and company management (agents) (Healy, 1985; Bisogno and Donatella, 2021). In order to increase share value and meet shareholder expectations, company management may practice earnings management to improve their financial statements. Some examples of earnings management practices include changing accounting policies, delaying revenue recognition, or hiding certain expenses. The goal of this earnings management practice is to create the appearance of better-than-actual performance, which can attract new investors and support higher stock prices. In agency theory, earnings management practices can have a positive and significant effect on company growth because they create the impression of better performance in the eyes of investors. However, the downside is the potential for reputational and legal risks if this practice is disclosed and reduces the trust of stakeholders.

The Financial Risk variable has a B value of -0.002. The Beta (Standardized Coefficient) value

of -0.082 indicates that every one unit increase in the Financial Risk variable is associated with a 0.082 unit decrease in the dependent variable Growth Company. The t-value of -0.902 indicates that the Financial Risk variable has no statistically significant effect on the dependent variable because the significance value (Sig.) is greater than the commonly used significance level (usually $\alpha = 0.05$). Tolerance and VIF are 1,000, indicating no collinearity problem between the predictor variables in the model.

In the context of this model, there is not sufficient evidence to state that Financial Risk has a significant effect on the growth of the company (Growth Company). Even though the negative regression coefficient indicates a negative relationship, the statistical results show that the difference could have occurred by chance. This means that the Financial Risk variable may not be the main factor in predicting the company's growth in this model.

The Financial Risk variable is a moderator variable that measures the moderating effect on the relationship between Earning management and the Growth Company. The Beta (Standardized Coefficient) value of -0.333 indicates that the "Moderation_FR" variable contributes to reducing the effect of Earning management on "Growth Company." However, the t value of -1.831 indicates that this moderating effect is not statistically significant because the significance value (Sig.) is greater than the commonly used significance level (usually $\alpha = 0.05$).

This research shows that Financial Risk can cover many dimensions, including market, credit, liquidity, and others. Suppose the moderator variable only measures one aspect of financial risk or needs to be sufficiently complete in measuring the complexity of financial risk. In that case, its influence in moderating the relationship may be limited. The relationship between earnings management and company growth can be influenced by many factors other than financial risk. Earnings management is a company's action in manipulating financial statements to achieve specific goals. Internal and external factors influence the company's growth, such as business strategy, market, competition, and others. If the moderator variable (financial risk) cannot include all of these factors, then the impact on the relationship between earnings management and company growth may be insignificant.

In conclusion, in this regression model, the variable Earnings Management has a statistically significant effect on the dependent variable Growth Company, while the variable Financial Risk has no significant effect. The Earnings Management variable has a more excellent Beta value than Financial Risk, so Earnings Management has a more substantial influence in predicting the Company Growth variable compared to Financial Risk in the context of this model.

Table 3. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.123	2	.062	7.598	.001 ^b
	Residual	.869	107	.008		
	Total	.993	109			

Source: Data Process

Table 3 show the regression SS value is 0.123. This indicates the amount of variability in the dependent variable Growth Company, which can be explained by the predictor variables Financial Risk and Earnings Management. The higher the regression SS value, the greater the variability in the dependent variable that the model can explain. The df value for the regression is 2. This shows that in this regression model, there are two predictors, namely Financial Risk

and Earnings Management. The Mean Square value for the regression is 0.062. Mean Square measures the mean variability in the dependent variable described by each predictor. The higher the Mean Square value, the more significant the contribution of the predictor variable to the variation in the dependent variable. The F-value of the ANOVA output is 7,598. This F value is a test statistic that measures the difference between the variability explained by the regression model and the variability not explained by the model (error). The higher the F-value, the more significant the effect of the predictor variable on the dependent variable. In this case, the F-value is 7.598, which is relatively high, indicating that the overall regression model significantly contributes to explaining the dependent variable Growth Company. The significance value is 0.001 (or 0.1%). This value indicates the probability that the observed result could have occurred by chance. In this context, a meager significance value indicates that the relationship between Financial Risk and Earnings Management with Growth Company is statistically significant. Thus, it can be concluded that this regression model significantly contributes to predicting the dependent variable Growth Company. In conclusion, from the output of the ANOVA, we can conclude that the regression model with the predictor variables Financial Risk and Earnings Management together significantly affect the dependent variable Growth Company. However, further analysis is needed on the significance and effect size of each predictor variable in the model for a more complete understanding.

5. Conclusion

Based on research conducted on companies in the Primary Consumer Goods Industry sector listed on the IDX in 2017 - 2021. Earnings management practices positively and significantly affect company growth, meaning that companies that manage earnings will tend to have higher growth companies. Improvements in positive and efficient earnings management practices can contribute to improved company performance and overall business growth. In addition, the statistically significant effect indicates that this relationship does not occur by chance, and there is a strong relationship between earnings management and company growth.

On the other hand, financial risk does not affect company growth and cannot moderate the relationship between earnings management and company growth. The effect of finance on company growth can be very complex and is influenced by many other factors that are not included in this regression model. Financial Risk variables can cover various aspects of financial risk, such as changes in interest rates, market fluctuations, and credit risk. There may also be other external and internal factors that affect the relationship between financial risk and company growth but are not measured in this analysis. Therefore, this model may not capture the complexity of this relationship fully.

However, the results of this paper show that Financial Risk and Earnings Management significantly affect the dependent variable Growth Company. These results indicate that companies with earnings management that improve their financial statements experience better or higher growth. This research is not free from limitations, and future research is expected to explore other sectors which may have different results from this study. Future research can consider control variables, such as company size, liquidity, leverage, industry growth, and other economic factors, which can affect company growth.

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The Influence of Member Perceptions, Service Quality, and Trust on Member Loyalty by Intervening Organizational Image (Case Study of the IAI Organization in Tangerang Regency)

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Abstract

This research aims to analyze the influence of member perceptions, service quality, and trust on member loyalty by intervening with the organizational image of the Indonesian Pharmacists Association (IAI) in Tangerang Regency. This research used a survey method with 315 people using the Simple Random Sampling technique. The data collection technique uses a questionnaire whose validity and reliability have been tested. The data analysis technique uses the software program application using multiple linear regression analysis and path analysis. The research results provide conclusions: (1) Members' perceptions have a positive and significant effect on the organization's image; (2) Service quality has a positive and significant effect on the organization's image; (3) Member trust has a positive and significant effect on the organization's image; (4) perception, quality of service, and trust together have a positive and significant effect on the organization's image; (5) Member perceptions have a positive and significant effect on member loyalty; (6) Service quality has a positive and significant effect on member loyalty; (7) Trust has a positive but not significant effect on member loyalty; (8) Perception, service quality and trust simultaneously influence member loyalty; (9) Perception, service quality and trust simultaneously influence member loyalty through organizational image as an intervening variable.

Keywords: Member Perception, Service Quality, Trust, Organizational Image, Loyalty.

JEL CODES: L44, O19

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1. Introduction

Economically, professional organizations are a form of non-profit organization. Professional organizations are responsible for promoting and protecting their members' interests. Even

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though the primary goal is not seeking financial gain, sustainability and operational effectiveness remain the keys to success. So, in this case, marketing analysis plays a crucial role in ensuring that non-profit organizations can sustainably achieve their goals. In an ever-changing and competitive era, conducting marketing analysis is crucial to ensuring the sustainability and relevance of professional organizations. To fulfill this goal, service marketing becomes a key element that not only concerns promotion, but also includes the way the organization interacts and provides added value to its members.

Professional organizations can be said to operate in the abstract and non-material service sectors. Service marketing here is not only related to physical products but also to the experience, expertise, and knowledge provided by professionals. Therefore, marketing strategies must be formulated to communicate and appreciate this intangible value. In the context of professional organizations, providing added value to members is key. Services marketing should be designed to highlight the benefits and advantages members gain from their membership, such as training, up-to-date information, or access to professional networks.

Included in this are professional organizations in the health sector. Health professional organizations were initially professional organizations whose formation was regulated by Law no. 36 of 2014 CHAPTER VII Professional Organizations Article 50 Paragraph 1 "Health workers must form professional organizations as a forum for improving and developing knowledge and skills, dignity and professional ethics for health workers."

One of the health professional organizations affected by this regulatory change is the Indonesian Pharmacists Association (IAI). IAI is the first pharmacist professional organization established in Indonesia. IAI has the main task of uniting, empowering, protecting, developing, and nurturing all members of the Association. IAI protects members in implementing pharmacist performance, which is guided by standard operational procedures, professional service standards, and professional standards, as well as preventing the criminalization of pharmacists in carrying out pharmaceutical service practices.

IAI needs to ensure that its members remain loyal and committed to their organization. Member loyalty will be a very important aspect in maintaining the existence and sustainability of the organization. Maintaining member loyalty and organizational image is critical to the success and growth of the organization. Member loyalty can provide long-term benefits for an organization, such as high member retention, consistent financial support, and a positive image among the community. Therefore, organizations need to understand the factors that can influence the loyalty of their members.

By understanding the factors that influence member loyalty, IAI can take appropriate strategic steps to strengthen member loyalty and build a strong organizational brand image. The results of this research can provide theoretical and practical contributions to understanding the factors that influence the loyalty of members of professional organizations and provide recommendations for IAI in building good perceptions, improving service quality, building member trust, and strengthening the organization's image.

2. Literature Review

2.1 Organization

According to Duha (2018:2), an organization is a unity formed by several people who have little or all the same background, identity, hopes, or various other things to achieve a common

goal together. According to the Big Indonesian Dictionary (KBBI), an organization is a cooperative group of people to achieve a common goal. Meanwhile, a profession is a field of work based on certain educational expertise (skills, vocations, etc.). So, a professional organization is an organization whose members are people who have the same profession.

Professional organizations serve as a forum to protect members as well as to increase the professionalism of their members so that they can provide the best service to service users. The general goal of a profession is to fulfill its responsibilities with high standards of professionalism according to its field, achieving a high level of performance, with an orientation towards the public interest. Professional organizations are organizations whose members are practitioners who define themselves as professionals and join to carry out social functions that they cannot carry out in their capacity as individuals.

2.2 Service Marketing

According to Fatihudin & Firmansyah (2019:2), the definition of service marketing can be divided into two, namely social and managerial. Social marketing of services is a social process by which individuals and groups get what they need and want by creating, offering, and exchanging valuable service products with other parties. Meanwhile, managerial marketing of services is the process of planning, implementing, thinking, pricing, promoting, and distributing ideas about service products to create exchanges that meet individual and organizational goals.

Services are different from goods (products) because they cannot be seen with the naked eye and can give rise to various methods and activities in developing marketing strategies. Payne (in Fatihuddin & Anang, 2019:3) says that services are economic activities that have a few intangible elements (values and benefits) associated with them, which involve several interactions with consumers or with goods owned and do not result in changes in ownership in conditions. may appear and the production of a service may or may not be related to a physical product. Services are activities, benefits, or satisfaction offered for sale.

2.3 Loyalty

Loyalty is a deep enduring commitment to return or repurchase products or services consistently in the future (Hurriyati, 2015:129). According to Tjiptono (2016:110), consumer loyalty is a customer's commitment to a brand, shop, or supplier based on very positive characteristics in long-term purchases.

Hurriyati (2015:35) states that customer loyalty has an important role in a company, retaining them means improving financial performance and maintaining the company's survival, this is the main reason for a company or organization to attract and retain customers. Efforts to make loyal customers cannot be made directly, but through several stages, starting from looking for potential customers to getting partners.

Loyal consumers will generally purchase the brand even though they are faced with many alternative competing product brands that offer superior product characteristics from various angles (Duriyanto, 2001:4).

Customer loyalty is a company's strength in creating a barrier to new entry (preventing new players from entering). To create customer loyalty, companies must think about creating customer satisfaction first. One of them is through relationship marketing which not only prioritizes how to create sales but how to retain customers because of a relationship of cooperation and trust to create maximum customer satisfaction and sustainable marketing.

Loyalty is a combination of psychological functions and behavior of a customer that makes him loyal to a particular product service or company or is a horizon of thought that customer loyalty is the result of a person's behavior and psychological processes and in essence, customer loyalty can be likened to a marriage between the company and the public (especially core customers). It can also be said that customer loyalty is a commitment to persist deeply by repurchasing or resubscribing to the selected product or service consistently in the future even though the influence of the situation and marketing efforts have the potential to cause changes in behavior.

2.4 Member Perceptions

According to Suranto (2010:107), perception is an internal process that has been recognized and approved by individuals when selecting and forming stimuli that come from outside. These stimuli are taken by the five senses of an individual or group which then spontaneously or directly, the feelings and thoughts of the individual will immediately provide meaning to the existing stimuli. According to Sianipar (2019), perception means the process of acquiring, interpreting, selecting, and organizing sensory information which includes seeing, hearing, and feeling.

According to Webster as quoted by Sutisna (2001:63) who states that perception is the process of how stimuli (which influence responses are selected and interpreted, each person's perception of an object is different therefore perception has a subjective nature. Stimulus is any form of physical or verbal communication that can influence an individual's response. One important stimulus that can influence consumer behavior is the environment (social and cultural) because each person's perception of an object will be different, therefore perception has a subjective nature. Perception A consumer's various stimuli that he receives are influenced by his characteristics.

2.5 Service Quality

According to the KBBI, service is a way of serving, while serving is helping to prepare/take care of something someone needs. According to Kasmir (2017:47), service is a person's actions or deeds in an organization to provide satisfaction to customers, fellow employees, and leaders. According to Tjiptono (2014:640), service quality is an effort that focuses on fulfilling customer needs and desires, as well as the accuracy of delivery to match customer expectations. Lewis and Booms (in Tjiptono 2016:142) suggest that service quality can be interpreted as a measure of how well the level of service provided is by customer expectations or expectations.

According to Goeth & Davis (1994:94), service quality is a dynamic condition related to service products, people, processes, and environments that can meet and/or exceed customer expectations. This emphasizes that quality does not only emphasize the result, namely products or services, but also concerns human quality, process quality, and environmental quality. Therefore, to produce quality products or services it must be supported by quality people and processes.

2.6 Trust

Trust according to Mayer (1995) is the willingness of a party to take the actions of another party based on the hope that the trusted party will carry out an important action for the trusted party. Meanwhile, Morgan & Hunt (1994) define trust as a condition when one of the parties involved in the exchange process is confident in the reliability and integrity of the other party. Trust is important for an organization because an organization can't build trust without trust (Jafar, 2009:

163).

Trust is the key to success in continuing your business. If a company is unable to build and maintain consumer trust, it will be very difficult for the company to restore this trust. Therefore, companies must always maintain communication with consumers and always try to satisfy them, by handling their complaints wisely (Jasfar, 2009:199).

2.7 Organizational Image

According to Harison (2005:61), corporate image is the public's impression, feeling, or image of the company, an impression that is deliberately created by an object, person, or organization. The image of a company is developed by the company logo, name, mission, vision, organizational culture, variety of services/products, advertising, and the appearance of the company's central building. A strong brand identity also means that consumers differentiate it from similar service providers or manufacturers.

A company having a good image with the public is a very important factor because it will provide various benefits, especially for the company itself. Companies that have a good image will encourage consumers to buy the products offered, increase their competitive ability, encourage employee performance enthusiasm, and increase customer loyalty (Istijanto, 2005: 185).

3. Research Method

This type of research has a descriptive quantitative research methodology with a comparative method through a survey approach using data collection instruments in the form of questionnaires and data analysis using the software program application.

3.1. Research population

In this study, the population was members of the Indonesian Pharmacists Association (IAI) in Tangerang Regency, totaling 1195 people.

3.2. Research Sample

The total population studied with a total of IAI Tangerang Regency members was 1195 people. From this data, the sample size was obtained using the Slovin formula, as follows.

$$n = N/1 + Ne^2 = 1195/1 + 1195 \cdot 0,05^2 = 1195/3.85 = \mathbf{299.69 \sim 300 \text{ samples}}$$

The sample in this study used a minimum of 300 IAI members in the Tangerang Regency. In this research, the sampling technique used was Simple Random Sampling.

The variables used in research can be classified into:

1. Dependent variable (Y),
In this research, the dependent variables are Customer Loyalty (Y) and Organizational Image (Z)
2. The Independent Variable (X), in this research is:
 - a. Perception (X_1)
 - b. Service Quality (X_2)
 - c. Trust (X_3)
3. This research's intervening variable (Z) is Organizational Image (Z).

The conceptual framework used to describe the relationship between income, operational expenses, and tax expenses on a company's financial performance is as follows:

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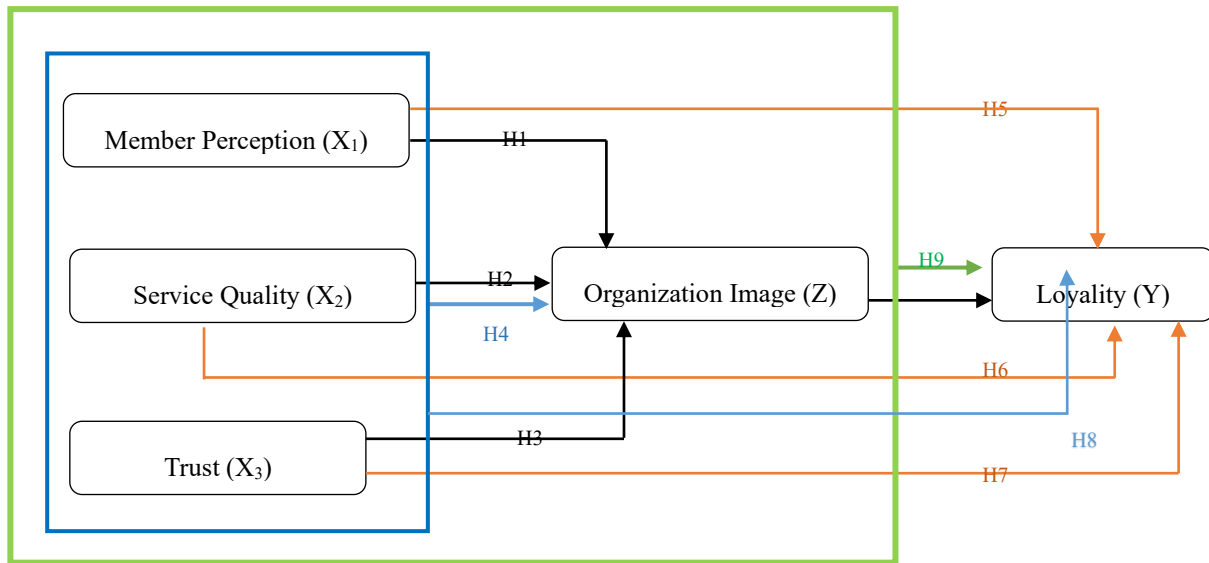


Figure 3.1. Research Model

The hypotheses in this research are:

H1: Member perceptions influence Organizational Image.

H2: Service Quality influences Organizational Image.

H3: Trust influences Organizational Image.

H4: Perception, Service Quality, and Trust simultaneously influence Organizational Image.

H5: Member perceptions influence IAI Member Loyalty.

H6: Service quality influences IAI Member Loyalty.

H7: Trust influences IAI Member Loyalty.

H8: Perception, Service Quality, Trust, and Organizational Image simultaneously influence Loyalty.

H9: Member Perceptions, Service Quality, and Trust in Loyalty through Organizational Image.

4. Findings and Discussions

4.1 Findings

The data used is panel data, so its use must meet panel data regression testing, namely:

Validity Test Results

Table 1 Member Perception Validation Test Results (X_1)

Question Items	R_{xy}	$R_{table} 5\% (30)$	Remark
In my opinion, the values in the IAI organization are in accordance with the values of the profession	0,860	0,361	Valid

IAI's vision, mission and organizational goals provide clear direction for my role and contribution as a member	0,884	0,361	<i>Valid</i>
Becoming a member of a professional organization is a necessity for every profession	0,677	0,361	<i>Valid</i>
Becoming a member of a professional organization is a necessity for every profession	0,816	0,361	<i>Valid</i>
I see the benefits of being an IAI member as protection and advocacy for the profession	0,827	0,361	<i>Valid</i>
I assess IAI's performance as very good	0,896	0,361	<i>Valid</i>
The programs and activities organized by IAI have provided significant added value	0,923	0,361	<i>Valid</i>
I feel that IAI's programs and activities are relevant to members' needs	0,876	0,361	<i>Valid</i>
The Pharmacist Code of Ethics can run well with the IAI	0,932	0,361	<i>Valid</i>

Source: Analyze results from primary data

Based on the table above, it can be concluded that all the results of the validity test of the member perception research instrument (X_1) are declared valid and suitable for use as an instrument for measuring research data.

Table 2 Service Quality Validation Test Results (X_2)

Question Items	R_{xy}	$R_{table\ 5\% (30)}$	Remark
IAI's time and services are always available as promised	0,702	0,361	<i>Valid</i>
The service information provided by IAI is consistent from time to time	0,810	0,361	<i>Valid</i>
IAI Services provides reliable information for my needs	0,809	0,361	<i>Valid</i>

IAI responds quickly when there are requests or questions from members	0,854	0,361	<i>Valid</i>
I feel that IAI cares and is ready to help its members	0,925	0,361	<i>Valid</i>
I find it easy to contact IAI administrators or get the information needed	0,910	0,361	<i>Valid</i>
IAI management has adequate expertise and ability to provide services	0,866	0,361	<i>Valid</i>
The information provided by IAI is consistent, accurate, and reliable	0,828	0,361	<i>Valid</i>
IAI management always behaves politely in serving members	0,866	0,361	<i>Valid</i>
The IAI management shows an attentive attitude in listening to the needs and desires of members	0,900	0,361	<i>Valid</i>
IAI management can feel and understand members' feelings well	0,895	0,361	<i>Valid</i>
The IAI Secretariat office is easy to find, clean and tidy	0,781	0,361	<i>Valid</i>
The technology, equipment and facilities used by IAI can facilitate service to members	0,676	0,361	<i>Valid</i>
IAI administrators always dress neatly and politely	0,825	0,361	<i>Valid</i>

Source: Analyze results from primary data

Based on the table above, it can be concluded that all the results of the validity test of the service quality research instrument (X_2) are declared valid and suitable for use as an instrument for measuring research data.

Table 3 Trust Validation Test Results (X_3)

Question Items	R_{xy}	$R_{table} 5\% (30)$	Remark
IAI can provide protection and advocacy if members experience legal claims related to their profession	0,876	0,361	<i>Valid</i>

IAI can provide guidance to members if they experience problems in practice	0,950	0,361	<i>Valid</i>
IAI can enforce the pharmacist's professional code of ethics	0,908	0,361	<i>Valid</i>
I believe IAI has good intentions and wants to help its members' problems	0,843	0,361	<i>Valid</i>
I believe IAI truly cares about the welfare and needs of its members	0,892	0,361	<i>Valid</i>
I believe that IAI carries out its function as a professional organization	0,843	0,361	<i>Valid</i>
I believe that IAI complies with applicable laws and regulations in running its organization	0,775	0,361	<i>Valid</i>
I believe the decisions taken are in the interests of its members	0,922	0,361	<i>Valid</i>

Source: Analyze results from primary data

Based on the table above, it can be concluded that all validity test results of the trust research instrument (X_3) are declared valid and suitable for use as instruments for measuring research data.

Table 4. Organizational Image Validation Test Results (Z)

Question Items	R_{xy}	$R_{table} 5\% (30)$	Remark
IAI can maintain a professional code of ethics	0,778	0,361	<i>Valid</i>
IAI can understand and reflect the pharmacist's personality	0,856	0,361	<i>Valid</i>
IAI has a character that inspires and motivates its members	0,905	0,361	<i>Valid</i>
I believe IAI has good intentions and wants to help its members' problems	0,869	0,361	<i>Valid</i>

I believe IAI truly cares about the welfare and needs of its members	0,830	0,361	<i>Valid</i>
The IAI management can maintain member confidentiality	0,794	0,361	<i>Valid</i>
IAI activities are following member needs	0,831	0,361	<i>Valid</i>
The training held by IAI is always up-to-date or current	0,916	0,361	<i>Valid</i>
The IAI symbol is following the desired image of the organization	0,827	0,361	<i>Valid</i>
The colors and designs used by IAI are consistent across all platforms	0,761	0,361	<i>Valid</i>
IAI has an organizational symbol that reflects the identity of the pharmacist professional organization	0,889	0,361	<i>Valid</i>

Source: Analyze results from primary data

Based on the table above, it can be concluded that all the results of the validity test of the organizational image research instrument (Z) are declared valid and suitable for use as an instrument for measuring research data.

Table 5. Loyalty Validation Test Results (Y)

Question Items	R_{xy}	R_{table} 5% (30)	Remark
I will remain a member of the IAI	0,635	0,361	<i>Valid</i>
I follow the socialization of regulations and update pharmaceutical knowledge through IAI	0,814	0,361	<i>Valid</i>
I attended seminars or training related to professions attended by IAI	0,756	0,361	<i>Valid</i>
I enjoy buying and collecting IAI merchandise	0,701	0,361	<i>Valid</i>
Attending seminars and workshops (non-	0,681	0,361	<i>Valid</i>

pharmaceutical) held by IAI can provide added value for members			
I took part in community service activities held by IAI	0,802	0,361	Valid
I recommended IAI to fellow pharmacists to become members	0,744	0,361	Valid
I feel that recommending IAI is an important form of support	0,711	0,361	Valid
IAI is the best professional community for pharmacists	0,849	0,361	Valid
If IAI still exists, I will remain a member	0,736	0,361	Valid
I declined the invitation to join another pharmacist professional organization	0,567	0,361	Valid

Source: Analyze results from primary data

Based on the table above, it can be concluded that all the results of the validity test of the member loyalty research instrument (Y) are declared valid and suitable for use as an instrument for measuring research data.

Reliability Test Results

Table 6. Case Processing Summary

		N	%
Cases	Valid	30	100,0
	Excluded ^a	0	,0
	Total	30	100,0

a. Listwise deletion based on all variables in the procedure.

Source: Analyze results from primary data

The output table above informs about the number of samples or respondents (N) analyzed in the software program, namely N, 30 respondents. Because there is no empty data (complete respondent answers), the valid number is 100%.

Table 7. Reliability Statistics

Cronbach's Alpha	N of Items
,952	5

Source: Analyze results from primary data

The output table above shows the Cronbach's Alpha value of 0.952. Because Cronbach's Alpha is $0.952 > 0.70$, then as is the basis for decision-making in the reliability test above, it can be

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concluded that the 58 questions on the questionnaire for variables are reliable or consistent.

Table 8. Reliability Test Results

Variable	Cronbach's Alpha	Criteria	Remark
Member Perception (X ₁)	0,937	0,7	Reliable
Service Quality (X ₂)	0,939	0,7	Reliable
Trust (X ₃)	0,937	0,7	Reliable
Organization Image (Y)	0,938	0,7	Reliable
Loyalty (Z)	0,954	0,7	Reliable

Source: Analyze results from primary data

Based on the "Cronbach's Alpha if Item Deleted" column in the table, it is known that the value for the 58 questionnaire items is > 0.70 . So, as is the basis for the decision-making above, we can also conclude that the questionnaire can be declared reliable or reliable as a data collection tool in this research.

Classic Assumption Test

The following are the results of the classic assumption test:

Normality Test

The following are the results of the normality test:

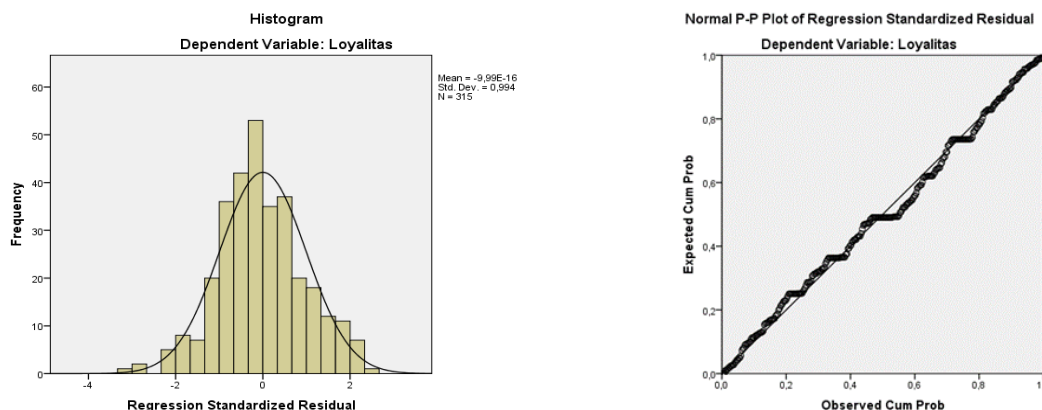


Figure 1 Normality Test

Source: Analyze results from primary data

In the picture above, the plotting data (distribution of data) can be recognized or detected by following the diagonal line of the histogram graph. As for the data spread around the diagonal line and following the direction of the diagonal line in the right image, the data can be said to be normally distributed. Furthermore, for the histogram graph in the image on the left, it can be said to be normal if the data distribution forms a bell shape, does not tend to lean to the right or vice versa nor does it lean to the left (Santoso, 2015: 43). From the graph, the histogram output image above forms a bell and does not lean to the right or left so that the histogram graph can be declared normal.

Multicollinearity Test

The following are the results of the multicollinearity test:

Table 9. Multicollinearity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	8,137	1,650		4,932	,000		
Member Perception	,616	,078	,521	7,921	,000	,256	3,910
Service Quality	,115	,053	,164	2,159	,032	,193	5,188
Trust	,067	,111	,050	,608	,544	,161	6,220
Organization Image	,118	,084	,118	1,408	,160	,158	6,344

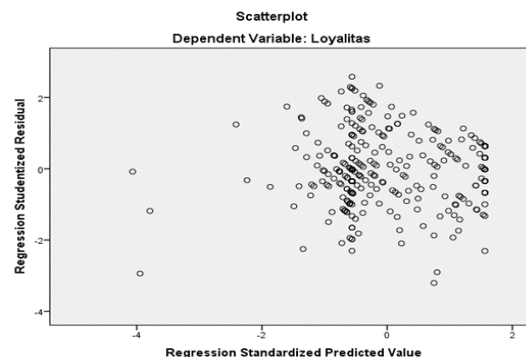
a. Dependent Variable: Loyalty

Source: Analyze results from primary data

The table above shows that the results of the multicollinearity test have been successful, where the results are taken from the coefficients table and all tolerance values are > 0.100 . All VIF values are < 10.00 , meaning that the data shows that there is no multicollinearity in the research data.

Heteroscedasticity Test

The following are the results of the heteroscedasticity test:


Figure 2 Heteroscedasticity Test

Source: Analyze results from primary data

Figure 4.2 shows that the points are spread randomly, both above and below the number 0 on the Y-axis. It can be concluded that heteroscedasticity does not occur in the regression model in this study.

Hypothesis Testing

Correlation Test

The following are the results of the autocorrelation test:

Table 10. Autocorrelation Test Results

		Perception Member	Service Quality	Trust	Organization Image	Loyalty
Member Perception	Pearson Correlation	1	,837**	,816**	,809**	,794**
	Sig. (2-tailed)		,000	,000	,000	,000
	N	315	315	315	315	315
Service Quality	Pearson Correlation	,837**	1	,851**	,859**	,744**
	Sig. (2-tailed)	,000		,000	,000	,000
	N	315	315	315	315	315
Trust	Pearson Correlation	,816**	,851**	1	,899**	,720**
	Sig. (2-tailed)	,000	,000		,000	,000
	N	315	315	315	315	315
Organization Image	Pearson Correlation	,809**	,859**	,899**	1	,725**
	Sig. (2-tailed)	,000	,000	,000		,000
	N	315	315	315	315	315
Loyalty	Pearson Correlation	,794**	,744**	,720**	,725**	1
	Sig. (2-tailed)	,000	,000	,000	,000	
	N	315	315	315	315	315

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Analyze results from primary data

1. Sig value. (2-Tailed) between member perceptions (X_1) and organizational image (Z) is $0.000 < 0.05$, and the calculated R-value of member perceptions (X_1) and organizational image (Z) is $0.809 > r\text{-table } 0.1109$. It can be concluded that there is a correlation between the member perception variable (X_1) and the organization's image (Z). In addition, the Sig value. (2-Tailed) between member perception (X_1) and loyalty (Y) is $0.000 < 0.05$, and the calculated R-value of member perception (X_1) and loyalty (Y) is $0.794 > R\text{-table } 0.1109$, which means there is a significant correlation between member perception variables (X_1) and loyalty (Y).
2. Sig value. (2-Tailed) between service quality (X_2) and organizational image (Z) is $0.000 < 0.05$. The calculated R-value of service quality (X_2) and organizational image (Z) is $0.859 > r\text{-table } 0.1109$; it can be concluded that there is a correlation between the member service quality variable (X_2) and the organization's image (Z). In addition, the Sig value. (2-Tailed) between service quality (X_2) and loyalty (Y) is $0.000 < 0.05$ and the calculated R-value of service quality (X_2) and loyalty (Y) is $0.744 > r\text{-table } 0.1109$. It can be concluded that there is a correlation between the service quality variable (X_2) and loyalty (Y).
3. Sig value. (2-Tailed) between trust (X_3) and organizational image (Z) is $0.000 < 0.05$, and the calculated R-value of trust (X_3) and organizational image (Z) is $0.899 > r\text{-table } 0.1109$. It can be concluded that there is a correlation between the trust variable (X_3) and organizational image (Z). In addition, the Sig value. (2-Tailed) between trust (X_3) and loyalty (Y) is $0.000 < 0.05$ and the R-calculated value of trust (X_3) and loyalty (Y) is $0.720 > r\text{-table } 0.1109$, so it can be concluded that there is a correlation between the trust variable (X_3) and loyalty (Y).
4. Sig value. (2-Tailed) between organizational image (Z) and loyalty (Y) is $0.000 < 0.05$ and the calculated R-value of organizational image (Z) and loyalty (Y) is $0.725 > R\text{-table } 0.1109$. It can be concluded that there is a correlation between the organizational image variable (Z) and loyalty (Y).

Multiple Regression Test

The following are the results of the multiple regression test:

Table 11. Results of Multiple Linear Regression Analysis of Member Perceptions, Service Quality, and Trust in Organizational Image (Model 1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4,346	1,089		3,990	,000		
Member Perception	,122	,052	,103	2,342	,020	,260	3,842
Service Quality	,202	,034	,287	5,907	,000	,214	4,664
Trust	,761	,061	,570	12,411	,000	,240	4,160

a. Dependent Variable: Organization Image

Source: Analyze results from primary data

Regression equation:

$$Z = 4,346 + 0,122 X_1 + 0,202 X_2 + 0,761 X_3 + e$$

Based on the formula model of the first multiple linear regression equation above and the analysis results for the partial test above, it can be explained as follows:

1. Constant of 4.346; This means that if members' perception (X_1), service quality (X_2), and trust (X_3), the value is 0, then the influence of organizational image (Z) is positive, namely 4.346.
2. The regression coefficient for the member perception variable (X_1) is 0.122; This means that if the member perception variable (X_1) increases by 1 unit and other variables remain constant or have a value of zero, then the organization's image (Z) will increase by 0.122. A positive coefficient means that there is a positive relationship between member perceptions and the organization's image, where the higher the member's perception, the more the organization's image will improve. The t-count value is 2.554 > t-table, namely 1.9676, the significance value is 0.020 < 0.05; and the effective contribution value (SE) is 8.3327%, which means that member perceptions have an influence of 8.3327% on the organization's image. Thus, in hypothesis 1 it can be concluded that members' perceptions have a partially positive and significant effect of 8.3327% on the image of the IAI organization in Tangerang Regency.

H1: Member perceptions have a partially positive and significant effect of 8.3327% on the image of the IAI organization in Tangerang Regency.

3. The regression coefficient for the service quality variable (X_2) is 0.202; This means that if the service quality variable (X_2) increases by 1 unit and other variables remain constant or have a value of zero, then the organization's image (Z) will increase by 0.202. A positive coefficient means that there is a positive relationship between service quality and organizational image, where the higher the service quality, the more the

organization's image will improve. The t-count value is $6.477 > t\text{-table}$, namely 1.9676; The significance value is $0.000 < 0.05$, and the Effective Contribution (SE) value is 24.6533%, which means that service quality has an influence of 24.653% on the organization's image. Thus, in hypothesis 2 it can be concluded that service quality has a partially positive and significant effect of 24.6533% on the image of the IAI organization in Tangerang Regency.

H2: Service Quality has a partial positive and significant effect of 24.6533% on the image of the IAI organization in Tangerang Regency.

4. The regression coefficient for the trust variable (X_3) is 0.761; This means that if the trust variable (X_3) increases by 1 unit and the other variables remain constant or have a value of zero, then the organization's image (Z) will increase by 0.761. A positive coefficient means that there is a positive relationship between trust and the organization's image, where the higher the trust, the more the organization's image will improve. The t-count value is $13.475 > t\text{-table}$, namely 1.9676; The significance value is $0.000 < 0.05$, and the effective contribution value is 51.5243%, which means that trust has an influence of 51.5243% on the organization's image. Thus, in hypothesis 3 it can be concluded that trust has a partially positive and significant effect of 51.5243% on the image of the IAI organization in Tangerang Regency.

H3: Trust has a partially positive and significant effect of 51.5243% on the image of the IAI organization in Tangerang Regency.

F-Test (Simultaneous)

The following are the results of the F statistical test in Table 4.2.3 as follows:

Table 12. Results of Model 1 F Test Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	7208,086	3	2402,695	553,949	,000 ^b
Residual	1348,929	311	4,337		
Total	8557,016	314			

a. Dependent Variable: Organization Image

b. Predictors: (Constant), Trust, Member Perception, Service Quality

Source: Analyze results from primary data

Value (F calculated) $553.949 > 2.6336$ (F table). So, from these data, it can be concluded that F Calculated is more excellent than F Table. These results indicate a significant simultaneous influence of the independent variable on the dependent variable in the model 1 regression equation.

Table 13 Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,918 ^a	,842	,841	2,083

a. Predictors: (Constant), Trust, Member Perception, Service Quality

b. Dependent Variable: Organization Image

Source: Analyze results from primary data

Based on the table above, the R-value is also called the correlation value which has a value of 0.918, which means there is a strong relationship between all variables. As for the size of the R Square, it is 0.842, meaning that the coefficient of determination has an impact and influence of 84.2% on the organization's image (Z). In comparison, other factors outside this research determine the remaining 15.8%. Thus, in hypothesis 4, it can be concluded that member perceptions, service quality, and trust simultaneously influence the image of the IAI organization in Tangerang Regency.

H4: Perception, Service Quality, and Trust simultaneously influence 84.2% on Organizational Image.

Table 14 Results of Multiple Linear Regression Analysis of Member Perceptions, Service Quality, and Trust in Member Loyalty (Model 2)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	8,650	1,612		5,367	,000		
Member Perception	,630	,077	,533	8,165	,000	,260	3,842
Service Quality	,139	,051	,197	2,745	,006	,214	4,664
Trust	,157	,091	,118	1,732	,084	,240	4,160

a. Dependent Variable: Loyalty

Source: Analyze results from primary data

The first multiple regression formula model is as follows:

$$Y = 8,650 + 0,630X_1 + 0,139X_2 + 0,157X_3 + e$$

Table 15 Member Perception of Effective Contribution Value (SE), Service Quality, and Trust in Member Loyalty (Model 2)

	Regression Coefficient (Beta)	Correlation	Result
Member Perception (X ₁)	0,533	0,794	42,3202 %
Service Quality (X ₂)	0,197	0,744	14,6568 %
Trust (X ₃)	0,118	0,720	8,496 %

Source: Analyze results from primary data

Furthermore, to compare the calculated t values (taken from the t values in Table 4.27), the results of data processing for the t-test for partial effects using the software program can be seen below:

Table 16. Results of Partial Test Analysis of Member Perceptions, Service Quality, and Trust in Member Loyalty (Model 2)

	T count	T table	Sig.	Criteria	Remark
Member Perception (X ₁)	8,165	1,9676	0,000	<0,05	Partial effect
Service Quality (X ₂)	2,745	1,9676	0,006	<0,05	Partial effect
Trust (X ₃)	1,732	1,9676	0,084	>0,05	No partial effect

Source: Analyze results from primary data

Based on the formula model of the second model multiple linear regression equation in table 4.2.6 and the analysis results for the partial test in table 4.2.7, it can be explained as follows: the above can be explained as follows:

1. Constant of 8.650; This means that if member perception (X_1), service quality (X_2), and trust (X_3), the value is 0, then the influence of member loyalty (Y) is positive, namely 8.650.
2. The regression coefficient for the member perception variable (X_1) is 0.630; This means that if the member perception variable (X_1) increases by 1 unit and the other variables remain constant or have a value of zero, then member loyalty (Y) will increase by 0.630. A positive coefficient means that there is a positive relationship between member perception and member loyalty, where the higher the member perception, the more member loyalty will increase. The t-count value is $8.165 > t\text{-table}$, namely 1.9676; The significance value is $0.000 < 0.05$, and the effective contribution value is 42.3202%, which means that member perceptions have an influence of 42.3202% on loyalty. Thus, in hypothesis 5 it can be concluded that member perceptions have a partially positive and significant effect of 42.3202% on the loyalty of IAI members in Tangerang Regency.

H5: Member perception has a partial positive and significant effect of 42.3202% on the loyalty of IAI members in the Tangerang Regency.

3. The regression coefficient for the service quality variable (X_2) is 0.139; This means that if the service quality variable (X_2) increases by 1 unit and other variables remain constant or have a value of zero, then member loyalty (Y) will increase by 0.139. A positive coefficient means that there is a positive relationship between service quality and member loyalty, where the higher the service quality, the more member loyalty will increase. The t-count value is $2.745 > t\text{-table}$, namely 1.9676; The significance value is $0.006 < 0.05$, and the value and effective contribution value is 14.6568%, which means that service quality has an influence of 14.6568% on loyalty. Thus, in hypothesis 6 it can be concluded that quality service has a positive and significant effect partially amounting to 14.6568% of the loyalty of members of the IAI organization in Tangerang Regency.

H6: Service quality has a partial positive and significant effect of 14.6568% on the loyalty of IAI members in the Tangerang Regency.

4. The regression coefficient for the trust variable (X_3) is 0.157;
5. This means that if the trust variable (X_3) increases by 1 unit and the other variables remain constant or have a value of zero, then member loyalty (Y) will increase by 0.157. A positive coefficient means a positive relationship between trust and member loyalty, where the higher the trust, the more member loyalty will increase. The t-count value is $1.732 < t\text{-table}$, namely 1.9676; The significance value is $0.084 > 0.05$, and the practical contribution value is 8.496%. Thus, in hypothesis 7, it is concluded that trust has an effect of 8.496% but is not partially significant on the loyalty of members of the IAI organization in Tangerang Regency.

H7: Trust has an effect of 8.496% but is not partially significant on the loyalty of IAI members in the Tangerang Regency.

Table 17 Results of Model 2 F Test Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5608,180	3	1869,393	196,824	,000 ^b
Residual	2953,807	311	9,498		
Total	8561,987	314			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Trust, Member Perception, Service Quality

Source: Analyze results from primary data

So, this means that the value (F calculated) is $196.824 > 2.6336$ (F table). So, from these data, it can be concluded that the F-Count is greater than the F-Table. These results indicate that there is a significant simultaneous influence of the independent variable on the dependent variable in the model 2 regression equation.

Table 18 Test Results for the Coefficient of Determination (R2) Model 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,809 ^a	,655	,652	3,082

a. Predictors: (Constant), Trust, Member Perception, Service Quality

b. Dependent Variable: Loyalty

Source: Analyze results from primary data

Based on the table above, the R-value is also called the correlation value, which has a value of 0.809, which means there is a strong relationship between all variables. As for the magnitude of R Square, it is 0.655, meaning that the coefficient of determination has an impact and influence of 65.5% on loyalty (Y). In comparison, other factors outside this research determine the remaining 34.5%. Thus, in hypothesis 8, it can be concluded that member perceptions, service quality, and trust simultaneously influence the loyalty of members of the IAI organization in Tangerang Regency.

H8: Perception, Service Quality, and Trust simultaneously have a 65.5% influence on Member Loyalty.

Table 19 Results of Multiple Linear Regression Analysis of Member Perceptions, Service Quality, Trust, and Organizational Image on Member Loyalty (Model 3)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	8,137	1,650		4,932	,000		
Member Perception	,616	,078	,521	7,921	,000	,256	3,910
Service Quality	,115	,053	,164	2,159	,032	,193	5,188
Trust	,067	,111	,050	,608	,544	,161	6,220
Organization Image	,118	,084	,118	1,408	,160	,158	6,344

a. Dependent Variable: Loyalty

Source: Analyze results from primary data

The second multiple regression formula model is as follows:

$$Y = 8,137 + 0,616 X_1 + 0,115 X_2 + 0,067 X_3 + 0,118 Z + e$$

Based on the formula model of the multiple linear regression equation, the third model above can be explained as follows:

1. Constant of 8.137; This means that if member perception (X_1), service quality (X_2), trust (X_3), and organizational image (Z) are 0, then the influence of loyalty (Y) is positive, namely 8.137.
2. The regression coefficient for the member perception variable (X_1) is 0.616; This means that if the member perception variable (X_1) increases by 1 unit and other variables remain constant or have a value of zero, then loyalty (Y) will increase by 0.616. A positive coefficient means that there is a positive relationship between member perception and loyalty, where the higher the member's perception, the more member loyalty will increase.
3. The regression coefficient for the service quality variable (X_2) is 0.115; This means that if the service quality variable (X_2) increases by 1 unit and other variables remain constant or have a value of zero, then loyalty (Y) will increase by 0, 0.115. A positive coefficient means that there is a positive relationship between service quality and loyalty, where the higher the service quality, the more member loyalty will increase.
4. The regression coefficient for the trust variable (X_3) is 0.067; This means that if the trust variable (X_3) increases by 1 unit and the other variables remain constant or have a value of zero, then loyalty (Y) will increase by 0.067. A positive coefficient means that there is a positive relationship between trust and loyalty, where the higher the trust, the more member loyalty will increase.
5. The regression coefficient for the organizational image variable (Z) is 0.118; This means that if the organizational image variable (Z) increases by 1 unit and other variables remain constant or have a value of zero, then loyalty (Y) will increase by 0.118. A positive coefficient means that there is a positive relationship between organizational image and loyalty, where the higher the organizational image, the more member loyalty will increase.

Table 20 Model 3 F Test Analysis Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5626,945	4	1406,736	148,580	,000 ^b
	Residual	2935,042	310	9,468		
	Total	8561,987	314			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Organization Image, Member Perception, Service Quality, Trust

Source: Analyze results from primary data

So, this means that the value (F calculated) is $148.580 > 2.4008$ (F table). So, from these data, it can be concluded that the F-Count is greater than the F-Table. These results indicate that there is a significant simultaneous influence of the independent variable on the dependent variable in the model 3 regression equation.

Table 21 Test Results for the Coefficient of Determination (R²) Model 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,811 ^a	,657	,653	3,077

a. Predictors: (Constant), Organization Image, Member Perception, Service Quality, Trust

b. Dependent Variable: Loyalty

Source: Analyze results from primary data

Path Analysis Results

To determine whether organizational image (Z) influences an intervening variable, a path analysis test can be carried out by knowing the magnitude of each variable's direct or indirect influence on loyalty. For this reason, it is necessary to understand the standardized beta coefficient value of organizational image on loyalty directly.

Table 22 The Influence of Organizational Image on Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	12,313	1,845		6,674	,000		
Organization Image	,725	,039	,725	18,617	,000	1,000	1,000

a. Dependent Variable: Loyalty

Source: Analyze results from primary data

So, the path analysis test can be described as below:

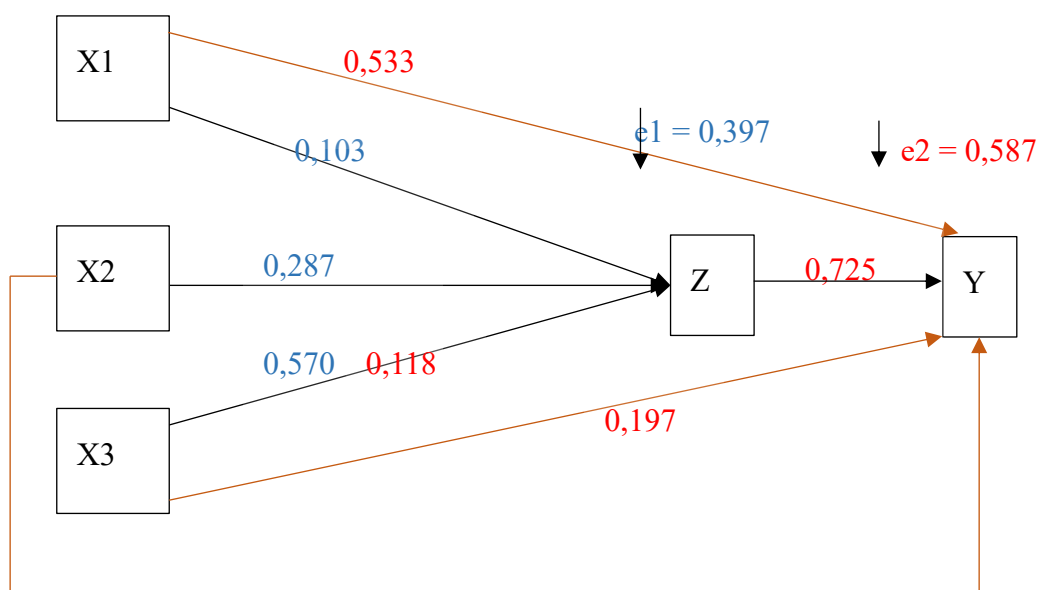


Figure 2. Path Analysis Test Results

Table 23 Results of Multiple Regression Equation Coefficients for Model 1 and Model 2

Description		Standardized Coefficients Beta = (p)	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error
Member perceptions of member loyalty	p1	0,533	0,630	0,077
Service quality to member loyalty		0,197	0,139	0,051
Trust in member loyalty		0,118	0,157	0,091
Member perceptions of the organization's image	p2	0,103	0,122	0,052
Service quality to the organizational image		0,287	0,202	0,034
Trust in the organization's image		0,570	0,761	0,061
Organizational image	p3	0,725	0,725	0,039

Table 24 Sobel Test Results

	t-count	Std. Error	p-value	Conclusion (t-count > t-table 1,9677 ; p-value < 0,05 = Z as intervening)
X ₁	2,324	0,03805	0,02	Z as intervening
X ₂	5,652	0,0259	0,00	Z as intervening
X ₃	10,349	0,0533	0,00	Z as intervening

Source: Analyze results from primary data

Thus, based on the results of the simultaneous multiple regression test model 3, path analysis test, and Sobel test above, it can be concluded that there is a simultaneous influence between member perception, service quality, and trust, on member loyalty through organizational image and it is known that organizational image influences a variable. intervening between member perceptions, service quality, and trust in the loyalty of IAI members in Tangerang Regency.

H9: Member Perception, Service Quality, and Trust simultaneously influence Loyalty through Organizational Image as an Intervener in the IAI Organization in Tangerang Regency.

4.2 Discussion

Member Perceptions Have a Partial Positive and Significant Influence of 8.3327% on the Image of the IAI Organization in Tangerang Regency.

This means that members' perceptions influence 8.3327% on the organization's image. This partial influence on members' perceptions is the smallest influence on the organization's image because the performance of IAI management is deemed not to have been felt directly by

members, and programs and activities are deemed not to meet members' needs.

The results of this research are in line with research conducted by Murniyanti, et. Al (2020) brands are increasingly famous because of consumer perceptions and beliefs about certain products which will create an image for the user.

Service Quality Partially Has a Positive and Significant Influence of 24.6533% on the Image of the IAI Organization in Tangerang Regency.

This means that the quality of IAI's organizational services has an influence of 24.6533% on the organization's image. This value is quite large because members think that the IAI management can provide the information their members need. The better the quality of IAI management's services, the better the organization's image.

The results of this research are in line with research conducted by Dam, S.M, & Dam, T.C (2021) and Afwan & Santosa (2021) which state that there is a positive and significant influence of product quality on the brand image that a company that wants to improve its brand image must focus on improving the quality of good service.

Trust has a partial positive and significant effect of 51.5243% on the image of the IAI organization in Tangerang Regency.

This means that the trust value of 51.5243% is the biggest influence on the organization's image. The results of this research are in line with research conducted by Siringoringo, R., & Kurniawan, P. H (2018) which states that there is an influence of trust on company image.

Member Perceptions, Service Quality, and Trust Simultaneously Have an Influence of 84.2% on the Organization's Image.

This means that member perceptions, service quality, and trust together greatly influence the organization's image, namely 84.2%. The remaining 15.7% is influenced by other variables.

Member Perceptions Have a Partial Positive and Significant Influence of 42.3202% on IAI Member Loyalty in Tangerang Regency.

Member perceptions have the greatest effective contribution to loyalty. This means that members' perceptions of IAI are excellent. The better the members' perception of IAI, the more their members' loyalty will increase.

Service Quality Partially Has a Positive and Significant Influence of 14.6568% on IAI Member Loyalty in Tangerang Regency.

This means that the better the quality of service provided by the management to its members, the greater the loyalty of its members. The service quality of the IAI organization is 14.6568% because the service is carried out through the SIAP (Pharmacist Information System) application which can be accessed anywhere. IAI Tangerang Regency also has a special team to help with problems with the SIAP application faced by its members.

This is in line with research conducted by Kuncio & Soepono (2019); Madyaratri., D.N. (2021); Devi, A.A.D.T & Yasa, N.N.K (2021); Pebrianti, N. K.R, & Asrida, P.D. (2022); Mahdi, M.F., & Wulandari, R. (2023); Dam, S.M, & Dam, T.C (2021) which states that positive or better service quality makes customers more loyal to the company.

Trust influences 8.496% but is not partially significant in the loyalty of IAI members in Tangerang Regency.

In this research, the results showed that trust has an influence on loyalty, but it is not significant/noticeable. This may have occurred because of historical abuse of authority regarding the making of SIPA recommendations by several IAI chairs in several regions, including Tangerang Regency.

Member Perception, Service Quality, and Trust Simultaneously Have an Influence of

65.5% on Member Loyalty.

This means that member perception, service quality, and trust have a joint effect on loyalty of 65.5%. This simultaneous influence is formed due to a combination of member perceptions with service quality and trust.

Member Perception, Service Quality, and Trust Simultaneously Influence Member Loyalty Through Organizational Image as Intervening in the IAI Organization in Tangerang Regency.

This means that member perception, service quality, and trust have a joint effect of 65.7% on member loyalty with the organizational image as intervening.

5. Conclusion

Based on the results of the analysis of the influence of member perception variables (X_1), service quality variables (X_2), and trust variables (X_3) on loyalty variables (Y) through organizational image (Z), several research conclusions can be obtained as follows:

1. Member perceptions have a positive and significant influence on the image of the IAI organization in Tangerang Regency. This means that every increase in members' perceptions of IAI will improve the image of the IAI organization in Tangerang Regency.
2. Service quality has a positive and significant effect on the image of the IAI organization in Tangerang Regency. This means that every improvement in service quality carried out by the IAI management will improve the image of the IAI organization in Tangerang Regency.
3. Trust has a positive and significant effect on the image of the IAI organization in Tangerang Regency. This means that every increase in trust will improve the image of the IAI organization in Tangerang Regency.
4. Member perceptions, service quality, and trust together (simultaneously) positively and significantly affect the organization's image. This means that every increase in member perception, service quality, and trust will simultaneously (simultaneously) improve the image of the IAI organization in Tangerang Regency.
5. Member perceptions have a positive and significant effect on IAI member loyalty in Tangerang Regency. This means that every increase in members' better perceptions of IAI will increase the loyalty of IAI members in the Tangerang Regency.
6. Service quality has a positive and significant effect on the loyalty of IAI members in Tangerang Regency. This means that every improvement in service quality carried out by the IAI management will increase the loyalty of IAI members in Tangerang Regency.
7. Trust does not have a significant effect on the loyalty of IAI members in Tangerang Regency. This means that any increase or decrease in the value of members' trust in IAI in Tangerang Regency does not affect the loyalty of IAI members in Tangerang Regency.
8. Member perception, service quality, and trust together (simultaneously) positively and significantly affect member loyalty. This means that every increase in member perception, service quality and trust together (simultaneously) will increase the loyalty of IAI members in Tangerang Regency.
9. Member perception, service quality, and trust together (simultaneously) have a positive and significant effect on member loyalty due to the intervening influence of the organization's image. This means that the organization's image plays a role in increasing member perceptions, service quality, and trust simultaneously to increase the loyalty of IAI members in Tangerang Regency. This is also proof that IAI, as a pioneer of the IAI organization, influences its image to increase member loyalty.

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The Performance of the Asset Management Companies in the US

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Abstract

This paper seeks to identify the factors that may affect the financial performance and stock return of Asset Management Companies (AMCs) in the United States. The study focuses on a sample of fifty listed AMCs and uses data for the four years 2019-2022. Financial performance is computed as Return on Assets, Return on Equity, and Return on Capital Employed. Stock return is calculated with monthly and annual stock price data. Liquidity, solvency, and efficiency factors are used as explanatory variables, along with the size of the companies. The results show that the financial performance is negatively related to the debts-to-assets ratio. The opposite relation is found for stock return. The impact of the debt-to-equity ratio on performance is positive. This is also the case for assets turnover, net cash flow-to-assets ratio, and size.

Keywords: Asset Management Companies, Performance, Liquidity, Solvency, Efficiency

JEL Classification Codes: G15, G23, M41

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1. Introduction

This study focuses on the performance of the Asset Management Companies (AMCs) that are publicly traded on the United States stock market. An AMC (or a money manager) is a firm that invests pooled funds received from clients in various investing tools including stocks, bonds, real estate, commodities, and more. AMCs manage a wide spectrum of funds including

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mutual funds, index funds, Exchange Traded Funds (ETFs), hedge funds, private equity funds, and pension plans. In addition, these companies serve a range of clients including retail investors, institutional investors, government organizations and other public sector entities, and high-net-worth clients, that is, an individual with a minimum net worth of one million dollars in highly liquid assets, such as cash and cash equivalents.

For doing so, AMC's receive fees from their clients, which are usually calculated as a percentage of a client's assets under management. The percentages of fees vary depending on the scale of assets under management, as well as the type of the management AMC's are required to apply. In this respect, AMC's usually charge lower fees for the passive index funds and ETF products they offer compared to the actively managed mutual funds and other options they put on the table for their clients. As an additional cost for the clients, some specialized AMC's, such as hedge funds, can charge fees for generating returns above a specified level or when beating a benchmark.

Along with the professional management, specialized expertise and advised investing based on thorough research and data analysis, the main benefits offered by AMC's are the variety of investing options and the potential for enhanced diversification, along with the possibility of buying professional services at lower prices due to the economies of scale that can be achieved by these companies. Individual investors acting on their own cannot usually achieve such diversification and economies of scale, while, at the same time, can be burdened by minimum investment requirements. The latter can be avoided when investing via an AMC.

Entrusting money in an AMC does not entail only benefits for those choosing to do so. One drawback of such a choice concerns the management fees mentioned above, which are collected annually no matter what the performance of an AMC has been during a year. Occasionally, these fees can become too high for investors. Another major issue relating to dealing with an AMC is inflexibility, which results from asset managers becoming too large, because managing large amounts of capital can create serious operational problems at times. Finally, there is the risk of underperforming a benchmark that is usually used for assessing the performance of an AMC. Underperformance combined with the flat fees can form a very unpleasant situation for clients.

The quality of services and other benefits provided by AMC's, as well as the costs and risks of investing through an AMC described above, are of interest to the clients of these companies. However, the prime interest of AMC's' owners and investors regards their financial performance and the return of their publicly traded stock shares (for those AMC's which are listed in a stock exchange). Usually, the higher the financial performance, the greater the expectation for a mighty dividend. On the other hand, the higher the stock price and return, the greater the capital gains that are to be realized.

In this study, we deal with the financial performance and stock return of the US-listed AMCs trying to identify the financial factors that can affect their performance. To the best of our knowledge, this is the first study to examine the financial performance of AMCs. The literature on AMCs (or money managers) mainly focuses on the returns they achieve to the benefit of their clients and the characteristics of managers which may contribute to greater and more persistent stock returns.

Lakonishok et al. (1992) concentrate on the delegated portfolio management of tax-exempt pension funds that invest heavily in equities and choose between outside managers to actively manage their portfolios. The results indicate that, on average, the managers of these funds achieve poor performance relative to a passive investment strategy. Clare et al. (2022) assess the impact of personal characteristics on manager skill and style, as well as performance persistence. They find that the experienced fund managers run portfolios with lower exposure to the market, size and momentum risk factors, especially when the managers have a stake in the funds they manage. They also show that the accumulated experience of managers can explain much of performance persistence. Cuthbertson et al. (2016) suggest that cross-sectional differences in manager characteristics concerning age, experience, education and gender can be relevant to performance. Aggarwal and Boyson (2016) focus on the performance of managers dealing with hedge funds trying to identify whether the gender of managers matters to performance. The empirical results show that, even though there are no inherent differences in skills between female and male managers, only the best performing female managers survive. In addition female managers are entrusted lower amounts of money compared to male managers.

The sample of our study includes fifty companies while the period under study spans from 2019 to 2022. Three types of financial performance are considered, namely, Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed. On the other hand, stock return is computed in monthly and annual frequencies. The explanatory variables used are the current ratio, which reflects the liquidity of a company; four solvency measures, including interest coverage, debt-to-assets ratio, equity ratio, and debt-to-equity ratio; and two metrics of efficiency, that is, assets turnover and the net cash flow-to-assets ratio. The size of companies is also taken into account.

The results reveal that the financial performance of the US-listed AMCs is negatively related to the debts-to-assets ratio. However, the stock return of the examined firms is positively associated with this ratio. Furthermore, the impact of the debt-to-equity ratio on financial performance is positive. This is also the case for assets turnover, net cash flow-to-assets ratio, and size, which affect both financial performance and stock return positively.

2. Literature Review

A plethora of studies have investigated firm performance, accentuating several factors that can affect it. Several studies focus on the relationship between financial performance and liquidity. Eljelly (2004) employs a sample of joint stock companies in Saudi Arabia to examine the relationship between profitability and liquidity. The current ratio and the measure of the cash conversion cycle express the latter. The results show that the current ratio is negatively related to firm performance. This finding is more evident in firms with high current ratios and longer cash conversion cycles.

Lazaridis and Tryfonidis (2006) investigated the relationship between corporate profitability and working capital management with a sample of 131 companies listed on the Athens Stock Exchange in Greece from 2001-2004. The results indicate a statistically significant relation between gross operating profit and the cash conversion cycle. Based on these findings, the authors conclude that managers can create profits for their companies by handling the cash conversion cycle correctly and keeping accounts receivables, accounts payables, and inventory at an optimum level.

Deloof studies the relationship between working capital management and corporate profitability for a sample of 1,009 large Belgian non-financial firms from 1992-1996. The cash conversion cycle is used to measure working capital management by considering the number of days accounts receivable, accounts payable, and inventories. The author finds that reducing the days of accounts receivable and inventories can increase corporate profitability.

Several newer studies assess the relationship between the cash conversion cycle and financial performance. Using data from 1,233 manufacturing firms in the United States, Kroes and Manikas (2014) show that changes in the cash conversion cycle do not affect financial performance. However, financial performance is affected by changes in the operating cash cycle. Gill et al. (2010) also investigate the relationship between working capital management and profitability using U.S. data. The sample of the study includes 88 firms that are listed on the New York Stock Exchange, and the period covered spans from 2005 to 2007. The findings reveal a statistically significant relationship between the cash conversion cycle and gross operating profit.

Outside the United States, Abuzayed (2012) investigates the impact of working capital management on firms' performance for a sample of firms listed in the Amman Stock Exchange in Jordan from 2000-2008. Based on the results, the cash conversion cycle positively affects profitability. Tahir and Anuar (2016) focus on 127 textile companies listed in the Karachi Stock Exchange during the period 2001-2012 and reveal that the average collection days, inventory days, net working capital, current assets to operating income, current assets to sales ratio, current liabilities to total assets harm return on assets. On the other hand, the accounts payable days, cash conversion cycle, net trade cycle, cash turnover ratio, current assets to total assets ratio, and current ratio are positively associated to profitability. Laghari et al. (2023) investigate

the impact of changes in cash flow measures on Tobin's Q using data from listed Chinese non-financial companies over the period 2018-2020. The results indicate that declines in cash flow measures and metrics bring significant positive improvements in the financial performance of firms, especially for companies with low leverage.

Finally, Drissi et al. (2023) examine the financial impact of the cash flow bullwhip during the COVID-19 crisis on the Moroccan companies from the Fast-Moving Consumer Goods (FMCG) Industry. The authors find that the impact by the cash flow bullwhip was greater for the small and medium-sized companies, as the instability in their cash flow conversion cycle increased their needs for working capital and limited their capacity to self-finance their operations.

In addition to the relationship between liquidity and firm performance, the impact of cash flow management on corporate profitability has been thoroughly examined too. Nwanyanwu (2015) focuses on Nigeria and examines the relationship between cash flow and corporate performance of 45 small and medium enterprises from the hospitality and media sectors of the country. By applying correlation analysis, the author accentuates a significantly strong positive relation between the cash flow position and net profits.

Ni et al. (2019) focus on the performance of the Taiwanese companies during the period 2005-2014. The findings show that inflows from financing activities and outflows to investing activities can enhance firm value. On the contrary, operating cash inflows are not related to the value of a firm. With data from Iran, Gheshlaghi et al. (2014) report that there is a significantly negative relationship of performance with investing cash flow but there is no relation between performance and cash flow from operational and financing activities.

Frank and James (2014) examine the relation between cash flow and performance in the food and beverages sector of Nigeria using a sample of six listed firms. The empirical results show that cash flow from operating and financing activities are positively related to performance. The opposite is the case about cash flow from investing activities. By focusing on the banking sector of Nigeria, Amah et al. (2016) reveal that operating cash flow has a strong positive impact on performance, while investing and financing cash flows have a negative but weak relationship with banks' performance.

Alslehat and Al-Nimer (2017) investigate the impact of cash flow from operating, investing and financing activities on the financial performance of 23 insurance companies in Jordan during the period 2009-2013 and find a significant relation of cash flow from operating and investing activities with firm performance. Finally, Rahman and Sharma (2020) examine whether proper cash flow management can increase financial performance. In particular, the effect of cash flow from operations on the financial performance of the insurance and manufacturing companies in Saudi Arabia is examined. The results show a positive and

significant association of return on assets and return on equity with cash flow from operating activities.

When it comes to the relationship between solvency and financial performance, Khidmat and Rehman (2014) examine 36 chemical companies from Pakistan over the period 2001-2009 and find that the solvency ratio, measured as the debt-to-equity ratio, has a negative and highly significant impact on return on assets and return on equity suggesting that when the debt to equity ratio increases, firm performance decreases. Similar result are provided by Supardi et al. (2016), Darmawan and Nurochman (2016) and Siska (2023). Nyabwanga (2013) examines the financial position of the listed small and medium companies in Kenya by focusing on their liquidity, solvency and profitability positions and using ratio analysis. The study uses data for the period 2009-2011. The findings show that the liquidity position of the examined is on average low, while their solvency is not good either. Furthermore, the results show that there is a significant impact of current ratio, quick ratio and debt to total assets ratio on return on assets. Meliani et al. (2021) examine whether solvency ratios are significantly related to the performance of the Indonesian listed food and beverage companies. The results do not establish such a significant relationship.

Going further, by examining the relationship of firm performance with audit quality and other explanatory variables, Khan et al (2021) show that assets turnover, that is the ratio of sales to total assets, affect corporate profitability in a positive way. Satrio (2022) also reports a positive relationship between financial performance and assets turnover. Such a relationship is also verified by Prakoso and Chabachib (2016). A positive relationship between corporate performance and firm size is also the case as evidenced by several studies such as those by Eljelly (2004), and Rompotis and Balios (2023).

3. Research Method

3.1 Data

Our study sample includes fifty listed AMCs having published financial statements over the four years 2019-2022. We note that companies with different accounting years have been excluded from the sample. Table 1 reports key accounting figures for the examined companies. The accounting figures presented concern current assets, total assets, current liabilities, total liabilities, equity, total revenue, Earnings Before Interest and Tax (EBIT), interest expense, Earnings Before Tax (EBT), and Net Cash Flow. The average terms of accounting figures over 2019-2022 are presented. In addition, data are presented in five clusters, each of which includes ten companies. Total assets have been used for the construction of clusters. The ten biggest companies in terms of assets are included in Cluster 1. The second ten biggest companies are included in Cluster 2 and so on.

Average current assets amount to \$12.5 billion. This amount captures 33% of average total assets. Average current liabilities amount to \$16.8 billion, or 51% of total liabilities. On the other hand, total liabilities (of \$32.7 billion) are about seven times the equity (of \$4.6 billion), indicating that the examined companies are heavily leveraged. Total revenue approximates \$2.7 billion. Average EBIT is positive at \$1 billion. Average interest expense amounts to \$130 million. Average EBT is equal to \$930 million. Finally, the average net cash flow is positive at \$122 million. With respect to clusters, all average terms follow a descending path when moving from Cluster 1 to Cluster 5 showing that all the reported accounting figures behave similar to total assets.

3.2 Definition of Variables

Three types of accounting/financial performance are used along with two types of stock return. Financial performance metrics include Return on Assets (ROA), Return on Equity (ROE), and Return on Capital Employed (ROCE). ROA is calculated as the fraction of PBT to total assets at the end of each year over the study period. ROE is computed as the ratio of PBT to total equity at year end. ROCE is calculated as the ratio of PBT to total assets minus current liabilities. Stock returns are computed in monthly and annual frequencies with data of the examined firms' share prices, which have been found on www.nasdaq.com.

Other variables used is current ratio (liquidity) and four solvency measures concerning interest coverage, debt-to-assets ratio, equity ratio and debt-to-equity ratio. Two measures of efficiency are used too. These measures are assets turnover and the net cash flow-to-assets ratio. Finally, the size of firms is considered. Current ratio is the fraction of current assets to current liabilities. Interest coverage is the fraction of EBIT to interest expense. Debt-to-assets is the ratio of total liabilities to total assets. Equity ratio is the fraction of equity to total assets. Debt-to-equity is the ratio of total liabilities to equity. Assets turnover is computed as the fraction of total revenue to total assets. Net cash flow-to-assets ratio is calculated by dividing net cash flow by total assets. Finally, the size of firms is measured as the logarithm of total assets.

Table 2 presents the average, median, minimum and maximum terms of the variables used in our empirical analysis. The average terms of ROA, ROE and ROCE are equal to 7.4%, 26.02% and 10.39%, respectively, indicating that the average financial performance of AMCs in the US over the period under study has been positive. This is also the case for monthly and annual stock returns, whose average terms are equal to 0.94% and 8.32%, respectively.

Regarding liquidity, the average current ratio is relatively high at 582%. The ability of AMCs to cover their liabilities from interests is very high at 30 times. The average debt-to-assets, equity, and debt-to-equity ratios are equal to 58%, 41%, and 319%. Liquidity and the first three solvency ratios are quite satisfactory, as liquidity ratios above 100%, high-interest coverage times, debt-to-assets ratio, and equity ratio above 20% to 30% are considered financially

healthy. Assets turnover approximates 21%, while the net cash flow efficiency ratio is low at 0.16%.

3.3 Empirical Analysis

In order to have a first hint about the relation of performance with liquidity, solvency, efficiency and size, we apply simple correlation analysis. This analysis aims at finding out whether a relationship exists between variables and defining the sign of that relationship. However, correlation does not entail causation, as a positive (or a negative) correlation between two variables does not automatically mean that one variable affects the other.

Whether a statistically significant relationship exists between the dependent variables, i.e., financial performance and stock return, and the explanatory factors of liquidity, solvency, efficiency, and size is gauged via the following regression model:

$$Pnce = \lambda_0 + \lambda_1 C.R. + \lambda_2 In.Cov. + \lambda_3 D.A. + \lambda_4 E.R. + \lambda_5 D.E. + \lambda_6 A.T. + \lambda_7 NCFA + \lambda_8 Size + u$$

where Pnce is the performance of AMCs expressed as ROA, ROE, ROCE, monthly stock return and annual stock return. C.R. is the current ratio. In.Cov. refers to interest coverage. D.A. is the debt-to-assets ratio. E.R. is the equity ratio. D.E. is the debt-to-equity ratio. A.T. is assets turnover. NCFA is the net cash flow-to-assets ratio. Size is the logarithm of total assets. The model is applied with panel data for the period 2019-2022.

Liquidity shows the ability of a firm to meet its short-term obligations (Utami and Pardawati, 2016) without jeopardizing its operation as a going concern. According to Zygmunt (2013) and Wiyono and Se (2012), the importance of liquidity to the performance of a company may determine its level of profitability. Based on this analysis, the coefficient of the liquidity ratio in model (1) should be positive. However, if the current ratio is too high, entailing that there are idle funds that might cause the profitability of a company to decrease, the coefficient of the current ratio could be negative. Given that the average current ratio of the examined AMCs is too high at 582% (as discussed above), a negative estimate of the current ratio will not be a surprise.

A high interest coverage indicates that a company makes enough earnings before interest and taxes to meet the financial cost of its debt. Such an ability entails that a company can have easy, and possibly cheap, access to external funding to finance projects and investments that can boost its financial performance and stock return. According to this analysis, the coefficient of the interest coverage factor in model (1) is expected to be positive.

Debt-to-asset is a solvency ratio that shows the portion of a company's assets provided by third parties. A low debt-to-assets ratio indicates high solvency for a company, while the higher this ratio, the higher the financial risk faced by the company. Potentially, a high debt-to-assets ratio can affect the financial performance of a company in a negative way. In fact, Darmawan and

Nurochman (2016) and Yameen et al. (2019) report a negative relationship between debt-to-assets (leverage) and financial performance. Consequently, the estimate of the debt-to-assets ratio in model (1) is expected to be negative.

Equity ratio shows the portion of a company's assets that is funded by equity as opposed to debt. The higher the ratio, the healthier the company from a financial perspective. In other words, the equity ratio is a measure of a company's capital adequacy and indicates its strength and stability. Empirical studies, such as that by Olalekan and Adeyinka (2013), reveal a positive and statistically significant relation between capital adequacy and the profitability of a company. Thus, the sign of the equity ratio coefficient in model (1) should be positive.

The debt-to-equity ratio indicates how much a company is funded by debt. The higher the ratio, the more debt a company has on its books. Due to the higher debt, the probability of default increases. Such an increased likelihood of default bears a negative influence on performance. From an empirical perspective, Lombardi et al. (2022) report a negative relationship between profitability and debt to capitalization for companies operating in the healthcare sector of the United States. Based on this analysis, the coefficient of the debt-to-equity ratio in model (1) should be negative.

The assets turnover ratio measures the value of a firm's revenue relative to the value of its assets and can be used as an indicator of the firm's ability to use its assets to generate revenue. Empirical literature has shown that assets turnover is positively related to firm performance (e.g., Khan et al., 2021). Thus, the coefficient of assets turnover in model (1) is anticipated to be positive and statistically significant.

Net cash flow is a profitability metric that represents the amount of money produced or lost by an entity over a period, while the net cash flow-to-assets ratio shows the cash a company can generate about its size. The higher this ratio, the more efficiently a firm manages its assets. A company's asset management techniques' increased efficiency can boost its performance. In fact, Rompotis (2024) finds a positive and statistically significant relationship between the net cash flow-to-assets ratio and financial performance. This analysis entails that the coefficient of the net cash flow-to-assets ratio in the model (1) will be positive.

Finally, the company's size reflects its ability to produce goods and services more cheaply compared to smaller firms due to its greater cumulative experience and knowledge, as well as the ability of the company to achieve economies of scale by spreading its fixed costs over a greater amount of production. The existing empirical literature provides mixed evidence on the relation between size and firm performance. Several studies, such as those by Gleason et al. (2000), Zeitun and Tian (2007), Asimakopoulos et al. (2009), Doğan (2013), and Vu et al. (2019), reveal a positive impact on firm performance by size. Other studies, including those by Becker-Blease et al. (2010) and Banchuenvijit (2012), report an opposite impact. Based on these mixed results, we have no clear expectation about the sign of size in model (1).

4. Results and Discussion

The Pearson correlation coefficients are reported in Table 3. In the case of ROA, the correlation estimates with current ratio and debt-to-assets ratio are negative at -0.11 and -0.24, respectively. The correlation with the rest explanatory variables are positive. In the case of ROE, except for the debt-to-assets ratio, all other correlations are positive. Going further, ROCE is negatively correlated to current, debt-to-assets, and equity ratios and positively related to interest coverage, debt-to-equity ratio, assets turnover, net cash flow-to-assets ratio and size. Finally, both monthly and annual stock returns are negatively related to equity ratio and positively correlated to the rest variables.

The results of model (1) on the financial performance and stock return of the examined AMCs are presented in Table 4. The table reports the estimates of explanatory variables, t-statistics on the significance of estimates, along with R-squared values and F-statistics, which evaluate the overall significance of the applied regression models.

With respect to liquidity, four out of five estimates are slightly negative and just one is slightly positive. However, only the coefficient of ROE is statistically significant. This negative significantly negative coefficient may be the result of the very high average current ratio detected in Table 2, which might reflect idle money that could be used more efficiently by the examined AMCs.

When it comes to the solvency ratios, interest coverage does not seem to affect performance at all. The coefficient of the debt-to-assets ratio is significantly negative in the case of ROE and significantly positive in the case of monthly and annual stock returns. The latter finding is not new in the literature. A similar positive relation between stock returns and debt-to-assets ratio is reported by Nurhikmawaty et al. (2020) among other studies.

The equity ratio has no statistically significant relationship with firm performance and stock return. On the other hand, the debt-to-equity ratio is positively related to financial performance. The relevant estimates of ROA, ROE and ROCE are positive and statistically significant. The respective estimates of stock returns are positive too but insignificant. This finding contradicts our expectations about a negative impact on performance by the debt-to-equity ratio.

The impact of assets turnover on the performance of the examined US-listed AMCs is found to be positive, confirming our expectations. For all performance measures, the coefficients of the assets turnover factor are positive and statistically significant. Similar results are obtained on the net cash flow-to-assets ratio. All the relevant estimates are positive. In addition, with the exception of ROCE, these estimates are statistically significant at 10% or better. Finally, the estimates of size are all positive and significant, indicating that the size of AMCs can help them achieve better financial performance and higher stock returns.

With respect to the validity of the applied models, the corresponding R-squared values and F-statistics indicate that our model is quite capable of explaining the financial performance and the stock return of the publicly traded AMCs in the United States. R-squared values range from 0.60 to 0.74, in the case of ROA, ROE and ROCE, and from 0.19 to 0.21 in the case of stock returns. F-statistics behave in the same way.

5. Conclusion

The financial performance and stock return of the US-listed Asset Management Companies during the period 2019-2022 are examined in this study with a sample of fifty companies. Various measures of performance are employed, including ROA, ROE, ROCE, and monthly and annual stock returns. In addition, several financial factors are assessed as the determinative forces of performance concerning the liquidity, solvency, efficiency and the size of the examined corporations. From a methodological perspective, simple correlation analysis is performed along with panel data regression analysis.

The empirical results reveal a weak negative relationship between performance and liquidity. This finding contradicts the common belief that companies with high liquidity can comfortably meet their obligations to vendors, lenders and other third parties, having at the same time the necessary cash to finance profitable investments and projects that can boost their financial performance. However, an extremely high cash availability might entail that a company does not use its money in the most possible efficient way and, as a corollary, its performance might be decelerated. Given that the AMCs in our sample present too high an average current ratio, the respective negative coefficient of liquidity might result from inefficiencies in the cash management policies adopted by the examined firms.

In regard to the solvency ratios, only the debt-to-assets and the debt-to-equity ratios bear a statistically significant impact of performance. In particular, the debt-to-assets ratio affects ROE in a negative way, while the impact of this ratio on monthly and annual stock returns is positive. Moreover, the debt-to-equity ratio is positively related to performance.

When it comes to the measures of operating efficiency, the results accentuate a strong positive relation of performance with assets turnover and the net cash flow-to-assets ratio. This is also the case for the size factor.

Overall, our study is a first attempt to identify some of the factors that can affect the financial performance and the stock return of the Asset Management Companies by considering the perspective of their owners and investors. An obvious expansion of our research would include AMCs from Europe and other continents. Additional variables could be considered too, indicatively including governance characteristics, demographical features of the board members, and the policies applied by AMCs towards conducting sustainable business.

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Table 1: Accounting Figures

Clusters	Current Assets	Assets	Current Liabilities	Total Liabilities	Equity	Revenue	EBIT	Interest Expense	EBT	Net Cash Flow
<i>Cluster 1</i>										
Average	58,048,538,550	174,961,118,625	83,115,846,125	156,532,458,000	18,138,330,575	10,639,178,475	4,169,149,175	468,765,325	3,567,043,850	554,590,300
Median	18,966,012,500	162,230,975,000	11,597,777,875	152,712,725,500	14,522,712,500	11,823,089,375	3,381,125,000	213,287,875	2,954,937,500	349,812,500
Min	520,250,000	18,585,500,000	102,950,000	10,319,000,000	5,287,500,000	1,380,000,000	1,249,500,000	0	890,750,000	-80,475,000
Max	216,308,000,000	425,340,500,000	364,403,000,000	382,430,250,000	42,763,000,000	16,791,500,000	7,066,911,000	2,333,250,000	6,693,500,000	2,685,964,500
<i>Cluster 2</i>										
Average	3,728,164,350	8,793,009,275	760,977,675	5,351,775,600	3,187,068,025	2,011,922,275	914,782,825	125,161,125	789,621,700	43,375,100
Median	926,862,500	7,569,062,500	346,186,500	2,370,970,875	2,335,311,125	1,476,600,000	552,812,500	87,464,625	429,137,500	50,850,000
Min	110,964,750	3,253,578,250	0	1,616,124,750	758,034,000	196,986,000	175,300,250	0	114,292,250	-70,562,000
Max	15,423,988,000	18,026,750,000	4,556,625,000	15,777,991,250	8,167,825,000	6,496,225,000	3,028,075,000	346,541,250	3,028,075,000	180,800,000
<i>Cluster 3</i>										
Average	299,783,825	2,253,114,075	189,502,975	1,154,210,250	1,084,551,475	501,511,875	221,024,225	35,527,900	185,496,300	17,935,875
Median	153,800,500	2,129,904,500	56,174,000	1,176,529,375	1,003,357,750	178,376,875	156,240,125	38,925,500	100,244,250	18,371,750
Min	49,989,250	1,751,908,750	13,890,250	440,902,250	779,379,000	91,337,500	70,348,750	0	37,343,750	-14,170,000
Max	1,365,839,750	2,982,484,750	942,720,750	1,630,469,750	1,823,318,000	1,810,822,250	626,409,750	58,325,500	625,772,000	55,279,250
<i>Cluster 4</i>										
Average	136,780,650	855,086,400	107,476,875	478,126,375	340,279,675	206,722,200	94,981,925	15,120,650	79,861,250	-6,119,975
Median	85,846,750	851,023,000	28,036,750	428,704,375	285,441,500	61,943,500	43,272,625	17,067,250	27,035,375	2,858,875
Min	31,207,000	544,593,250	8,792,000	55,986,750	81,900,000	19,104,500	18,498,250	230,500	6,025,750	-56,075,000
Max	362,925,000	1,132,059,000	548,775,000	905,225,000	905,667,000	969,116,750	386,130,500	26,500,000	375,487,250	13,579,250
<i>Cluster 5</i>										
Average	93,231,600	312,620,425	57,062,975	148,983,775	155,286,950	98,495,050	36,346,200	5,295,175	31,051,025	1,471,300
Median	61,876,875	290,352,500	12,551,750	153,386,500	152,162,750	43,028,125	22,511,125	419,375	15,826,375	-2,206,375
Min	12,280,000	63,721,000	2,846,750	9,171,000	54,550,000	3,539,250	-6,738,750	0	-19,102,000	-8,125,500
Max	376,938,500	527,941,500	267,877,250	350,504,000	256,052,250	497,276,000	189,944,250	17,294,250	189,944,250	39,676,500
<i>Sample</i>										
Average	12,461,299,795	37,434,989,760	16,846,173,325	32,733,110,800	4,581,103,340	2,691,565,975	1,087,256,870	129,974,035	930,614,825	122,250,520
Median	213,997,000	2,129,904,500	84,183,000	1,176,529,375	918,341,125	243,769,375	193,101,125	18,586,875	145,448,750	8,007,875
Min	12,280,000	63,721,000	0	9,171,000	54,550,000	3,539,250	-6,738,750	0	-19,102,000	-80,475,000
Max	216,308,000,000	425,340,500,000	364,403,000,000	382,430,250,000	42,763,000,000	16,791,500,000	7,066,911,000	2,333,250,000	6,693,500,000	2,685,964,500

Note 1: The accounting figures presented in this table are the mean terms of the annual figures over the period 2019–2022 found in the relevant published financial statements.

Note 2: Total assets have been used for the construction of clusters. Each cluster includes 10 companies. Cluster 1 contains the first 10 biggest companies in terms of assets, Cluster 2 contains the second 10 biggest companies in terms of assets and so on.

Note 3: EBIT = Earnings Before Interest and Tax; EBT = Earnings Before Tax

Table 2: Regression Variables

Clusters	ROA	ROE	ROCE	Monthly Stock Return	Annual Stock Return	Current Ratio	Int. Cover. (times)	Debt-to- Assets	Equity Ratio	Debt-to- Equity	Assets Turnover	NetCF-to- Assets
<i>Cluster 1</i>												
Average	3.91	26.32	7.32	1.44	16.77	1,245.96	10.76	82.11	18.05	1,025.08	9.68	0.38
Median	2.53	17.26	7.40	1.32	13.05	93.75	7.11	90.55	11.04	922.83	6.39	0.16
Min	0.99	9.82	0.99	0.26	1.62	43.66	0.00	55.52	3.24	123.69	3.76	-0.23
Max	16.45	76.31	20.52	2.78	40.12	10,724.89	33.47	96.76	44.90	3,106.14	30.62	1.58
<i>Cluster 2</i>												
Average	8.08	23.23	8.56	1.23	13.87	456.14	7.45	56.26	40.98	306.33	20.30	0.36
Median	5.71	19.14	5.91	0.82	9.70	267.33	3.59	56.05	42.03	138.97	15.79	0.35
Min	2.98	6.69	1.73	-0.55	-15.86	0.00	0.00	16.19	7.48	21.42	6.05	-1.97
Max	27.44	47.56	29.01	3.32	47.38	1,911.66	38.02	89.15	74.12	1,216.16	58.87	2.30
<i>Cluster 3</i>												
Average	8.34	15.69	9.57	0.74	4.88	447.32	102.55	51.17	48.17	115.95	23.04	0.85
Median	3.89	8.55	5.22	0.77	3.29	249.41	2.82	55.09	44.99	122.66	7.66	0.83
Min	1.77	4.15	1.87	-0.23	-6.73	6.60	0.00	19.47	37.38	24.21	4.68	-0.69
Max	27.64	34.44	32.53	2.58	36.05	1,476.09	996.42	62.34	80.52	171.62	79.98	2.62
<i>Cluster 4</i>												
Average	7.97	49.97	14.45	0.93	5.75	279.71	16.76	56.44	40.10	33.25	20.77	-0.49
Median	3.43	8.03	3.59	0.76	3.24	242.51	2.97	57.97	40.74	136.78	7.77	0.32
Min	1.11	2.74	0.47	0.05	-6.53	66.13	1.57	5.19	4.96	-1,083.11	1.77	-5.56
Max	33.17	268.89	75.48	2.31	24.38	708.50	104.35	89.80	84.76	418.13	85.61	1.49
<i>Cluster 5</i>												
Average	8.72	14.89	12.03	0.36	0.33	482.60	11.74	42.28	56.09	112.04	30.45	-0.29
Median	4.43	7.05	5.59	0.65	3.17	330.73	0.96	43.52	50.00	86.91	11.84	-1.07
Min	-6.30	-19.90	-5.97	-2.44	-31.05	16.15	-0.72	7.78	25.70	8.56	4.25	-4.66
Max	39.63	77.47	59.93	1.90	23.89	1,602.23	65.74	75.14	92.19	307.07	103.76	8.28
<i>Sample</i>												
Average	7.40	26.02	10.39	0.94	8.32	582.35	29.85	57.65	40.68	318.53	20.85	0.16
Median	3.75	10.60	5.42	0.82	5.69	250.33	3.13	56.95	41.56	138.07	7.78	0.18
Min	-6.30	-19.90	-5.97	-2.44	-31.05	0.00	-0.72	5.19	3.24	-1,083.11	1.77	-5.56
Max	39.63	268.89	75.48	3.32	47.38	10,724.89	996.42	96.76	92.19	3,106.14	103.76	8.28

Note 1: The financial ratios in this table are the mean terms of the annual figures over the period 2019–2022 and have been created by the author with data found in the relevant published financial statements.

Note 2: Stock returns have been calculated with share prices found on www.nasdaq.com.

Note 3: Total assets have been used for the construction of clusters. Each cluster includes 10 companies. Cluster 1 contains the first 10 biggest companies in terms of assets, Cluster 2 contains the second 10 biggest companies in terms of assets and so on.

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Table 3: Correlations

	ROA	ROE	ROCE	Monthly Stock Return	Annual Stock Return	Current Ratio	Interest Coverage	Debt-to- Assets	Equity Ratio	Debt-to- Equity	Assets Turnover	NetCF- to-Assets	Size
ROA	1.00	0.10	0.86	0.28	0.31	-0.11	0.31	-0.24	0.17	0.23	0.85	0.05	0.13
ROE		1.00	-0.32	0.14	0.15	0.03	0.04	-0.08	0.06	0.60	0.04	0.29	0.11
ROCE			1.00	0.22	0.24	-0.11	0.21	-0.03	-0.04	0.38	0.77	0.10	0.10
Monthly Return				1.00	0.95	0.01	0.02	0.15	-0.16	0.14	0.10	0.18	0.15
Annual Return					1.00	0.02	0.03	0.18	-0.19	0.16	0.12	0.15	0.19
Current Ratio						1.00	-0.03	0.13	-0.12	0.30	-0.10	0.09	0.13
Interest Coverage							1.00	-0.25	0.26	-0.07	0.34	0.04	-0.03
Debt-to-Assets								1.00	-0.99	0.45	-0.28	0.00	0.59
Equity Ratio									1.00	-0.45	0.19	-0.01	-0.59
Debt-to-Equity										1.00	-0.25	0.15	0.55
Assets Turnover											1.00	0.00	-0.23
NetCF-to-Assets												1.00	0.07
Size													1.00

Table 4: Performance Regression Results

	Dep. Var.: ROA	Dep. Var.: ROE	Dep. Var.: ROCE	Dep. Var.: Mon Stock Ret	Dep. Var.: An Stock Ret
Constant	-5.39	***284.95	-23.65	-3.23	-78.97
T-statistic	(-0.30)	(1.82)	(-0.76)	(-0.56)	(-1.08)
Current Ratio	0.00	**0.01	0.00	0.00	0.00
T-statistic	(-0.74)	(-2.45)	(1.50)	(-0.45)	(-0.95)
Interest Coverage	0.00	-0.03	0.00	0.00	0.00
T-statistic	(0.37)	(-1.38)	(-0.01)	(-0.22)	(-0.26)
Debt-to-Assets	-0.09	***-2.31	0.13	***0.14	***0.21
T-statistic	(-0.55)	(-1.68)	(0.46)	(1.68)	(1.73)
Equity Ratio	-0.07	-0.90	-0.08	0.01	0.36
T-statistic	(-0.40)	(-0.69)	(-0.27)	(0.26)	(0.58)
Debt-to-Equity	***0.00	*0.12	*0.01	0.00	0.00
T-statistic	(1.93)	(3.36)	(3.33)	(0.84)	(0.95)
Assets Turnover	*0.34	***0.12	*0.52	**0.02	**0.30
T-statistic	(11.20)	(1.69)	(9.36)	(1.99)	(2.52)
NetCF-to-Assets	***0.07	**2.46	0.14	**0.05	**0.63
T-statistic	(1.65)	(2.55)	(0.69)	(2.35)	(2.15)
Size	**0.62	*6.49	**0.98	***0.10	***2.01
T-statistic	(2.50)	(2.09)	(2.55)	(1.70)	(1.65)
R-squared	0.74	0.60	0.73	0.19	0.21
F-Statistic	*66.31	*36.09	*65.59	**2.22	*2.77
Prob (F-statistic)	(0.00)	(0.00)	(0.00)	(0.03)	(0.01)
* Statistically Significant at 1%; ** Statistically Significant at 5%; *** Statistically Significant at 10%.					

The Effect of Digital Transformation on University Brand Image with Ownership as a Moderating Variable

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Abstract

The digital era demands transformation from universities, including private ones. However, the effectiveness of digital transformation on university brand image can be strengthened by ownership. This research investigates the impact of digital transformation on the university's brand image, with ownership as a moderating variable. Using random sampling, we analyzed 45 private universities affiliated with Private Universities in Indonesia Region 2A. This exploratory study employed a quantitative method. The results indicate a significant positive relationship between digital transformation and university brand image, suggesting an enhancement of the university's reputation in the eyes of the public. However, the study also reveals that ownership does not mediate the relationship between digital transformation and university brand image. This suggests that each university may have different Ownership Competencies, especially in decision-making regarding digital transformation. The conclusion of this research indicates that digital transformation affects university brand image. However, specifically in the case of universities in LLDIKTI Region 2, ownership does not moderate the effects of digital transformation on university brand image. It is recommended that this research be continued using mixed methods to explore ownership moderation or test it in other regions' universities.

Keywords: Digital Transformation, University Brand Image, Ownership. Private University

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1. Introduction

The era of globalization has ushered in significant changes across various facets of life, including Healthcare Industries, Lifestyle also Education. As Digital transformation is no longer an option but a necessity for sustainability in an interconnected and complex world. The application of digital technology is inseparable from the concepts of "Digital or Die" and "Digital or Drown," emphasizing the pivotal role of digital transformation in every industry. This holds for education (Albanese & Brian, 2016). The International Association of Universities (IAU) prioritizes digital transformation as a strategic goal for global higher education development. The COVID-19 pandemic has accelerated digital transformation in higher education, making consistent efforts essential to support the United Nations Goals 2030, specifically Sustainable Development Goal (SDG) 4 on quality education ((International Association of Universities, 2022), and (UNESCO, 2022)). Nowadays, Universities worldwide are compelled to compete globally to improve their high-quality academic services. The quality of academic services encompasses academic, educational, and learning aspects (Harahap et al., 2020). To improve the quality of academic services in a digital economy era, any institution should follow the digital trend; that digital trend will lead the academic institution to enhance its reputation in this era of digital and impact its competitive advantage (Alenezi, 2021).

Organizational reputation is an assessment made by stakeholders regarding an organization's ability to meet their expectations. Reputation is multifaceted, considering organizational performance, products or services offered, and relationships with stakeholders (Arsita & Denovis, 2021). Interestingly, the reputation and prestige of educational institutions take precedence over their actual quality. This phenomenon occurs because society often judges from external factors, such as university rankings, the success of alumni, or facilities, without precise knowledge of the education quality provided by the institution (Lusianti & Santoso, 2023). According to the National Accreditation Agency for Higher Education (BAN-PT), accreditation plays a vital role in improving the quality of study programs in higher education institutions. Program accreditation serves as the soul of quality assurance in higher education, whether conducted internally through the Internal Quality Assurance System (SPMI) or externally through the External Quality Assurance System (SPME). The mandate to conduct accreditation is stipulated in Law Number 12 of 2012 concerning Higher Education (UU DIKTI), emphasizing that accreditation assessments align with criteria based on the National Standards for Higher Education (SN DIKTI) (Article 55).

In Asia Pacific, including Indonesia, a university reputation becomes a very important thing. The Latest QS University survey in 2018 highlighted that 29% of prospective students in the Asia Pacific region (including Indonesia) considered the reputation of an institution as a top motivation for choosing a university (Sharifah et al., 2020). It is also confirmed by (Gunarto & Gaffar, 2016) that to increase the university's reputation, a university must ensure that the quality of services and facilities meets university standards and aligns with student preferences in order to be chosen by the students. Another perspective by Harahap et al. (2020) is that two kinds of higher education nowadays face some challenges to private and public state universities. Especially in private universities, because their amount is bigger than private universities, their competition is more rigorous in order to be chosen by future students.(Gunarto, 2016)

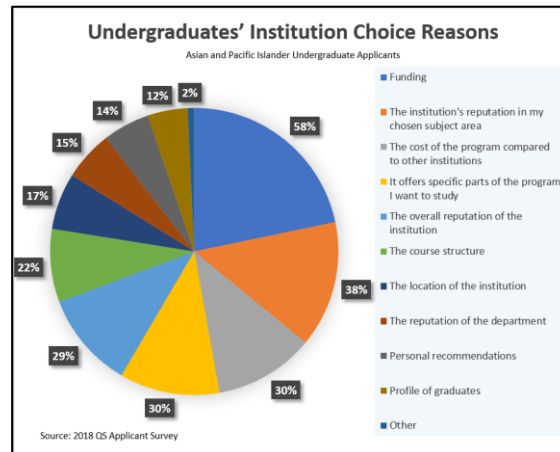


Figure 1 Student Motivation Data in Choosing a University
Source: ((Sharifah Kamariah Binte Sharomsah, 2020))

The growing competition among private universities is significant, with 3,107 universities in Indonesia in 2022, where 2,982 are private institutions and 125 are public universities (katadata.co.id, 2023). The Indonesian Private Higher Education Association, namely Private Higher Education Institutions in Indonesia Region 2A, is a crucial organization supporting and advocating for private universities nationwide, with over 3,000 member institutions and regional chapters in various Regions. Private Higher Education Institutions in Indonesia Region 2A offer various services, from representing private universities to the government to providing capacity-building and networking opportunities. are an effort to build a good brand image of an institution.

Notably, Private Higher Education Institutions in Indonesia Region 2A champions quality standards in private higher education through initiatives like the Quality Assurance Framework and Awards, contributing to improved accreditation rates and teaching quality. By supporting private universities in various ways, Private Higher Education Institutions in Indonesia Region 2A strengthen the entire private higher education sector and its valuable contribution to Indonesia's education landscape. One of the reputable regions in Private Higher Education Institutions in Indonesia Region 2A. Most university members are accredited by the National Accreditation Agency for Higher Education; as of September 11, 2023, there were 178 private universities listed. In Private higher Education Institutions in Indonesia Region 2A, there are seven private universities in LLDIKTI Region 2A, affiliated and indexed on Uni Rank (Unirank, 2023). That condition showed that Private Higher Education Institutions in Indonesia Region 2A members are competing and enriching their reputation by reaching the ranking. Private Higher Education Institutions in Indonesia Region 2A also become the research object in this research.

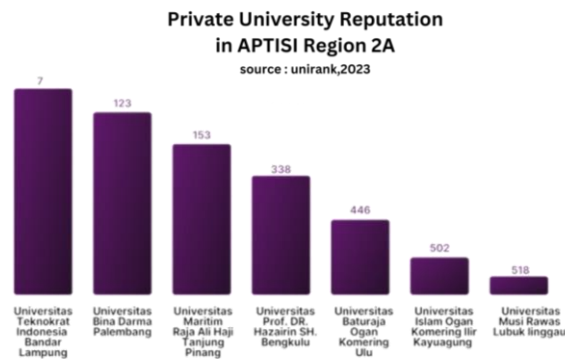


Figure 2 Reputation Data for Private Universities in Private Higher Education Institutions in Indonesia Region 2A. source: Unirank,2023

A Superior competitiveness can elevate the quality of private universities to become sought-after institutions. Competitive strategies, particularly generic or general, can be effective for private universities. As cited by Abdillah et al. (2021) suggest that the combination of segmentation and product differentiation strategies is most effective for adapting a company's product strategy to the target market's characteristics.

Ownership positively correlates with Digital Transformation. Ownership is related to who owns and controls a university and how it can meet the needs and expectations of various stakeholders such as students, faculty, alumni, and the community. Universities with transparent ownership are better equipped to address issues and provide solutions to problems ((Foss et al., 2021). Meanwhile, reputation, as part of brand image, plays a crucial role in universities (Mirzai et al., 2016).

The researcher reviewed the literature and adopted several theories related to Digital Transformation on University Brand Image. Factors influencing Digital Transformation in Universities (Tungpantong et al., 2022), Ownership as a moderating variable referring to the main theory Foss et al., (2021), and University Brand Image impacting competitive advantage Panda et al. (2019) are the main references for this study, published between 2019 and 2022.

The object of this study is the Association of Private Higher Education Institutions in Indonesia Region 2A, representing private universities in South Sumatra, Bengkulu, Bangka Belitung, and Lampung. The study aims to provide solutions and recommendations for private universities registered in Private Higher Education Institutions in Indonesia Region 2A, exploring the effect of Digital Transformation on University Brand Image with Ownership as a moderating variable.

2. Literature Review

2.1 Competitive Advantage

According to Porter (1985), competitive advantage is the ability of a company to create higher value for its customers than its competitors. This value can take various forms, including price, quality, features, or services. Competitive advantage can be achieved through various means, such as (a) Innovation: Companies can create new products or services that are superior to those offered by their competitors. (b) Efficiency: Companies can improve operational efficiency to reduce costs and enhance profitability. (c) Customer Loyalty: Companies can build customer loyalty by providing exceptional customer experiences. (d) Brand Strength:

Published by:

Companies can build brand strength by creating awareness and brand preference among consumers. Porter also identifies three generic strategies that companies can use to achieve competitive advantage: (1) Cost Leadership Strategy: Companies strive to become producers of products or services with the lowest cost in the industry. (2) Differentiation Strategy: Companies aim to create unique or valuable products or services for customers. (3) Focus Strategy: Companies target a narrow or specific market segment. Companies can choose the appropriate strategy based on industry dynamics, company resources and capabilities, and target markets (Porter, 1985)

2.2 Digital Transformation

Digital transformation is characterized by changes and transformations driven and built on technology. It unfolds as a series of revolutions where digitization progressively elevates to higher institutional levels as decision-makers apply it across all levels of the institution. Digital transformation is also marked by the presence of digital disruption and the development of digital technologies characterized by SMAC (Social Media, Mobile Application, and Cloud Computing), including Artificial Intelligence (AI), Big Data Analytics (BDA), and the Internet of Things (IoT). The goal of digital transformation is to create value for the company through an institution's business model. (Meng et al., 2022).

Overall, digital transformation has brought significant changes in how higher education faces broader access to information and knowledge through various digital platforms. It has enabled higher education institutions to confront a paradigm shift in how students and the general public create, disseminate, and access knowledge. Therefore, higher education institutions must proactively face digital transformation and take strategic steps to address it effectively.

According to Tungpantong et al. (2022), there are six components related to digital transformation in higher education, including 1) Strategy, 2) Process, 3) Products/Services, 4) People, 5) Data, 6) Technology for Digital Transformation. Here is a further explanation:

(1) Strategy involves a planned and directed plan used to achieve specific goals. In the context of digital transformation, it entails a series of planned actions to integrate technology, value change, structural change, and financial aspects to achieve organizational change success. Strategy consists of four dimensions: technology use, changes in value creation, structural changes, and financial aspects (Matt et.al, 2015). (2) Process refers to operational steps taken using digital technology to improve or replace traditional products or services. It involves creating new steps and implementing information technology to enhance process efficiency or integrate traditional processes more efficiently. (3) Products or Services are goods or services produced or provided to meet consumer needs or desires. They serve as a way to fulfill consumer needs and create value in the process. (4) People are a key element in digital transformation, changing the structure and identity of the organization and affecting all departments, roles, and responsibilities. (5) Data is a collection of information obtained from various sources or activities. In the context of digitization, data poses a challenge for organizations, including data storage, understanding the accumulated data, indexing data resources, and evaluating data quality. (6) Technology is the foundation of digital transformation efforts that allow technology to change organizations. Digital technology creates opportunities that organizations can leverage, potentially transforming aspects of the organization, especially business models, operational processes, and customer experiences.

Drawing from the literature review, it can be concluded that to achieve digital transformation goals, higher education institutions need strong leadership, skilled and competent human

resources, and adequate infrastructure. Therefore, it is crucial for higher education institutions to undergo planned and strategic digital transformation, ensuring that the transformation is supported by all elements of the organization.

2.3 Ownership

According to Foss et al., (2021), Ownership refers to the irrevocable right and control over a resource, encompassing possession, exclusive rights, and the ability to regulate its use. In economic and legal contexts, ownership grants individuals the power to organize and make decisions regarding the resource in line with their interests, with the right to exclude others from interference in its use. Concentrated ownership in competent owners can positively impact a company's value, while dispersed ownership among incompetent owners may have negative effects on the company's value.

Ownership, as a whole, is also defined as the right and control of a company over its products, businesses, and activities within the organization's scope. It is a fundamental concept in corporate strategy, organization, and governance, focusing on incentives. Owners have the right to utilize and control these resources or businesses and reap benefits or profits from their use. This ownership concept is considered crucial in the context of business strategy, as it can influence strategic decisions and the company's performance ((Foss et al., 2021); (Wang et al., 2022))

Foss et al. (2021) outline at least three components of ownership: (1) Matching Competencies, which involve the ability to determine what should be owned; (2) Governance Competencies, which involve the ability to manage ownership; (3) Timing Competencies, *referring to the ability to decide when to make the right decisions*.

Matching Competence refers to an owner's ability to forecast or formulate valuable resource combinations to achieve goals or solve problems. Owners with matching competence can envision new problems and ways to solve them by combining existing resources. This ability involves an understanding of the value of owned resources, the value of resources owned by others, and the ability to think creatively about combining resources differently. Matching competence is also crucial in creating value as it allows experimentation and creative thinking about alternative values of existing resources. Governance Competence involves an owner's ability to design the composition of resources through effective governance policies and organizational design. This relates to the owner's ability to manage profit distribution within the company in a way that encourages value creation. Owners with governance competence will organize incentives, control, and delegation arrangements in patterns that effectively generate value for a company. Timing Competence is the owner's ability to know when to invest in a project or enter a specific trend to maximize the resulting value. This includes decisions about when to follow or make decisions following a particular trend or course. Owners skilled in timing also know when to seize opportunities to make certain decisions.

2.4 University Brand Image

According to Hermiyenti & Wardi (2019), Uppal, M.A., Ali, S., and Gulliver (2018), Brand Image is the perception or belief customers hold about a product, which will be retained in their minds. It is formed through a unique set of associations in the customer's mind, reflecting the overall image and reputation of the brand. Subjective reasons and the personal emotions of customers influence this concept. A strong Brand Image results in increased customer interest and purchasing decisions, reflecting the positive perceptions and associations that customers

have with the brand.

A strong and positive University Brand Image can help enhance the trust of the community and prospective students, differentiate the university from competitors, and influence the university selection decisions of prospective students. Therefore, it is crucial for universities to build and strengthen a positive Brand Image through effective marketing strategies and good service quality (Salhab et al., 2023)

According to Cristancho et al., (2019) and Panda et al., (2019) when the Brand Image of a university improves, the university will have a higher level of competitive advantage, especially for private universities. There are at least 5 factors of University Brand Image, University Heritage, University Reputation, University Trustworthiness, University Service Quality, and Student Satisfaction.

University Heritage is an essential part of university brand image, covering history, longevity, core values, symbol usage, and the organization's belief in the importance of its history. It includes material heritage like buildings and archives, as well as immaterial heritage like culture, values, and sacred ceremonies of a university. University heritage influences students' views and intentions toward the university brand, enhancing their attachment to the brand and affecting performance expectations and the university's ability to command a premium price. University Reputation: University reputation is the stakeholders' assessment of the university's ability to meet expectations over time. It relates to the public perception of the university and can influence student choices, the recruitment of quality staff, and philanthropic support. This reputation is influenced by the university brand image and student experiences. University Trustworthiness is the perceived level of trust by students in the university's ability to meet their expectations. It involves the belief that the university will act in the students' interest, possessing reliability, security, and integrity in its services and management practices. Students' perceptions of this trust are influenced by their experiences with faculty, staff, and university policies in fulfilling their promises. This level of trust influences students' positive perceptions of the university and can be reinforced by competent, responsive, and reliable services. University Service Quality is the level of excellence in services the university offers to students. It includes students' assessment of the university's overall quality of services. Service quality is assessed based on the gap between expectations and actual performance in various aspects, such as tangibles, reliability, responsiveness, assurance, and empathy. Service quality can be measured in various areas within the university, including academics, teaching, research, administration, facilities, and extracurricular activities. Service quality is essential as it influences the overall university brand image and can impact student satisfaction. Student Satisfaction is how students feel after undergoing education at a university. If their experience is positive, satisfaction increases, and vice versa. In a competitive university landscape, student satisfaction is crucial. Satisfied students can provide positive support by recommending the university and speaking well of it. Conversely, dissatisfied students can spread negative impressions. Universities need to identify significant factors related to student satisfaction and strive to improve them.

2.5 Relationships Among Variables

Based on the literature study above, to strengthen the hypotheses or preliminary assumptions of the researcher for this study. The researcher will elaborate on hypotheses based on the literature study as follow. (Shehzadi et al., 2021) state that in today's competitive era, the strategy employed by a university in building brand image is crucial. This brand image reflects

how well a university can meet students' needs and build trust in its ability to provide the best services. In other words, the strategy chosen by the university plays a significant role in shaping its university brand image. Meanwhile, several studies, including (Mahmood et al., 2019) and (Khan, 2020) emphasize that digital transformation involves various strategies, not solely relying on technology but also on a strong vision and strategy that can influence university brand image.

Based on the summary of these statements, it can be concluded that the strategy in digital transformation plays a vital role in shaping the university brand image. This indicates that higher education institutions can meet students' needs and build trust in the services they offer. Therefore, it can be hypothesized:

H1: Digital Transformation has a positive influence on University Brand Image.

This hypothesis states that the better and more effective the digital transformation strategy implemented by the university, the more positive the university brand image becomes. In other words, a digital transformation strategy that enhances the university brand image in the eyes of students and the general public. This hypothesis indicates that the use of technology in university digital transformation can contribute positively to the university brand image, especially in developing better educational services based on literature studies by (Foss et al., 2021) and (Tungpantong et al., 2022) and (Panda et al., 2019). Ownership plays a significant role in mediating the relationship between digital transformation and university brand image. Competent ownership in terms of resource composition and timely decision-making can contribute positively to the university brand image. Effective ownership can help higher education institutions identify and optimize the strategic use of digital resources in line with the organization's vision and goals. Therefore, the hypothesis that can be proposed is:

H2: Overall Ownership Simultaneously Influences University Brand Image.

This hypothesis suggests that competent ownership is crucial in moderating and mediating the relationship between Digital Transformation and the university's brand image. Effective ownership can integrate digital resources well and make timely decisions, positively contributing to the university's brand image. The Conceptual framework of this research is serve below,

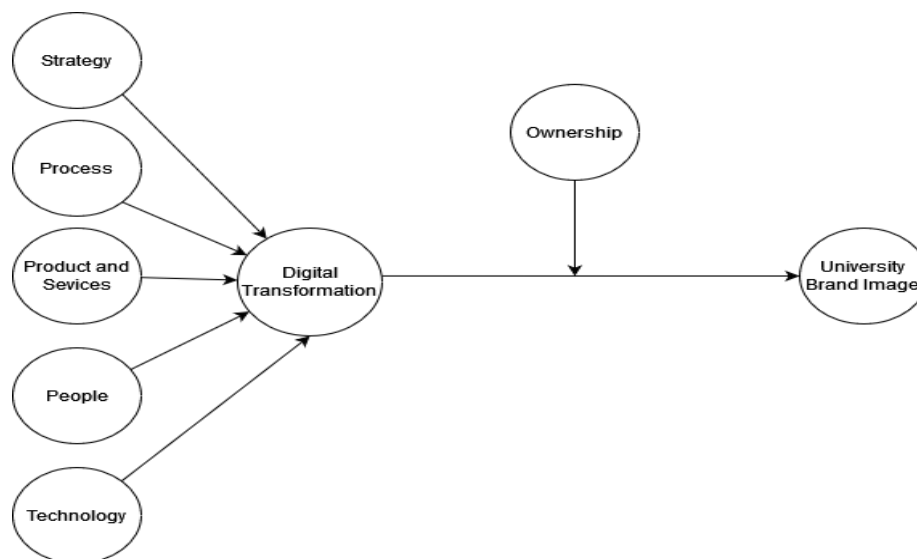


Figure 3. Conceptual Framework

Adapting theory (Tungpantong et al., 2022) (Panda et al., 2019)(Sultan & Wong, 2019)(Foss et al., 2021)

3. Research Method

3.1 Methods

This research, guided by Creswell (2022), adopts a quantitative approach, utilizing Structural Equation Modeling (SEM) to examine the relationships between Digital Transformation, Ownership, and University Brand Image. Following a defined schedule from April 2023 to March 2024, the study encompasses various stages, including data collection through questionnaires distributed to 99 respondents from 45 private universities in Region 2. Operationalizing variables is essential, covering Strategy, Process, Product and service, People, Data, Technology, Ownership, and University Brand Image, all integrated into a Structural Equation Model (SEM). The research also uses a quantitative method, employing surveys and questionnaires. Data analysis utilizes Structural Equation Modeling (SEM) to understand how Digital Transformation influences University Brand Image, considering the moderating role of Ownership. Adherence to a predefined research schedule is crucial for the success of the study, including validity testing, reliability testing, and hypothesis testing (t-test) (Hair. et al., 2017)

4. Findings and Discussions

4.1 Respondent Characteristics

The respondents in this study consisted of 99 individuals from various universities, classified based on employment status and academic position. They were also from various universities in the Association of Private Higher Education Institutions in Indonesia Region 2A and came from various provinces, like South Sumatera, Bangka Belitung, Bengkulu, and Lampung.

4.2 Analysis of the Measurement Model

The data analysis technique employed in this research involves Structural Equation Modeling (SEM) analysis. According to (Hair et al., 2017), there are seven stages in conducting SEM-PLS analysis:

In phase one, we create Path Model Specification. In this stage, the researcher constructs a flowchart illustrating the hypotheses and variables to be tested in a study using SEM-PLS. The path model is built using the SEM-PLS 4.0 application. The path model in this study is depicted in Figure 4.1

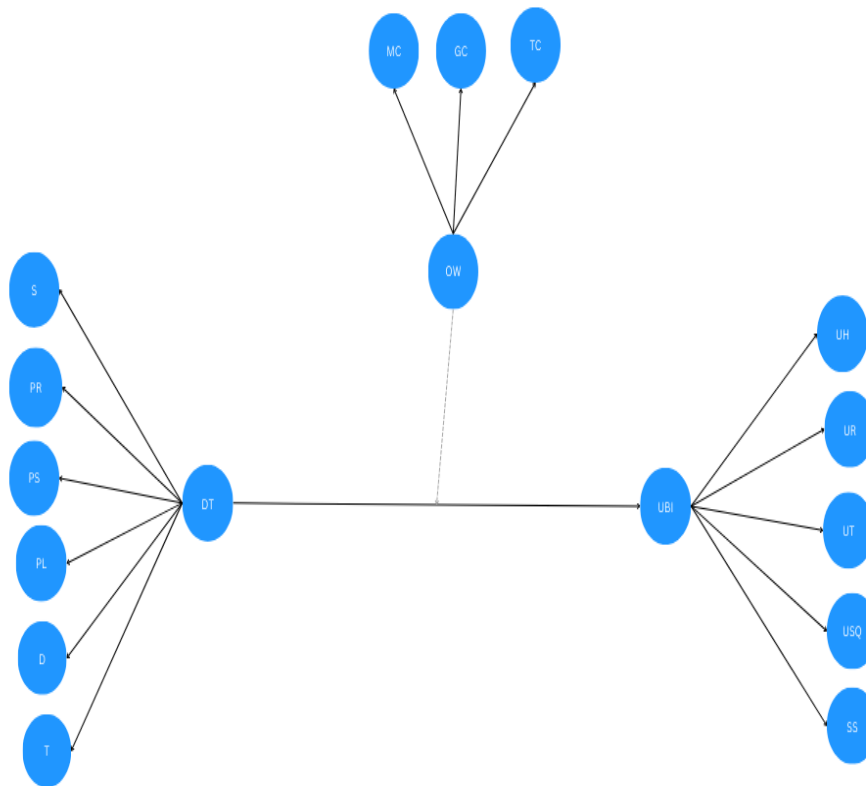


Figure 4 Path Model

Figure 4 illustrates that the path model comprises exogenous variables, namely Digital Transformation (DT), endogenous variable University Brand Image (UBI), and moderating variable Ownership (OW). The Digital Transformation (DT) variable has a direct influence on the University Brand Image (UBI) variable. Simultaneously, the Ownership (OW) variable exerts an indirect influence on the University Brand Image (UBI) variable through the Digital Transformation (DT) variable. This is indicated by the dashed lines from the Ownership (OW) variable to the University Brand Image (UBI) variable. This path model sets the foundation for further analysis, enabling the examination of the relationships between Digital Transformation (DT), University Brand Image (UBI), and Ownership (OW). The inclusion of Ownership as a moderating variable suggests that it plays a role in influencing the relationship between Digital Transformation and University Brand Image.

4.3 Creating Model Specification Model

The measurement model illustrates the relationships between concepts and their measurement instruments. This model specification must be based on the theory underpinning the model and supported by empirical evidence. The measurement model specification used in this research is depicted in Figure 4.2

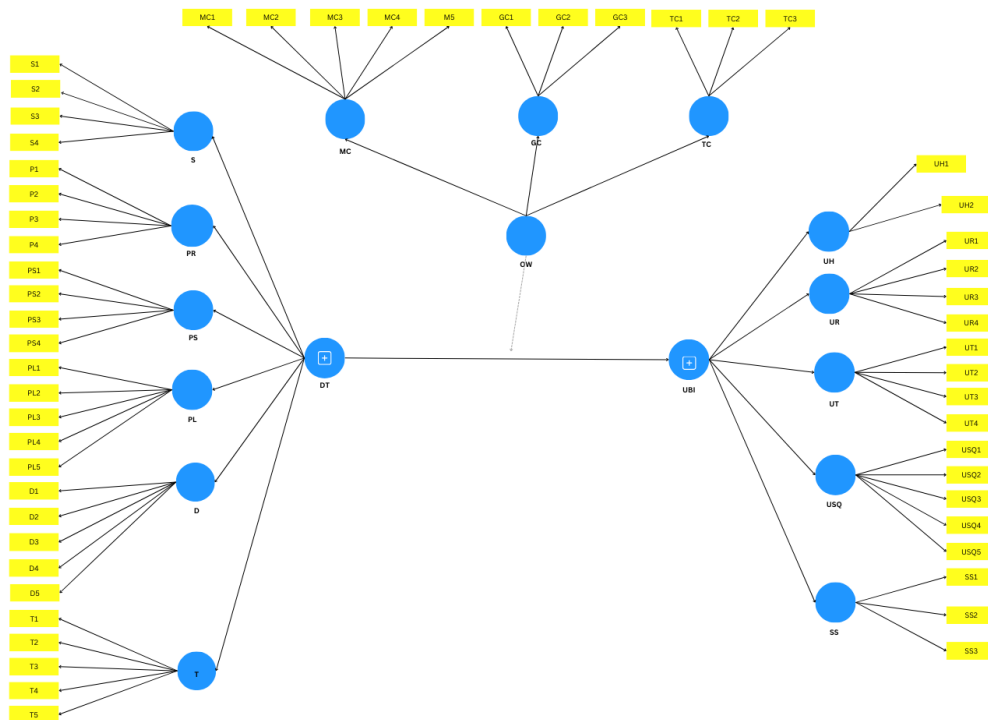


Figure 5 Measurement Model

Figure 5 elucidates that the measurement model consists of three variables and their corresponding indicators. The Digital Transformation (DT) variable has six dimensions: Strategy (S), Process (P), Product/Service (PS), People (PL), Data (D), and Technology (T). Each dimension is comprised of specific indicators. Similarly, the Ownership (OW) variable has three sub-variables: Matching competencies (MC), Governance Competencies (GC), and Timing Competencies (TC), each with its own set of indicators. The University Brand Image (UBI) variable encompasses five sub-variables: University Heritage (UH), University Reputation (UR), University Trustworthiness (UT), University Service Quality (USQ), and Student Satisfaction (SS), each with its respective indicators.

4.4 Collecting and Screening Data

The collection and screening of data represent crucial stages in SEM analysis. Data for SEM-PLS analysis can be gathered through various methods, such as interviews and surveys. The researcher interviewed Vice Rector 1, Mrs. Adelin, S.T., M.Kom, at a private university, seeking information on the digital transformation process at the institution. Additionally, interviews were conducted with the Foundation Chair of another private university to gain insights into the owner's perspective on digital transformation and the components supporting it. Subsequently, a preliminary survey using questionnaires was administered to assess the validity of the variables employed in the study.

4.5 Validation and Reliability

Table 1 shows that the outer loading values for all dimensions and indicators indicate that the values from dimension to indicator and latent variable to indicator are >0.7 , resulting

in valid and reliable values meeting the rule of thumb. The significant values generated by the outer loading indicate the reliability and validity of the measurements.

Table 1 Values of Validity and Reliability for Digital Transformation

<i>Laten Variable</i>	<i>Dimensi on</i>	<i>Indicat or</i>	<i>AVE</i>	<i>CR</i>	<i>Cronbac h Alpha</i>	<i>V or TV</i>	<i>R or TR</i>
<i>Digital Transformation (DT)</i>	<i>Strategy (S)</i>	<i>S2</i>	<i>0.717</i>	<i>0.807</i>	<i>0.803</i>	<i>V</i>	<i>R</i>
		<i>S3</i>					
		<i>S4</i>					
	<i>Process (P)</i>	<i>P1</i>	<i>0.749</i>	<i>0.890</i>	<i>0.888</i>	<i>V</i>	<i>R</i>
		<i>P2</i>					
		<i>P3</i>					
		<i>P4</i>					
	<i>Product and Service (PS)</i>	<i>PS1</i>	<i>0.665</i>	<i>0.834</i>	<i>0.832</i>	<i>V</i>	<i>R</i>
		<i>PS2</i>					
		<i>PS3</i>					
		<i>PS4</i>					
	<i>People (PL)</i>	<i>PL1</i>	<i>0.720</i>	<i>0.904</i>	<i>0.903</i>	<i>V</i>	<i>R</i>
		<i>PL2</i>					
		<i>PL3</i>					
		<i>PL4</i>					
		<i>PL5</i>					
	<i>Data (D)</i>	<i>D2</i>	<i>0.801</i>	<i>0.917</i>	<i>0.917</i>	<i>V</i>	<i>R</i>
		<i>D3</i>					
		<i>D4</i>					
		<i>D5</i>					
	<i>Technolo gy (T)</i>	<i>T1</i>	<i>0.694</i>	<i>0.902</i>	<i>0.889</i>	<i>V</i>	<i>R</i>
		<i>T2</i>					
		<i>T3</i>					
		<i>T4</i>					
		<i>T5</i>					
<i>Digital Transformation (DT)</i>			<i>0.564</i>	<i>0.969</i>	<i>0.967</i>	<i>V</i>	<i>R</i>

Detail: V= Valid, NV = Not Valid, R = Reliable, NR = Not Reliable, Based on the research (2024)

Next, the researcher calculated the Average Variance Extracted (AVE), Composite Reliability (rho_a) value, and Cronbach's alpha value to determine whether the Digital Transformation (DT) variable's values exhibit validity and reliability, as shown in Table 4.2

The results of the measurement model for the Digital Transformation (DT) variable demonstrate validity and reliability values that meet the rule of thumb (>0.7 and <0.5). The overall AVE value for the Digital Transformation (DT) variable is 0.564, CR value is 0.969, and Cronbach's alpha value is 0.967. Thus, it can be concluded that the testing of the Digital Transformation (DT) variable is valid and reliable for each dimension and its corresponding indicators.

Table 2 Values of Validity and Reliability for the Ownership

<i>Laten Variable</i>	<i>Dimention</i>	<i>Indicato r</i>	<i>AVE</i>	<i>CR</i>	<i>Cronbach Alpha</i>	<i>V or TV</i>	<i>R or TR</i>
<i>Ownersh ip (OW)</i>	<i>Matching Competenc es (MC)</i>	<i>MC1</i>	0.852	0.966	0.956	<i>V</i>	<i>R</i>
		<i>MC2</i>					
		<i>MC3</i>					
		<i>MC4</i>					
		<i>MC5</i>					
	<i>Governanc e</i>	<i>GC1</i>	0.918	0.956	0.955	<i>V</i>	<i>R</i>
		<i>GC2</i>					
		<i>GC3</i>					
	<i>Competenci es (GC)</i>	<i>TC1</i>	0.875	0.929	0.928	<i>V</i>	<i>R</i>
		<i>TC2</i>					
		<i>TC3</i>					
	<i>Ownership (OW)</i>		0.814	0.980	0.977	<i>V</i>	<i>R</i>

Det : V= Valid, NV = Not Valid, R = Reliable, NR = Not Reliable, Based on the research (2024)

The results of the measurement model for the Ownership (OW) variable yield validity and reliability values that meet the rule of thumb (>0.7 and <0.5). The overall AVE value for the Ownership (OW) variable is 0.814, with a CR value of 0.980 and a Cronbach's alpha value of 0.977. Therefore, it can be stated that the testing of the Ownership (OW) variable is valid and reliable for each dimension and its corresponding indicators.

Table 3 Values of Validity and Reliability for the University Brand Image Variable

<i>Var. Laten</i>	<i>Dimensi</i>	<i>Indicator</i>	<i>AVE</i>	<i>CR</i>	<i>Cronbach Alpha</i>	<i>V atau TV</i>	<i>R atau TR</i>
<i>University Brand Image (UBI)</i>	<i>University Heritage (UH)</i>	<i>UH1</i>	0.893	0.881	0.880	<i>V</i>	<i>T</i>
		<i>UH2</i>					
	<i>University Reputation (UR)</i>	<i>UR1</i>	0.781	0.905	0.95	<i>V</i>	<i>T</i>
		<i>UR2</i>					
		<i>UR3</i>					
	<i>University Thrustworthines s (UT)</i>	<i>UT1</i>	0.709	0.865	0.862	<i>V</i>	<i>T</i>
		<i>UT2</i>					
		<i>UT3</i>					
		<i>UT4</i>					
	<i>University Service Quality (USQ)</i>	<i>USQ1</i>	0.785	0.932	0.931	<i>V</i>	<i>T</i>
		<i>USQ2</i>					
		<i>USQ3</i>					
		<i>USQ4</i>					
		<i>USQ5</i>					
	<i>Student Satisfaction (SS)</i>	<i>SS1</i>	0.773	0.857	0.852	<i>V</i>	<i>T</i>
		<i>SS2</i>					
		<i>SS3</i>					
	<i>University Brand Image (UBI)</i>		0.563	0.955	0.954	<i>V</i>	<i>T</i>

Det : V= Valid, NV = Not Valid, R = Reliable, NR = Not Reliable, Based on the research (2024)

The results of the measurement model for the University Brand Image (UBI) variable yield validity and reliability values that meet the rule of thumb (>0.7 and <0.5). The overall AVE value for the University Brand Image (UBI) variable is 0.563, with a CR value of 0.955 and a Cronbach's alpha value of 0.954. Therefore, it can be stated that the testing of the University Brand Image (UBI) variable is valid and reliable for each dimension and its corresponding indicators.

4.6 discussion

The evaluation of the structural model testing results is a process to assess how well the structural model aligns with the data. To measure the structural model, the researcher first designs the structural model using SmartPLS 4.0 software. The complete model of this research, designed by the researcher, is depicted in Figure 4

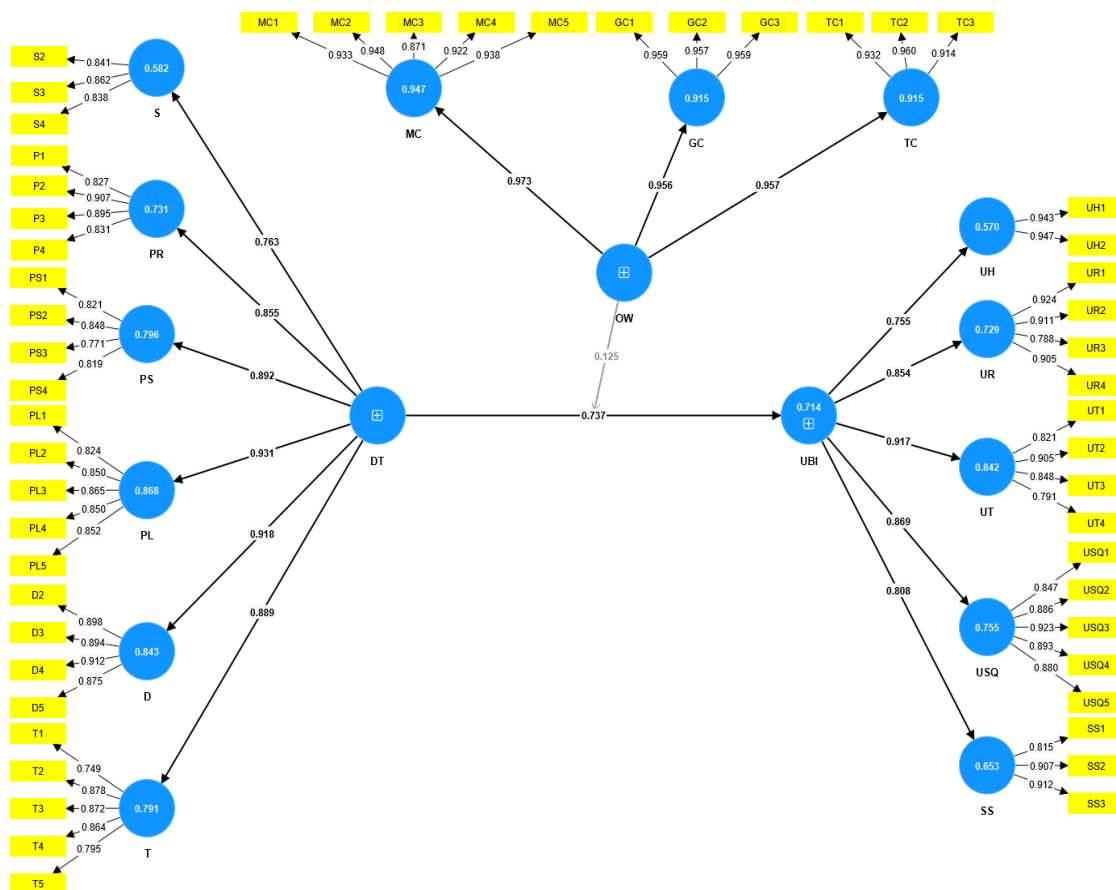


Figure 5 Measurement Model

In Figure 4, the overall model of the research conducted by the researcher is displayed, which can be formulated into a Structural Equation Model (SEM) as seen in Figure 4.4

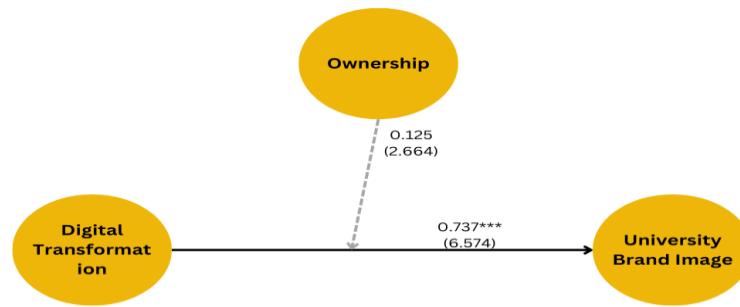


Figure 5. Measurement Model

In Figure 5, it illustrates the relationship between the Digital Transformation and University Brand Image variables, which can be considered as latent exogenous and endogenous variables. Latent exogenous and endogenous variables can influence each other directly, indirectly, or both. The magnitude of the direct influence between latent variables can be measured by path coefficients. Significant path coefficients indicate a significant influence between latent variables. Path coefficients are used to measure the magnitude of the direct influence between latent variables. Straight lines in the figure indicate significant influence paths, while dashed lines indicate the presence of non-significant influence on the Ownership variable.

Subsequently, the researcher tabulated the comprehensive results of the structural model equation testing, as evident in Table 4

Table 4. Results of Comprehensive Testing of the Structural Model Equations

SS	Var. Endogenous	Var. Exogenous	Path Coef.	t-stat.	P-value	Ket	F ²	R ²	Q ²
I	DT	← UBI	0.737	6.574	0.000	Significant	0.538	0.714	0.687
II	OW	← UBI	0.125	2.664	0.071	Not Significant	0.119		

Note: SS=Structural, DT=Digital Transformation, UBI=University Brand Image. Rule of Thumb

4.7 Interpretation of Results and Drawing Conclusions

Before interpreting the results and drawing conclusions, the researcher conducted a substructure analysis of the structural equations in the overall model. Substructure I and the path coefficient (t-stat) values are shown in Figure 4.5

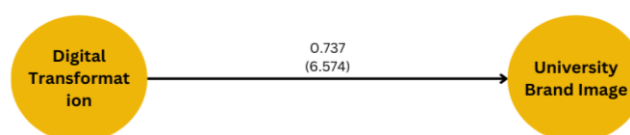


Figure 6. Substructure I and Path Coefficient (t-stat) Values

In Figure 6 the Digital Transformation variable positively influences University Brand Image with a value of 73.7%. Statistically, it is deemed significant with a t-stat value of 6.574, exceeding the threshold of 1.64, and a p-value of 0.000, which is less than 0.05. The test results indicate that the higher the value of digital transformation, the higher the value of a private university's brand image.

The ability of Substructure I to predict endogenous latent variables can be assessed through several evaluation values of the structural model (inner model). These values are:

The R2 values, guided by the rule of thumb, indicating that R2 values of 0.67, 0.33, and 0.19 denote high, moderate, and low model predictability (Chin, 1998). The obtained R2 value of 0.714 in Substructure I demonstrates that the model can predict the population with high accuracy, explaining 71.4% of the sample data variation. The effect size f^2 , obtaining a value of 0.538 in Substructure I, signifies that Digital Transformation Orientation is a highly significant factor in the emergence of University Brand Image. This aligns with the rule of thumb categorization stating that values of 0.02, 0.15, and 0.35 represent low, moderate, and high effect size, respectively (Chin, 1998). The Q2 predictive relevance, measured through LV prediction in the PLSpredict/CVPAT menu, is an indicator of the model's ability to predict endogenous latent variables. In Substructure I, the Q2 value is 0.687, indicating high relevance in predicting the University Brand Image variable.

5. Conclusion

The research findings a comprehensive understanding of the intricate relationships among Digital Transformation, Ownership, and University Brand Image in the context of private universities. Firstly, the study underscores the significance of competitive advantages in elevating the quality of private higher education institutions, making them more appealing to students. Competitive strategies emerge as crucial solutions in navigating the competitive landscape among these institutions. Furthermore, a positive correlation between Ownership and Digital Transformation is identified, emphasizing the role of transparent ownership in effective problem-solving and solution provision. The study categorizes six components of Digital Transformation in universities, encompassing Strategy, Process, Product/Service, People, Data, and Technology. Additionally, the University Brand Image is dissected into five factors, including University Heritage, Reputation, Trustworthiness, Service Quality, and Student Satisfaction. The examination of Ownership reveals three key components: Matching Competences, Governance Competencies, and Timing Competencies.

Extensive validity and reliability testing ensure the robustness of the research instruments, addressing challenges encountered during the initial measurement modeling. The recalibration process, especially in the Data dimension, results in a reliable measurement model for Digital Transformation. The evaluation of the structural model involves R2 values, effect size (f^2), and Q2 predictive relevance. Substructure I demonstrates a high R2 value of 0.714, indicating accurate population prediction. A substantial effect size (f^2) of 0.538 underscores the pivotal role of Digital Transformation Orientation in shaping University Brand Image. The Q2 value of 0.687 affirms the model's relevance in predicting endogenous latent variables.

Finally, hypothesis testing affirms that Digital Transformation significantly and positively influences University Brand Image (73.7%). However, the hypothesis asserting that Ownership simultaneously influences University Brand Image is not supported, with a low Path Coefficient for Ownership (0.125). In conclusion, the research offers valuable insights into the dynamics of private university contexts, highlighting the importance of strategic adaptation to foster competitiveness and enhance overall quality.

Ownership does not significantly strengthen the relationship between digital transformation and University Brand Image. This may be possible because some private universities do not fully involve Ownership (Foundation) directly in decision-making processes.

Based on the conclusions drawn from the research, several recommendations are offered for future studies. Firstly, it is suggested that the research can be enhanced by delving into moderating variables through qualitative research to fortify the relationship between Digital Transformation and University Brand Image. Qualitative methods may offer a more nuanced understanding of the moderating factors, complementing the quantitative findings. Secondly, for subsequent research endeavors, it is recommended to explore the potential impact of Ownership as a significant moderating variable on University Brand Image. Given the context of Private Higher Education Institutions in Region 2, where Ownership may not play a predominant role in decision-making, investigating this relationship further could provide valuable insights. Lastly, the scope of future research could be broadened to encompass factors influencing Brand Image in universities beyond private institutions, incorporating public universities as well. This expansion would contribute to a more comprehensive understanding of the intricate dynamics shaping Brand Image within the broader landscape of the higher education sector. These recommendations aim to guide future research efforts in uncovering additional layers of understanding within the relationships examined in the present study.

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Analysis of Calculating the Cost of Goods Produced by a Car Body Company Using the Activity-Based Costing Method in Determining Selling Prices (Case Study at PT. XYZ Company)

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Abstract

This study aims to determine the application of calculations for determining the cost of production using the Activity Based Costing method at PT. XYZ. Activity Based Costing is a method used to determine production costs per unit based on activities within the company. Data collection techniques through interviews and documentation directly to the research object. The resulting data is data related to determining the cost of production based on the ABC Costing method. The data analysis technique used is the descriptive analysis technique. This analysis is carried out by calculating the company's cost of production. Based on the research carried out, the results obtained are that in determining the cost of production using the Activity Based Costing method there are differences with the traditional method applied by the company. The differences that occur are due to the burden of overhead costs on each product. In the traditional method, overhead costs for each product are only charged to one cost driver, namely the number of units sold. In the Activity Based Costing System, overhead costs for each product are charged to several cost drivers. So that the Activity Based Costing System can allocate activity costs to each product appropriately based on the consumption of each activity and has more efficient and effective unit costs. The implementation of selling price calculations uses a burden rate so that marketing is faster in determining selling prices and can be measured to calculate production costs.

Keywords: Cost of Production, Activity Based Costing, Traditional, Burden

JEL Codes: M. 40, M41, M.42

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1. Introduction

Manufacturing companies classify costs into three main costs, namely production costs,

marketing costs, and administrative and general costs. From the classification of costs, it should be known that calculating production costs is one of the important things in realizing company goals. According to Mulyadi (2015), in making products there are two groups of costs, namely production costs and non-production costs. Production costs are costs incurred in processing raw materials into products, while non-production costs are costs incurred for non-production activities such as marketing and general administration activities. Production costs form the cost of production which will be used to calculate products that at the end of the accounting period are still in process. Non-production costs are added to the cost of production to calculate the total cost of the product.

Companies operating in the auto body sector have unique recording and cost assignments where if sales are based on orders, the calculation of consumable costs must be divided based on the work/orders carried out. This requires accuracy and a very strict level of recording detail so that overhead costs can be allocated to costs per order, even for supporting departments such as administration, sales, and human resources must also be able to be measured based on activities to obtain, carry out and send the order.

The cost of production has a very important role in determining the selling price of products. More precise costing will result in a more accurate cost of production (Wakidin, 2022). In calculating product costs to determine the cost of production, many companies still use the traditional full costing method. The traditional system only charges products at the cost of production, marketing, and administrative, and general costs are not included in product costs but are treated as business costs and are deducted directly from gross profit to calculate net business profit.

Mowen (2012:393) defines the cost of production as representing the total cost of goods completed in a certain period. Cost of Goods Production consists of direct raw materials, direct labor, and overhead. According to Raiborn and Kinney (2011:56), the cost of goods manufactured (CoGM) is the total production cost of goods that have been completed and transferred into finished goods inventory during a period. According to Bustami and Nurlala (2013:49), the cost of production is a collection of production costs consisting of direct raw materials, direct labor, direct labor, and factory overhead costs plus product inventory in the initial process minus product inventory in the final process. The cost of production is tied to a certain period.

Activity Based Costing is an improved method of conventional cost accounting systems, where the ABC Costing system can calculate more detailed cost allocations based on activities compared to conventional ones which only look at production results in allocating costs. According to Garrison and Noren (2013:312), Activity Based Costing is a cost calculation method designed to provide cost information for managers for strategic and other decisions as a complement to, not as a substitute for, the cost system normally used by the company.

Kumar and Mahto (2013) researched the analysis and implementation of Activity Based Costing (ABC) and Traditional Cost Accounting (TCA) in motor vehicle spare parts manufacturing companies which resulted that compared to Traditional Cost Accounting (TCA), the Activity Based Costing (ABC) method provides actual costs. Companies can gain profits by increasing their sales according to product demand while still paying attention to the actual costs of components which are calculated using Activity Based Costing (ABC) rather than the Traditional Cost Accounting (TCA) method and it becomes easier for companies to decide which products to produce more.

2. Literature Review

2.1 Production Cost

Production costs are costs that arise from a production process in making goods or services to be sold. In determining production costs for calculating the absolute cost of production as a basis for inventory assessment and determining periodic profit and loss, production costs need to be classified according to the type/object of expenditure. This is important so that cost and allocation data collection, which often requires high precision, such as determining the level of product completion in the process of mass production, can be done easily. There are three main elements of production costs, namely raw material costs, labor costs, and factory overhead costs (Harnanto, 2017:33).

According to Carter (2015:30), costs are an exchange rate, expenditure, or sacrifice made to guarantee the acquisition of benefits. In financial accounting, expenditures or sacrifices at the acquisition date are reflected by the depreciation of cash or other assets that occur now or in the future.

According to Hariyani (2018:19), these are costs incurred to process raw materials into semi-finished goods or finished goods that are ready to be sold. Production costs consist of three cost elements, namely direct raw material costs, direct labor, and indirect factory costs (factory overhead costs) as follows:

1. Direct materials (direct raw material costs)
This is the cost of making up most of the raw materials to become semi-finished products or finished goods. An example of the raw material for furniture production is wood, for clothing production the raw material is cloth.
2. Direct labor
These are wages paid by the company to workers who are directly related to production activities. Examples of direct labor for furniture production are carpenters, sanders, painters, sawyers, and other direct laborers who work to process wood into furniture.
3. Factory overhead cost
These are costs that do not include direct materials direct labor or indirect factory costs. For example, auxiliary materials, indirect wages (supervisors, factory security guards, etc.), repair costs, maintenance of machines and factory buildings, depreciation costs for machines and factory buildings, and so on.

Method of Determining Cost of Goods Production

According to Mulyadi (2010:17) in calculating cost elements into the cost of production, there are two approaches, namely:

- a. Full Costing is a method of determining the cost of production that considers all elements of production costs into the cost of production, which consists of raw material costs, direct labor costs, and factory overhead costs.
- b. Variable Costing is a method of determining the cost of production that considers production costs that have variable behavior, into the cost of production, which consists of raw material costs, direct labor costs, and variable factory overhead costs.

2.2 Activity-Based Costing

Horn gren et.al (2008) define an Activity Based Costing System (ABC System) as calculating the costs of each activity and assigning costs to cost objects such as products and services based

on the activities required to produce each product and service. According to Tunggal (2009:2), activity-based costing is a costing method that is based on activities designed to provide cost information to managers for making strategic decisions and other decisions that affect capacity and fixed costs.

Hansen and Mowen (2012) state that the ABC (Activity Based Costing) method is a system of accumulating costs and assigning costs to products using various cost drivers, carried out by tracing costs from activities and after that tracing costs from activities to products. Identifying activity costs and then products is a step in developing an activity-based costing system.

Activity Based Costing System (ABC) is an accounting system that focuses on activities carried out to produce products or services. Activity Based Costing systems provide information about activities and the resources needed to carry out these activities. An activity is any event or activity that is a cost driver, that is, acts as a causal factor in cost expenditure within the organization.

3. Research Method

Research variables

Operational variables in this research include:

1. Activity Based Costing (ABC Costing)

- a. By assessing production costs based on the company's activities, it can be seen which activities are less efficient than the company's production activities.
- b. Charging costs for these activities will provide proper cost recognition in production cost reporting.

2. Target Costing

Companies use target costing to determine margins, which can be measured by looking at market prices - profit.

3. Burden Rate

In determining the selling price, the company will more quickly use the burden rate, whereby knowing the burden rate allows the company to estimate the overhead cost calculation quickly, namely multiplying the burden rate by how long the production process takes. So, the calculation used by the company to determine the selling price is by looking at the total cost of raw materials plus the burden rate, direct labor costs, and margin.

Data analysis technique

The analysis steps carried out in this research are as follows:

1. First stage.

Conduct initial interviews regarding problems occurring in the Company and interviews regarding the process of calculating the cost of production in the Company, both from the cost accounting section to the warehouse and marketing sections.

2. Second stage.

Observing transaction data on activities from ordering orders, and picking up production goods, to making production cost calculations.

3. Third stage.

Analyze the document data obtained to ensure that the procedures and numbers listed are appropriate. Each document obtained can provide adequate information about the activities carried out by the Company.

4. Fourth stage.

Calculating the cost of manufactured goods using the method used by PT. XYZ is a simple

calculation using conventional methods. This calculation consists of several methods, namely:

- a. Determine the factory overhead cost rate per product unit.
- b. Charging a single factory overhead rate is allocated to the cost elements produced based on the number of units for each type of product.

5. Fifth stage.

The researcher carried out the procedure for calculating the cost of manufactured goods using the method that the researcher wanted to test, namely the ABC (Activity Based Costing) method. In the calculation there are several procedures, namely:

- a. Identify cost activity groups (cost pools) and their cost drivers.
- b. Determine the value of the cost driver when the activity occurs.
- c. Determine the pool rate or group rate.
- d. Determination of the cost of goods manufactured or cost of production.

6. Sixth stage.

Carrying out a comparative analysis in determining the Cost of Manufactured Goods between the application of conventional methods and Activity-Based Costing (ABC) at PT. XYZ. The results of this analysis show the differences between the two methods.

7. Seventh stage.

We are carrying out a comparative analysis in determining the selling price between considering the initial costing target in determining the selling price and the implementation carried out at PT. XYZ.

8. Eighth stage.

Conduct a comparative analysis of speed in determining selling prices between those using the burden rate and those applied by PT. XYZ.

The following presents a research conceptual framework model for calculating the cost of production of body parts using ABC Costing to determine selling prices.

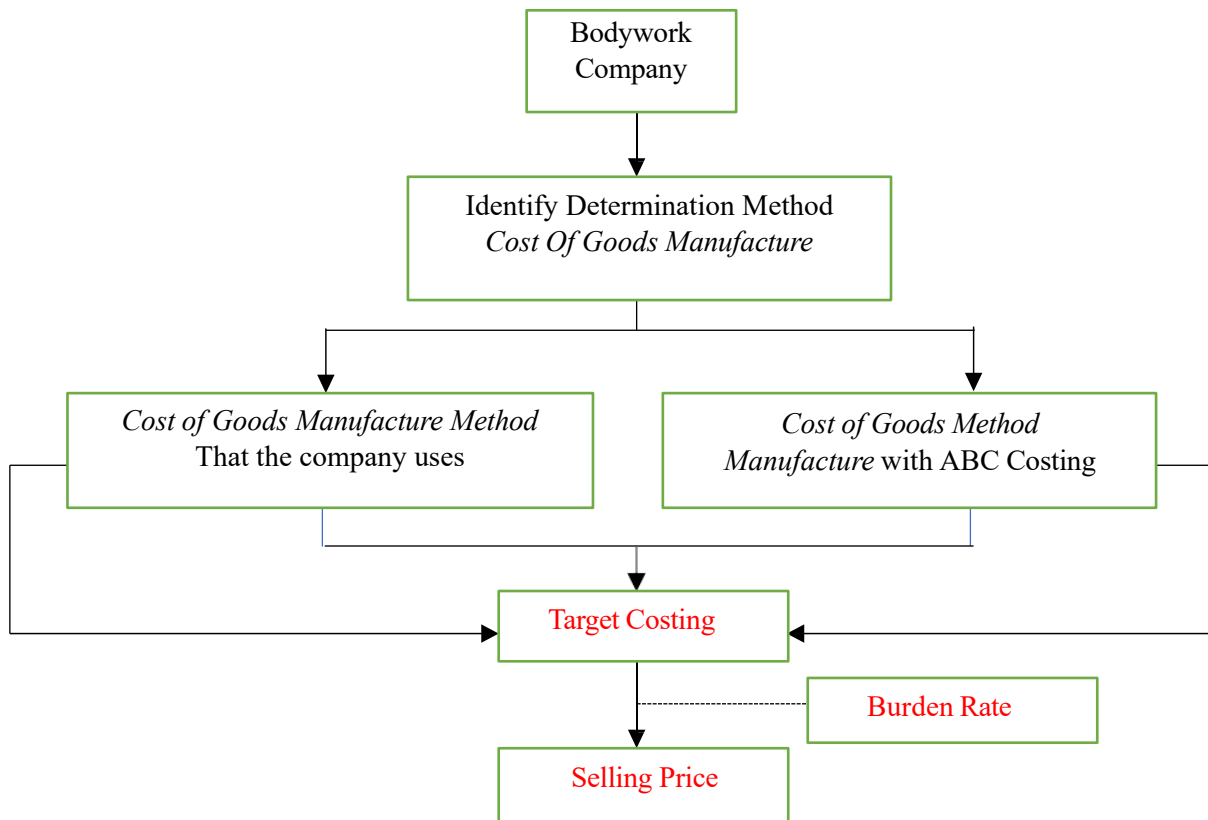


Figure 1. Research Model

4. Findings and Discussions

4.1 Findings

The researcher asked for information and company data from the Manager of Accounting, Finance & Tax, Mr. Handoko, who better understands the process of making financial reports and calculating the cost of goods sold. According to him, PT. XYZ carries out the production process based on orders and calculates using traditional costing methods. In calculating the cost of production, the company uses traditional costing, namely by adding up factory expenses, marketing expenses, and general and administrative expenses. In calculating the allocation of overhead costs to products, dividing the total overhead costs by the total units sold to get the rate per product and multiplying the rate per product by the number of products sold per product type. To determine cost estimates, the company uses costing standards determined for overhead costs, where the overhead calculated consists of direct labor costs, FOH Material (consumable), Production FOH (electricity, water, maintenance, and factory operations), waste and quality testing as a basis for determining selling prices quickly by PT marketing. XYZ.

Based on Table 1 below, it is known that an Overhead standard makes the standardization calculation per product differ only in the use of raw materials, which have different uses according to the size of the product, and additional accessories according to customer requests. The following is an example of standardizing the cost of production as a basis for determining selling prices.

Table 1 Standardization of FOH Costs

STANDARISASI BIAYA FOH					
TYPE	GAJI	Oli, Cat Hitam, kawat Las, Gas	Listrik, Air, Operasional & Maintenance Pabrik	Subcon (OPTIONAL)	TOTAL
	DUMP TRUCK				
A	12.000.000	5.000.000	2.500.000		19.500.000
B	11.500.000	4.800.000	2.300.000		18.600.000
C	6.000.000	2.500.000	1.500.000		10.000.000
S	13.100.000	5.500.000	3.000.000		21.600.000
WASTE	10%				
UJIMUTU					
ADA SERTIFIKAT	700.000				
TIDAK ADA SERTIFIKAT	3.500.000				

The interesting thing in this research is whether by standardizing overhead costs the company can determine the selling price quickly and be able to compete in the market, and whether this method can provide a profit on the sale of the product. This can be seen in Table 2 below.

Table 2 Standardization of Cost of Goods Sold

Standarisasi Harga Pokok Penjualan	
DUMP TRUCK UKURAN 6,5 X 2,4 X 2,0 MTR (P X L X T)-L/D-6/4	
Bagian	Harga Pokok Penjualan
Pemakaian Bahan Baku :	
SUBFRAME (HYD 220 T)	23.937.455
SUBFRAME WOOD	2.656.800
MAINFRAME	8.299.000
BODY	17.810.500
ASSY I	2.475.800
ASSY II	15.193.000
PTO	9.065.734
CAT	1.063.630
FINISHING	1.305.476
TOTAL BIAYA BAHAN	81.807.395

BAKU	
Tenaga Kerja	13.100.000
FOH Material	5.500.000
FOH Produksi	3.000.000
Uji Mutu	700.000
Waste (2%)	1.636.147,90
Total Biaya Proses Produksi	23.936.148
Harga Pokok Penjualan	105.743.543

Source: PT Management Data. XYZ

Table 3 Example of Product Profit and Loss

PRODUCT NAME	HPP				INVOICE	PROFIT / (LOSS)	% Margin
					TO		
	EST	ACT	VAR	% Varian	CUSTOMER Rp.		
PINTU BELAKANG ENGSEL ATAS (5.8 x 2.35 x 1.75 MTR)	94.160.438	84.500.815	9.659.623	10%	118.181.818	33.681.003	28%
PE PINTU BELAKANG ENGSEL ATAS (5.8 x 2.35 x 1.75 MTR)	94.160.438	85.259.069	8.901.369	9%	118.181.818	32.922.749	28%
PE PINTU BELAKANG ENGSEL ATAS (5.8 x 2.35 x 1.75 MTR)	94.160.438	85.011.385	9.149.053	10%	118.181.818	33.170.433	28%
TANGKI BBM 8.000 L (SBL. 1 KOMP.)	93.703.993	93.703.993	-	0%	162.500.000	68.796.007	42%
BAK BESI 5 PINTU (4.25 X 1.85 X 0.7 MTR)	39.531.867	29.577.226	9.954.641	25%	31.818.182	2.240.956	7%
BAK BESI 5 PINTU (4.25 X 1.85 X 0.7 MTR)	39.531.867	33.215.162	6.316.705	16%	31.818.182	- 1.396.980	-4%
PE PINTU BELAKANG ENGSEL ATAS (5.8x 2.35 x 1.65 MTR)	94.160.438	140.096.867	- 45.936.429	-49%	122.727.273	- 17.369.594	-14%
PE PINTU BELAKANG ENGSEL ATAS (5.8 x 2.35 x 1.65 MTR)	94.160.438	127.961.817	- 33.801.379	-36%	122.727.273	- 5.234.544	-4%
COAL BODY 40m³	172.755.433	290.404.995	- 117.649.561	-68%	290.000.000	- 404.995	0%
Total	816.325.351	969.731.328	- 153.405.977		1.116.136.364	146.405.036	

Based on Table 4.3, it is known that by using overhead standardization in determining selling prices there is still a significant deviation difference in the realization of production costs, reaching more than 10% and wherein the profit and loss per product, gross profit has a thin margin that cannot cover marketing and operational costs. admin in 2021 there are even projects that experience losses.

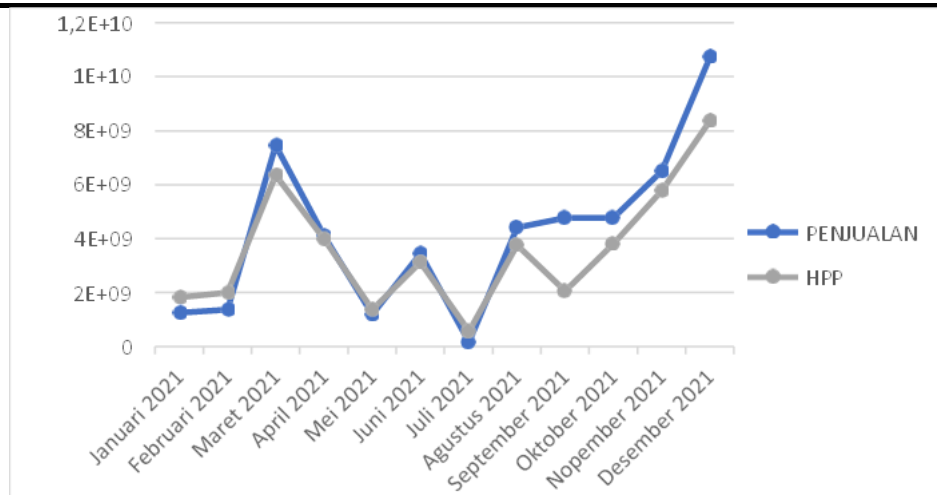


Figure 2. Sales Comparison Chart with COGS

Based on the graph in Figure 2. Chart comparing sales with COGS, it can be seen that in January, February, and July 2021, the cost of goods sold was higher than the selling price, whereas from March to June the sales value and cost of goods sold were almost the same/ approaching, the company has a sales price above the new cost of goods sold in September and December 2021.

4.2 Discussion

Application of Cost Calculation Methods

1. Determination of Cost of Goods Production at PT. XYZ Using Conventional or Traditional Methods

In calculating the Cost of Manufactured Goods in this way, factory overhead costs are calculated compared to the number of products based only on one cost driver, such as the amount of production in units or direct labor hours. In this method, there are two calculation methods, namely:

1. First stage

In this initial stage, factory overhead costs are added up for all cost components and then compared with the company's total sales proceeds to form a single rate based on product units. So, if calculated according to the formula, the overhead costs per unit are as follows:

$$\text{Overhead costs per unit} = \frac{\text{Factory overhead costs}}{\text{Total sales unit}} = \frac{1,240,379,453}{300} = 4,134,598$$

From the calculation above, the factory overhead rate charged for each type of product is IDR 4,134,598.

2. Second stage

Furthermore, in this second part, the single factory overhead rate costs are allocated to the cost elements produced based on the number of units for each type of product, so the conventional method of production cost calculation is presented as follows:

Furthermore, in this second part, the single factory overhead rate costs are allocated to the cost elements produced based on the number of units for each type of product, so the conventional

method of production cost calculation is presented as follows:

Table 4. Calculation of Cost of Goods Production Using Conventional Methods

Keterangan	Konsumsi Aktivitas		
	Dump Truck	Dump Truck	NON
	Offroad	Onroad	Dump Truck
Biaya Bahan Baku	9.153.671.344	4.141.969.323	20.453.441.196
Biaya Tenaga Kerja Langsung	822.306.031	290.136.018	1.579.437.012
Biaya Tenaga Kerja Tidak Langsung	488.186.506	261.939.052	1.266.097.925
Biaya Overhead :			
DT Offroad = (48 X Rp 4.134.598)	198.460.712		
DT Onroad = (65 X Rp 4.134.598)		268.748.881	
Non DT = (187 X Rp 4.134.598)			773.169.859
Harga Pokok Produk	10.662.624.594	4.962.793.275	24.072.145.992
Unit Produk Jual	48	65	187
HPP Per Unit	222.138.012	76.350.666	128.728.053

Based on the processing and calculation of data in Table 4 above by applying conventional methods, the Cost of Goods Production per unit at PT. XYZ in 2021 amounts to Rp. 222,138,012 for the off-Road Dump Truck type per unit, Rp. 76,350,666 for the on-road Dump Truck type per unit, and Rp. 128,728,053 for the Non-Dump Truck type per unit.

2. Determination of the Cost of Production of PT. XYZ Using the Activity-Based Costing Method (ABC Costing)

1. First stage

In this first stage, costs will be classified into activity centers and determine the cost drivers of the activity centers. In this calculation, the author only focuses attention on overhead costs, because only the process of assigning factory overhead costs to ABC is different from the allocation process in the traditional system.

To make it easier to group overhead costs into cost groups, a list of activities has been created which can be seen in the following table:

Table 5. Activity Identification

Level Aktivitas	Aktivitas	Cost Driver
Level Unit	Persiapan Produksi	Jumlah Proses Produksi
Level Unit	Proses Welding	Jam Kerja Karyawan
Level Produk	Proses Assembly	Jam Kerja Karyawan
Level Produk	Finishing	Jam Kerja Karyawan

Explanation:

1. Unit Level Activities.

Activities are classified at the unit level because these indirect costs can be divided into each unit produced.

2. Product Level Activities.

Activities are classified at the Product level because these indirect costs can only be allocated based on product type.

2. Second stage

The products produced in the Offroad Dump Truck product category are the production of Dump Truck bodies which will be used for transport vehicles in mining areas; on road Dump Truck production of Dump Trucks, which will be used on highways; and Non-Dump Truck production other than Dump Trucks, namely Tank. Following are the details of the cost rates for the following activities:

Table 6. Identify Cost Drivers PT. XYZ

Level Aktivitas	Aktivitas	Cost Driver	Total
			Biaya
Level Unit	Persiapan Produksi	Jumlah Proses Produksi	5.804.657
Level Unit	Proses Welding	Jam Kerja Karyawan	232.186.293
Level Produk	Proses Assembly	Jam Kerja Karyawan	226.381.636
Level Produk	Finishing	Jam Kerja Karyawan	116.093.147
			580.465.733
Level Aktivitas	Aktivitas	Cost Driver	Total
			Biaya
Level Unit	Persiapan Produksi	Jumlah Proses Produksi	2.390.710
Level Unit	Proses Welding	Jam Kerja Karyawan	95.628.389
Level Produk	Proses Assembly	Jam Kerja Karyawan	93.237.679
Level Produk	Finishing	Jam Kerja Karyawan	47.814.194
			239.070.972
Level Aktivitas	Aktivitas	Cost Driver	Total
			Biaya
Level Unit	Persiapan Produksi	Jumlah Proses Produksi	4.208.427
Level Unit	Proses Welding	Jam Kerja Karyawan	168.337.099
Level Produk	Proses Assembly	Jam Kerja Karyawan	164.128.672
Level Produk	Finishing	Jam Kerja Karyawan	84.168.550
			420.842.748

3. Third stage

In this stage, the pool rate or group rate is determined. The pool rate is calculated to determine the rate per unit cost driver, obtained from dividing total costs by total activity consumption.

Table 7 Identification of Group Rates PT. XYZ

Level Aktivitas	Aktivitas	Cost Driver	Total	Konsumsi Aktivitas	
			Biaya	Dump Truck	Rate
Level Unit	Persiapan Produksi	Jumlah Proses Produksi	5.804.657	346	16.776
Level Unit	Proses Welding	Jam Kerja Karyawan	232.186.293	9.665	24.024
Level Produk	Proses Assembly	Jam Kerja Karyawan	226.381.636	9.523	23.773
Level Produk	Finishing	Jam Kerja Karyawan	116.093.147	4.883	23.773
			580.465.733	24.417	
Level Aktivitas	Aktivitas	Cost Driver	Total	Konsumsi Aktivitas	
			Biaya	Dump Truck	Rate
				Offroad	

Level Unit	Persiapan Produksi	Jumlah Proses Produksi	5.804.657	346	16.776
Level Unit	Proses Welding	Jam Kerja Karyawan	232.186.293	9.665	24.024
Level Produk	Proses Assembly	Jam Kerja Karyawan	226.381.636	9.523	23.773
Level Produk	Finishing	Jam Kerja Karyawan	116.093.147	4.883	23.773
			580.465.733	24.417	
Level Aktivitas	Aktivitas	Cost Driver	Total	Konsumsi Aktivitas	
			Biaya	Dump Truck	Rate
				Onroad	
Level Unit	Persiapan Produksi	Jumlah Proses Produksi	2.390.710	346	6.910
Level Unit	Proses Welding	Jam Kerja Karyawan	95.628.389	9.421	10.151
Level Produk	Proses Assembly	Jam Kerja Karyawan	93.237.679	1.667	55.943
Level Produk	Finishing	Jam Kerja Karyawan	47.814.194	4.883	9.791
			239.070.972	16.317	

4. Fourth stage

After calculating the pool rate or group rate for each activity, the basic cost can be calculated from the amount of production for each type of product, namely Offroad Dump Truck, on-road Dump Truck, and Non-Dump Truck. The calculation of factory overhead costs is based on the size of the activity, PT. In 2021, XYZ generated factory overhead costs for the Dump Truck Offroad product type, namely IDR 580,465,733, while for the Dump Truck on road and Non-Dump Truck types, it was IDR 239,070,972 and IDR 420,842,748. The load on the Offroad Dump Truck looks more significant compared to the others because the amount of work is more detailed and quite tricky, so the load allocation is adjusted to the many product-producing activities.

Table 8 Calculation of Cost of Goods Production Per Product Unit (ABC Costing) at PT. XYZ

Keterangan	Konsumsi Aktivitas		
	Dump Truck	Dump Truck	NON
	Offroad	Onroad	Dump Truck
Biaya Bahan Baku	9.153.671.344	4.141.969.323	20.453.441.196
Biaya Tenaga Kerja Langsung	822.306.031	290.136.018	1.579.437.012
Biaya Tenaga Kerja Tidak Langsung	488.186.506	261.939.052	1.266.097.925
Biaya Overhead :			
Persiapan Produksi	5.804.657	2.390.710	4.208.427
Proses Welding	232.186.293	95.628.389	168.337.099
Proses Assembly	226.381.636	93.237.679	164.128.672
Finishing	116.093.147	47.814.194	84.168.550
Harga Pokok Produk	11.044.629.614	4.933.115.366	23.719.818.881
Unit Produk	69	72	205
HPP Per Unit	160.067.096	68.515.491	115.706.434

3. Determination of Production Prices at PT. XYZ Using Target Costing

Product Sales PT. XYZ During 2021

During the 2021 period, PT. XYZ succeeded in selling dump trucks off-road, dump trucks on-road, service, spare parts, and non-dumping trucks, with a total sales of 300 products. The following is detailed sales data at PT. XYZ during 2021.

Table 9 Sales Data per Product for 2021

No	Produk	Kuantitas	Persentase
1	Dump Truck Offroad	48	16,00%
2	Dump Truck Onroad	65	21,67%
3	Non-Dump Truck	187	62,33%
	Total	300	100%

Next, the target costing calculation is carried out using the following formula:

$$\text{Target Production cost} = \text{Selling Price} - \text{Profit}$$

Table 10 Calculation of Cost of Goods Production Using Target Costing at PT. XYZ

Jenis Produk	Harga Pasar	Target Laba (%)	Target Laba	Target Harga Pokok Produksi
Dump Truck Offroad	264.000.000	33%	87.574.622	176.425.378
Dump Truck Onroad	133.666.667	15%	20.459.070	113.207.597
Non-Dump Truck	126.000.000	15%	19.035.735	106.964.265
	523.666.666		127.069.426	396.597.240

4. Determining Sales Prices and Production Costs Using Burden Rate

Calculation of Burden Rate & Direct Labor Rate

By knowing the total factory costs, marketing costs, direct costs, and general and administrative costs, as well as the number of working hours per month, we can determine the burden rate and direct labor rate as an estimate of the cost of production to which the allocation of costs for marketing and administration has been added. and general, here is the burden rate calculation for PT. XYZ in 2021 calculated by researchers:

Table 11 Calculation of Burden Rate and Direct Labor Rate PT. XYZ

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
Std Hours Earned	26.686	22.723	20.687	20.475	21.217	21.511	25.048	21.893	19.827	17.899	14.663	14.937
Factory Expenses	Rp 857.987	Rp 448.912	Rp 911.255	Rp 780.331	Rp 784.226	Rp 307.292	Rp 681.762	Rp 489.539	Rp 428.136	Rp 477.078	Rp 410.525	Rp 664.103
Marketing Expenses	Rp 453.154	Rp 193.195	Rp 221.485	Rp 519.056	Rp 903.881	Rp 326.286	Rp 426.714	Rp 573.893	Rp 449.624	Rp 738.057	Rp 326.065	Rp 651.822
General & Administrative Exp	Rp 580.531	Rp 451.191	Rp 458.595	Rp 483.509	Rp 738.205	Rp 440.937	Rp 441.234	Rp 495.522	Rp 445.784	Rp 463.109	Rp 458.691	Rp 482.876
Total Spending	Rp 1.891.672	Rp 1.093.298	Rp 1.591.335	Rp 1.782.896	Rp 1.426.312	Rp 1.074.514	Rp 1.549.710	Rp 1.558.754	Rp 1.323.544	Rp 1.678.244	Rp 1.195.280	Rp 1.798.801
Burden Rate (Total Exp ÷ D	Rp 87.030	Rp 65.515	Rp 96.740	Rp 113.196	Rp 151.099	Rp 68.727	Rp 80.342	Rp 93.668	Rp 88.097	Rp 114.845	Rp 108.822	Rp 148.745
Total Direct Payroll	Rp 668.184	Rp 549.856	Rp 542.263	Rp 730.783	Rp 1.074.539	Rp 571.418	Rp 625.174	Rp 603.678	Rp 519.079	Rp 503.344	Rp 373.540	Rp 450.228
Total Indirect Salary payroll	Rp 430.820	Rp 395.372	Rp 409.963	Rp 534.801	Rp 779.561	Rp 403.870	Rp 462.659	Rp 491.912	Rp 423.165	Rp 377.369	Rp 400.374	Rp 422.997
Total Payroll	Rp 1.099.005	Rp 945.228	Rp 952.226	Rp 1.265.584	Rp 1.854.100	Rp 975.288	Rp 1.087.833	Rp 1.095.590	Rp 942.244	Rp 880.713	Rp 773.914	Rp 873.225
Direct Labor Rate	Rp 25.039	Rp 24.199	Rp 26.212	Rp 35.692	Rp 50.645	Rp 26.564	Rp 24.959	Rp 27.574	Rp 26.180	Rp 28.121	Rp 25.475	Rp 30.142
Burden Rate	Rp 87.030	Rp 65.515	Rp 96.740	Rp 113.196	Rp 151.099	Rp 68.727	Rp 80.342	Rp 93.668	Rp 88.097	Rp 114.845	Rp 108.822	Rp 148.745
Total	Rp 112.069	Rp 89.714	Rp 122.952	Rp 148.888	Rp 201.744	Rp 95.291	Rp 105.301	Rp 121.242	Rp 114.278	Rp 142.966	Rp 134.297	Rp 178.886

From Table 11, the burden rate changes every month, either increasing or decreasing, and the direct labor rate also does so because it is directly affected by production. This can indicate that there is an increase/decrease in costs which has quite an impact on production costs so management must take corrective/efficiency steps. As analysis material, you can also compare the company's sales rate to see whether it can cover the required cost rate per hour, here is the comparison.

Table 12. Burden Rate Calculation with Sales Rate PT. XYZ

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
Std Hours Earned	26.686	22.723	20.687	20.475	21.217	21.511	25.048	21.893	19.827	17.899	14.663	14.937
Direct Labor Rate	Rp 25.039	Rp 24.199	Rp 26.212	Rp 35.692	Rp 50.645	Rp 26.564	Rp 24.959	Rp 27.574	Rp 26.180	Rp 28.121	Rp 25.475	Rp 30.142
Burden Rate	Rp 87.030	Rp 65.515	Rp 96.740	Rp 113.196	Rp 151.099	Rp 68.727	Rp 80.342	Rp 93.668	Rp 88.097	Rp 114.845	Rp 108.822	Rp 148.745
Total	Rp 112.069	Rp 89.714	Rp 122.952	Rp 148.888	Rp 201.744	Rp 95.291	Rp 105.301	Rp 121.242	Rp 114.278	Rp 142.966	Rp 134.297	Rp 178.886
Sales	Rp 1.175.407	Rp 1.739.655	Rp 5.286.919	Rp 3.128.922	Rp 14.189.863	Rp 1.980.491	Rp 9.681.018	Rp 7.376.167	Rp 5.787.076	Rp 4.655.914	Rp 2.031.202	Rp 5.484.091
Rate jualan	44.046	76.561	255.561	152.817	668.797	92.069	386.504	336.919	291.879	260.121	138.526	367.148
Loss Rate	(68.023)	(13.153)	132.610	3.929	467.052	(3.222)	281.203	215.677	177.601	117.155	4.229	188.262
Dalam sebulan	(1.815.269.029)	(298.871.332)	2.743.357.372	80.442.361	9.909.451.016	(69.311.120)	7.043.475.248	4.721.822.367	3.521.288.500	2.096.956.602	62.007.780	2.812.064.810

Table 12 shows that sales of PT. XYZ in January 2021, February 2021, and June 2021, were not able to cover production costs so it experienced losses.

In determining the selling price, management can be faster because if the burden rate + direct

labor rate is known, all you must do is estimate how long the unit will take to be completed so that it can cover production costs and add material costs to become the cost of producing the product. By knowing the total cost, the company only needs to add the margin it wants to achieve so that it is quicker and more accurate to assess the selling price, which of course is proven by the higher production cost value when calculated using the ABC method, thus providing a high and safer spare margin for the company.

5. Conclusion

Based on the research results, data analysis, and interpretation, this research can draw the following conclusions:

1. Based on research conducted at PT. XYZ regarding the Cost of Manufactured Goods, it can be concluded that the results of the comparison or difference between the conventional method and the ABC (Activity Based Costing) method indicate a situation of over-costing, where the prices calculated by PT. XYZ is more expensive than using the Activity Based Costing method, where all costs are calculated based on the activity.
2. The application of the target costing method, although it is easy to determine the selling price because it follows market prices, is not used properly in controlling product costs at PT. XYZ because the calculation for production quantities using the target costing method is higher. So, calculating costs based on the target costing method cannot help management in controlling product costs based on planning according to selling prices and company profits. Using the activity-based costing method is still more efficient and can be applied well at PT. XYZ because the calculation of the amount of production using activity-based costing is lower than the cost calculation using the target costing method.
3. In determining the selling price by knowing the Burden Rate and adding the direct labor rate plus material costs, the product production costs will be obtained. Only by adding the company's target margin will the company be quicker and more precise in determining the selling price. This is proven by the calculation of the cost of production, which is overstated compared to when calculated using the ABC method, which means that the Company has more room to estimate its profit margin.

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Analysis of the Effect of *Frugal Living* on Employee Financial Management in Achieving Financial Freedom

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Abstract

Employees are advised to apply the concept of frugal living or save at all costs to break the chain of debt that could endanger their financial condition. Employees may achieve financial freedom more quickly by practicing frugal living from an early age and managing finances well. Planning for financial freedom is very important because one day, people will lose their ability to work. This research collected data from 150 employee respondents who worked in private or civil agencies. The uniqueness of this research lies in the data processing method results showing that the t-test value for the frugal living variable has a value of 56,85, which is greater than the t-table of 1.66. The research results show that the Frugal Living lifestyle significantly affects employee financial management. In contrast, the relationship between financial management and financial freedom has no significant effect. Apart from that, the relationship between Frugal Living and financial freedom also does not have a significant effect. This research contributes to increasing insight for employees to implement the Frugal Living lifestyle in achieving financial freedom at an early age.

Keywords: *Frugal Living*, Financial Management, Financial Freedom

JEL Codes: M. 40, M41, M.42

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1. Introduction

The current increasing cost of living and stagnant income have prompted most people to devise special strategies to maintain survival. Starting from the COVID-19 pandemic in 2019, weather instability, to the conflicts in Russia-Ukraine and Israel-Palestine, all of these events have had an impact on increasing interest rates and increasing prices of basic goods. It is important to think of solutions to survive amidst soaring food and energy prices. In this modern era, there is the influence of incentives that have less positive value, such as following trends in purchasing

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or using goods that are not solely based on need, but are more often influenced by prestige, increasing prestige, and other reasons that are considered less essential (Anggraini and Fauzan Heru Santoso, 2017).

Recently, amidst increasingly difficult economic realities and efforts to avoid consumer behavior, a term that has long been known and has become a trend has emerged, namely frugal living. This term has become one of the approaches adopted by modern society to survive difficult economic situations and to overcome the tendency of consumerist behavior. Frugal living has become a term contrary to consumerism and is starting to be widely applied by lower middle-class people. This lifestyle emphasizes living with as few expenses as possible, mainly if total income is limited.

This lifestyle emphasizes living with as few expenses as possible, mainly if total income is limited. According to Dwi (2023), frugal living is a frugal lifestyle that focuses on saving money and reducing expenses. In principle, frugal living emphasizes policy in making spending decisions, prioritizing the value of the goods purchased, and maintaining financial balance to avoid being trapped in temporary consumer pleasures. A frugal lifestyle can be a short-term solution for someone who needs money to pay off debt, pay off loans, etc. However, if you make it a long-term habit, this lifestyle can help you achieve better life goals in the future.

Individuals who adopt a frugal living lifestyle not only focus on saving money but also practice accuracy in managing finances and making investments. Everyone must be wise and careful in managing their finances. According to Silaya (2020), a person can be said to be financially healthy if he uses planning to manage his finances, carries out proper analysis and sets clear financial goals. There are many reasons someone cannot achieve financial health, such as expenses that exceed income, consumer debt that cannot be managed, lack of savings and emergency funds, and lack of financial planning. The dire consequence is being in large amounts of debt.

Therefore, employees are advised to apply the concept of frugal living or save at all costs to break the chain of debt that could endanger their financial condition. By practicing frugal living from an early age and managing finances well, employees may achieve financial freedom more quickly. Planning for financial freedom is very important because one day, people will lose their ability to work.

2. Literature Review

2.1 Theory of Planned Behavior

In 1985, Ajzen introduced the TPB through an article entitled "*From Intentions to Actions: A Theory of Planned Behavior*." The basis of the TPB involves various attitude theories, including learning theory, expectancy-value theory, consistency theory, and attribution theory. *The Theory of Planned Behavior* (TPB) is a theoretical framework that explains the factors that influence the formation of intentions to behave. TPB states that behavioral intentions are influenced by three key factors, namely attitudes, subjective norms, and perceptions regarding behavioral control. This theory has been widely applied in various research fields involving environmental behavior and problems. Thus, the basic principle of TPB is to predict intentions, which will generally become actual behavior without serious obstacles. This theory has several purposes and uses, predicting and understanding the impact of motivation on behavior that is not

completely controlled or regulated by the individual. In addition, this theory is used to identify behavior change strategies and explain crucial aspects of human behavior, including the factors that encourage someone to buy a new car or be absent from work. The TPB provides a framework for understanding attitudes towards a behavior, saying that the intention to behave is the main determinant of a person's behavior.

2.2 Frugal Living

According to Kotler and Keller (2008), Lifestyle is the unique way in which a person lives their life which is reflected in their activities, interests and views of the world. The concept of lifestyle covers the overall aspect of an individual and how they interact with the surrounding environment, reflecting the individual's general pattern of living their daily life. Lifestyle includes an individual's actions as reflected in their daily activities, personal interests, and views, particularly with regard to the way their self-image reflects their social status.

Referring to research from (Dwi, 2023), Frugal living is a frugal lifestyle that focuses on saving and minimizing expenses. If someone wants to live frugally, they need to think about their ultimate goal and how they can take charge of their finances to achieve that goal. Meanwhile, according to (Sibuea, 2022), the concept of frugal living is not something superficial. Frugal living is defined as a concept where a person allocates his financial resources consciously with good assessment and analysis as well as a strategy to achieve clear financial goals for the future.

According to Sibuea (2022), there are several practical steps to implement a Frugal Living lifestyle, including:

1. Have clear and reasonable financial goals
2. Always analyze your needs and wants before spending money
3. Avoid consumer debt
4. Feel comfortable not being influenced by trends
5. There is an understanding and awareness that life is not just a moment

2.3 Financial Management

According to Lestari (2020), individual financial management can be understood as the study of the use of important resources carried out by individuals and families to achieve financial success, including various activities related to managing income, costs, savings, protection and investment. Individual financial management is an important issue because it can direct producers to spend money wisely to achieve economic benefits, for example by encouraging them to produce goods and services that meet their needs (Kholilah and Iramani, 2018). A person is able to manage personal finances well if they know how to budget, saving, managing finances, and investing. According to Afandy (2020), there are five aspects of good financial management, namely as follows:

1. Planning Finances
2. Pay bills on time.
3. Contemplation of the Future
4. Save

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5. Financially independent

2.4 Financial Freedom

According to Aulia Akbar, a financial planner and financial educator at the Kompasianival life hack (2021), financial freedom is a condition where a person does not depend on other people and is not forced to work too much to meet life's needs, including financial needs. This means that someone who has achieved financial freedom can be said to have more than enough assets. To achieve financial independence, we all need a good financial plan. Gaining financial independence is a systematic approach to making more money in less time so you can spend more of your valuable free time doing the things you love. Planning for financial freedom is very important because one day people will lose their ability to work. The following steps can be taken to achieve financial freedom, namely as follows:

1. Make a financial plan
2. Free from consumer debt
3. Have an emergency fund
4. Have investments
5. Have productive assets
6. Set up passive income
7. Development of personal potential

3. Research Method

3.1 Population and Prosedure

The population in this study includes all employees who work in the four research objects, namely the Palcomtech Institute, Maxone Hotel, Palembang City PUPR Service, and Palembang City Environmental Service with a total of 154 people. In determining the sample for this research, the researcher chose the Probability Sampling technique, especially simple random sampling, where each member of the population has the same chance of being selected as a member of the sample. This research used a sample of 150 people, in line with the total population of the four research objects.

3.2 Measure

The data collection technique in this research uses a questionnaire as the main source of information. The research questionnaire will be prepared in the form of a Google form and distributed via various social media platforms, including WhatsApp and Telegram. The questionnaire contains 24 questions and uses a Likert scale with a range of 1-5 (Strongly Disagree-Strongly Agree).

3.2 Analysis Technique

After data collection, the research involved several analysis steps. First, the Data Quality Test is carried out through the Validity Test, Reliability Test, and Classical Assumption Test. After that, the classical assumption test was carried out with the Multicollinearity Test, Normality Test, and Heteroskedasticity Test applied to ensure the validity of the estimation model as an

estimating instrument. The t-test shows how big the influence of each independent variable, intervening variable, and dependent variable is. The following estimation equation is used in this research:

- **1st Equation** : $Y = \beta_0 + \beta_1 X_1$

- **2nd Equation** : $Z = Y$

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 Y$$

Information :

Y = Financial management

$B_0 \beta_1 \beta_2$ = Regression model parameters

X_1 = Frugal Living

Z = Financial Freedom

4. Findings and Discussions

4.1 Findings

By collecting data through a structured questionnaire distributed via Google Form and distributed via WhatsApp and Telegram, a sample or respondent of 150 people was obtained who filled out the questionnaire with detailed data as follows:

Table 1. Respondent Profile

No.	Dimention	Category	Number of Respondents (Person)	Percentage (%)
1.	Age	a. 20-30 years	54	36
		b. 31-40 years	55	36,7
		c. 41-50 years	41	27,3
2.	Gender	a. Man	53	35,3
		b. Woman	97	64,7
3.	Company	a. Palcomtech	41	27
		b. Maxone Hotel	36	24
		c. LHK Department	36	24
		d. PUPR Department	30	20
		e. Others	7	5
4.	Position	a. Staff	104	69
		b. Coordinator	21	14
		c. Manager/ Chief	25	17

5.	Length of Work	a. < 1 year	17	11,3
		b. > 1-5 years	43	28,7
		c. > 5-10 years	33	22
		d. > 10 years	57	38
6.	Amount of Expenses Each Month	a. < Rp 1 Million	7	4,7
		b. Rp 1-5 Million	90	60
		c. Rp 5-10 Million	39	26
		d. Rp 10-15 Million	14	9,3
7.	Lifestyle Application	a. Expenditures are not greater than income	40	26,7
		b. Save in a disciplined manner	32	21,3
		c. Minimalist lifestyle	18	12
		d. Be wise in shopping	60	40

Source : Data is proceed, 2024

4.1 Test Data Quality

Table 2. Result Test Data Quality

Variable	Validity Test	Reliability Test	Normality Test	Multicollinearity Test	Heteroscedasticity Test
Frugal Living Financial Management Financial Freedom	VALID (Rcount value > from Rtable 0.1603)	RELIABLE (Ralpha Value > Rcritical 0.600) Ralpha : - FG: 0.962 - PK: 0.929 - KF: 0.930	NORMAL (Asymp.Sig significance value > 0.05) Asymp: 0.200	MULTICOLINEARITY NOT OCCUR (TOL value > 0.1 and VIF value < 10) TOLL: 0.142 VIF: 7,054	HETEROSCEDASTICITY DOES NOT OCCUR Significance value ≥ 0.05 - FG: 0.505 - PK: 0.443

Source : Data is proceed

Based on the table above, the data quality test results in this study show that the data is valid, reliable, and normal. There is no multicollinearity or heteroscedasticity because the value of each variable is above the normal threshold value.

4.2 T-Value Test of Coefficients or Parameters

The t-test is used to evaluate the significance of the influence of the independent variable on the dependent variable. In this research, the test was carried out using regression analysis for the variable frugal living on financial management, then financial management on financial freedom, and frugal living on financial freedom. The results of the t-test between variables)can

be shown in the image below :

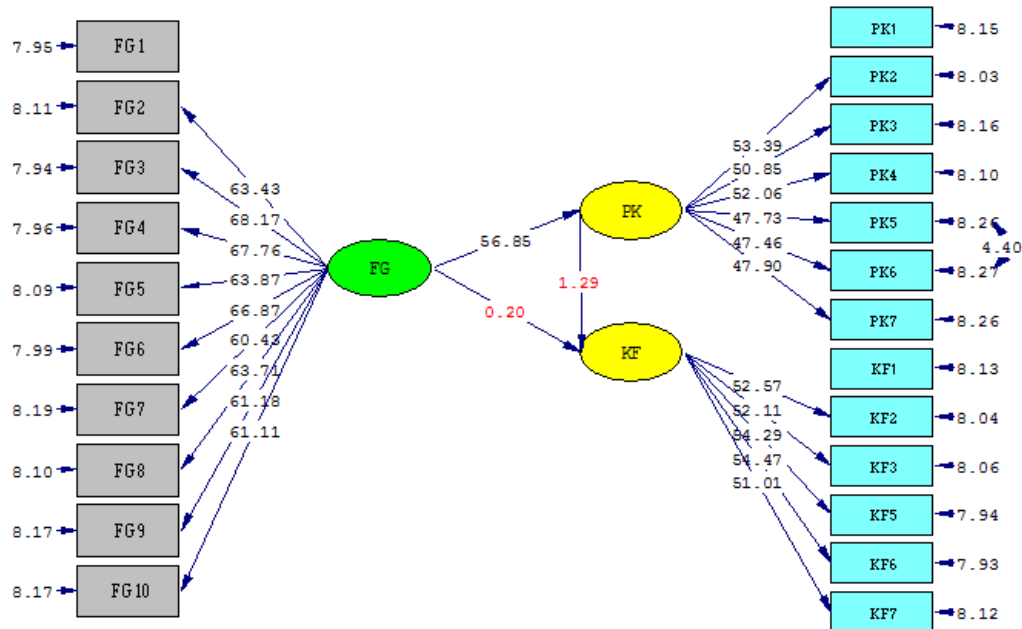


Figure 1. T-Value Structural Model

Source: Data is Proceed

The figure above explains that the influence of Frugal Living on Financial Management in Achieving Financial Freedom can be seen from the t-value output coefficient or parameter. A significant relationship will be indicated by the t-value displayed in black on the path diagram with a value ≥ 1.66 . Meanwhile, an insignificant relationship will be indicated by a t-value displayed in red on the path diagram with a value below 1.66. Based on the t-value of the financial management variable (PK) on financial freedom (KF) of 1.29 and the t-value of the Frugal Living (FG) variable on financial freedom (KF) of 0.20, it can be interpreted that financial management (PK) does not have a significant effect on financial freedom (KF) and Frugal Living (FG) also does not have a significant effect on financial freedom (KF).

Based on the structural t-value image above, the t-value is used to assess the significance of the influence between variables. This information is reflected in the results of data analysis which is presented in the form of structural equations. Structural equation 1 can be described as follows:

$$Y = \beta_0 + \beta_1 X_1$$

$$Y = 0.38 + 0.90 X_1$$

Structural equation 1 shows the partial influence of frugal living on financial management. There is β_0 which is a regression coefficient of 0.38 indicating the direction of a positive relationship between the frugal living variable and partial financial management. When variable X_1 increases, the value of variable Y also increases. This means that if frugal living increases then financial management will also improve. Meanwhile, the $\beta_1 X_1$ value of 0.90 indicates that the frugal living regression coefficient has a 90% influence on financial management and the

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remaining 10% is influenced by other variables not mentioned in this research.

Furthermore, the results of the second structural equation indicate that Financial Management acts as a mediator in the relationship between Frugal Living and Financial Freedom as stated in the results of the regression equation as follows:

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 Y$$

$$Z = -0.11 + 0.12FG + 0.89PK$$

The regression equation has a negative value at a constant of -0.11, which states that if Frugal Living has a value of 0, then financial freedom will have a negative value. This model means that for every 1 unit increase in the score for implementing frugal living or X_1 it is 0.12 with the assumption that the financial management variables are in a constant condition. Every time there is an increase of 1 unit in the score for financial management or Y of 0.89, it will be followed by an increase in financial freedom of -0.11 with the assumption that the frugal living variable is in a constant condition.

After evaluating the overall fit of the model. This test aims to understand the relationship between frugal living and financial management and determine whether financial management acts as a mediator in the relationship between frugal living and financial freedom. The following are the results of the evaluation of the structural model coefficients and their relationship to the Research Hypothesis:

Table 3. Evaluation of Structural Model Coefficients and Their Relationship to Research Hypotheses

Hypothesis	Path	T-Table	T-Value	Result
Hypothesis 1	<i>Frugal Living</i> – Financial Management	1,66	56,85	Accepted
Hypothesis 2	Financial Management – Financial Freedom	0,89	1,29	Rejected
Hypothesis 3	<i>Frugal Living</i> – Financial Freedom	0,12	0,20	Rejected

Source: Data is proceed

Based on the table above, it is produced that:

- The first hypothesis was proven to be accepted because the t-value reached 56.85, and the estimated coefficient was 0.90 at the 95% confidence level. The significance of this result can be seen from the t-value, which exceeds the threshold of 1.66. The high estimated value indicates the positive influence of frugal living on financial management.
- The second hypothesis must be rejected because the estimated coefficient and t-value do not show sufficient significance. The T-value is 1.29, and the estimated coefficient is 0.89, with a confidence level of 95%. Model testing shows that the t-value, with red indicating a value

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below 1.66, indicates an insignificant relationship between financial management and financial freedom.

- Third hypothesis because the estimated coefficient and t-value are not significant. The T-value is 0.20 and the estimated coefficient is 0.12 at the 95% confidence level. The red color on the t-value indicates a value below 1.66, indicating the insignificance of the relationship between frugal living and financial freedom.

4.2 Discussions

4.2.1 The Influence of Frugal Living on Financial Management

Based on the research results, it appears that there is a direct relationship between Frugal Living and Financial Management. This emphasizes that a person's level of lifestyle directly influences their ability to manage finances, and good financial management can reduce the risk of financial difficulties. This is in accordance with previous research findings from (Franita, 2023) which states that the strategy that must be used in making financial planning is to implement frugal living and research (Muhammad, 2022) which states that frugal living has a positive and significant effect on desires. early retirement. Based on this description, it can be concluded that frugal living has a significant effect on employee financial management.

4.2.2 The Influence of Financial Management on Financial Freedom

Discussion of Financial Management towards Financial Freedom Research on financial management variables on financial freedom shows a direct relationship. However, findings from research show that the relationship between financial management and financial freedom is not significant. If related to behavioral theory, the lack of influence of financial management on financial freedom is a lack of understanding of personal financial situations, financial goals and how to achieve them. If someone lacks financial awareness, they may not understand the importance of financial management in achieving financial freedom. Behavioral finance theory highlights the importance of setting appropriate priorities in financial management. If someone does not prioritize financial management to achieve financial freedom, they may be more likely to spend money impulsively or not pay attention to long-term financial planning.

The results of this research also support the results of research from (Kholilah and Iramani, 2018) which states that a person is able to manage personal finances well if they know how to budget, save, manage finances and invest. This is also in accordance with the findings of previous research (Illahi et al. 2021) which explains that the millennial generation has the potential to achieve financial freedom from an early age, but needs to change their financial practices in order to control their finances more effectively. The main key in achieving this goal is consistency, where success in achieving financial freedom depends on the ability to remain consistent with the financial practices that have been developed. Based on this explanation, it can be concluded that a lack of consistency in financial management can cause its influence to be insignificant in achieving financial freedom.

4.2.3 The Influence of Frugal Living on Financial Freedom

Frugal living research on financial freedom shows an indirect relationship. This is because there is a financial management variable that mediates the frugal living variable and the financial freedom variable. If linked to behavioral theory, the lack of influence of frugal living on financial freedom is that behavioral financial theory highlights the importance of individual

perceptions of spending. If someone doesn't view frugal living as an effective way to achieve financial freedom, they probably won't implement it in their daily life. This perception can be influenced by culture, environment and personal experience. Furthermore, the lack of influence of frugal living on financial freedom can also be influenced by a person's personal priorities and values. If someone is more concerned with consuming goods and services to fulfill current desires than saving for the future, they will probably not adopt frugal living as part of their financial habits.

Thus, while frugal living can be a powerful element in the journey to financial freedom, it is important to include other elements such as wise investments, debt management, and creating passive sources of income. Apart from that, the personal financial context and life goals also play an important role in determining the extent to which frugal living will affect a person's financial freedom. This is in line with research (Melania, Ratnawati, and Karsudjono, 2020) which explains that individuals' understanding of the choices available in their lives can be reflected in financial behavior, which is basically the implementation of these choices. The choices made by individuals will be reflected in the lifestyle they adopt.

5. Conclusion

This research concludes that frugal living has a significant impact on financial management. However, financial management does not mediate between a frugal lifestyle and financial freedom. Furthermore, frugal living does not have a positive and significant impact on financial freedom. In other words, changes in the value of frugal living do not significantly contribute to changes in financial freedom, so an increase in frugal living does not necessarily mean an increase in financial freedom. It is recommended to continue further research, considering the limitations of research on frugal living. This is because although frugal living can be a powerful element in the journey to financial freedom, it is important to involve other elements such as wise investments, debt management, consistency and creating passive sources of income. Apart from that, the personal financial context and life goals also play an important role in determining the extent to which frugal living will affect a person's financial freedom.

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Effects of Social Media Marketing on Vegetarian Food Literacy and Post-Purchase Decision

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Abstract

This study aims to determine and analyze the effect of social media on vegetarian food literacy, the effect of vegetarian food literacy on purchasing decisions, and the components of the AISAS model that most effectively influence consumer purchasing decisions. This study involved 158 respondents. Respondents consisted of Generation Y and Z in Palembang, who were selected using the purposive sampling quota technique. Data collection was carried out using an online questionnaire. SEM-PLS analysis in this study was used to analyze the direct influence of social media on vegetarian food literacy and consumer purchasing decisions based on AISAS modeling. The results of this study indicate that social media has a significant and positive effect on consumers' attention, interest, and search factors. The share factor is the most influential factor in consumer purchasing decisions and on vegetarian products. The influence given by influencer testimonials and friends is considered the most effective in attracting other consumers to buy. This can be a reference for vegetarian food businesses to find the most effective marketing methods to attract consumer purchasing decisions.

Keywords: Social media, vegetarian food literacy, purchase decisions, AISAS model, SEM-PLS.

JEL Code: M30, M31, M37

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1. Introduction

Nowadays, many healthy food alternatives are emerging, including juice combinations, herbs, and vegetarian options. Vegetarianism not only contributes to health by lowering the risk of disease, but is also chosen by many people due to environmental concerns, animal welfare, economic considerations, ethics, global hunger issues, and religious reasons. The vegetarian food market in Indonesia is experiencing rapid growth and is expected to exceed \$34.24 billion by 2028. Consumer awareness of animal welfare is increasing, driving the sector's growth.

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Even though the market is still small, growth projections show a positive trend.

Based on initial research with 50 respondents, most vegetarians choose this lifestyle due to health considerations, animal ethics, and environmental sustainability. There are different types of vegetarians, including semi-vegetarians, vegans, lacto-vegetarians, and ovo-vegetarians. Social media is the leading marketing choice for vegetarian food businesses. Instagram, a frequently used platform, provides features such as Instagram Shopping and Live to attract prospects and build customer relationships.

Purchase decisions in the context of vegetarian food are measured using the AISAS model. Consumers pay attention, develop interests, search for information, take purchasing actions, and share experiences after purchase. This research formulates problems related to the influence of social media on vegetarian food literacy, the impact of food literacy on purchasing decisions, and the effectiveness of the components of the AISAS model. The research aims to identify and analyze these influences, with academic benefits as a reference and practical benefits in improving purchasing decisions through social media marketing.

2. Literature Review

2.1 Theoretical background

Consumer behavior is the study of real actions carried out by individuals when purchasing and using products. As individuals involved in purchasing, searching for, using, and consuming products, consumers consider their personal needs and desires. Consumers make selections, search for information, and purchase and use products in the purchasing decision-making process.

The main factors that influence consumer behavior, as proposed by Kotler and Keller, include consumer characteristics such as cultural, social, and personal factors. Culture includes the way of life of individuals within a societal group, while social factors involve the influence of reference groups such as family, friends, and the work environment. Personal factors such as age, occupation, and lifestyle also shape consumer purchasing decisions.

Consumer psychology highlights motivation, perception, emotion, and experience as key factors in the purchasing process. Basic needs influence consumer motivation, while perception involves selecting, organizing, and interpreting information. Consumer emotions and experiences originate from memories and can influence future consumer preferences and decisions.

Social media, as a platform on the internet that facilitates interaction and sharing of information, has become an essential element in modern marketing. Social media marketing influences brand reputation and interactions with customers and creates opportunities to influence consumer purchasing decisions. Factors such as content quality, building trust, engagement, and integration with other media platforms play a key role in the effectiveness of social media marketing. Marketing via social media is not only an advertising tool but also a way to influence consumer interest and decisions regarding a business or product.

2.2 Hypothesis development

Social media marketing creates more personal social relationships, positively impacting consumer purchasing decisions (Adolf & Lopian, 2020). This personal interaction helps consumers understand the product more deeply. Social media messages that attract attention, as suggested by (Rihn et al., 2019) and (Oktimawati Dewi et al., 2018), encourage consumer

interest in products, being the first step for online businesses to be known and remembered by consumers.

H1: Social media influences attention

Shopping on social networks provides comfort and satisfaction, which can reduce price concerns and create a sense of security. These results support the acceptance of the second hypothesis. This finding is in line with research (Gulseven, 2018), which shows that social media followers tend to be interested in messages and information, increasing interest in products promoted through social media.

H2: Social media influences interest.

Online shopping activities which are currently popular make it easier for consumers from various levels of society. By only needing a device such as a smartphone or laptop with internet access, purchases can be made without leaving home. The existence of very popular social media helps manufacturers promote products more efficiently. It is hoped that the existence of social networks can provide a new color to the online buying and selling process, in accordance with research findings (Bowo et al., 2023).

H3: Social media influences search.

Today's society is increasingly concerned about their food choices, combining taste satisfaction with concern for health. Emphasizing reducing cholesterol intake, many are turning to the increasingly popular vegetarian diet. Living as a vegetarian has its benefits, especially because vegetarian food is free of cholesterol from animal products. Research shows that the level of attention to organic food increases understanding of health benefits, production processes, and support for sustainability.

H4: Attention influences vegetarian food literacy.

The number of Asians switching to vegetarian diets is increasing, reflecting increased interest in plant protein and awareness of health and the environment. Healthy living choices by choosing plant-based foods have a positive impact on the health of individuals and society as a whole. Although research (Malan et al., 2020) shows interest in social media content that promotes organic products.

H5: Interest influences vegetarian food literacy.

People who switch to a vegan diet note ethical, moral, religious, and sustainability-based motivations. There are three main categories of motivation, namely those related to living things, oneself, and environmental sustainability. This motivation is interesting for further research, especially regarding the transition to a vegetarian diet. Although research results show information seeking activities after paying attention to organic farming,

H6: Search influences vegetarian food literacy.

Vegetarian food literacy influences consumers' purchasing decisions regarding vegetarian products or services. This includes understanding nutrition, the importance of a vegetarian lifestyle, product knowledge, relevance to consumer values, and health and environmental impacts. Research shows that the level of vegetarian food literacy can be significant in influencing consumer preferences and purchasing decisions. For a deeper understanding, market research and analysis is needed that considers these variables.

H7: Vegetarian food literacy influences purchase decisions.

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Consumer purchasing decisions influence the activities of sharing experiences or recommendations with others, such as sharing directly, writing online reviews, or participating in social media discussions. Factors that influence sharing include positive experiences, customer satisfaction, emotional engagement, product uniqueness, social influence, social media platforms, incentive programs, online reviews, and brand reputation.

H8: Purchase decisions influence share

3. Research Method

3.1 Participant and Procedure

This research uses two types of data, namely primary data and secondary data. Primary data was collected through questionnaires distributed to generations Y and Z in the city of Palembang, while secondary data included previous research, scientific articles, books and statistical reports. Data analysis will involve statistical methods such as descriptive and inferential analysis, including regression tests and moderation tests to test research hypotheses.

This research uses quantitative methods to collect data that can be measured in numbers, especially through surveys using questionnaires. The research population includes all members of generations Y and Z in the city of Palembang, without a definite number limit. The research sample, selected using the convenience sampling method, consisted of members of generations Y and Z in Palembang in the age range 13-50 years who had been vegetarian or had been vegetarian for at least one year. The number of samples obtained was 280 respondents, with a sampling method that took into account population size, error rate and truth rate.

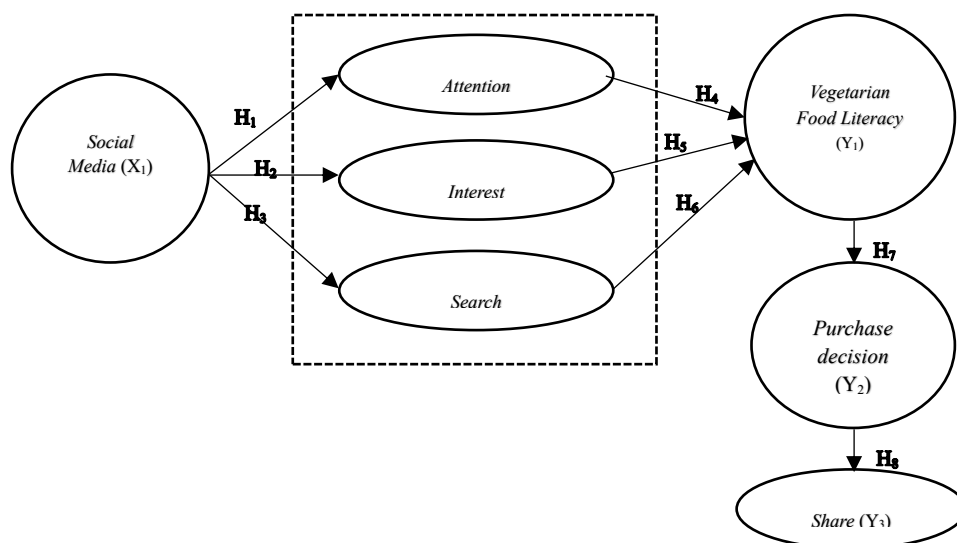


Figure 1. Research Model

Data is proceed

3.2 Measure

In this research, the sampling technique uses a closed questionnaire with a Likert scale from 1 to 6 to measure respondents' attitudes, opinions and perceptions of the research subject. The questionnaire was distributed online via social media and WhatsApp using a Google form link, ensuring easy access for respondents. The Likert scale was used with positive statements ranging from "Strongly Disagree" to "Strongly Agree," according to the method described in

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the Likert scale table.

The research uses a survey with a questionnaire as a data collection method. The questionnaire was prepared on a Likert scale and distributed to generations Y and Z in the city of Palembang via an online platform. Questions focused on the impact of social media, vegetarian food literacy, and components of the AISAS model on purchasing decisions. The Likert scale provides answer options from "Strongly Agree" to "Strongly Disagree". The collected data will be analyzed using statistical techniques, including regression analysis and path analysis, to understand variable relationships. This method is expected to produce valid and reliable data to support the resolution of research questions.

To calculate the relationship between these variables, the study used a regression analysis model with the AISAS model. The use of this regression analysis model allows researchers to evaluate the relationship between the independent variables (social media marketing and vegetarian food literacy) and the dependent variable (purchase decision).

The steps in calculating the variables of the statement are as follows: Identification of independent, dependent, and control variables. Primary data collection through distributing questionnaires to members of generation Y and Z in Palembang city. Data analysis using statistical methods, including descriptive analysis to provide an overall picture of the data, and inferential analysis such as regression tests and moderation tests to test research hypotheses. Application of regression analysis model with AISAS model to evaluate the relationship between independent variables (social media marketing and vegetarian food literacy) and dependent variable (purchase decision). Interpretation of the analysis results to identify and explain the relationship between these variables.

Thus, by using regression analysis method and AISAS model, the research will be able to calculate and evaluate the relationship between social media marketing, vegetarian food literacy, and purchase decision among generation Y and Z respondents in Palembang city.

3.3 Data analysis procedures

Marketing via social media uses social platforms for product interaction between companies and consumers, the aim is not only direct sales but also stimulating consumer interest. A vegetarian lifestyle, which rejects animal foods, provides health benefits. Purchasing decisions reflect consumers' final consideration of marketing efforts. This research uses a quantitative method with a Likert Scale questionnaire for generations Y and Z in Palembang City who understand social media marketing, vegetarian food literacy, and purchasing decisions.

This research will use multiple linear regression analysis to evaluate the relationship between the independent variable (social media) and the dependent variable (purchasing decisions, vegetarian food literacy, and share). Multiple linear regression analysis is applied as an effective method in measuring complex relationships and considering the impact of moderating variables. In addition, the Structural Equation Modeling (SEM) Partial Least Square (PLS) method will be used to model the relationship between variables within the framework of the research concept. SEM-PLS allows researchers to test and model causal relationships between variables, providing information about the significance, strength of the relationship, as well as measuring direct and indirect effects through mediating variables.

The stages of applying Structural Equation Modeling (SEM) based on Partial Least Square (PLS) involve: designing a theoretical model with a literature review, developing a Path Diagram to visualize relationships between structures, converting the Path Diagram to a SEM-

PLS equation that includes endogenous and exogenous variables, selecting a matrix input and estimation techniques with preference to covariance matrices, assessment of identification problems to ensure unique estimates, model evaluation including chi-square tests, and interpretation and modification of models for optimality and consistency with existing data.

4. Results and Discussions

4.1 Descriptive statistics

This research reaches the general public, focusing on the Dharmakirti Vihara place of worship and the KMBP Student and Alumni Community who are involved in a vegetarian diet. Dharmakirti Vihara and KMBP in Palembang became a place of distribution, with positive participation showing high interest and involvement in their spiritual and cultural aspects. Respondents consisted of generations Y and Z in Palembang, aged 13-50 years, with the majority being or being vegetarian. Analysis of characteristic data shows a balanced distribution between genders, the majority are aged 17-<25 years, have a bachelor's degree, and have a variety of jobs, with employees being the majority.

The model measurement results show validity and reliability that meet standards (>0.7 for validity, <0.5 for reliability). Therefore, all variables are considered valid and reliable for each dimension and related indicators. The next step is to measure discriminant validity, where each reflective indicator should be highly correlated only with the relevant construct. Discriminant validity is fulfilled if the correlation between latent constructs is less than the square root of the AVE of each related construct (Hair et al., 2019).

Table 1. Reliability and Validity Test

Variable	Indicator	Outer Loading	AVE	CR	Cr. Alpha	Valid or Invalid	Reliable or Not Reliable
Social Media (X1)	Easy to find content	0.946	0,840	0,955	0,954	V	R
	Interaction happens	0.931				V	R
	Easy to get information	0.924				V	R
	Easy to communicate with the public	0.946				V	R
Vegetarian Food Literacy (Y1)	Basic concept	0.890	0,809	0,922	0,921	V	R
	About types of	0.919				V	R
	Food ingredients	0.891				V	R
	Advantages and disadvantages	0.898				V	R
Purchase Decision (Y2)	According to my needs	0.911	0,823	0,947	0,946	V	R
	Seek various information	0.905				V	R
	Evaluate and compare	0.907				V	R

Share (Y3)	Because of satisfactory marketing	0.891	0,853	0,945	0,942	V	R
	Give recommendations to people around	0.922				V	R
	Posting on social media	0.929				V	R
	Making judgments on social media	0.929				V	R
	Sharing the experience in person	0.949				V	R
Attention (Z1)	Comparing other foods	0.886	0,840	0,907	0,904	V	R
	Have seen promotions in some media	0.902				V	R
	About vegetarian food	0.942				V	R
Interest (Z2)	Would like to find out more information	0.904	0,840	0,913	0,907	V	R
	Attracts attention	0.894				V	R
	Know / familiar with vegetarian food	0.937				V	R
Search (Z3)	Interested in visiting the place	0.924	0,877	0,931	0,930	V	R
	Looking for information about food	0.934				V	R
	Collect reviews and feedback	0.941				V	R
	Understand the content of advertising and marketing messages	0.935				V	R

Data is proceed

Table 2 Correlation Values between Dimensional Constructs

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Correlation Value between Constructs							
	Attention	Interest	Vegetarian Food Literacy	Social Media	Purchase Decision	Search	Share
Attention	1,000	0,913	0,845	0,874	0,871	0,911	0,888
Interest	0,913	1,000	0,865	0,865	0,885	0,924	0,897
Vegetarian Food Literacy	0,845	0,865	1,000	0,805	0,842	0,881	0,812
Social Media	0,874	0,865	0,805	1,000	0,791	0,843	0,832
Purchase Decision	0,871	0,885	0,842	0,791	1,000	0,903	0,916
Search	0,911	0,924	0,881	0,843	0,903	1,000	0,879
Share	0,888	0,897	0,812	0,832	0,916	0,879	1,000

Data is proceed

The correlation values for all variable dimensions meet the criteria with construct values smaller than the Average Variance Extracted (AVE) of each related construct. Discriminant validity can be evaluated by comparing the outer loading values of indicators in one construct with those of other constructs. An outer loading value that is greater than the indicator's cross loading indicates a stronger correlation with the construct itself. Thus, a high outer loading value reflects a strong correlation between the indicator and the construct.

4.2 Hypothesis testing

Table 3 Overall Structural Model Equation Test Results

Var. Endogen		Var. Eksogen	Path Coef.	t-stat.	P-value	R ²	Information
Attention	<-	Social Media	0,874	38,988	0,000	0.764	Significant
Interest	<-	Social Media	0,865	39,405	0,000	0.748	Significant
Search	<-	Social Media	0,843	27,719	0,000	0.711	Significant
Vegetarian Food Literacy	<-	Attention	0,134	0,860	0,390	0.796	Not significant
Vegetarian Food Literacy	<-	Interest	0,286	1,884	0,060	0.796	Not significant
Vegetarian Food Literacy	<-	Search	0,494	4,283	0,000	0.796	Significant
Purchase Decision	<-	Vegetarian Food	0,842	22,847	0,000	0.709	Significant

		Literacy					
Share	<-	Purchase Decision	0,916	43,980	0,000	0.711	Significant

Data is proceed

From Table 3, it is concluded that social media has a significant positive effect on Attention, Interest and Search (with R2 of 0.874, 0.863 and 0.843 respectively). Furthermore, Search has a positive effect on Vegetarian Food Literacy (with R2 of 0.134). Vegetarian Food Literacy also has a positive effect on purchasing decisions (Purchase Decision) with a t-count of 0.286. Meanwhile, purchasing decisions have a positive effect on Share with a t-count of 0.916. Attention and Interest, however, do not have a positive influence on Vegetarian Food Literacy (with an R2 of 0.134).

4.3 Discussion

Based on the table results, the first hypothesis is accepted with Path Coef. 0.874 and p-value 0.000. The indicator regarding seeing vegetarian food promotions on social media, brochures and billboards has an R2 of 0.902. These findings are in line with research (Adolf & Lapien, 2020), emphasizing the positive impact of social media on consumer purchasing decisions.

The second hypothesis is accepted with Path Coef. 0.865 and p-value 0.000. Consumers' familiarity with vegetarian food reached a score of 93.7%. H2 is in line with research (Gulseven, 2018) which shows the positive impact of social media followers on individual interest in the product being promoted.

The third hypothesis is accepted with Path Coef. 0.843 and p-value 0.000. Consumers search for information about vegetarian food on the internet, engaging in search practices and collecting reviews. These findings support the popularity of online buying and selling via social media (Bowo et al., 2023).

The fourth hypothesis is rejected with Path Coef. 0.134 and p-value 0.390. Attention to vegetarian food has no significant effect on food literacy. Suggestion to focus on more informative and relevant content related to vegetarian food.

The fifth hypothesis is rejected with Path Coef. 0.286 and p-value 0.060. Consumer interest in vegetarian food does not have a significant effect on food literacy. Suggestions to emphasize more substantial information regarding vegetarian food.

The sixth hypothesis is accepted with Path Coef. 0.494 and p-value 0.000. Searching for information via the internet contributes to vegetarian food literacy. This finding is in line with research (Ditzler & Greenhawt, 2018) which shows that information seeking activities increase consumer understanding of products.

The seventh hypothesis is accepted with Path Coef. 0.842 and p-value 0.000. Vegetarian food literacy positively influences consumer purchasing decisions. Awareness of nutritional value, taste and other aspects influences purchasing decisions (Putri et al., 2021)

The eighth hypothesis is accepted with Path Coef. 0.916 and p-value 0.000. Purchasing decisions influence consumer sharing of experiences, reviews, or recommendations. These findings support the role of external factors in shaping consumer behavior (Hera & Fourqoniah, 2023)

5. Conclusion

This research focuses on individual motivations for switching to a vegetarian diet, taking into account environmental, animal welfare and religious factors. Social media has a significant role in promoting the vegetarian lifestyle. The research method used questionnaires and previous research, involving generations Y and Z in Palembang with 158 respondents who were considered valid. Of the eight hypotheses, there were two statements that were not significant, namely attention and interest in vegetarian food literacy. Attention may be influenced by respondents' prior knowledge and personal values, while interest may be influenced by variations in interests and external factors.

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The Influence of Workload, Job Satisfaction, and Communication on the Performance of Support Service Workers at Pertamina Abab Dewa Raja Field

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Abstract

This study aims to understand and analyze the relationship between the influence of workload, job satisfaction, and communication on the performance of support service workers at Pertamina Abab Dewa Raja Field. The population in this study consists of support service workers (TKJP) selected randomly, involving 70 individuals, with a breakdown of 35 contact support workers and 35 workers from production contracts. The data collection technique involves questionnaires, and the multiple regression analysis technique is processed with statistical software. Data analysis techniques involve data verification, questionnaire management, and data processing: (a) data validity test, (b) data reliability test, (c) multiple linear regression test, and (d) hypothesis testing. The data analysis process used statistical formula applications to facilitate researchers' processing and interpreting data.

Keywords: Workload, Job Satisfaction, Communication, Performance.

JEL Code: H63, J24, J53, O15

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1. Introduction

Good management can create professional and competent resources for the company. Every company strives as much as possible to search for and continuously develop high-quality resources for the organization. This also applies to the largest companies in the world, such as oil and gas companies. PT Pertamina Abab Dewa Raja Field, better known as PT Pertamina

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Adera Field, is located in the Penukal Abab Lematang Ilir (PALI) Regency, situated in the South Sumatra Province, Indonesia. This name refers to the oil wells or geographical aspects in that area. Generally, PT Pertamina Adera Field engages in numerous collaborations with other companies known as vendors to assist in the smooth operation of the company's operations. These vendors are contracted to provide and manage contracted labor who either will or have worked within the PT Pertamina's territory.

The workforce of Pertamina comprises permanent staff or employees and contract workers. Permanent workers are official Pertamina staff, while contract workers are individuals within Pertamina's scope but are not directly involved in signing contracts with Pertamina. Instead, they are engaged in contracts with other companies that collaborate with the company, referred to as vendors. Some of the employment contracts in the Adera Field work area include: Support Service Workers Contract (TKJP), Volume Contract, Cleaning Service Contract, Daily Contract, Minor AC Contract, RIG Contract, Driver Contract, and several other supporting contracts. The focus of this research is on: Support Service Workers Contract (TKJP). TKJP has the same employment contract as other contract workers, which is a two-year contract with Pertamina's vendor. However, the difference is that TKJP will continue to be used until the retirement age of 56 years, even if the vendor working with PT Pertamina changes every two years. TKJP is divided into two contracts, namely; support and field (production) contracts. The focus of this research is on these two TKJP contracts. By focusing the research on these two contracts, the researcher aims to understand the impact of certain variables (Workload, Job Satisfaction, and Communication) on performance in two different work contexts. This study will enable comparison of the influence of these variables in the context of support contracts and production contracts, as well as analyzing the differences and similarities in their impact on TKJP performance.

(Suprpto, 2022) states that workload is closely related to one's job, where individuals assess various activities and task demands that require both mental and physical involvement, whether completed or pending. suggests, one of the strategies implemented companies to ensure optimal employee performance in achieving company goals is by ensuring their job satisfaction is maintained. The analysis of workload needs to be consistently conducted to optimize the utilization of human resources. By conducting structured and continuous workload analysis, organizations can avoid situations of imbalance, where too many or too few employees are assigned to a job. This helps create a harmonious work environment, enhances productivity, and improves employee satisfaction ned by an employee when carrying out tasks according to the responsibilities given.

According to (Egarini, 2022) job satisfaction is an overall depiction of an individual that reflects the comparison between the satisfaction received, involving the recognition received by workers, and their perception of the amount they should rightfully receive. Feelings of job satisfaction can be experienced both in the workplace and outside of work, involving a combination of experiences from both areas. Harold D. Lasswell created a communication model known as the Lasswell model, particularly the linear communication model or one-way communication model. The communication process begins with the sender delivering a message, which is then conveyed through a medium to the message receiver. The message receiver then receives the message and provides feedback to the message sender (Syaputra & Sariwaty S, 2021).

Based on the analysis of the introductory paragraph, it discusses three independent variables: workload, job satisfaction, and communication on the performance of Contracted Workers for

Support Services at PT Pertamina Adera Field. The study aims to investigate the impact of these three independent variables both separately (partial) and collectively (simultaneous). Therefore, the research objective is to determine the effects of these three independent variables on the performance of Contracted Workers for Support Services at PT Pertamina. This study employs both separate (partial) and simultaneous approaches to examine the impact of the three independent variables on performance. The separate approach refers to analyzing the impact of each variable individually, while the simultaneous approach involves analyzing the combined impact of all three variables together.

Mangkunegara, as cited in the work (Gumelar, 2021), states that the indicator of success for an organization is the performance of its employees. Performance refers to the achievement of work, both in terms of quality and quantity, successfully obtained by an employee when carrying out tasks according to the assigned responsibilities. Theories of performance refer to the concept of how individuals or systems operate and function in achieving specific goals. These theories encompass various factors that influence performance: motivation, capability, the work environment, and cognitive workload.

In other words, this study aims to explain the extent to which each variable and their combinations contribute to performance. The study will investigate the impact of these variables in the context of the performance of Support Service Workers at PT Pertamina Adera Field. Therefore, the scope of the research is limited to the specific situations and characteristics found in the company. The technique used in this study applies a quantitative research method. The sampling technique utilizes probability sampling, specifically the systematic random sampling technique, indicating that each member of the population has an equal chance of being selected as a sample. The selection of research samples consists of two types of TKJP contracts: support contracts and production contracts, providing variations in the work context. The research sample involves 35 support contract workers and 35 workers from production contracts, ensuring an adequate number of samples, which are then analyzed using multiple linear regression.

Multiple regression analysis technique was chosen as the main method to test the relationship between independent variables (Workload, Job Satisfaction, and Communication) and the dependent variable (Performance). The data analysis process was conducted using statistical formula applications to facilitate researchers in processing and interpreting data. The questionnaire consisted of 8 questions for variable Workload, 10 questions for Job Satisfaction, 6 questions for Communication, and 8 questions for the dependent variable Performance.

2. Literature Review

The Human Resource Management (HRM) theory encompasses various approaches and frameworks designed to understand, manage, and optimize the role of human resources in an organization. Several relevant theories in human resource management involve an understanding of how individuals influence and are influenced by the organizational context. Frederick Herzberg's Two-Factor Theory - Motivation-Hygiene Theory is one such theory. Herzberg proposed two distinct factors that affect job satisfaction and dissatisfaction. Motivational factors (such as achievement, recognition, and responsibility) can enhance satisfaction, while hygiene factors (such as physical working conditions, company policies, and interpersonal relationships) can reduce dissatisfaction (Rana et al., 2022).

On the other hand, (Arsintescu et al., 2020) state that workload theory refers to the concept that when an individual performs tasks requiring high cognitive demands, such as multitasking or

completing complex tasks, their cognitive workload increases. This can affect human performance and safety in various contexts, including in the manufacturing industry. High cognitive workload has been proven to lead to decreased alertness, increased accident risk, reduced task performance, and an elevated risk of injury.

Harold D. Lasswell created a communication model known as the Lasswell model, particularly the linear communication model or one-way communication model. The communication process begins with the sender delivering a message, which is then conveyed through a medium to the message receiver. The message receiver then receives the message and provides feedback to the message sender (Syaputra & Sariwaty S, 2021). Based on the organizational theory perspective explained by Karl Weick, the position of structure emphasizes communication in designing a scheme for a specific purpose. Weick also states that, in reality, humans cannot avoid communication (Gumelar, 2021).

Mangkunegara, as cited in the work (Gumelar, 2021), states that the indicator of success for an organization is the performance of its employees. Performance refers to the achievement of work, both in terms of quality and quantity, successfully obtained by an employee when carrying out tasks according to the assigned responsibilities. Theories of performance refer to the concept of how individuals or systems operate and function in achieving specific goals. These theories encompass various factors that influence performance: motivation, capability, the work environment, and cognitive workload. Performance theories also consider how individuals or systems adjust strategies and tactics to achieve desired outcomes. This theory encompasses various factors that influence performance: motivation, capability, the work environment, and cognitive workload. Performance theories also consider how individuals or systems adjust strategies and tactics to achieve desired outcomes. According to Hart and Staveland as cited in (Arsintescu et al., 2020), performance theories can be influenced by cognitive workload, which is the mental level required to complete a particular task.

Performance theory refers to the concept of how individuals or systems operate and function in achieving specific goals. This theory encompasses various factors that influence performance: motivation, abilities, the work environment, and cognitive workload. Performance theory also considers how individuals or systems adjust strategies and tactics to achieve desired outcomes (Meeravali et al., 2021). The framework of thinking is used by researchers to analyze planning and propose arguments about the tendencies of assumptions to be followed. It is structured based on literature reviews and research findings that are relevant. The framework of thinking is the argument used by researchers to formulate hypotheses, applying deductive logic, especially in quantitative methods.

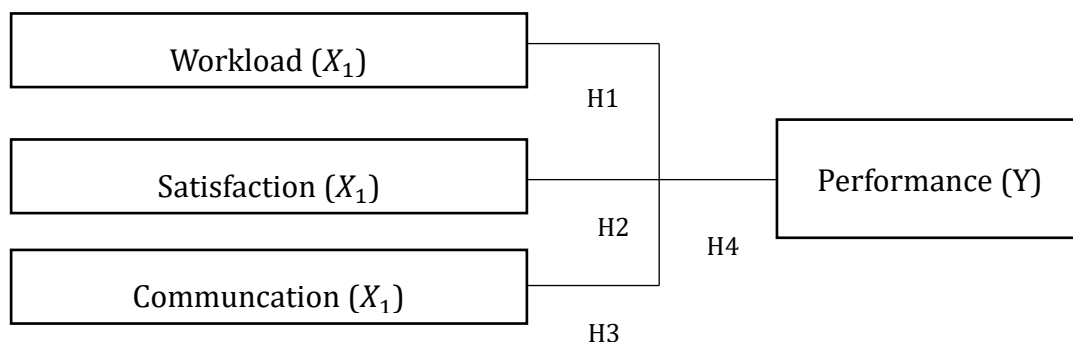


Figure 1: Conceptual Framework.

Referring to the context presented in the background and the main issues above, the hypotheses proposed in this writing can be detailed as follows:

- H1: It is suspected that Workload has a positive and significant impact on the performance of Contracted Workers for Support Services (TKJP) at PT Pertamina Adera Field.
- H2: It is suspected that Satisfaction influences the performance of Contracted Workers for Support Services (TKJP) at PT Pertamina Adera Field.
- H3: It is suspected that Communication influences the performance of Contracted Workers for Support Services (TKJP) at PT Pertamina Adera Field.
- H4: It is suspected that Workload, Satisfaction, and Communication significantly influence the performance of Contracted Workers for Support Services (TKJP) at PT Pertamina Adera Field.

3. Research Method

The technique used in this study applies a quantitative research method. The sampling technique utilizes probability sampling, specifically the systematic random sampling technique, indicating that each member of the population has an equal chance of being selected as a sample. The selection of research samples consists of two types of TKJP contracts: support contracts and production contracts, providing variations in the work context. In this research, 35 samples were taken, namely from support contracts and production contracts. Multiple regression analysis was chosen as the primary method to test the relationship between independent variables (Workload, Job Satisfaction, and Communication) and the dependent variable (Performance). Indicators for these variables:

1. Workload:

- Number of tasks that need to be completed by employees within a specific period of time.
- Duration of time spent completing these tasks.
- Level of alignment between employees' workload capacity and the tasks assigned.

2. Job Satisfaction:

- Job satisfaction survey involving employees to assess various aspects of their work.
- Employee attendance and retention rates.
- Level of participation in development or training programs offered by the company.

3. Communication Regarding Employee Performance:

- Frequency of feedback provided by managers or colleagues on employee performance.
- Quality of feedback provided, whether it is constructive and helpful or not.
- Clarity of communication regarding performance expectations and goals.

By monitoring these indicators, companies can better understand how workload, job satisfaction, and communication regarding employee performance interact with each other, and how this can affect employee productivity and well-being. The data analysis process used statistical formula applications to facilitate researchers' processing and interpreting data. The questionnaire consisted of 8 questions for Workload, 10 questions for Job Satisfaction, 6 for Communication, and 8 for the dependent variable Performance.

4. Findings and Discussions

4.1. Characteristic Respondent

Several findings were obtained from the research conducted by distributing online questionnaires to 70 respondents through Google Forms. The subjects of this analysis were the Contracted Workers for Support Services (TKJP) at PT Pertamina Adera Field. The following is a summary or general overview of the respondents involved in this analysis, as shown in Table 1 and Table 2.

Table 1. Characteristics of Support Contract Respondents.

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	1	2.9	2.9	2.9
	31-40	26	74.3	74.3	77.1
	41-50	8	22.9	22.9	100.0
	Total	35	100.0	100.0	

Source: Processed data

Table 2. Characteristics of Production Contract Respondents.

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-40	14	40.0	40.0	40.0
	41-50	17	48.6	48.6	88.6
	51-56	4	11.4	11.4	100.0
	Total	35	100.0	100.0	

4.2. Instrument test

1. Instrument validity test

The testing was conducted using Statistics software. A measuring instrument is considered valid if the correlation coefficient is ≥ 0.3338 . If the values for the statements are > 0.3338 , then those statements are considered valid.

2. Reliability test

The workload, job satisfaction, communication, and performance variables show alpha coefficients > 0.60 . A value > 0.60 indicates that the items in these statements are reliable or trustworthy.

4.3. Multiple Linear Regression

Test If the significance value > 0.05 , it can be interpreted that there is a linear relationship between the two variables being tested. Table 2 presents the results of the linearity test, indicating that the relationship is linear.

Table 3. Multiple Linear Regression Test for Support Contracts.

Variable	Sig Deviation From Linearity	Test Results
Workload -> Performance	0.869	Linier
Job Satisfaction -> Performance	0.921	Linier
Communication -> Performance	0.890	Linier

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Source: Results Using Statistics

4.3.1. Regression coefficient test (t-test)

If the significance value is > 0.05 , it can be interpreted that there is a linear relationship between the two variables being tested. Table 3 presents the results of the linearity test, indicating that the relationship is linear.

Table 4. Regression Coefficient Test (t-test).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.060	3.545		1.427	0.163
	Workload	0.417	0.129	0.513	3.235	0.003
	Job Satisfaction	-0.104	0.096	-0.161	-1.086	0.286
	Communication	0.769	0.212	0.520	3.629	0.001

a. Dependent Variable: Performance

Using the formula $t\text{-table} = t(\alpha/2; n-k-1) = t(0.05/2; 35-3-1) = t(0.025; 31) = 2.040$. Therefore:

a. Testing the first hypothesis (H1)

It is known that the Sig value for the influence of Workload on Performance is $0.169 > 0.05$, and the calculated t value is $3.235 > 2.040$, so it can be concluded that H1 is accepted, meaning there is an influence of Workload on Performance.

b. Testing the second hypothesis (H2)

The Sig value for the influence of Job Satisfaction on Performance is $0.286 > 0.05$, and the calculated t value is $-1.086 < 2.040$. Therefore, it can be concluded that H2 is rejected, meaning that job satisfaction does not influence performance.

c. Testing the third hypothesis (H3)

The Sig value for the influence of Communication on Performance is $0.001 < 0.05$, and the calculated t value is $3.629 > 2.040$. Therefore, it can be concluded that H3 is accepted, meaning that communication influences performance.

4.3.2. Model Feasibility Test (F-test)

Table 5. Model feasibility test (F-test)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	542.104	3	180.701	25.064	0.000 ^b
	Residual	223.496	31	7.210		
	Total	765.600	34			

a. Dependent Variable: Performance

b. Predictors: (Constant), Workload, Job Satisfaction, Communication.

In the context of linear regression, the formula for the F-test is $F\text{-table} = F(k;n-k) = F(3;32) = 2.90$. Therefore:

d. Testing the fourth hypothesis (H4)

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The Sig value for the influence of workload, job satisfaction, and communication on performance is $0.000 < 0.05$, and the calculated t value is $25.064 > 2.90$. Thus, it can be concluded that H4 is accepted, meaning that workload, job satisfaction, and communication influence performance.

Thus, we can conclude that the null hypothesis H0 is rejected. It means there is very strong statistical evidence supporting a significant influence from the combination of variables workload, job satisfaction, communication on performance. This result indicates that these variables together make a significant contribution in explaining the variation or relationship with variable performance in the conducted analysis model.

Table 6. (R-squared)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.841 ^a	0.708	0.680	2.685

Based on the above output, the R-squared value for Support contracts is 0.708. This means that the simultaneous influence of variables workload, job satisfaction, and communication on performance is 70.8%. R-squared serves as an indicator of how well the regression model can explain the variation in observed data. The higher the R-squared value, the greater the percentage of variation in the dependent variable that the model can explain.

Table 7. Multiple Linear Regression Test for Production Contracts.

Variable	Sig Deviation From Linearity	Hasil Uji
Workload -> Performance	0.374	Linier
Job Satisfaction -> Performance	0.849	Linier
Communication -> Performance	0.726	Linier

Source: Results Using Statistics

4.3.3. Regression Coefficient Test (t-test)

If the significance value is > 0.05 , it can be interpreted that there is a linear relationship between the two variables being tested. Table 3 presents the results of the linearity test, indicating that the relationship is linear.

Table 8. Regression Coefficient Test (t-test).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.268	7.979		1.412	0.168
	Workload	-0.038	0.219	-0.026	-0.173	0.864
	Job Satisfaction	-0.024	0.180	-0.030	-0.132	0.896
	Communication	0.921	0.333	0.629	2.763	0.010

a. Dependent Variable: Performance

Using the formula $t\text{-table} = t(\alpha/2; n-k-1) = t(0.05/2; 35-3-1) = t(0.025; 31) = 2.040$. Therefore:

a. Testing the first hypothesis (H1)

It is known that the Sig value for the influence of workload on performance is $0.169 > 0.05$, and the calculated t value is $-0.173 < 2.040$, so it can be concluded that H1 is rejected, meaning

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there is no influence of workload on performance.

b. Testing the second hypothesis (H2)

The Sig value for the influence of job satisfaction on performance is $-0.585 < 0.05$, and the calculated t value is $-0.132 < 2.040$. Therefore, it can be concluded that H2 is rejected, meaning that job satisfaction does not influence performance.

c. Testing the third hypothesis (H3)

The Sig value for the influence of communication on performance is $0.000 < 0.05$, and the calculated t value is $2.763 > 2.040$. Therefore, it can be concluded that H3 is accepted, meaning that communication influences performance.

4.4. Model Feasibility Test (F-test)

Table 9. Model feasibility test (F-test)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	140.872	3	46.957	6.114	.002 ^b
	Residual	238.099	31	7.681		
	Total	378.971	34			

a. Dependent Variable: Performance

b. Predictors: (Constant), Workload, Job Satisfaction, Communication.

In the context of linear regression, the formula for the F-test is $F\text{-table} = F(k:n-k) = F(3:32) = 2.90$. Therefore:

d. Testing the fourth hypothesis (H4)

The Sig value for the influence of Workload, Job Satisfaction, and Communication is $0.000 < 0.05$, and the calculated t value is $6.114 > 2.90$. Thus, it can be concluded that H4 is accepted, meaning that workload, job satisfaction, and communication influence performance.

Thus, we can conclude that the null hypothesis H0 is rejected. This means there is very strong statistical evidence supporting a significant influence from the combination of variables Workload, Job Satisfaction, and Communication on Performance. This result indicates that these variables together significantly contribute to explaining the variation or relationship with variable performance in the conducted analysis model.

Table 10. (R-squared)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610 ^a	.372	.311	2.771

Based on the above output, it is known that the R-squared value for Production contracts is 0.372. This means that the simultaneous influence of variables Workload, Job Satisfaction, and Communication on Performance is 37.2%. With a figure of 37.2%, approximately 37.2% of the variation or changes we observe in production contracts can be attributed to the combined influence of these three factors. R-squared serves as an indicator of how well the regression model can explain the variation in observed data. The higher the R-squared value, the greater the percentage of variation in the dependent variable that the model can explain.

5. Discussion

Based on the provided output, it is observed that the R-squared value for Support contracts is 0.708, while for Production contracts, it is 0.372. This indicates that the variables workload, job satisfaction, and communication collectively influence employee performance:

First, workload has a significant impact on worker performance. This indicates that the higher the workload experienced by workers, the lower their performance. Therefore, effective workload management can improve worker performance.

Second, job satisfaction also positively affects worker performance. This confirms that workers who are satisfied with their jobs tend to perform better. Therefore, creating a work environment promoting job satisfaction can enhance performance.

Third, communication also significantly impacts worker performance. Effective communication between management, workers, and colleagues can improve coordination, collaboration, and understanding, ultimately contributing to performance improvement.

Overall, these research findings underscore the importance of paying attention to factors such as workload, job satisfaction, and communication to improve the performance of support service workers at Pertamina Abab Dewa Raja Field. The company can achieve better performance and ensure long-term success by addressing and managing these factors effectively.

6. Conclusion

a. Support Contracts: There is a significant influence between the independent variables (workload, satisfaction, and communication) and the performance of support service workers (TKJP) at PT Pertamina Adera Field. Workload and communication have a significant influence on TKJP performance. Although satisfaction is also considered, its influence may not be as strong as other variables. This research provides a better understanding of the factors influencing the performance of support service workers in the context of PT Pertamina Adera Field.

b. Production Contracts: There is no significant influence between the independent variables (workload, satisfaction, and communication) and the performance of workers under production contracts at PT Pertamina Adera Field. This is due to factors related to the nature of the job and the work environment in production contracts, which make these variables not have a significant influence on performance.

The differences in results between support contracts and production contracts can be attributed to the characteristics of the job, levels of responsibility, job demands, and team dynamics inherent in both contract types. Additionally, factors such as work patterns, supervision levels, and job orientations may also influence the impact of independent variables on performance.

This research proposes several suggestions or recommendations as follows:

a. For the Company: Investing in employee development through training and skill enhancement, as well as ensuring the well-being and safety of employees in the workplace. Implementing the latest technology in oil and gas exploration, production, and resource management to improve operational efficiency and productivity.

b. For Employees: Taking initiative to continuously develop their skills and knowledge through training and additional education, in line with the needs of the oil and gas industry. Adhering

to established workplace safety procedures and actively participating in safety programs to ensure their own and their colleagues' well-being and safety. Demonstrating high commitment to their work, maintaining productivity, and collaborating with colleagues and supervisors to achieve company goals.

c. For Future Researchers: It is recommended to conduct further research to delve into complex factors or expand the scope of analysis using advanced analytical techniques to explore the more intricate relationships between the variables under study. Expanding the research sample to include more respondents and different operational locations can enhance the representation and generalization of the results. Expanding or detailing the measurement of the variables under study can provide deeper and more accurate insights into the relationships between these variables.

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