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Ahmad Saufi, Sarah

Universiti Utara Malaysia

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# **THE DETERMINANT OF LIQUIDITY RISK IN VF CORPORATION**

**SARAH BINTI AHMAD SAUFI (261081)**

**UNIVERSITI UTARA MALAYSIA**

## **ABSTRACT**

This study aims to determine the relationship between dependent variable, quick ratio and other internal and external variables in VF Corporation in United States over five years. For the purpose of analysis, the selected data from 2014 until 2018 of VF Corporation is applied as the sample of data. The examination is being carried out in determine the effect of different variables such as return on assets (ROA), average collection period, debt to income, operational ratio, operating margin, corporate governance index, gross domestic product (GDP), inflation, interest rate, exchange rate and market risk. The finding reveals that the liquidity of the company can be influenced by the operational risk. The study shows average collection period have significant negative effect on firm's liquidity.

**Keywords:** *liquidity performance, operational risk, and average collection period*

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND OF THE COMPANY**

VF CORPORATION is a company that produce worldwide apparel and footwear. The company is founded in 1899 and have been improve and expand the company into a corporation. VF CORPORATION is headquartered in Greenwood Village, Colorado. VF CORPORATION is a company that have produce many brands that consists into three categories which are outdoor, active and work. The company is involve in designing, production, marketing and distribution of branded lifestyle apparel that relate for men, women and children in the world. For example, the outdoor brand such as The North Face and JanSport.

The North Face, Inc., is a manufacturer and distributor of high-grade equipment and apparel used in mountaineering, skiing, and backpacking which manufacture a worldwide high performance outdoor apparel, footwear, equipment and accessories. The North Face is an American outdoor recreation product where the products are specialized in gear for mountain climbers, hikers and endurance athletes. For instance, the products are tents, sleeping bags, backpacks and also a line of footwear. Due to the cutting-edge technology, the company also provides a worldwide online retailer. The company's headquartered is in Alameda, California and it was founded in 1968.

Corporate governance is a system by which companies are directed and controlled. In other terms, it is involving a set of relationships between a company's performance, its board, its shareholders and other stakeholders. Corporate governance also includes the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realizing long term shareholder value, whilst taking into account the interest of other stakeholders.

Based on the concepts of sound corporate governance, there are a few terms that would ensure and enable corporations to sustain in long term and enhance shareholder value. For instance, there are openness, honesty and transparency, independence, accountability, responsibility, fairness, reputation and social responsibility. These terms are conclude as the target in large companies in order to succeed in the corporations.

As stated in VF CORPORATION report, the company has been doing many programs that involve the social responsibility such as Boarding for Breast Cancer where the company assists with breast

education and prevention by donating to Boarding for Breast Cancer (B4BC) and the Breast Cancer Fund through its Support the Cause collection. Next, VF CORPORATION also emphasize the importance of nature where the company try to save water, energy and reduce the use of chemicals by develops high-quality products with a reduced environmental impact through its bluesign approved fabrics. In 2011, the use of bluesign fabrics has increase by 9 percent. The company also educates others about climate change, advocates for proactive policies and promotes renewable technologies. Besides, The North Face, which the brand under VF CORPORATION also make an event called Clothes the Loop Stores where it is a program that allows consumers to drop off their unwanted clothing and footwear at The North Face Retails and Outlet Stores. The unwanted clothes can be in any conditions and any brand they are. The items that have been dropped in the collection bin are sent to the recycling center whether to be reuse or recycle.

In addition, VF CORPORATION also practice the independence whereas the board of directors and the shareholders are different person. The company implement the separation of ownership. Hence, the board of director is independent and they would not have influence from outside. When the board of director is independent, they can make the best decision for the company. This company also execute the concepts of sound corporate governance which is transparency. The company hide nothing as they have disclosure their financial situations, performance and corporate governance. All the financial information also can be found in the worldwide.

Along with that, VF CORPORATION also implement the honesty, accountability, and responsibility where the company adopted an updated code of business in their company. In order to do business in the right way and to protect the business, the code of business conduct sets forth business policies and principles for all the employees, shareholders and also board of members. By this way, it would make the company has a better performance and the conflicts of interest and anti-corruption will not happen in the management. The Code additionally accentuates singular accountability and responsibility for adherence to the Code and encourages dialogue and reporting about ethics concerns to the management of the company. Therefore, a good reputation of the company exists in the worldwide because of corporate social responsibility, code of ethics, community involvement and also willingness to obey the spirit as well as the letter of the law.

Each company will face risks in their business whether it is a small companies or big companies. However, VF CORPORATION also face many risks such as liquidity risk and credit risk. These

company is also will be affected by microeconomic and macroeconomic factor such as changes in GDP, weather conditions, economic risk and also consumer demands. Hence, we can forecast and prepare as much as solutions that we have in order to prevent these risks from happen.

## **1.2 PROBLEM STATEMENT**

Every corporations must been face many risk that would ruin the company performances even in a minute. For example, liquidity risk may affect a company to shut down due to the insolvency that might happen. This is because a company is engage with operation day-to- day business and its need money for them to pay short term debt. Liquidity means the ability of a company in paying short term obligation and if the company unable to pay the short term debt in a specific time, liquidity risk occurred. Besides, based on the study by Waemustafa and Sukri (2016), banks always monitor the liquidity and Islamic Banks keep up higher liquidity compared to conventional banks. From the sentence, there might be a relationship between liquidity and corporate governance. Therefore, this report aims to determine which factors affect liquidity. Additionally, the factors that has been suggest would influence liquidity is internal and external factors. Internal factors include return on assets, average collection period, debt to income, operational ration, operation margin and also corporate governance index. While the external factors are GDP, inflation, interest rate, exchange rate and standard deviation.

## **1.3 RESEARCH OBJECTIVES**

1. To determine the liquidity of the company considering the internal factors.
2. To determine the liquidity of the company considering the external factors.
3. To determine the liquidity of the company considering the internal and external factors.

## **1.4 RESEARCH QUESTION**

1. What determine the liquidity of the company considering the internal factors?
2. What determine the liquidity of the company considering the external factors?
3. What determine the liquidity of the company considering the internal and external factors?

## **2.0 LITERATURE REVIEW**

### **2.1 CORPORATE GOVERNANCE**

#### **Definition**

According to Claessens (2006), it is said that the definitions of corporate governance vary widely. Hence, there are classify into two categories where the first set of definitions is about a set of behavioral patterns – the actual behavior of corporations in terms of performances, efficiency, growth, financial structure, and treatment of shareholders and other stakeholders. While the second set of definition is concerned with the normative framework – the regulations under firms that are operating, the rules from legal system, judicial system, financial markets and labor markets.

#### **Importance**

According to Marty Stuebs (2015), it is said that corporate governance is important in a firm's performances and success. The good corporate governance mechanisms develop a good financial reporting and performances. For instance, when the board of directors and audit committee is independent and expertise, its assure good governance and high quality financial report. With the existence of good corporate governance, the probability of conflict of interest, fraud, corruption will decrease. Based on the studies, with a good governance, it improves the operating performances which we measure by return on asset (ROA) and return on equity (ROE).

#### **How to Calculate Corporate Governance**

According to Schreuder (2013), corporate governance is a systems that used by an organization in achieving their target. A good corporate governance lead to a good company performance. Corporate governance is positively correlate with social responsibility and good corporate leads to good future social responsibility. To measure a good corporate governance, there are internal and external controls that a company need to target. For instance, in internal control, an organization need to be monitoring by board of directors and the company need to balance the power of the authority so that there would be separation between the shareholders and board of directors.

## **2.2 CREDIT RISK**

### **Definition**

According to Michelle Ayog-Nying Apanga (2015), credit risk can be defined as the probability that the bank's borrower will fail to honor its contract in line with agreed terms and conditions. In other words, there are possibility that the company could not repay for the loans that have been borrow from the bank in the first place to set up a business. This is might be because of an interruption of cash flows and increased costs for collection. Hence, this credit risk will give an effect to the company performances. For instance, the company could not achieve the sustainability of the business and it will go bankrupt.

### **Importance**

According to Sirus Sharifi (2018), credit risk can give bad impact to an organization. The studies show that the banks were suffering from a high credit risk due to problems of borrower identification, insufficient collateral, and high frequency of default. As a consequence, the banks charged pricey interest rates to compensate the expected and unexpected credit losses. This shows that credit risk is very important in an organization especially the banks or the lenders because the higher the credit risk, the higher the profit. This is because the risk is high, the return also high. But, the return might be in positive and negative.

### **How to Calculate Credit Risk**

According to Ali Fatemi (2006), there are ways to measure credit risk. Based on the article, they used CreditMetrics as the first develop portfolio model. It combine a methodology for accessing a portfolio value risk (VAR) that arising from changes in counterparty credit quality. By this way, we can know the exposure profile of each counterparty that represent in the portfolio, and combines the unpredictability of the individual instruments. Besides, credit risk also can be found in risk based pricing, covenants, and also deposit insurance.

## **2.3 OPERATION RISK**

### **Definition**

According to Habib Mahama (2008), operation risk can be defined as the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events. In another words, it can be defined as the uncertainties and hazards a company faces when it attempts to do its day-to-day business activities within a given field or industry. The risk can be happen from employee error, system failures, fraud or other criminal activity and also any events that disrupts the business process. If this risk happen, it would affect the organization's reputation and also cause financial damage.

### **Importance**

According to Stephen Manning (2005), the benefits of operation risk are we can be prepared for the negative outcomes that can appear in our life. It enable us to take cost effective action to prevent or lessen the recurrence, indicate future risks or reduce the impact of such risks. With this knowledge of operation risk, we can forecast the future risk that can happen in an organization alongside with new solutions or we can try to prevent the same risk from happen in our organization.

### **How to Calculate Operation Risk**

According to Sanchez, Ceske, & Hernandez (2000), there are three broad methods for capital calculation of operation risk which are basic indicator approach, standardized approach, and advanced measurement approach. This operational risk should include the identification, measurement, and monitoring, reporting, control and mitigation frameworks. There are also various method can be choose when modelling operation risk, each with its advantages and target application. The choice of the methodology to use in the institution depends on a number of factors including time sensitivity for analysis, resources desired or available for the task and others.



## **2.4 LIQUIDITY RISK**

### **Definition**

According to Ahmed Arif (2012), liquidity risk is the potential for loss to an institution, arising from either its inability to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable cost or losses. It is also can be defined as risk of being unable to liquidate a position timely at a reasonable price. This usually occurs due to the inability to convert a security or hard asset to cash without a loss of capital or income in the process. For instance, liquidity risk appear when a business need an immediate cash holds a valuable asset that cannot trade or sell at market value due to lack of buyers or due to an ineffective market where it is difficult to bring buyers and sellers together. Hence, this will affect the company performance where the financial bear the debts and the financial stability would not achieve in the corporations.

### **Importance**

According to Kumar (2008), liquidity risk is a risk that can affect other risk such as credit risk, market risk and operational risk. This is because if a trading bank has a position in an illiquid asset, its limited ability to liquidate that position at short notice will lead to market risk. Therefore, liquidity risk should be stress more in a company compare to other risk. Liquidity risk is important in order to enable the cash flow and collateral need assesses without having negative impact on day to day business. It is importance for an organization to forecast the liquidity risk in the future especially banks so it will be easier for the organization when these uncertainty happen.

### **How to Calculate Liquidity Risk**

According to Ahmed Mohamed Dahir (2018), the liquidity risk can be measured using loans divided by core deposits where the core deposits consist of transaction deposits and fully insured time deposits but it is exclude the non-brokered time deposit. Based on the article, the relationship between liquidity risk and bank risk-taking is negative. It is also shows that the higher the liquidity risk, the higher the inability for the company to pay its debts.

## **2.5 MARKET RISK**

### **Definition**

According to Savvas C. Savvides (2012), market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. It is also can be defined as risk of loss to an institution resulting from movements in market prices, in particular, changes in interest rates, foreign exchange rates, and equity and commodity prices. It is called as systematic risk. When market risk happens, the company performances may be decrease and more exposed to financial risk.

### **Importance**

According to Vladimir Mirković (2013), market risk could affect the business in various ways. For instance, when there is an increment of raw material prices, the operation will decline. If the market environment changes, it will affect the business operations of the companies. For example, the changes in prices of products and services and also the changes in sales volumes or competitiveness. Aside from that, market risk can give an impact to the financial institution alongside with non-financial institutions. Hence, it is important for an organization to be stressed or to be prepared on the market risk.

### **How to Calculate Market Risk**

According to Vladimir Mirković (2013), there are two categories for the measurement of risk – value at risk model and stress testing or scenario analysis. Value-at-risk (VaR) is a standard measured which it is often used by financial analyst worldwide. Value-at-Risk (VaR) is can be defined as the maximum potential change in the value of financial instruments portfolio for the given probability during observed horizon. This means that Value-at-Risk is a number that shows how much financial institution could lose during observed time horizon with the certain confidential level which is probability level.

## **2.6 COMPANY PERFORMANCE**

### **Definition**

According to Richard (2009), company performance can be defined as the actual results of an organization as measured against its goals or objectives. The company performance are divided by three specific areas of firm outcomes where the first one is financial performance which is profits, return on assets, and return on investment. Second, product market performance. For instance, sales, market and also shares. Lastly, the shareholder return such as total shareholder return, and economic value added.

### **Importance**

According to Harris, Brewster, & Sparrow (2003), with the existence of company performance, there will be many benefits that an organization can achieve. For example, when the financial performance is higher, the profits also higher. This is because the organization use a good system in managing the company and this will lead to the rising sales, market and shares. Every organizations need a better company performance from day to day in order to become successful in their business. Company performances is importance especially in making the benchmarking with another company from the same industry in order to recognize and realize the level of our company performances.

### **How to Calculate Company Performance**

According to Armstrong & Baron (1998), we can calculate the company performance through activities of the company, tools which is the labor, processes of the operation of the organization and programs that companies create. For instance, we can know that the company is doing better by looking at the workers performances. We can also measure the company performance by calculate the return on asset, return on equity and also return on investment. For example, through return on asset, we can know how much 1 dollar of asset being generate properly. By calculate the return on equity, we can measure the management's ability to generate income from the equity that available to it.

## **3.0 METHODOLOGY**

### **3.1 INTRODUCTION**

This chapter is about how data and the information of the study are gained. We use the research methodology that covers the methods and approaches used for the study in achieving objectives and goals of the study. This way of methodology are easier to understand and more systematic in finding the answer of the research. The purpose of this study is to know how a large company deals with corporate governance in order to maintain their business. The type of the research that will be used in this study is quantitative research. All the data were gained in the annual report of the company and their official website.

### **3.2 POPULATION / SAMPLING TECHNIQUE**

Population is a group of individuals, objects or things having some common characteristics. The sampling is a process of selecting subgroups from a population of elements such as people, objects or events. The research sampling method that will be used in this study is targeted sampling to obtain a more scientific result. The population of this study is the large sportswear industry company in United States. From the population, one companies were chosen as a sample in this study. The chosen company is VF Corporation and the data has been gained from annual reports of 2014 until 2018 in order to measure the dependent variables (profitability and liquidity) and the independent variables (macroeconomics factors).

### **3.3 STATISTICAL ANALYSIS**

VF CORPORATION is chosen as a sample in this study as Sportswear Industry in United States due to the branding outdoor apparel that the company has been produced. The annual report for this company has been collected from 2014 until 2018. In order to measure the internal factor performance of the company – profitability, and liquidity I used the details in the income statement and balance sheet to calculate the percentage. For the independent variables which is macroeconomics factors, the GDP, unemployment rate, and inflation rate is collected from 2014 to 2018 in order to measure the trend of economic condition. The multiple regression analysis is being used in this study.

### 3.4 FRAMEWORK

The framework of this study consists of types of independent variables and one dependent variable.

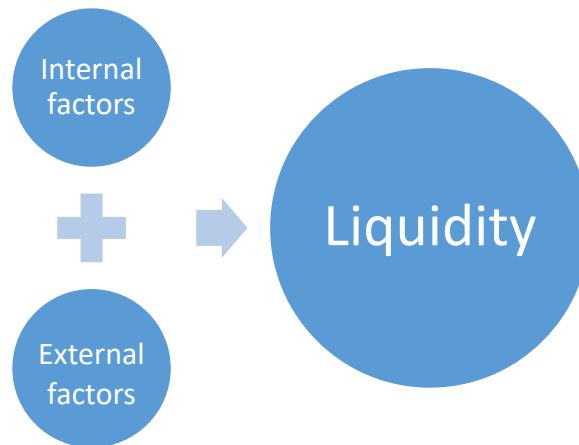


Figure 1: Dependent and independent variables

### 3.5 MODEL

Three model are being used in determining the factors that influence the dependent variable.

**Model 1:** Liquidity (quick ratio) =  $\beta_0 + \beta_1ROA + \beta_2ACP + \beta_3DR + \beta_4OR + \beta_5OM + \beta_6CGI$

**Model 2:** Liquidity (quick ratio) =  $\beta_0 + \beta_1GDP + \beta_2INFLA + \beta_3IT + \beta_4ER + \beta_5BETA + \beta_6IR$

**Model 3:** Liquidity (quick ratio) =  $\beta_0 + \beta_1ROA + \beta_2ACP + \beta_3DR + \beta_4OR + \beta_5OM + \beta_6CGI +$   
 $\beta_7GDP + \beta_8INFLA + \beta_9IT + \beta_{10}ER + \beta_{11}BETA + \beta_{12}IR$

### 3.6 STATISTICAL PACKAGE FOR SOCIAL SCIENCES (SPSS)

In this study, I used IBM SPSS version 25 to calculate data to obtain results. SPSS is Statistical Package for Social Science which it is known as a software that help in market research and marketing due to the calculation of the data. From SPSS, I can get to know about descriptive statistics, correlation, and coefficient of the company. Therefore, I get to know the trend of the company from year to year.

## 4.0 FINDINGS AND ANALYSIS

### 4.1 INTRODUCTION

In findings and analysis, all the data are comes from financial statement. The financial statement of a company which is VF Corporation, enable researcher to analyze the trend and liquidity of the company by comparing the ratios within five years. The main findings of this project is to analyze liquidity of the company that has been affected by internal and external factors. The three main components of financial statements that have been used are income statement, balance sheet and statement of cash flows. The data used are collected from year 2014 until 2018 taken from the VF Corporation website which is VFC.COM.

### 4.2 TREND ANALYSIS

#### 4.2.1 OPERATIONAL RISK

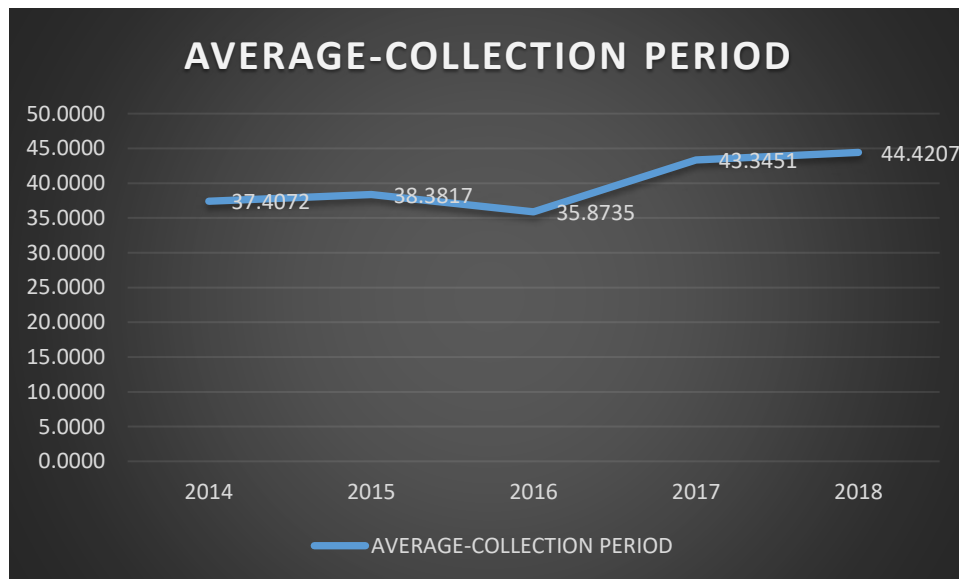


Figure 2: Average collection period of VF Corporation

Average collection period is used to measure the effectiveness of a firm's accounts receivable management. This ratio is important for a firm to ensure their business is operating smoothly. Based on the figure 3 above, the average collection period is in volatile condition as it has ups and downs from 2014 to 2018. From 2014, the average collection period increase from 37.4072 to 38.3817 in 2015. However, the ratio decrease in 2016 with a ratio of 35.8735. Then, the average collection period had an increment to 43.3451 and 44.4207 in 2017 and 2018 respectively. The highest average collection period is in 2018 with a number of 44.4207 while the lowest is 35.8735

in 2016. The lower the average collection period shows that the firms is efficient in collecting payments.

### 4.3 LIQUIDITY WITH INTERNAL VARIABLES

*Table 1: Model Summary of Quick ratio and Internal Factors*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.919 <sup>a</sup>	.845	.793	.137536689200	1.703

a. Predictors: (Constant), AVERAGE-COLLECTION PERIOD

b. Dependent Variable: QUICK RATIO

R-squared is the proportion of variance in the dependent variable that can be explained by the independent variables. Technically, it is the proportion of variation accounted for by the regression model above and beyond the mean model. As stated in the table 1 above, R square value is 0.845 which it lead to the meaning that one of the independent variable which is average collection period explain 84.5% of the variability of dependent variable in this analysis which is quick ratio. The closer the value to 100%, the better the independent variable fits the data. This means that if the data is 0, it indicates that the model does not explain any of the variability of the response data around its mean, while if 100% it indicates that the model explains all the variability of the response data around its mean. Adjusted R square is an altered version of R-squared that has been modify for the numbers of predictors in the model. If the new term enhance the model more than could be expected by chance, the adjusted R-square will increase. However, if the predictor improve the model by less than expected by chance, the adjusted R-square will decrease. From the table, it can be concluded that the predictor improves the model less than predicted by chance, because the adjusted R-square is decrease. In conclusion, the higher the value of the R square, the better the model fits our data, the closer the line passes through all points. Durbin Watson statistic is a test for autocorrelation in a data set. In each analysis, the data must be between 1.5 and 3.0. If the value outside this range, it could be a cause for concern. According to the analysis above, the Durbin Watson value is 1.70 which it means it is a good value and has a positive autocorrelation.

Table 2: ANOVA of Quick ratio and Internal Factors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.308	1	.308	16.297	.027 <sup>b</sup>
	Residual	.057	3	.019		
	Total	.365	4			

a. Dependent Variable: QUICK RATIO

b. Predictors: (Constant), AVERAGE-COLLECTION PERIOD

ANOVA is analysis of variance which it used to evaluate the differences among group means in a sample. In this study, the result is significant. Based on the table 2 above, the F-value is 16.297, which arrive at significance with a p-value of 0.027. The p-value is less than 0.05 alpha level and this means there is a statistically significant difference between the means of the difference variable.

Table 3: Coefficient between Quick ratio and Internal factors

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VI F
1	(Constant)	4.235	0.729		5.809	0.010	1.915	6.555		
	AVERAGE-COLLECTION PERIOD	-0.074	0.018	-0.919	-4.037	0.027	-0.131	-0.016	1.000	1.000

a. Dependent Variable: QUICK RATIO

Table 3 above shows the coefficient of VF Corporation. Coefficient is used in this study to determine what influence the dependent variable which is liquidity. The t-value represent how big is the influence while the coefficient beta portray the direction of relationship whether it is a positive influence or a negative influence. According to the table, t-value of average collection period shows a large data with 4.037, suggest that it has the biggest influence on the company's liquidity among other variables. Hence, to manage liquidity, the firm need to deal with average collection period. If the firm deal with average collection period, the liquidity might improve. Coefficient beta shows a negative sign means it is negatively influence liquidity. This indicate that



when average collection period decrease, liquidity increase. Liquidity imply cash, and cash will start to increase when account receivable decrease. In conclusion, the firm need to manage account receivables in order to improve liquidity of a company.

#### 4.4 LIQUIDITY WITH EXTERNAL VARIABLES

Table 4: Model Summary of Quick ratio and External Factors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.819 <sup>a</sup>	.672	-.314	.346258660116464	3.130

a. Predictors: (Constant), Interest Rate, Inflation, GDP

b. Dependent Variable: QUICK RATIO

According to the table 4 above, R square value is 0.672 which it lead to the meaning that the independent variable which is interest rate, inflation and GDP explain 67.2% of the variability of dependent variable in this analysis which is quick ratio. The closer the value to 100%, the better the independent variable fits the data. This means that if the data is 0, it indicates that the model does not explain any of the variability of the response data around its mean, while if 100% it indicates that the model explains all the variability of the response data around its mean. Adjusted R square is an altered version of R-squared that has been modify for the numbers of predictors in the model. If the new term enhance the model more than could be expected by chance, the adjusted R-square will increase. However, if the predictor improve the model by less than expected by chance, the adjusted R-square will decrease. From the table 4, it can be concluded that the predictor improves the model less than predicted by chance, because the adjusted R-square is decrease. However, the value in adjusted R-square is negative and it means that the explanation towards response is very low or negligible. In conclusion, the higher the value of the R square, the better the model fits our data, the closer the line passes through all points. Durbin Watson statistic is a test for autocorrelation in a data set. In each analysis, the data must be between 1.5 and 3.0. If the value outside this range, it could be a cause for concern. According to the study above, the Durbin Watson value is 3.13. This implies that the external factors of the firm cannot explain the liquidity of the firm. This explain that VF Corporation does not affected by these external factors.

Table 5: ANOVA of Quick ratio and External Factors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.245	3	.082	.682	.688 <sup>b</sup>
	Residual	.120	1	.120		
	Total	.365	4			

a. Dependent Variable: QUICK RATIO

b. Predictors: (Constant), Interest Rate, Inflation, GDP

Based on the table 5 above, the F-value is 0.682, which arrive at insignificance with a p-value of 0.688. The p-value is more than 0.10 alpha level and this means there is a statistically insignificant difference between the means of the difference variable. Hence, the predictors which are interest rate, inflation and GDP are not significant with the firm’s liquidity.

Table 6: Coefficient between Quick ratio and External factors

Model		Unstandardized		Standardize		95.0% Confidence Interval for B		Collinearity		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Toleranc e	VIF
1	(Constant)	3.103	1.351		2.297	.261	-14.063	20.270		
	GDP	-.269	.326	-.485	-.826	.561	-4.406	3.868	.952	1.051
	Inflation	-.191	.198	-.564	-.968	.510	-2.702	2.319	.966	1.035
	Interest Rate	-.425	.412	-.609	-1.033	.490	-5.658	4.807	.945	1.058

a. Dependent Variable: QUICK RATIO

Table 6 above shows the coefficient of VF Corporation. According to the table, t-value interest rate shows a large data with 1.033, suggest that it has the biggest influence on the company’s liquidity compared to the GDP and inflation. Hence, to manage liquidity, the firm need to deal interest rate. If the firm deal with interest rate, the liquidity might improve. Coefficient beta shows a negative sign means it is negatively influence liquidity. This indicate that when interest rate decrease, liquidity increase. Liquidity imply cash, and cash will start to increase when interest rate

decrease. However, the p-value of interest rate is not significant as the value is 0.49 which it is more than 0.1. This implies that this variable is not significant to the dependent variable which is liquidity. This study shows that liquidity have a low influenced by external factor which is interest rate. In conclusion, the firm need to deal with interest rate in order to improve liquidity but it will only give a low impact to the liquidity of the company.

#### 4.5 LIQUIDITY WITH INTERNAL AND EXTERNAL VARIABLES

Table 7: Mean and Standard Deviation of Variables

Descriptive Statistics			
	Mean	Std. Deviation	N
QUICK RATIO	1.302476811351436	.302088167285453	5
GDP	2.420000000000000	.544977063737548	5
Inflation	1.500	.8916	5
Interest Rate	2.0300	.43243	5
ROA	.105279472377445	.025948685020411	5
AVERAGE-COLLECTION PERIOD	39.885629107434480	3.776100148607624	5
DEBT TO INCOME	.366770799521276	.066303101931433	5
OPERATIONAL RATIO	.881617370866142	.006748345697549	5
OPERATING MARGIN	.124880604654788	.007421910217160	5
Exchange Rate	.878960	.0540100	5
STDV	.836735686612533	.198207331691283	5
CGI	.800	.0000	5

According to the table 7 above, it consists of dependent variable which is quick ratio and independent variables including internal and external factors. For quick ratio, the mean is 1.30. It say that every 1 dollar of liability, the company cover with 1.30 dollar of assets. This means that the company have a strong liquidity. This is because the larger the company reserve for liability, it shows the company have more ability to absorb insolvency. The standard deviation for quick ratio is 0.3. It shows that the liquidity is quite stable. Next, ROA which indicate return on assets. From the mean table, it shows that the firm generate 0.11 cents in every dollar the firm invest on asset. The standard deviation of ROA is 0.02 which it brought a meaning that the profitability of

the company is stable and predictable. Mean for average collection period is 39.89. This shows that the company implies 39 average days to collect receivables in a year. The standard deviation of average collection period is 3.77 which it indicates that this variable is volatile. This is because, the higher the standard deviation, the more unpredictable of the company.

Next, the average debt to income is 0.36 which it indicates that the company's monthly debt payments are 36 percent of the company's monthly income. The lower the ratio, the better company is. Standard deviation of debt to income is 0.06 which it shows that the firm's debt to income is in stable. The average of operational ratio is 0.88 which it indicate that 88% of the sales revenue is used to comprise cost of goods sold and other operating expenses of VF Corporation. Standard deviation of operational ratio is 0.006 which it absolutely in a stable condition can be predictable. Moreover, operating margin had an average of 0.12 with a standard deviation of 0.007. This shows that this company makes 0.12 dollar before interest and taxes for every dollar of sales and the dispersion is quite fixed and stable. CGI have an average of 0.8 with standard deviation of 0.00. This indicates that the company apply the corporate governance with 0.8 ratios within five years with zero dispersion.

For the external variables, it consists of GDP, inflation, interest rate, exchange rate and beta. The GDP on average is 2.42% for 5 years with a percentage of volatility of 0.54. While the average of inflation is 1.5 with a dispersion of 0.89. The interest rate have an average of 2.03 and the standard deviation is 0.43. The average of exchange rate is 0.87 with a dispersion of 0.05. Lastly, the average of beta is 0.83 and its standard deviation is 0.19. In conclusion, all of these variables is include in the study in order to determine the objectives of this study.



Pearson correlation shows the relationship between the dependent variable and independent variables. It enable us to know the movement between dependent variable and independent variables. If the data in the Pearson correlation table is positive, it shows that the independent variable is positively relationship with dependent variable. In other word, if the independent variable increase, the dependent variable also increase. Next, if the data in the Pearson correlation table is negative, it shows that the independent variable is inversely relationship with dependent variable. It means that when the dependent variable goes up, the independent variable goes down and vice versa. Based on the table above, the Pearson correlation table is used in this study to measure the relationship between liquidity (quick ratio) with ROA, average collection period, debt to income, operational ratio, operating margin and CGI (corporate governance index).

The table 8 above shows that liquidity has a positive relationship with ROA with a data of 0.345. This means that when ROA increase, the liquidity increase. ROA represent profitability which this study shows that to increase the liquidity of a firm, the profitability need to be increased. Operational ratio has a positively relationship with quick ratio where the data is 0.745. It is means that when operational ratio increase, liquidity of the company also increase. Operational ratio measure how efficient a company in keeping a good low cost at the same time generate revenue. Therefore, we can conclude that if the firm improve the efficiency of operational ratio, liquidity increase.

Average collection period have a negative relationship with liquidity on average -0.919. It indicate that when liquidity increase, the average collection period will decrease. The lower the average collection period, the better the firm in collecting payment faster. This shows that in order to increase the liquidity of a firm, management should improve in collecting payment faster so that the cash flow of the business can move smoothly. Debt to income also has inversely relationship - 0.761 with liquidity. It means that debt to income decrease, liquidity increase. It is good to get the low debt to income as it shows the good balance between debt and income. Meanwhile, the operating margin also have a reverse relationship with liquidity with a data of -2.06. It imply that to increase liquidity of a firm, operating margin will decrease.

For the external factors, only exchange rate have a positively relationship with liquidity with average of 0.17. It shows that when exchange rate increase, liquidity will increase. While the rest of the external variables which are GDP, inflation are negatively relationship with quick ratio -

0.31 and -0.43. Furthermore, interest rate and beta also have inversely relationship with liquidity as the data consists of -0.44 and -0.21.

Besides, the table above also shows the level of significance for the correlation. P value is used to measure the relevant and significance of the variable. To know whether the independent variable is significant or not, the P value must in between 0.001 and 0.10. This shows that the p value must be below that 0.1 for the data to be significant. The data that most significant is 0.001. Significant means how the independent variable are truly correlated with liquidity. Based on the table above, in VF Corporation, the independent variables that significant are average collection period with 0.014, debt to income with 0.067 and operational ratio with 0.074. From this data, the most significant one is average collection period because the data is between 0.001 and 0.05. This shows that average collection period has a close relation with liquidity. The other two independent variables which are debt to income and operational ratio also correlated with liquidity but it in lowest category that correlated with liquidity as the data is in between 0.05 and 0.1. Nevertheless, the rest independent variables such as ROA, operating margin and CGI are not correlated as their P value is above 0.1 and below 0.001. For the external variables, none of the independent variables is significant to the company as the p-value are not in between 0.001 and 0.1.

*Table 9: Model Summary of Quick ratio with Internal and External Factors*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.919 <sup>a</sup>	.845	.793	.137536689200567	1.703

a. Predictors: (Constant), AVERAGE-COLLECTION PERIOD

b. Dependent Variable: QUICK RATIO

According to the table 9 above, R square value is 0.845 which it lead to the meaning that the independent variable which is average collection period explain 84.5% of the variability of dependent variable in this analysis which is quick ratio. The closer the value to 100%, the better the independent variable fits the data. This means that if the data is 0, it indicates that the model does not explain any of the variability of the response data around its mean, while if 100% it indicates that the model explains all the variability of the response data around its mean. Adjusted

R square is an altered version of R-squared that has been modified for the numbers of predictors in the model. If the new term enhances the model more than could be expected by chance, the adjusted R-square will increase. However, if the predictor improves the model by less than expected by chance, the adjusted R-square will decrease. From table 9, it can be concluded that the predictor improves the model less than predicted by chance, because the adjusted R-square is decreasing. In conclusion, the higher the value of the R square, the better the model fits our data, the closer the line passes through all points. Durbin Watson statistic is a test for autocorrelation in a data set. In each analysis, the data must be between 1.5 and 3.0. If the value is outside this range, it could be a cause for concern. According to the analysis above, the Durbin Watson value is 1.70 which means it is a good value and has a positive autocorrelation.

Table 10: ANOVA of Quick ratio with Internal and External Factors

Model	Sum of Squares	df	Mean Square	F	Sig.
Residual	.057	3	.019		
Total	.365	4			

a. Dependent Variable: QUICK RATIO

b. Predictors: (Constant), AVERAGE-COLLECTION PERIOD

Based on table 10 above, the F-value is 16.297, which arrives at significance with a p-value of 0.027. The p-value is less than 0.05 alpha level and this means there is a statistically significant difference between the means of the difference variable.

Table 11: Coefficient between Quick ratio with Internal and External Factors

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	4.235	.729		5.809	.010	1.915	6.555		



AVERAGE- COLLECTION PERIOD	-.074	.018	-.919	-4.037	.027	-.131	-.016	1.000	1.000
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a. Dependent Variable: QUICK RATIO

Table 11 above shows the coefficient of VF Corporation. According to the table, t-value of average collection period shows a large data with 4.037, suggest that it has the biggest influence on the company's liquidity among other variables. Hence, to manage liquidity, the firm need to deal with average collection period. If the firm deal with average collection period, the liquidity might improve. Coefficient beta shows a negative sign means it is negatively influence liquidity. This indicate that when average collection period decrease, liquidity increase. Liquidity imply cash, and cash will start to increase when account receivable decrease. In conclusion, the firm need to manage account receivables in order to improve liquidity of a company. Hence, in this study with internal and external factors, only average collection period has the biggest influence on liquidity and none of the external factors give a significant impact to the liquidity.

## **5.0 DISCUSSION AND CONCLUSION**

### **5.1 INTRODUCTION**

This study aims to determine the liquidity of the company considering the internal and external factor for VF Corporation where it is the one of the worldwide apparel and footwear largest company in United States. To achieve this objective, internal factors which consists of ROA, average-collection period, debt to income, operational ratio, operating margin and corporate governance index, while the external factors consists of interest rate, inflation, gross domestic product (GDP), and exchange rate were used in this study. Therefore, in this chapter, the discussion will be based on the findings in chapter four. Summary, limitations and recommendations for future study are included in this chapter.

### **5.2 SUMMARY**

Based on the findings and analysis in chapter 4, there are factor that influences liquidity of the VF Corporation which is average collection period. As a result, average collection period also influence liquidity of the industry. There are also report saying that, there are positive correlation between liquidity and credit risk. This result is reveal by (Renault, 2006). Besides, according to (Usama, 2012), its say that the working capital which is average collection period is significant affect to the liquidity of a firms. Hence, it is proved that there are relationship between average collection period and liquidity of a firm.

### **5.3 LIMITATIONS**

This study is limited to only sportswear industry in United States. It is also restricted to five years performance for VF Corporation. This study also comprise only five year's financial statements from 2014 until 2018 for this company. Hence, this means that the amount of information can be collected is limited due to the time constraint.

## **5.4 RECOMMENDATIONS**

Based on the finding and analysis, average collection period has a significant relationship with liquidity. Therefore, it is important for a firm to manage its accounts receivable well in dealing with their debtors in order to increase the solvency. If the firm fail to manage the accounts receivable to run smoothly, it can affect firm's liquidity. There are ways to overcome the problem. One of the way is the firm can set a standard to all debtors the time and the limitations of payments by accounts receivable. Next, the firm also can establish a clear, succinct credit approval process. This means that the firm should include clear direction respecting when and how to classify and revoke credit limits, when to hold an accounts and how the operation process works.

In conclusion, VF Corporation has a good company performance. From the study, there are factors that affect the liquidity of the company. The internal factor precisely will give an impact to the company. The external factors such as GDP, inflation, interest rate and exchange rate also give an impact to the company. However, in this study, these factors are not significant to the liquidity.

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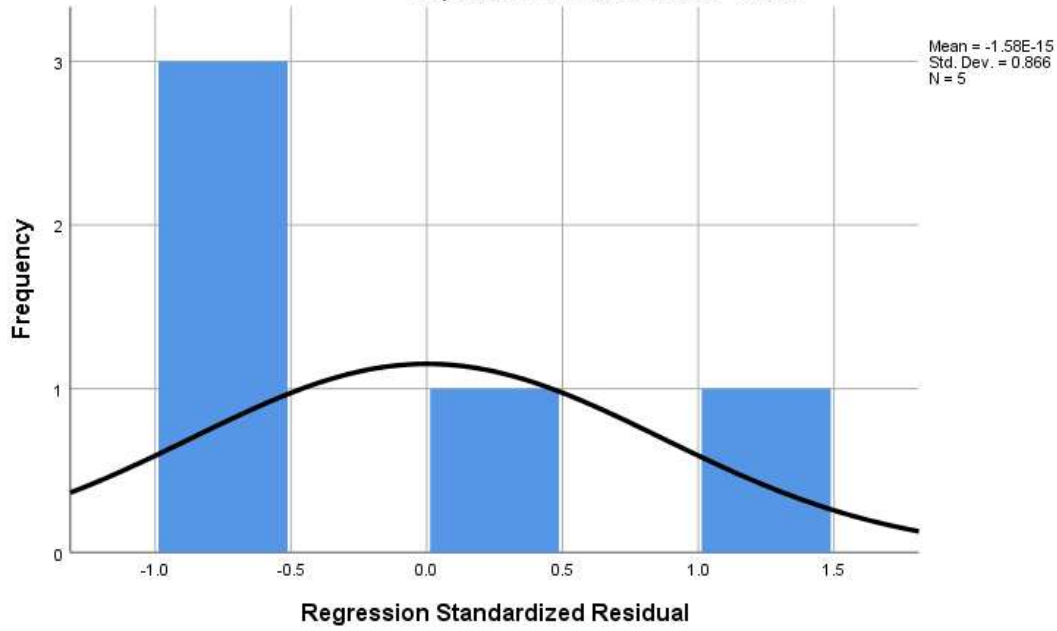
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# APPENDIX

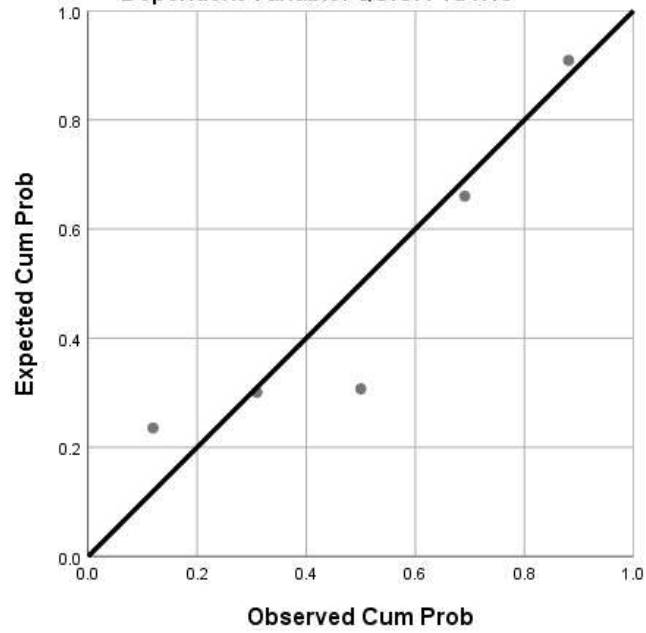
## Histogram

Dependent Variable: QUICK RATIO



## Normal P-P Plot of Regression Standardized Residual

Dependent Variable: QUICK RATIO



Scatterplot

Dependent Variable: QUICK RATIO

