Corporate Governance and Company Performance of Nissan Motor Corporation

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ABSTRACT

This research is looking for the determinants that may affect the company performance in Nissan Motor Corporation in the automobile sector in Japan. The purpose of this study is to investigate the internal factors, external factors, and the combination of internal and external factors that may give an impact to the Nissan Motor Corporation company's performance. The method used in obtained the results in this study is the statistical and regression techniques that check the significant level for the correlation of these factors. This study suggest the Nissan Motor Corporation should do well in managing and control their company performance by complies more towards the corporate governance elements such as accountability, transparency, independence, fairness, and sustainability.

Keywords: Liquidity risk, operational risk, credit risk, market

1.0   INTRODUCTION

1.1   Introduction

This chapter will describe the overview of Nissan Motor Corporation. Then, the problem statement, research objectives, research questions, scope of study and the organization of the report will be discussed in this chapter later.

1.2   Overview of Nissan Motor Corporation

Nissan Motor Co., Ltd. is a Japanese multinational automobile manufacturer headquartered in Nishi-ku, Yokohama. In year 1931, a company named Nihon Sangyou, or Japan Industries, merged with what would become Nissan Motor Company. Nissan partnered with various automakers to build vehicles for them, which include Austin Motor Company and a merger with Prince Motor Company, which introduced vehicles to the Nissan line-up that are still in production to this day. A good and outstanding corporate governance system is very important for a company, it shows the adequate and appropriate system of internal controls in a company. Although Nissan is one of the big companies around the world, but it also facing some corporate governance problems in terms of openness, honesty and transparency, and independence.

Nissan facing corporate governance problems in openness, honesty and transparency. Nissan's board did not issue the customary compensation reports to public, which explain the rationale and measurements for compensation. From year 2005 onward, Ghosn, as chairman and CEO of Nissan effectively reported to himself in his role as chairman and CEO of Renault, it was such an oversight for the Nissan company. Ghosn had been reported that he set a compensation system for himself and his lieutenants, this action is not complying with the concepts of sound corporate governance. Now, Nissan company has decided did away with the board delegation that was used by Ghosn for the compensation, but installed a more independent system for statutory auditors, and began training directors and auditors in Nissan's code of conduct and compliance.

Second, Nissan also facing problems in terms of independence. According to an analysis conducted by Zuhair Khan, head of research at the Jeffries Group, it stated that Nissan did not have two independent directors. In year 2018, Nissan had added two independent directors to the board of directors, which is a former trade bureaucrat and a retired female race

car driver. This cause the shareholders started to raising questions about the qualifications of become a director because she did not have any business background. Another issue continued to exist, which is Nissan had no board committees who responsible to provide a critical oversight function for auditing and for finalizing executive compensation and management appointments. This is because a nomination committee has the mandate to propose directors who meet competence and independence standards.

Nissan company also facing some of the risk that associated with its company, such as credit risk, operation risk, liquidity risks and market risk against company's performance. Credit risk that Nissan facing is the risks of failure to recover the full amounts of financial receivables for its Auto credit and Lease business with retail customers and its Dealer finance business due to the changes of the economic condition such as inflation and credit quality of customers. Operational risk exists in terms of compliance and reputation. Nissan did not face too much problems in company's liquidity, it ensure that the company have adequate liquidity, liquidity support that the company have excess cash in auto operations to meet maturing debt and to continue operations. Besides, Nissan experienced several market risks such as the fluctuating situation in foreign exchange, interest rate, commodity prices, and marketable securities which will directly and indirectly affect to their company's performance.

1.3   Problem Statement

Currently, company's performance is a main issue concerning for every company, this is because the company's performance will affect the company value in the market. A company's performance is measured by the return on asset (ROA) of a company. However, the company's performance is affected by many other factors, which include internal factors and external factors. Internal factors include in this study are liquidity risks, operational risks, credit risks, and corporate governance index. Corporate governance is measured by the five pillars of corporate governance, such as accountability, transparency, independence, fairness, and sustainability. For external factors include gross domestic product (GDP), inflation, exchange rate, and interest rate. Since the internal and external factors may exist a relationship with the return on asset (ROA), therefore, the determinants of company performance in the Nissan Motor Corporation have to be determined in this report.

1.4   Research Objectives

This report aims to investigate the company performance, which is return on asset (ROA) and its determinants in Nissan Motor Corporation. The objectives of this study are:

1. To determine the internal factors that may affect the company performance.
2. To investigate the external factors that may affect the company performance.
3. To examine the internal and external factors that may influence the company performance.

1.5   Research Questions

1. Is there any relationship between internal factors and return on asset (ROA)?
2. Is there any relationship between external factors with return on asset (ROA)?
3. Is there any relationship between internal and external factors towards return on asset (ROA)?

1.6   Scope of the study

This study includes only Nissan Motor Corporation in Japan for automobile sector. The ratio that indicates the performance, profitability, solvency of the company was based on the five years annual report of Nissan Motor Corporation starting from year 2014 to year 2018.

1.7   Organization of the Report

This study consists of five main chapters. Chapter 1 discuss the introduction of this study, which include overview of the study, problem statement, research objectives, research questions, scope of the study and organization of study. Chapter 2 explain about the literature review that related to the company performance and its determinants.

Chapter 3 is about the methodology of the study, the method that used to obtain data will be describe in this chapter. After that, Chapter 4 describe the results of this study, which include the descriptive analysis, correlation and diagnosis test, and the regression test. Finally, Chapter 5 will display the summary and the conclusion for this study.

2.0   LITERATURE REVIEW

2.1   Introduction

This chapter described the literature review that related to our study. This chapter includes five sections, which is corporate governance, credit risk, operational risk, liquidity risk, and market risk.

2.2   Corporate Governance

Corporate governance is the system by which companies are directed and controlled (Cadburry report, 1992). According to Csyogesh12, (2018), corporate governance is important in increasing the accountability of the company and to avoid problems happened. An outstanding corporate governance structure ensures the transparency by make sure a strong and balance economic development, and to ensures the interest of all shareholders are guarantee. Based on the Nissan Corporate Governance Report (2019), Nissan mentioned that they keep on improving the company's corporate governance as one of the most prioritized managerial tasks. Nissan implement corporate governance system as a company with three statutory committees, which can divide management functions and supervisory, oversight and auditing functions. This system is mean to improve the transparency of the decision-making process and to conduct a speedy and flexible business execution.

2.3   Credit Risk

According to Olivia Labarre, (2019), credit risk is the probability of the loss that resulting from the borrower failed to repay the loan, it also describes the possibility of a bond issuer failed to make payment when it requested. Credit risk is very important and sensitive to business condition, such as changes in incomes, unemployment, prices, these will cause a significant change in credit risk characteristics as repayments-to-income ratio, loan-to-value ratios and liquidity ratios (National Bureau of Economic Research, 1971). According to the Nissan Risk Management Report, (2017), the company is exposed to the risks of failure to recover the full amount of financial receivables for its Auto credit and Lease business with retail customers and its Dealer finance business due to the changes of the economic situation such as inflation and credit quality of customers. In order to recover the actual losses from bad

debt, Nissan take a flexible and effective organization change for collection and utilization of third-party collection services.

2.4   Operational Risk

According to Troy Segal, (2019), operational risk shows the uncertainties and hazards a company faces when it comes to day-by-day business operation activities. It happened because of man-made factors, such as mistakes or failure cause by the actions and decisions which made by the company's employees. Operational risk is to ensures the lower cost of compliance, reduction in losses from damaged, threats, illegal activities and exploits, and better, more effective and more reliable operations (David Strom, 2017). Nissan faced operational risk in case of compliance and reputation. According to Nissan Risk Management Report, (2017), the company has implemented a globally integrated whistleblowing system to allowed employees to report the suspected compliance issues to Nissan's management. Besides, Nissan also has created some internal regulations that covering the presentation of insider trading, personal information management, information security and prevention of bribery and corruption.

2.5   Liquidity Risk

Liquidity risk occur when it happened lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss (Beverly Bird and Will Kenton, 2019). According to Complete Controller, (2019), liquidity risk helps the company to secure from the acclaim it needs. Company can make more cognizant decisions on company expenditure and conclude whether the company need to sell out any assets to cover short-term debts. Nissan Risk Management Report, (2018), Nissan monitor the liquidity of sales finance companies to make sure that the company have adequate liquidity such as cash and unutilized committed lines, unencumbered assets (mainly vehicle loans and leases), liquidity support from auto operations to the extent that company have excess cash in auto operations to meet maturing debt and to continue operations. At the end, Nissan able to raise new funding through bank loans, asset-backed securities, asset-backed commercial paper, commercial paper and bonds reflecting the diversified access to financing instruments. So, Nissan able to reduce the liquidity risk of their company.

2.6   Market Risk

Market risk is the probability of an investor experiencing losses due of the factors that affect the overall performance of the financial markets which they are involved (James Chen, 2019). According to the study conducted by Cabana Portfolio, (2018), market risk is important to determine the market worthiness of an investment. In the meantime, it defines what should or should not be purchased by an investor at any time and in any situation. Based on the Nissan Risk Management Report, (2016), Nissan experienced several market risks such as the fluctuation situation in foreign exchange, interest rate, commodity prices, and marketable securities. In order to reduce market risk, Nissan choose to hedge select currencies and commodity price risks based on opportunistic basis. They used derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

3.0   METHODOLOGY

3.1   Introduction

This session will present the framework employed in data collection. It is also cover on the statistical analysis, data analysis, and statistical package for social science (SPSS).

3.2   Statistical Analysis

Nissan's annual report and risk management report are the main references in doing the analysis. Balance sheet and income statement of Nissan have been used for doing ratio analysis for company's risk, which is from year 2014 to 2018. After the data is identified, compile all the data together and place it in Microsoft Excel to make an easy way to calculate every part of the risks, after that, the data is identified in term of ratios. All the variable is retrieved from the financial statement of Nissan company. This ratio analysis commonly is used to evaluate a company's performance by using microeconomics elements, such as Return on Equity, net interest margin, and return on asset ratio to analysis credit risk, liquidity risk, operational risk, and market risk.

3.3   Data analysis

Multiple regression analysis was used to determine the impact of independent variables on the dependent variable. The multiple regression analysis was present in equation below:

Model 1 Firm specific factors

$$ROA = \beta_0 + \beta_1 CR + \beta_2 QR + \beta_3 ACP + \beta_4 DTI + \beta_5 OPR + \beta_6 OPM + \beta_7 CGINDX + e$$ .... Equation (1).

Model 2 Macroeconomic factors

$$ROA = \beta_0 + \beta_1 GDP + \beta_2 INFLA + \beta_3 INTER + \beta_4 EXCGR + e$$ .... Equation (2)

Model 3 Internal and external factors.

$$ROA = \beta_0 + \beta_1 CR + \beta_2 QR + \beta_3 ACP + \beta_4 DTI + \beta_5 OPR + \beta_6 OPM + \beta_7 CGINDX + \beta_8 GDP + \beta_9 INFLA + \beta_{10} INTER + \beta_{11} EXCGR + e .... \text{Equation (3)}$$

Table 1: Measurement of Variables

Variables	Notation	Measurement
Return on Assets	ROA	Net Income / Total Assets
Current Ratio	CR	Current Assets / Current Liability
Quick Ratio	QR	(Current Asset-Inventory-Prepaid Expenses) / Current Liability
Average Collection Period	ACP	Account Receivable / (Net Sales / 360)
Debt to Income Ratio	DTI	Total Liability / Total Income
Operating Ratio	OPR	Operating Expenses / Net Sales
Operating Margin	OPM	EBIT / Revenue
Corporate Governance Index	CGINDX	Corporate Governance elements
Gross Domestic Product	GDP	5 years gross domestic product
Inflation	INFLA	5 years inflation rate
Interest Rate	INTER	5 years interest rate
Exchange Rate	EXCGR	5 years exchange rate

3.4   Statistical Package for Social Sciences (SPSS)

IBM SPSS version 25 was used to compute the data to obtain a result. SPSS is a software package used for interactive, or batched, statistical analysis. SPSS software had been used to obtain the descriptive statistics, bivariate statistics, prediction for numerical outcomes, and prediction for identifying groups. However, only the linear regression and correlation between the variables which are obtained from the quantitative data will be analyse by using SPSS statistics software. Quantitative data is a data about the numerical variables. In this study, all of the data were obtained from the annual report of Nissan Motor Corporation. SPSS software makes the statistics analysis become more easier and more convenient.

4.0   FINDING & ANALYSIS

4.1   Introduction

SPSS is used to analysis the result and finding. By using SOSS, statistical function such as correlations, coefficients, plotting graph and many others will produced. Besides, the histogram, case wise diagnostics and the Durbin-Watson statistics also able to compute to ensure the reliable of the data.

4.2   Descriptive Statistics Analysis

Table 4.1: Descriptive statistics result for internal and external control from 2014-2018

Descriptive Statistics

	Mean	Std. Deviation	N
ROA	.03112	.0069	5
CURRENT RATIO	1.6427	.0564	5
QUICK RATIO	1.4577	.0511	5
AVERAGE-COLLECTION PERIOD	25.3993	2.2592	5
DEBT TO INCOME	22.4765	3.6693	5
OPERATIONAL RATIO	.13180	.0027	5
OPERATING MARGIN	.06268	.0118	5
CORPORATE GOVERNANCE INDEX	.6800	.1095	5
GDP	.9800	.5933	5
INFLATION	1.0400	1.0407	5
INTEREST RATE	.1000	.0000	5
EXCHANGE RATE	115.8520	4.5817	5

As can be seen in the table 4.2 above, it shows that the descriptive statistics with the dependent return on assets (ROA) and independent variables, current ratio, quick ratio, average-collection period, debt to income, operational ratio, operating margin, corporate governance index, gross domestic product (GDP), inflation, interest rate, and exchange rate. Mean is a simple or arithmetic average of values, while standard deviation is the dispersion of a dataset relative to its mean. The greater the standard deviation, the more fluctuate and volatile the company, and vice versa. If the standard deviation shows 0, which means that the mean is remain unchanged.

Return on assets is an internal variable in this assignment for Nissan Motor Corporation. For ROA, the mean shown is 0.0311 or 3.11% in within five years and it can be assumed that the return on assets from its profit for the company is good to make income in the company. As for standard deviation, it shows 0.0069 or 0.69%, which is nearly equal to zero. This shows that the mean is unchanged for the respective five years, the company condition is considered stable and not so volatile throughout these five years.

Current ratio and quick ratio are the liquidity ratio for a company. For internal variable, mean for current ratio and quick ratio are 1.6427 and 1.4577 respectively. These ratios are used to measure the ability of the company to pay back its short-term liabilities without raising external capital. Standard deviation for current ratio is 0.0564, while for quick ratio is 0.0511. It shows that Nissan company is stable in terms of liquidity level which the company is able to cover their liability risk over the five years. Credit risks of Nissan company consists of average collection period and debt-to-income ratio. Average collection period shows the mean of 25.3993, and standard deviation of 2.2592, while the debt-to-income ratio shows the mean of 22.4785, and standard deviation of 3.6693. Mean for operational ratio and operating margin are 0.1318 and 0.0626 respectively, while standard deviation for operational ratio is 0.0027, 0.0118 for operating margin. The last internal variable, which is corporate governance index carry a mean of 0.68 and standard deviation of 0.1095.

For the gross domestic product (GDP), mean is 0.98 and the standard deviation is 0.5933. Then, the mean for inflation rate is 1.04, while its standard deviation is 1.0407. Mean for interest rate of Nissan company show 0.1, and the standard deviation is 0. Standard deviation of 0 shows that the mean for interest rate will remain unchanged throughout these five years. Lastly, for the exchange rate, the mean is 115.8520, and the standard deviation is 4.5817. Overall, it can be assumed that some of the external variables that have been used in the analysis have a slightly small differences gap between the mean and the volatility, such as GDP, inflation rate, and interest rate. As we can see in table 4.1 above, we can conclude that the gap between mean and standard deviation for exchange rate is very big, which show the difference of 111.2704.
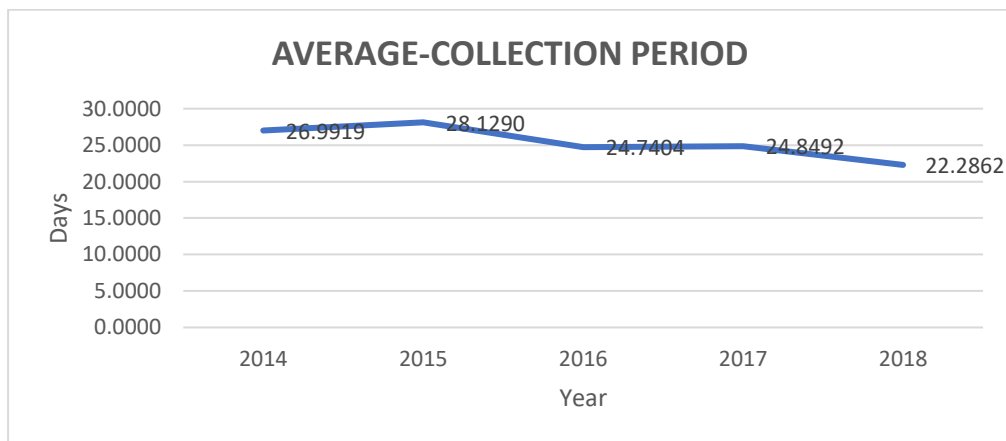
4.3   Trend Analysis

4.3.1   Credit Risk

Credit risk refer to the probability of the loss that resulting from the borrower failed to repay the loan, it also describes the possibility of a bond issuer failed to make payment when it requested.

a)   Average-collection period

Figure 1: Average-collection period for Nissan Motor Corporation from the year 2014 to 2018.

Average-collection period is the average number of days the money was received from the customers. This graph shows Nissan has a fluctuating situation of average-collection period. As we can see in the graph above, the highest average-collection period for Nissan was at the year 2015, which is 28.1290 days as compared to the year 2018 which take the shortest periods of time, 22.2862 days to collect back the money. The longer the average-collection period is worse for the company's cash flows.

b) Debt-to-income ratio

**Figure 2: Debt-to-income ratio for Nissan Motor Corporation from year 2014 to year 2018**
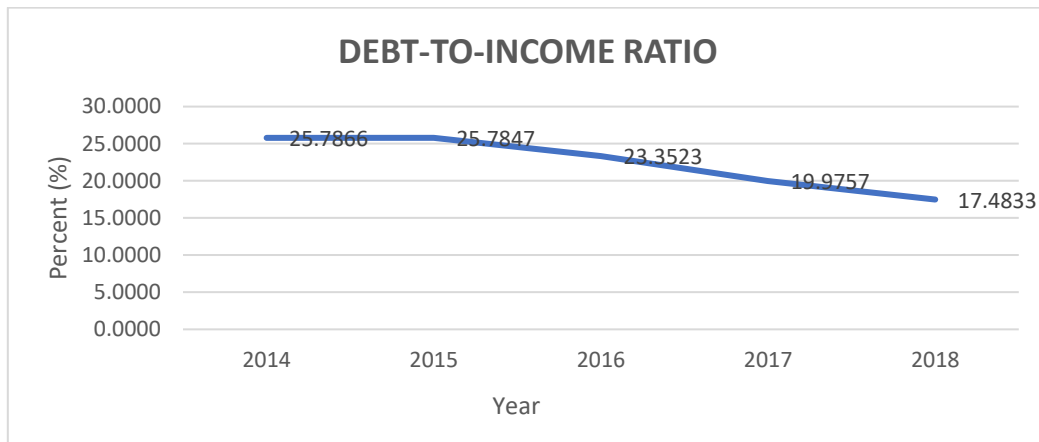
Debt-to-income ratio is a personal finance measure that compares an individual's monthly debt payment to his or her monthly gross income. Based on the graph above, we know that debt-to-income ratio for Nissan was in a decreasing trend throughout five years. Debt-to-income ratio for Nissan company decreased from 25.7866% at the year 2014 to 17.4833% at year 2018. The highest debt-to-income ratio is at the year 2014, which showed 25.7866%. The lowest debt-to-income ratio is at the year 2018, which is 17.4833%. This ratio means an individual's ability to manage monthly payments and repay debts has decreasing dramatically.

4.3.2 Liquidity Risk

Liquidity risk occur when a company happened lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss.

a) Current ratio

Figure 3. Current ratio for Nissan Motor Corporation from the year 2014 to 2018.
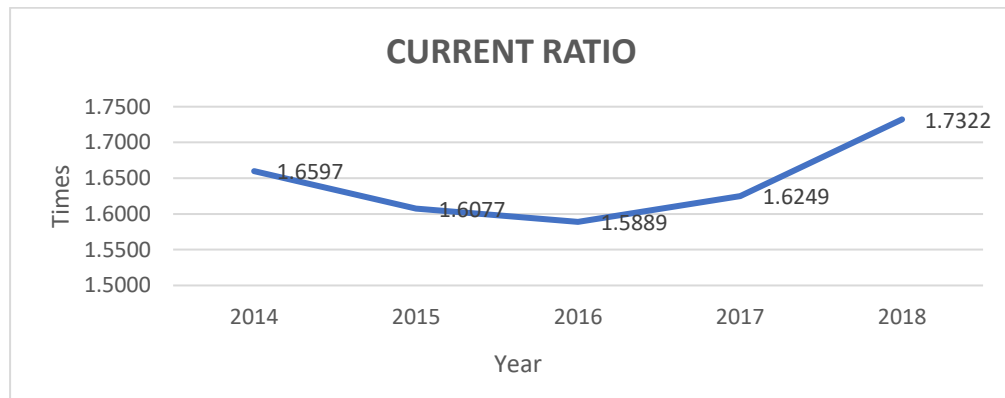
Current ratio measures a company's ability to pay short-term obligations. Nissan experienced a fluctuation status of current ratio, which was decreased from year 2014 to 2016, then increased to year 2018. The highest current ratio for Nissan is at the year 2018, which was 1.7322 times, while the lowest current ratio is at the year 2016, which showed only 1.5889 times. If a company's current ratio is less than 1.0, then the company may have a problem in covering its monthly bills. Throughout the calculation made, we know that current ratio for Nissan company had exceed 1.0, means that the company do not faced a huge problem in covering its monthly bills. A higher current ratio is always better than a lower current ratio in order to maintain liquidity of a company.

b) Quick ratio

**Figure 4: Quick ratio for Nissan Motor Corporation from the year 2014 to 2018.**
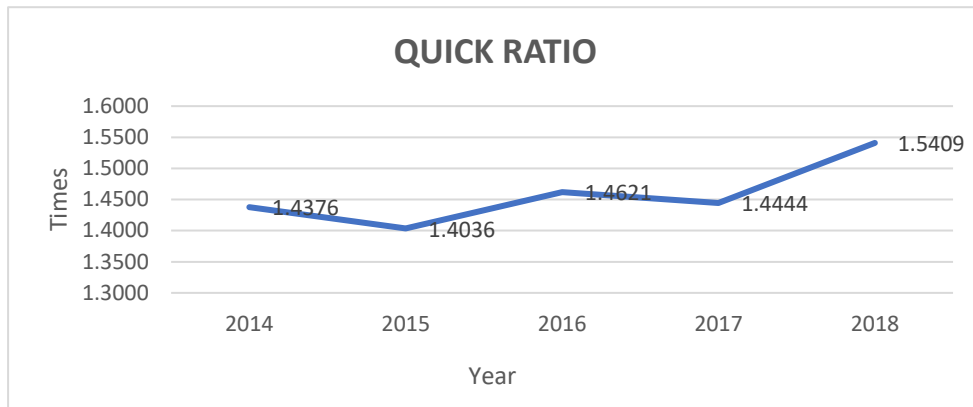
Quick ratio shows the ability of a company to meet its short-term obligations with it most liquid assets. Quick ratio of Nissan company showed a fluctuating status. The highest quick ratio is at year 2018, which was 1.5409 times compared to the lowest quick ratio at year 2015, 1.4036 times. Ability of Nissan company to meet its short-term obligations with the most liquid assets have become stronger, because a higher quick ratio means a more liquid current position of a company.

4.3.3 Operational Risk

Operational risk refers to the uncertainties and hazards a company faces when it comes to day-by-day business operation activities.

a) Operational ratio

Figure 5. Operational ratio for Nissan Motor Corporation from year 2014 to 2018.
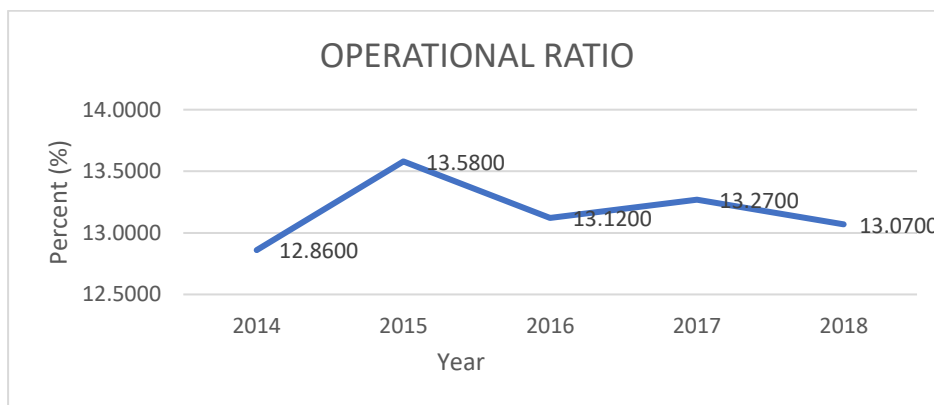
Operational ratio shows the efficiency of a company's management by comparing the total operating expense of a company to net sales. Operational ratio of Nissan company also showed a fluctuating status throughout these five years. The highest operational ratio for Nissan company is at the year 2015, which was 13.58%, while the lowest operational ratio is at the year 2014, 12.86%. Based on the graph above, the efficiency of Nissan's management in total operating expense to net sales has become more efficient, because an operating ratio that is decreasing is refers as a positive sign, because it shows that operating expenses are becoming an increasingly smaller percentage of net sales.

b) Operating margin

Figure 6. Operating margin for Nissan Motor Corporation from year 2014 to 2018.

Operating margin is a measure of profitability. It indicates how much of each dollar of revenues is left over after both costs of goods sold and operating expenses are takes part. The highest operating margin for Nissan company is at the year 2017, which shows 8.24%. The lowest operating margin is at year 2014, 5.05%. Operating margin is very important because it measure efficiency. The higher the operating margin, the more profitable a company's core business is. Nissan had become less efficient because its operating margin had decreased from the year 2017 to 2018.

4.3.4 Corporate Governance Index

Table 4.2: Corporate governance index table

Year Pillars	2014	2015	2016	2017	2018
Accountability	1	1	1	1	1
Transparency	1	1	1	1	1
Independence	0	0	0	1	1
Fairness	0	0	0	0	0
Sustainability	1	1	1	1	1
Total	**3**	**3**	**3**	**4**	**4**
Total (%)	**60**	**60**	**60**	**80**	**80**

Table 4.1 above shows the five pillars of corporate governance, which are accountability, transparency, independence, fairness, and sustainability.

As shown as the table above, we know that Nissan company is not independence throughout the first three years, which is from year 2014 until 2016. This is because the company do not have independent board of directors, which the chairman of board of the company, Mr. Carlos Ghosn is the Chief Executive Officer (CEO), president, and the representative director of the company. Start from year 2017, Nissan has separated the position from board, which Mr. Carlos Ghosn represent as the chairman of the board, while the CEO is represented by Mr. Hiroto Saikawa.

There is no fairness in the board of director, because only the male representative is elected to represent the board. Accountability and transparency of the company can be proven by the published of the annual report, which Nissan is accountable to shareholders, and disclose all material matters, including financial situation, performance, ownership, and corporate governance to the shareholders. Nissan always emphasize on the corporate social responsibility (CSR), which they always lend a hand in social responsibility.

4.4 Correlation

4.4.1 Correlation for internal and external variables

Table 4.3: Pearson correlation result for internal and external variables

Correlations

		ROA	CURRENT RATIO	QUICK RATIO	AVERAGE-COLLECTION PERIOD	DEBT TO INCOME	OPERATIONAL RATIO	OPERATING MARGIN	Corporate Governance Index	GDP	Inflation	Interest Rate	Exchange Rate
Pearson Correlation	ROA	1.000	.484	.752	-.874	-.976	.065	.562	.903	.440	-.551	.	-.966
	CURRENT RATIO	.484	1.000	.780	-.592	-.615	-.458	-.234	.580	-.221	.404	.	-.623
	QUICK RATIO	.752	.780	1.000	-.940	-.832	-.472	-.070	.624	-.240	-.107	.	-.840
	AVERAGE-COLLECTION PERIOD	-.874	-.592	-.940	1.000	.924	.378	-.233	-.740	-.003	.339	.	.932
	DEBT TO INCOME	-.976	-.615	-.832	.924	1.000	.136	-.482	-.932	-.336	.377	.	.999
	OPERATIONAL RATIO	.065	-.458	-.472	.378	.136	1.000	.416	-.034	.629	-.581	.	.180
	OPERATING MARGIN	.562	-.234	-.070	-.233	-.482	.416	1.000	.646	.936	-.589	.	-.472
	CORPORATE GOVERNANCE INDEX	.903	.580	.624	-.740	-.932	-.034	.646	1.000	.569	-.254	.	-.931
	GDP	.440	-.221	-.240	-.003	-.336	.629	.936	.569	1.000	-.488	.	-.316
	INFLATION	-.551	.404	-.107	.339	.377	-.581	-.589	-.254	-.488	1.000	.	.350
	INTEREST RATE	.	.	.	.	.	.	.	.	.	.	1.000	.

		ROA	CURRENT RATIO	QUICK RATIO	AVERAGE-COLLECTION PERIOD	DEBT TO INCOME	OPERATIONAL RATIO	OPERATING MARGIN	CORPORATE GOVERNANCE INDEX	GDP	INFLATION	INTEREST RATE	EXCHANGE RATE
	EXCHANGE RATE	-.966	-.623	-.840	.932	.999	.180	-.472	-.931	-.316	.350	.	1.000
Sig. (1-tailed)	ROA	.	.204	.071	.026	.002	.459	.162	.018	.229	.168	.000	.004
	CURRENT RATIO	.204	.	.060	.146	.135	.219	.352	.152	.360	.250	.000	.131
	QUICK RATIO	.071	.060	.	.009	.040	.211	.455	.130	.349	.432	.000	.038
	AVERAGE-COLLECTION PERIOD	.026	.146	.009	.	.012	.265	.353	.076	.498	.288	.000	.011
	DEBT TO INCOME	.002	.135	.040	.012	.	.413	.206	.010	.290	.266	.000	.000
	OPERATIONAL RATIO	.459	.219	.211	.265	.413	.	.243	.478	.128	.152	.000	.386
	OPERATING MARGIN	.162	.352	.455	.353	.206	.243	.	.119	.010	.148	.000	.211
	CORPORATE GOVERNANCE INDEX	.018	.152	.130	.076	.010	.478	.119	.	.158	.340	.000	.011
	GDP	.229	.360	.349	.498	.290	.128	.010	.158	.	.202	.000	.302
	INFLATION	.168	.250	.432	.288	.266	.152	.148	.340	.202	.	.000	.282
	INTEREST RATE	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.	.000
	EXCHANGE RATE	.004	.131	.038	.011	.000	.386	.211	.011	.302	.282	.000	.

N	ROA	5	5	5	5	5	5	5	5	5	5	5	5
	CURRENT RATIO	5	5	5	5	5	5	5	5	5	5	5	5
	QUICK RATIO	5	5	5	5	5	5	5	5	5	5	5	5
	AVERAGE-COLLECTION PERIOD	5	5	5	5	5	5	5	5	5	5	5	5
	DEBT TO INCOME	5	5	5	5	5	5	5	5	5	5	5	5
	OPERATIONAL RATIO	5	5	5	5	5	5	5	5	5	5	5	5
	OPERATING MARGIN	5	5	5	5	5	5	5	5	5	5	5	5
	CORPORATE GOVERNANCE INDEX	5	5	5	5	5	5	5	5	5	5	5	5
	GDP	5	5	5	5	5	5	5	5	5	5	5	5
	INFLATION	5	5	5	5	5	5	5	5	5	5	5	5
	INTEREST RATE	5	5	5	5	5	5	5	5	5	5	5	5
	EXCHANGE RATE	5	5	5	5	5	5	5	5	5	5	5	5

Table 4.3 above show the Pearson correlation result of Nissan Motor Corporation. Pearson correlation was used to measure the relationship of profitability which is return on asset (ROA) with current ratio, quick ratio, average-collection period, debt to income ratio, operational ratio, operating margin, corporate governance index, gross domestic product (GDP), inflation, interest rate, and exchange rate. The correlation results that show 0.5 and above carry the meaning of strongly correlated between the ROA and the variable. Significant value can be classified into three levels, which are less than 0.01 ($p < 0.01$), less than 0.05 ($p < 0.05$), and less than 0.1 ($p < 0.1$). Significant value less than 0.01 means the variables has the most significant correlation with dependent variable, significant value less than 0.05 shows the average correlation while the value less than 0.1 means the variable is less correlated with the dependent variable.

Current ratio is positive correlated with ROA at 0.484, while quick ratio is strongly correlated with ROA at 0.752 on average. Current ratio and quick ratio represent the liquidity ratio of the company, this positive correlated shows that the profitability will increase as the liquidity increase. Average-collection period and debt to income ratio are negative correlated with ROA, which shows -0.874 and -0.976 respectively. This negative correlated indicates a good phenomena to the company, because the increase of profitability at the same time decrease the average-collection period and debt to income ratio. This show that the company have a good management in debt and income to finance their assets and able to collect back their debt in a short time. According to the past study conducted by the Daniel Mogaka Makori (2013), he stated that the negative relation between ROA and Average Collection Period is consistent with the view that the less the time taken by customers to pay their debt, thus the company have more cash to replenish the inventory hence bring to more sales which result in increase of profitability.

Besides, operational ratio shows the positive correlated with ROA at 0.065, and operating margin carry a strong positive correlated at 0.562. A positive correlated between the operational risk means that the uncertainties and hazards a company faces when it comes to day-by-day business operation activities are in the well-control situation. The operating uncertainties does not increase as the profit increase. Corporate governance index shows a strong positive relationship with the ROA, which is 0.903. It indicates that when the corporate governance index increases, the profitability increase. Thus, it can be conclude that the firm have an outstanding corporate governance control in the company.

In this assignment, macroeconomic factors also used to examine the relationship with profitability of the Nissan Motor Corporation which is gross domestic product (GDP), inflation, interest rate and exchange rate. Inflation and exchange rate have a negative relationship with ROA, which are -0.551 and -0.966 respectively. As refer back to the table 4.3 above, we know that GDP have a positive relationship with the company performance, while interest rate does not show the relationship with the ROA. A good management in mitigating economic risk is important to ensure that the company is ready for the changes and problem might be face in the future.

4.5   Model Summary

4.5.1   Model Summary for Internal Variables

Table 4.4: Model summary result for internal variables

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.976^a	.953	.937	.0017215	1.993

a. Predictors: (Constant), DEBT TO INCOME

b. Dependent Variable: ROA

Table 4.6 above shows the model summary for internal variables. For internal variables, the variables that have the largest impact towards the company is debt-to-income ratio. R square indicates how much of the variables explain the dependant variable. Debt-to-income ratio brings a value of 0.953 in R square to the Nissan Motor Corporation. Durbin-Watson statistic is the number that tests for autocorrelation in the residuals from a statistical regression analysis, a value of 2 means there is no autocorrelation in the variables. In this study, the value of Durbin-Watson statistic shows the number of 1.993, which is nearly to 2. This means that the debt-to-income ratio is nearly no autocorrelation with the sample.

4.5.2 Model Summary for External Variables

Table 4.5: Model summary result for external variables

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.966[a]	.933	.911	.0020484	2.097

a. Predictors: (Constant), Exchange Rate

b. Dependent Variable: ROA

For external variables, exchange rate is the variable that have the largest impact towards return on assets (ROA). Exchange rate bring a R square value of 0.933, while the Durbin-Watson result shows 2.097, which means that the exchange rate does not have the autocorrelation to the variable because the Durbin-Watson value is approximate 2.

4.5.3 Model Summary for Internal and External Variables

Table 4.6: Model Summary result for internal and external variables

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.976[a]	.953	.937	.0017215	1.993

a. Predictors: (Constant), DEBT TO INCOME

b. Dependent Variable: ROA

According to the table 4.8 above, the R Square of Nissan Motor Corporation is 0.953 or 95.3%. This implies that by using all the internal variables and external variables in equation 3. The variables used in the model indicates the 95.3% of the variance in the profitability for Nissan Motor Corporation, while the remaining 4.7% of R square still remained unknown. Durbin-Watson result for the combination for internal and external variables is 1.993, which is approximate 2. This means that the combination of internal and external variables nearly no autocorrelation with the dependent variable.

4.6   Coefficient

4.6.1   Coefficient for Internal Variables

Table 4.7: Coefficients result for internal variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.072	.005		13.530	.001	.055	.089
	DEBT TO INCOME	-.002	.000	-.976	-7.772	.004	-.003	-.001

a. Dependent Variable: ROA

Table 4.9 shows the coefficients result for internal variables. By using the stepwise method, the result only shows the most influences variables towards dependent variable. Debt-to-income ratio is the internal variable that influent the dependent variable the most, which bring a value of -7.772 for the t-value. Negative beta value indicates the negative influent for the dependent variable, beta value for debt-to-income ratio is -0.976, it brings a negative influent to the Nissan Motor Corporation.

4.6.2   Coefficient for External Variables

Table 4.8: Coefficients result for external variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.199	.026		7.661	.005	.116	.281
	EXCHANGE RATE	-.001	.000	-.966	-6.464	.008	-.002	-.001

a. Dependent Variable: ROA

Coefficient result for external variables above shows that the most influence towards the dependent variable in external variables is exchange rate. Exchange rate carry a t-value of -6.464, and beta value of -0.966. In conclusion, we can know that exchange rate has a negative influent towards return on assets.

Table 4.9: Coefficient result for internal and external variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.072	.005		13.530	.001	.055	.089
	DEBT TO INCOME	-.002	.000	-.976	-7.772	.004	-.003	-.001

a. Dependent Variable: ROA

By referring to the table 5.1 above, it shows the coefficient result of Nissan Motor Corporation. Debt to income ratio has the highest impact with t-value, which is -7.772 to the profitability compared with other variables. It also shows that the coefficient of Nissan company for a period starting from year 2014 until year 2018. The t-value of debt to income ratio have a big influence towards the company because the smaller number of significant shows the biggest of t-value. In this assignment, the beta of debt to income ratio is -0.976, which indicates that it brings a negative influence towards the company.

4.7   ANOVA

4.7.1   ANOVA for Internal Variables

Table 5.0: ANOVA result for internal variables

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	60.399	.004[b]
	Residual	.000	3	.000		
	Total	.000	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBT TO INCOME

Table 5.2 above shows the ANOVA result for internal variables. Debt-to-income ratio is significant to the dependent variable, return on assets (ROA), which brings a significant value of 0.004 to ROA. Debt-to-income ratio is perfectly significant to return on asset because the significant value is less than 0.05 ($p < 0.05$).

4.7.2 ANOVA for External Variables

Table 5.1: ANOVA result for external variables

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	41.781	.008[b]
	Residual	.000	3	.000		
	Total	.000	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), Exchange Rate

Table 5.3 above shows the ANOVA result for external variables. Debt-to-income ratio is significant to the dependent variable, return on assets (ROA), which brings a significant value of 0.004 to ROA. Debt-to-income ratio is perfectly significant to return on asset because the significant value is less than 0.05 ($p < 0.05$).

4.7.3 ANOVA for Internal and External Variables

Table 5.2: ANOVA result for internal and external variables

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	60.399	.004[b]
	Residual	.000	3	.000		
	Total	.000	4			

a. Dependent Variable: ROA

b. Predictors: (Constant), DEBT TO INCOME

The ANOVA table above shows a significant value of 0.004 which is below the alpha value ($p < 0.05$). It means that the variable is perfectly significant to represent the model. Therefore, the significant value of Nissan Motor Corporation is an acceptable value that indicates the model of this assignment are acceptable and reliable.

5.0   CONCLUSION

5.1   Introduction

This study aims to investigate the return on asset (ROA) and its determinants in the Nissan Motor Corporation in automobile industry in Japan. To achieve the objectives of this study, the internal and external factors were used in this study to determine the results. Therefore, the discussion will be done based on the results obtained in Chapter 4 in this chapter. Besides, the conclusion and recommendations for future study will explain in this chapter too.

5.2   Discussion of Result

The purpose of this study carried out is to determine the company performance, which is based on return on asset (ROA) towards its determinants in the Nissan Motor Corporation in automobile industry in Japan. This study is done by achieving the research objectives as follows:

1. To determine the internal factors that may affect the company performance.
2. To investigate the external factors that may affect the company performance.
3. To examine the internal and external factors that may influence the company performance.

Based on the result obtained in Chapter 4, there are three models include in the regression model, which is internal factors, external factors, and the combination of internal and external factors. As a result, the regression model that uses internal factor is same as the regression model that uses the combination of internal and external factors. Therefore, we can say that the internal factor has the influence towards the dependent variable, which is return on asset (ROA).

According to the coefficient of correlation among the internal factors, the internal variable that has the most significant influence towards the return on asset (ROA) is debt-to-income ratio. This means that whenever the debt-to-income ratio increase, the return on asset (ROA) will increase as well. For external variables, exchange rate is the external factors that has the largest impact and the negative influence towards the company's performance the most. This means that whenever the exchange rate increase, the company performance will decrease as well.

In addition, the regression model that use the combination of internal and external factors as independent variables is same as the regression model that use the internal factors in first model, which is debt-to-income ratio. Therefore, the factor that influence the return on asset (ROA) in this model is same as the internal regression model (first model) that use the internal factors as independent variables.

5.3   Limitations

One of the limitations in this project is Nissan Motor Corporation is the only sample that used to investigate to the whole automobile industry in Japan, the result obtained is not an appropriate result for the whole industry. Besides, this study also covered only five years of financial statement for Nissan Motor Corporation, which is from year 2014 to year 2018. Thus, only a limited amount of information can be obtained due to this time constraint.

5.4   Recommendations

Based on the results, the debt-to-income ratio is the most significant variable that influence the company performance, which is measured by the return on asset (ROA). Therefore, in order to control and improve the company performance, the debt-to-income ratio is needed to be increase as well. In order to increase the debt-to-income ratio, Nissan Motor Corporation need to enhance their ability to manage monthly payments and debts repay.

Besides, the corporate governance is also very important towards the company. This is because the corporate governance may help the company to maintain their stability and the company value in the share market. Therefore, the company is recommended to enhance and foster their corporate governance in their daily business operations. The five pillars that used to measure the corporate governance of a company such as accountability, transparency, independence, fairness, and sustainability is very important to maintain their corporate governance.

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      benefits-of-operational-risk-management/.

APPENDIX

Internal Variables

Table A.1: Excluded Variables for Internal Variables

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	CURRENT RATIO	-.186[b]	-1.288	.327	-.673	.622
	QUICK RATIO	-.192[b]	-.797	.509	-.491	.308
	AVERAGE-COLLECTION PERIOD	.191[b]	.504	.664	.336	.146
	OPERATIONAL RATIO	.202[b]	3.273	.082	.918	.981
	OPERATING MARGIN	.120[b]	.780	.517	.483	.768
	Corporate Governance Index	-.052[b]	-.123	.913	-.087	.131

a. Dependent Variable: ROA

b. Predictors in the Model: (Constant), DEBT TO INCOME

Table A.2: Residuals Statistics for Internal Variables

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.025085	.040223	.031120	.0066895	5
Residual	-.0022853	.0017112	.0000000	.0014909	5
Std. Predicted Value	-.902	1.361	.000	1.000	5
Std. Residual	-1.328	.994	.000	.866	5

a. Dependent Variable: ROA

Figure A.1: Histogram for Internal Variables

Histogram
Dependent Variable: ROA

Mean = -4.83E-15
Std. Dev. = 0.866
N = 5
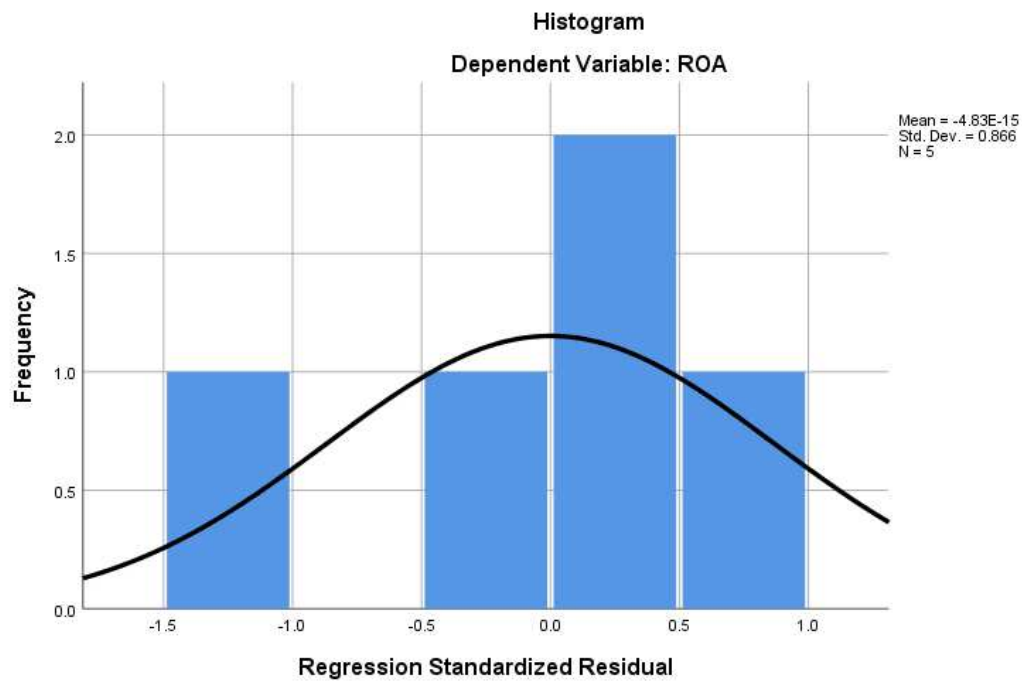
Figure A.2: Normal P-P Plot for Internal Variables

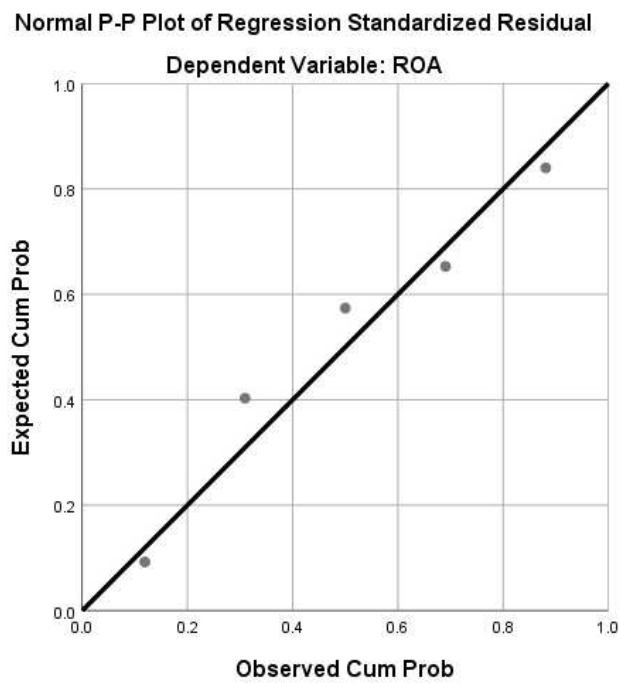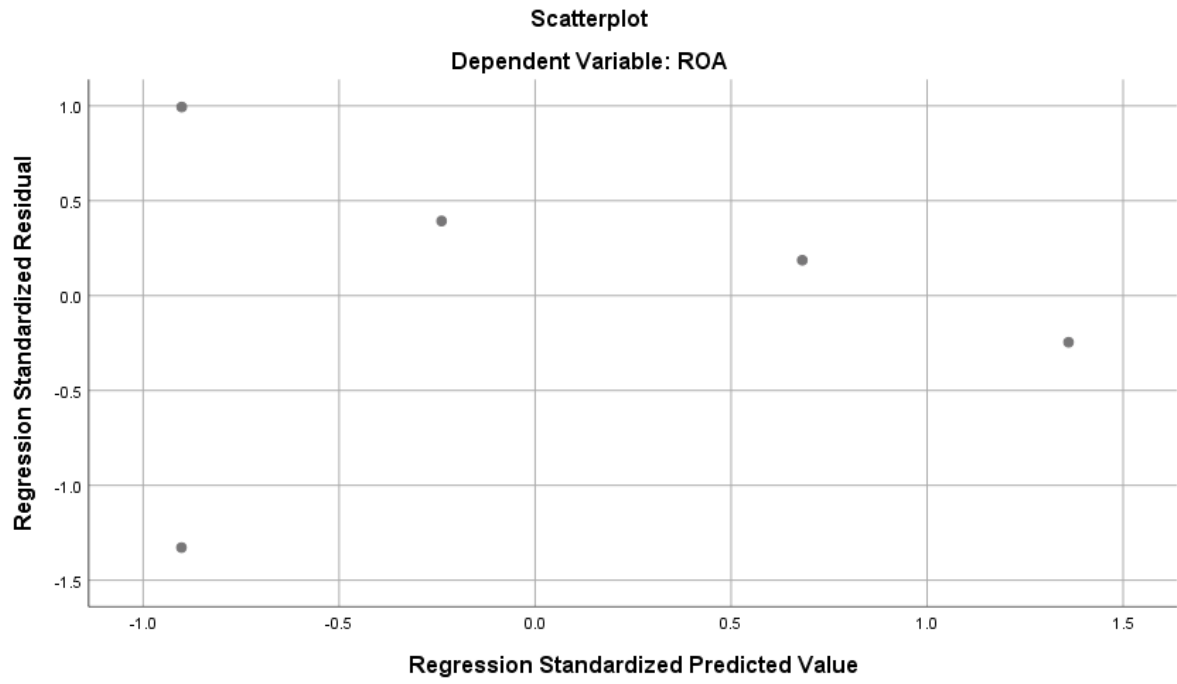Normal P-P Plot of Regression Standardized Residual
Dependent Variable: ROA

Figure A.3: Scatterplot for Internal Variables

External Variables

Table A.3   Excluded Variables for External Variables

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GDP	.149[b]	.925	.453	.547	.900
	Inflation	-.243[b]	-2.619	.120	-.880	.878

a. Dependent Variable: ROA

b. Predictors in the Model: (Constant), ExchangeRate

Table A.4   Residuals Statistics for External Statistics

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.024693	.040067	.031120	.0066201	5
Residual	-.0027600	.0021069	.0000000	.0017739	5
Std. Predicted Value	-.971	1.351	.000	1.000	5
Std. Residual	-1.347	1.029	.000	.866	5

a. Dependent Variable: ROA

Histogram

Dependent Variable: ROA

Mean = -6.60E-15
Std. Dev. = 0.866
N = 5
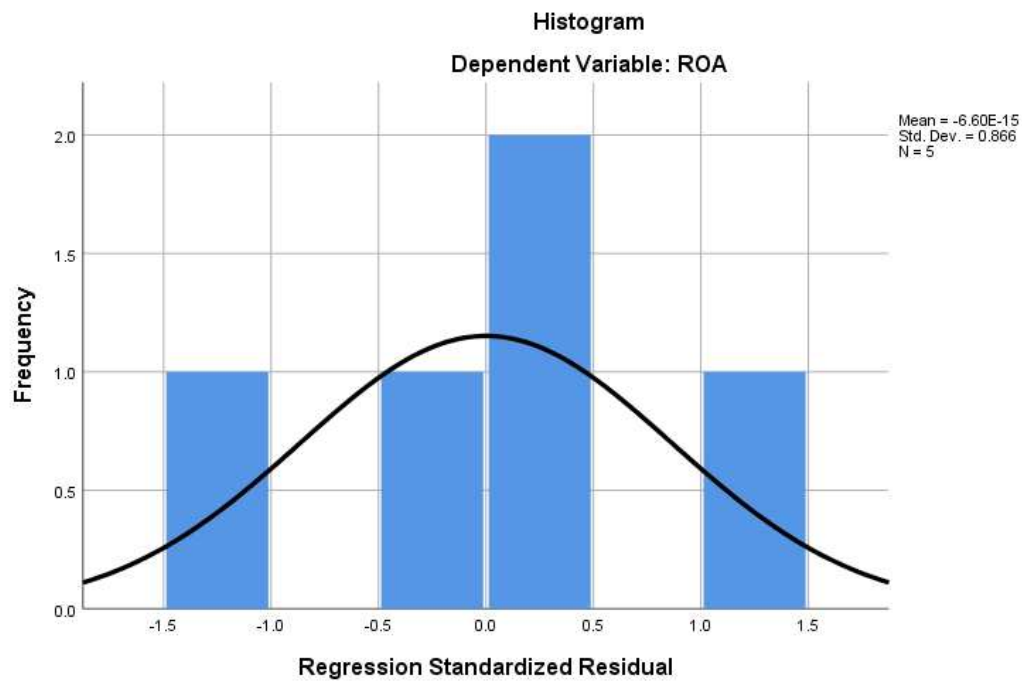
Figure A.4. Histogram for External Variables

Normal P-P Plot of Regression Standardized Residual
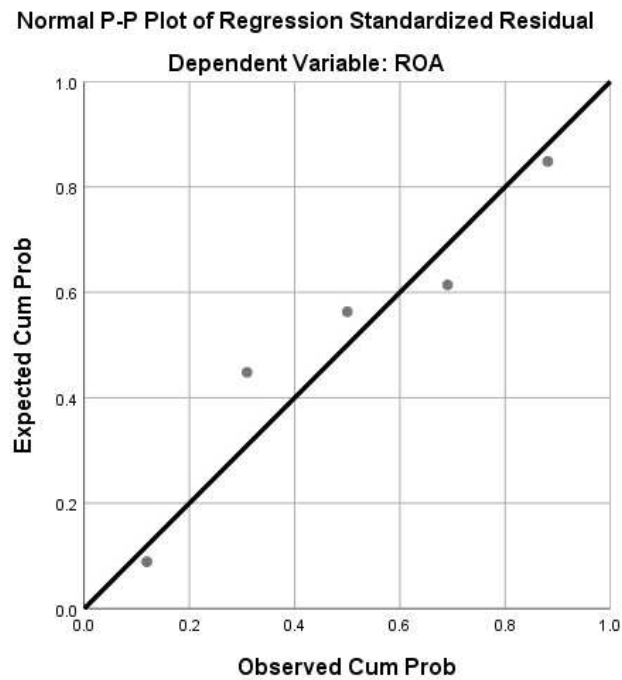
Dependent Variable: ROA

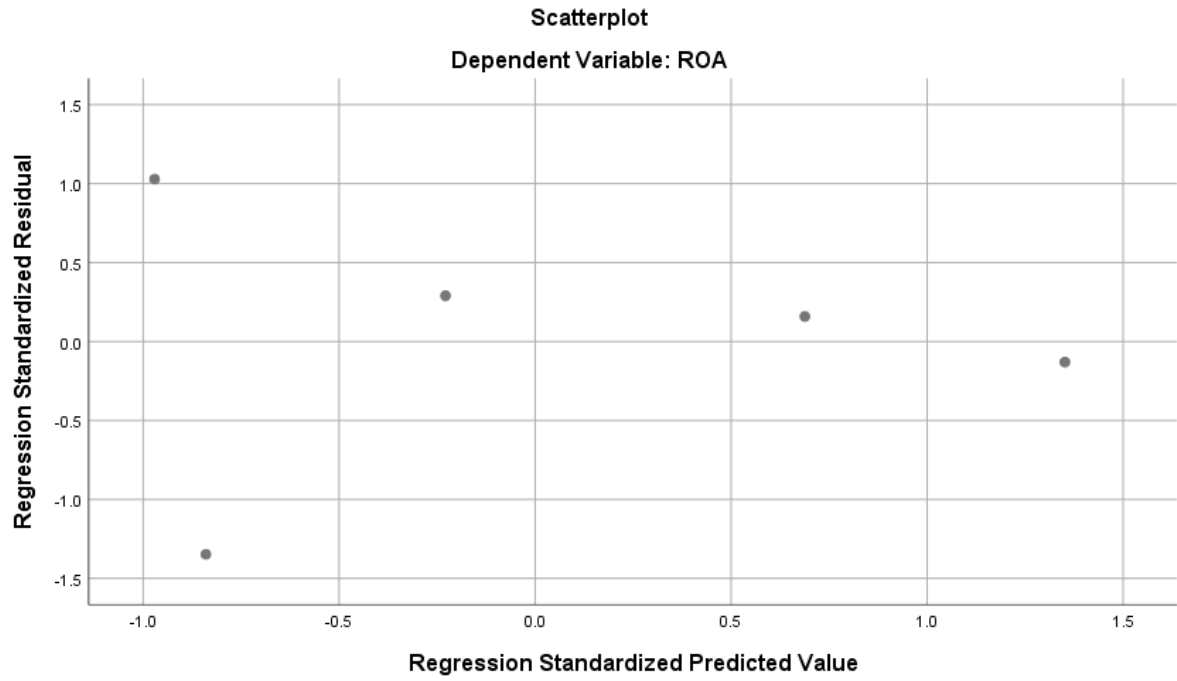*Figure A.5. Normal P-P Plot for External Variables*

Figure A.6. Scatterplot for External Variables

Internal and External Variables

Table A.5   Excluded Variables for Internal and External Variables

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	CURRENT RATIO	-.186[b]	-1.288	.327	-.673	.622
	QUICK RATIO	-.192[b]	-.797	.509	-.491	.308
	AVERAGE-COLLECTION PERIOD	.191[b]	.504	.664	.336	.146
	OPERATIONAL RATIO	.202[b]	3.273	.082	.918	.981
	OPERATING MARGIN	.120[b]	.780	.517	.483	.768
	Corporate Governance Index	-.052[b]	-.123	.913	-.087	.131
	GDP	.126[b]	.919	.455	.545	.887
	Inflation	-.213[b]	-3.085	.091	-.909	.858
	ExchangeRate	4.070[b]	2.648	.118	.882	.002

a. Dependent Variable: ROA

b. Predictors in the Model: (Constant), DEBT TO INCOME

Table A.6   Residuals Statistics for Internal and External Variables

Residuals Statistics[a]

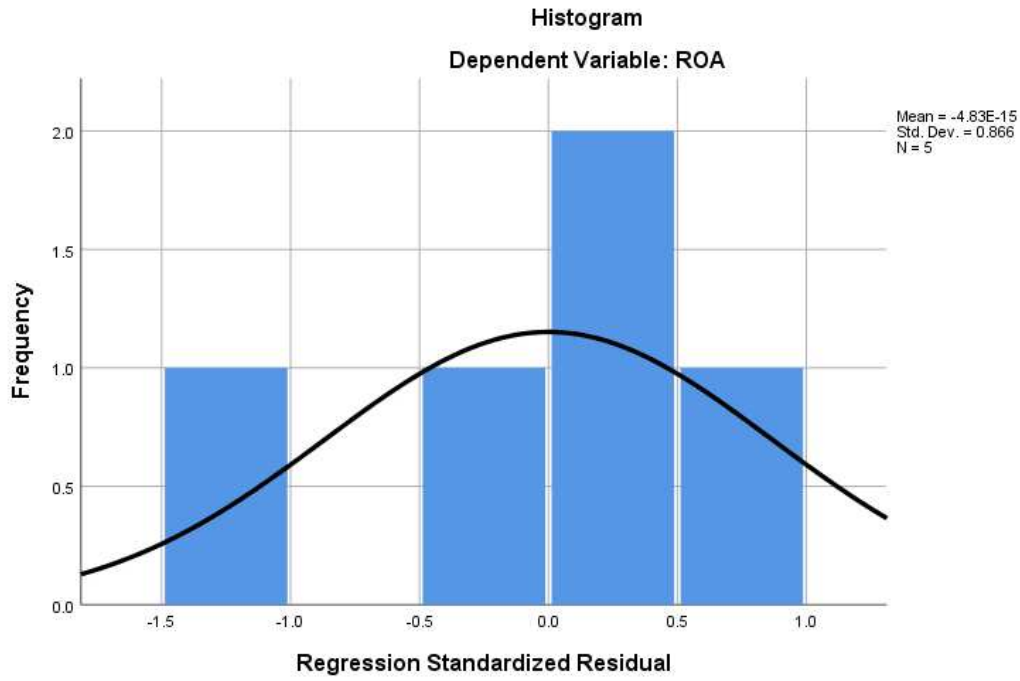|	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.025085	.040223	.031120	.0066895	5
Residual	-.0022853	.0017112	.0000000	.0014909	5
Std. Predicted Value	-.902	1.361	.000	1.000	5
Std. Residual	-1.328	.994	.000	.866	5

a. Dependent Variable: ROA

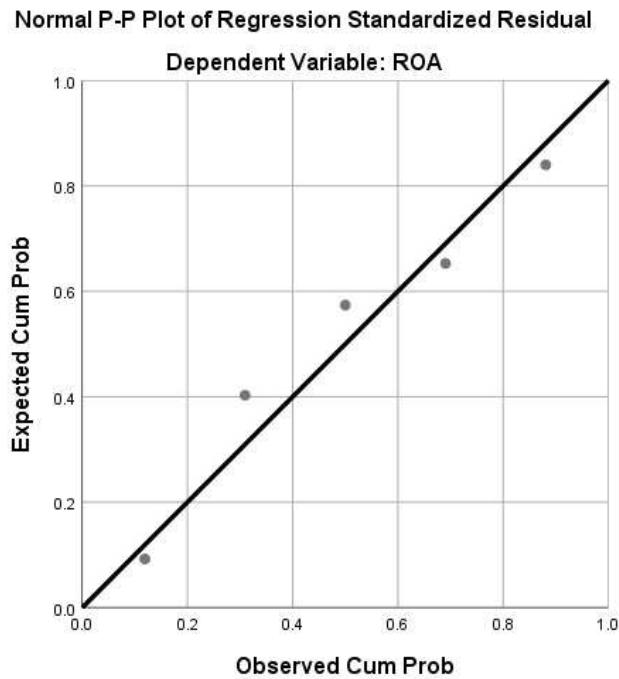*Figure A.7. Histogram for Internal and External Variables*
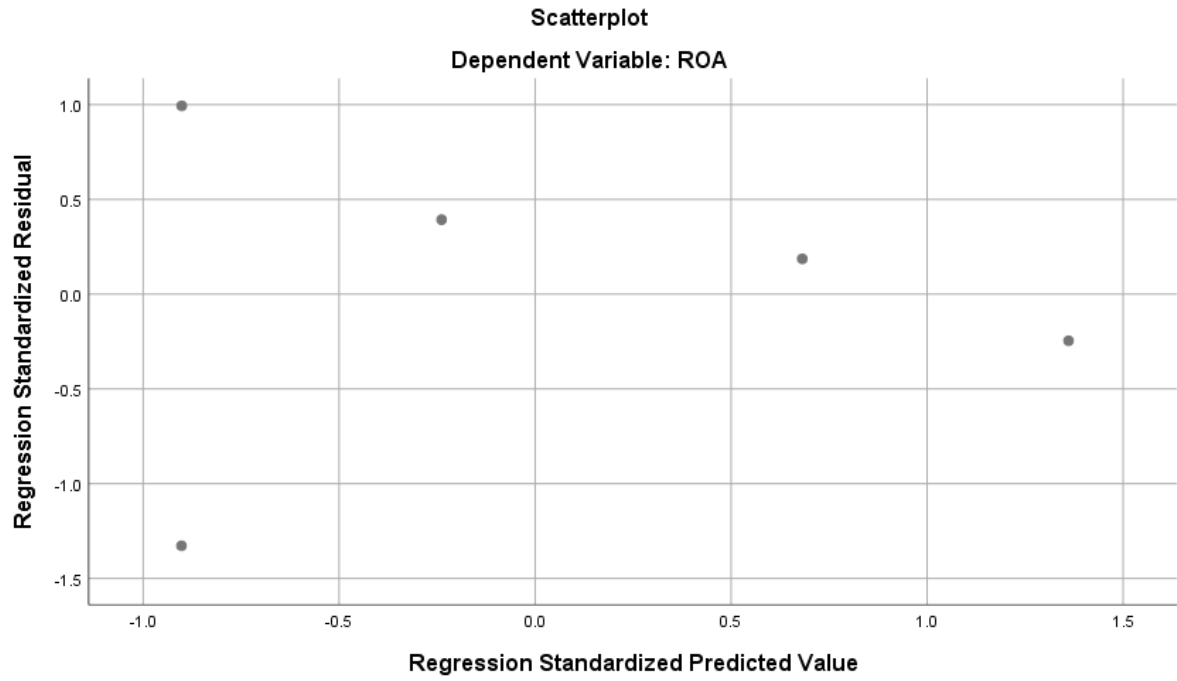

Figure A.8. Normal P-P Plot for Internal and External Variables

Figure A.9. Scatterplot for Internal and External Variables