

# Does Working Capital Management Influence the Performance of Wholesale and Property Industry in Malaysia?

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*Abstract* :- This study provides the impact of working capital management (WCM) on the performance of public listed wholesale & retail industry and property industry in Malaysia from 2002 to 2011. Regression model is employed by using two measures of firm's performance namely Return on Assets, ROA (proxy to measure the firm's profitability) and Tobin's Q, TQ (proxy to measure the firm's market value) as the dependant variables. WCM components include Current Assets to Total Assets Ratio (CATAR) and Current Liabilities to Total Assets Ratio (CLTAR) with three control variables which consist of Firm Size (SIZE), Sales Growth (SLGR) and Financial Leverage (LEV) are used as the independent variables. The results to a very large extent indicate that CATAR and SIZE have significant positive impact on the firm's performance. It suggests that wholesale & retail industry and property industry in Malaysia should pursue conservative investment policy by having high level of short term investment in order to make profit and create value for their shareholders. It also reveals that the larger the firms are, the more profitable they are; recommending the firms shall expand their business to achieve higher profit and accomplish shareholder wealth maximisation.

*Keywords*:- Working capital management, return on assets, Tobin's Q, current assets to total assets ratio, firm size

## 1. Introduction

Working Capital Management (WCM) plays important role as part of investment in asset that requires appropriate financing investment. Nonetheless, no attention was being paid on working capital in financial decision making since it involves investment and financing in short term period and it acts as a restrain in financial performance due to non-contribution to return on equity (Sanger, 2001). Hence, it should be vital

for firms to sustain their short term investment since it will ensure a smooth operating cycle of the business. The objective of WCM is to make sure that the firm is able to continue its operations and which is having sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. Kargar and Blumenthal (1994) examined that businesses can go bankrupt even when they are making profits owing to working capital mismanagement. Dilemma in

WCM was to achieve desired trade-off between liquidity and profitability (Smith, 1980; Raheman and Nasr, 2007). The theory of risk and return specifies that investment with more risk will promise more return while investment with low risk will give lower return. Thus, firms with high liquidity of working capital may have low risk and low return whereas firm that has low liquidity of working capital will be facing high risk which may result higher profitability. The issue in WCM is the firm must take into the consideration in trying to balance the risk and return.

The objective of this research aims to analyse the impact of WCM on the performance of public listed wholesale & retail companies as well as property companies in Malaysia. Three motivations give rise to this study. Firstly, Alam, Ali, Rehman and Akram (2011) suggested that the study should focus on each segment of the economy rather than random selection because studies revealed significant evidence that working capital ratios tend to vary across the industries. This concern also raised by Pouraghajan and Emamgholipourarchi (2012). Secondly, Lazaridis and Mohd Saad (2010) proposed that different variables of practices and external variables should be included in order to provide strong relationship between WCM and firms' performance. Thirdly, previous studies focus on develop market (Peel and Wilson, 1996; Shin and Soenen, 1998 and Deloof, 2003) where they could have stronger WCM compared to emerging market.

Therefore, investigating WCM in emerging market such as Malaysia and focusing on the firms by segmental with additional control variables could provide additional insights and perhaps different evidence on the WCM to enrich the finance literature on WCM issue. Additionally, the results of this study would provide firm managers better insights on how to create efficient WCM which contributes to maximising firm's value to build up confidence among the

investors in order to convince investors to invest in their firms. Furthermore, the confidence of investors to invest in Malaysia will influence the growth of economic which would also assist policy-makers to implement new sets of policies regarding the WCM in Malaysia to ensure continuous economic growth.

## 2. Literature Review

Deloof (2003) found a significant negative relation between gross operating income and the number of days accounts receivable, inventories and accounts payable of Belgian firms. It suggested that managers could create value for their shareholders by reducing the number of days accounts receivable and inventories to a reasonable minimum. Eljelly (2004) examined the relationship between profitability and liquidity on a sample of joint stock companies in Saudi Arabia. Current Ratio (CR) and cash gap or Cash Conversion Cycle (CCC) were used to measure the profitability and liquidity. The results showed that there were significant negative relation between the firm's profitability and its liquidity level. This relationship was more apparent in firms with high CR and longer CCC. The study also criticised that excessive liquidity could be the unnecessary costs that lead to lose of profits. This study also criticised that most of the WCM studies were done in developed country, therefore it provided a clue that more investigation on WCM should be conducted in developing country to verify the WCM theory.

Nazir and Afza (2009) examined the traditional relationship between WCM policies and a firm's profitability by using non-financial firms listed on the Karachi Stock Exchange (KSE) from 1998 to 2005. Two dependent variables (ROA and Tobin's Q), two independent variables and four control variables were used in this study. The dependent variables were Return on Assets (ROA) and Tobin's Q while the independent variables were consisted of Total Current Assets to Total

Assets Ratio (CATAR) and Total Current Liabilities to Total Assets Ratio (CLTAR). The control variables used in this study were size of the firm (SIZE), growth of the firm (GROWTH), financial leverage (LVRG) and real annual GDP growth (GDPGR). The results of this study showed that there was a negative relationship between CATAR with firm's profitability. This indicated that the firms should pursue conservative investment policy to increase firm's profitability and value. This study also found that there was a negative relationship between CLTAR with firm's profitability while there was a positive relationship between CLTAR with firm's value. This means that aggressive financing policy had negative effect on firm's profitability but had positive effect on firm's value. Investors gave weight to the stocks of those firms that employed an aggressive approach to manage their short-term liabilities. Moreover, the result of this study also showed that GROWTH and LVRG were significantly associated with the book-based ROA which confirmed that LVRG and GROWTH were strongly correlated with the book value-based performance measured (Deloof, 2003 and Eljelly, 2004). This study concentrated on growth of the firm as the control variable, however, each firm has its main core activities to support the growth of its business. Hence, there was a suggestion that the controlling variable of growth of firm could be replaced by a better and specific growth variable depends on the core business of industry such as sales growth.

Zariyawati, Annuar, Taufiq and Abdul Rahim (2009) investigated the relationship between WCM and firm's profitability in Malaysia for a period of 11 years from 1996 to 2006. The study used  $(\text{Operating Income} + \text{Depreciation}) / \text{Total Asset}$  (OI) as measure of profitability while CCC was used as a measure of WCM and growth in firm sales (SG) and leverage were the two control variables. The results from the Pooled OLS

regression analysis of this study showed that there was a strong negative significant relationship between CCC and firm profitability. Thus, firm manager should concern on reduction of cash conversion period with the intention of creating wealth maximisation for shareholder. This study studied the whole industries in Malaysia, it provided an indication that WCM could be studied by industry level in Malaysia rather than all industries.

Ray (2012) investigated the relationship between working capital management components and the profitability of a sample of Indian manufacturing firms using a sample Indians manufacturing firms from 1996-1997 to 2009-2010 and included variables such as average collection period, inventory turnover in days, average payment period, CCC and current ratio, debt ratio, size of the firm and financial assets to total assets ratio on the net operating profitability of Indian firms. The result suggested a strong negative relationship between the measures of WCM including the number of days accounts receivable and CCC, financial debt ratio with corporate profitability. The finding indicated that the longer the period of collection of accounts receivables was, the lower the profitability of the firms was. The negative relationship between corporate profitability and CCC showed that the longer the CCC was, the smaller the profitability was. Furthermore, this study found insignificant negative relationship between firm size and its net operating profit ratio. Thus, the findings of this paper recommended that managers could create value for their shareholders by reducing the number of days for accounts receivables. In addition, the negative relationship between accounts receivables and firm's profitability suggested that less profitable firms would pursue a decrease of their accounts receivables in an attempt to reduce their cash gap in the CCC. On the basis of findings of this paper, it was concluded

that profitability could be enhanced if firms managed their working capital in a more efficient way. These results suggested that managers could create value for their shareholders by keeping the degree of the number of days accounts receivable to a reasonable minimum. This study enhanced the literature that improvement on WCM should not looking firm profitability only, it should also be focused on firm value. Therefore, both significance of the profitability and market value should be explored on the impact of WCM

Charitou, Lois and Santoso (2012) studied all firms listed in the Indonesian Stock Exchange over the period 1998 to 2010. By using firms from various industrial sectors such as food and beverages, Tobacco, Retail and Wholesale and Apparel. They found that CCC and Net Trade Cycle had negative impact on firm's profitability. Results also showed that firm's riskiness, as measured by the debt ratio, was negatively related to the firm's Return on Assets. The result suggested that taking advantage of credit terms to the suppliers was valued positively by the market. In the meantime, the research results also indicated that firms need to maintain inventories at certain levels in order to satisfy clients and thus avoid losing them. Besides that, as far as credit terms with clients were concerned, firms should be competitive in order to keep their clients and attract new ones as well.

Meanwhile, Pouraghajan and Emamgholipourarchi (2012) aimed at to provide empirical evidence about the impact of WCM on profitability and market evaluation of the companies listed in Tehran Stock Exchange with a sample of 80 companies during the years 2006-2010. This study used variables of return on assets ratio and return on invested capital ratio to measure the profitability of companies, variable of Tobin's Q ratio to measure the market value of companies and variables of CCC, current ratio,

current assets to total assets ratio, current liabilities to total assets ratio and total debt to total assets ratio as WCM criteria. The results of the research indicated that there was a significant relationship between the WCM and profitability criteria of company but there was no significant relationship with the criteria on the market value of company. Furthermore, the results of research showed that management could increase the profitability of company through reducing CCC and total debts to total assets ratio.

There was a similar study in Pakistan conducted by Afeef (2011) with the aim to determine the potential effect of WCM on the profit performance of Small and Medium-sized enterprise (SME). The paper aimed to separately analyze the effects of different components of WCM on profitability of SME listed in Karachi Stock Exchange. The study used sample of 40 out of 93 firms listed for a period from 2003 to 2008 that led to a total of 240 firm-year observations. The study used Return on Assets (ROA) and Operating Profit to Sales (OPS) to measure the firm's profitability. In the meantime, CCC was used to measure the efficiency of WCM in this study. The ROA and OPS were the dependent variables in the study while the CCC, RCP, ICP, PDP and CR were the independent variables in this study. Aside from that, the study also employed several control variables such as Natural Logarithm of Sales, Sales Growth and Financial Leverage. The results of this study claimed that (i) there was a strong negative relationship of the ICP and the RCP with the OPS of small firms; (ii) no significant associations between the profitability measures and the PDP, CCC and C; (iii) no significant associations were detected between indicators of WCM and Liquidity and the ROA; and (iv) deducted that although the results of the research did not depict any significant relationship of the profitability variables with the PDP and CCC of firms, they represent association between profitability

and the ICP and that between the profitability and the RCP. Hence, this research gave an insight that the criteria of the variables on WCM should be chosen based on industry specific, and strongly support that right variables that influence WCM should be selected based on industry business and not all components of WCM apply to all firms.

Different from Afeef (2011) sample selection, Usama (2012) focused on "other food sector" of the Karachi Stock Exchange. Data covered 18 companies and six years from 2006 to 2012. Usama (2012) examined the effect of different variables of WCM such as Average Collection Period (ACP), Average Payment Period (APP), Inventory Turnover in Days (ITID), Cash Conversion Cycle (CCC), Debt Ratio (DR), Financial Assets to Total Assets Ratio (FATA), Current Ratio (CR) and Net Operating Profitability (NOP) using pooled least square regression and common effect model. The results of this study showed that (i) there was a significant positive effect of WCM on profitability and liquidity of the firms; and (ii) Size of the Firm which was measured in terms of natural logarithm of sales (LOS) and FATA had significant positive effect on firm's profitability. There was a intimation that the industry selected to be studied based on the country's major economic direction.

Among these studies as discussed and with the gaps being identified, this study will complement these researches by examining the wholesale & retail and property industries in Malaysia by using latest research in the market models as an extension to the working capital management theory in response to the profitability and market value of the firms.

### 3. Methodology

Sample of 204 firms in wholesale & retail sector and property sector listed in Bursa Malaysia are selected in this study as both sectors contribute to the economy growth

in Malaysia. Wholesale & retail industry is among the 12 National Key Economic Areas in the Economic Transformation Programme. It is forecasted that wholesale & retail industry in Malaysia will boost country's total Gross National Income (GNI) by RM156 billion by 2020, creating 454,190 new jobs. Retail is the fourth biggest contributor to GNI, contributing RM100.6 billion in 2010 and RM114.4 billion in 2011. (Jabatan Perdana Menteri, 2012).

The growth in residential properties is estimated to be strong as Malaysia has a large young population and they characterise a group of prospective first time home buyers. Close to 60% of the population are below the age of 30 and the 10-year population growth rate stands at 2.2%. (Afiq, 2012) Furthermore, according to According to Nor, Nurhisham and Afiq (2012), anecdotal evidence suggested that the potential of the property sector is quite encouraging. The sales of the property has risen from RM61 billion in 2006 to RM138 billion in 2011. The rising incomes, living standards, greater urbanisation and the favourable The sample comprises of 124 firms from wholesale & retail industry and 80 firms from property industry. Data are extracted from annual reports of each firm. Firms with missing data during the study period (2002 to 2011) are excluded.

Panel data regression model is employed by using two measures of firm's performance namely Return on Assets, ROA (proxy to measure the firm's profitability) and Tobin's Q, TQ (proxy to measure the firm's market value) as the dependant variables. Return on Assets (ROA) is measured as below:

$$ROA = \frac{\text{Income Available to Common Equity or Net Income (NI)}}{\text{Mode Of Total Assets or Average Total Assets (ATA)}}$$

ROA is calculated by dividing the Net Income (NI) with the Average Total Assets (ATA). ATA is the average of the values of Total Assets (TA) from the firm's balance sheet in the beginning and the end of the fiscal period. ROA is an

indicator of how profitable a company is before leverage and is compared with companies in the same industry and commonly acknowledged as reflection on how efficient management is at using its assets to generate earnings.

Tobin's Q (TQ) is measured as below:

$$TQ = \frac{\text{Total Market Value of Firm (MVF)}}{\text{Total Assets (TA)}}$$

Tobin's Q (TQ) is computed by dividing the Total Market Value of Firm (MVF) with the Total Assets (TA). The MVF is calculated by adding up the Market Capitalization, Liabilities, Preferred Equity and Minority Interest. Total Market Value of Firm (MVF) is calculated as the firm closing price times the shares outstanding. Low Tobin's Q (between 0 and 1) means that the cost to replace a firm's assets is greater than the value of its stock. This implies that the stock is undervalued and vice versa.

Two components of WCM (WCM) are used as independent variables. They are Current Assets to Total Assets Ratio (CATAR) and Current Liabilities to Total Assets Ratio (CLTAR). The independent variables used here are in consistent with previous study by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Azam and Haider (2011), Mona (2012), Kaddumi and Ramadan (2012), Vahid, Mohsen and Mohammadreza (2012), Hussain, Farooq and Khan (2012) and Pouraghajan and Emamgholipourarchi (2012). Current Assets to Total Assets Ratio (CATAR) is computed as below:

$$CATAR = \frac{\text{Current Assets (CA)}}{\text{Total Assets (TA)}}$$

CATAR can be calculated by dividing the Current Assets (CA) with the Total Assets (TA). This ratio basically shows the proportion of current assets investment to total investment in assets. Thus, it reflects the structure of assets and the amount in form of current assets per each ringgit invested in assets. If the CATAR shows positive sign, this means that the firm pursue conservative investment policy by

having high level of short term investment in order to increase the firm's performance. An aggressive investment policy allocates minimum level of investment in Current Assets (CA) versus fixed assets and vice versa. Thus, if the level of CA increases in proportion to the TA of the firm, the management is said to be more conservative in managing CA of the firm (Nazir and Afza, 2009; Mona, 2012 and Vahid, Mohsen and Mohammadreza, 2012). Total Assets (TA) are listed on a firm's balance sheet and represents everything that a business owns. In short, Total Assets (TA) are the sum of all investments, equipments, receivables, cash, intangibles, fixtures, furniture and any other items of value that owned by a business entity.

Current Liabilities to Total Assets Ratio (CLTAR) is computed as below:

$$CLTAR = \frac{\text{Current Liabilities (CL)}}{\text{Total Assets (TA)}}$$

CLTAR can be computed by dividing the Current Liabilities (CL) with the Total Assets (TA). CLTAR is a financial ratio that indicates the percentage of a firm's assets that are provided through debt. If CLTAR is less than 0.5, this means that most of the firm's assets are financed through equity and indicates lowly leveraged. An aggressive financing policy indicates by higher levels usage of Current Liabilities (CL) and less long-term debt, where firms put their liquidity on risk (Nazir and Afza, 2009; Mona, 2012 and Vahid, Mohsen and Mohammadreza, 2012).

There are three control variables or moderating variables which include Firm Size (SIZE) that is measured by taking the Natural logarithm of the firm total assets (LN TA), Sales Growth (SLGR) that is calculated as  $[(\text{Sales } t - \text{Sales } t - 1) / \text{Sales } t - 1]$  and Financial Leverage (LEV) that is measured as the Average Total Assets (ATA) to Average Total Common Equity (ATCE). These control variables are in accordance with the previous study by Deloof (2003), Teruel and Solano (2007),

Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Afeef (2011), Mona (2012), Vahid, Mohsen and Mohammadreza (2012), Hussain, Farooq and Khan (2012) and Charitou, Lois and Santoso (2012). Firm Size (SIZE) is measured as:

$$SIZE = LN (Total Assets) = LN (TA)$$

SIZE is computed by taking the natural logarithm of total assets (LN TA). The natural logarithm of total assets (LN TA) is employed for SIZE in the regression model as this log transformation reduces the heteroscedasticity and influences of outliers in the regression model. Sales Growth (SLGR) is computed as below:

$$SLGR = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}} \quad \text{Or} \quad SLGR = \frac{Net\ Sales\ for\ the\ Current\ Period}{Net\ Sales\ for\ the\ Last\ Period}$$

SLGR is calculated but taking the net sales for the current period deduct the net sales for the last period and the value from the deduction is divided by the net sales from the last period. Financial Leverage (LEV) is measured as below:

$$LEV = \frac{Average\ Total\ Assets\ (ATA)}{Average\ Total\ Common\ Equity\ (ATCE)}$$

LEV is calculated by dividing the Average Total Assets (ATA) with the Average Total Common Equity (ATCE). The computation for LEV used in this study is not in accordance to the previous studies. High degree of LEV will yield to a high interest payments and cause the firms to face the risk of bankruptcy if the firms are unable to make payments on their debt.

Linear multiple regression analysis is applied to determine the relationship between independent and control variables with dependent variables (Hussain, Farooq and Khan, 2012). Fixed effects model is used. In fixed effect model, it assumes a firm specific intercepts and capture effects of those variables which are specific to each firm and constant over time (Raheman, Afza, Qayyum and Bodla, 2010). For data processing and statistical

tests, SPSS 20 are used. The regression models are:

$$ROA = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i \quad \text{(Equation 1)}$$

$$TQ = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i \quad \text{(Equation 2)}$$

Where:

- a = Intercept
- ROA = Return on assets of firm i for time period t
- TQ = Market value of firm i for time period t
- CATAR = Current assets to total assets ratio of firm i for time period t
- CLTAR = Current liabilities to total assets ratio of firm i for time period t
- SIZE = Firm size, natural logarithm of firm's total assets ( )
- SLGR = Sales growth or growth of annual sales
- LEV = Financial leverage of firms
- ε = Error term of the model

## 4. Results and Discussion

### 4.1 Return on Assets (ROA)

The result of linear regression analysis for Equation 1 (ROA) are shown in Table 1a and 1b for combine wholesale & retail and property industry. Its regression equation is as below:

$$ROA = -0.027 + 0.088CATAR + 0.001SLGR - 0.00001LEV - 0.112CLTAR + 0.008SIZE$$

(S.E)	(0.009)***	(0.010)***
(0.001)	(0.000)	(0.004)***
(0.001)***		

(\*\*\* indicates significant at 1%; S.E. is standard error)

The result shows that CATAR and SIZE have positive effect on ROA while CLTAR has negative effect on ROA at 1% of significant level. SLGR and LEV are not significant.

Positive coefficient of CATAR implies that firm wholesale & retail and property industries in Malaysia pursued

conservative investment policy by having high level of short term investment in order to increase firm’s profitability. This result indicates that both industries investment strategy was to maintain the real value of the business against inflation to ensure a desirable profit. This result is in confirmation with the findings conducted by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Pouraghajan and Emamgholipourarchi (2012) and Mona (2012) who also found conservative investment policy had positive effect on firm’s profitability.

Negative coefficient of CLTAR shows that both wholesale & retail and property industries implemented aggressive financing policy by using more short term debt to finance their operating activities and this strategy had negative effect on firm’s performance. This result is in consistent with the findings made by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Pouraghajan and Emamgholipourarchi (2012), Mona (2012), Hussain, Farooq and Khan (2012) and Vahid, Mohsen and Mohammadreza (2012). The reason that both industries chosen to use short term financing such as raising fund through stock market rather than bond market is to avoid paying interest periodically to the bondholder. Unlike in the stock market, the decision to pay dividend to the stockholders is at the firm’s discretion. However, the result has indicated that both firms strategy by using short term financing policy will hamper their profit.

Positive coefficient of SIZE implies that larger firms are more profitable. This result is in conjunction with the previous study conducted by Deloof (2003) and Vahid, Mohsen and Mohammadreza (2012). The result proposes that both wholesale & retail and property industries in Malaysia are expanding, and the expansion of their business could enhance their profitability. This is a good indicator wholesale & retail industry’s strategy moved in line with Malaysia’s Economic Transformation Plan in promoting wholesale & retail industry and both industries supporting Malaysia’s Government Transformation Programme to grow soundly in achieving Malaysia’s 2020 Vision to become a developed nation. (Jabatan Perdana Menteri, 2010 and 2012)

Insignificancy of SLGR and LEV is consistent with Charitou, Lois and Santoso (2012) and Usama (2012) respectively. Insignificant SLGR suggests that increasing in sales do not provide a promising profit to the firms. This advocate that both industries shall not only focusing on marketing strategy to boost their sales but also should focusing on the management issue with the ambition to generate profitability. Insignificant of LEV suggests that they did not focusing on bond market which did not result them to have commitment in interest payment and as the consequence high leverage did not show significant affect to their profit. This result support suggestion as mentioned in CLTAR discussion where both industries are focusing in stock market in raising fund.

**Table 1a: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Model Summary<sup>b</sup>)**

<i>Performances: Return on Assets (ROA)</i>										
Equation	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change (F-Statistic)	df1	df2	Sig. F Change	

1	0.575 <sub>a</sub>	0.331	0.329	0.0864	0.331	200.981	5	203 4	0.000	1.107
a. Predictors: (Constant), SIZE, LEV, SLGR, CATAR, CLTAR										
b. Dependent Variable: ROA										
c. Equation 1: $ROA = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i$										

**Table 1b: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Coefficients<sup>a</sup>)**

<i>Performances: Return on Assets (ROA)</i>					
Independent & Control Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.027	0.009		-3.003	0.003
CATAR	0.088	0.010	0.167	9.043	0.000
SLGR	0.001	0.001	0.020	1.106	0.269
LEV	-0.00000921	0.000	-0.006	-0.326	0.745
CLTAR	-0.112	0.004	-0.553	-29.844	0.000
SIZE	0.008	0.001	0.114	6.231	0.000
a. Dependent Variable: ROA					
b. Equation 1: $ROA = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i$					

The regression equation for Equation 1 (ROA) for wholesale & retail industry is as below:

$$ROA = -0.042 + 0.097CATAR + 0.035SLGR - 0.001LEV - 0.201CLTAR + 0.018SIZE$$

(S.E) (0.011)\*\*\* (0.014)\*\*\*  
 (0.005)\*\*\* (0.000)\*\*\* (0.014)\*\*\*  
 (0.002)\*\*\*

(\*\*\* indicates significant at 1%; S.E. is standard error, Adjusted R square is 0.226 and F-stats significant at 1% level)

The regression equation for Equation 1 (ROA) for property industry is as below:

$$ROA = -0.018 + 0.049CATAR + 0.0003SLGR + 0.000005LEV - 0.104CLTAR + 0.006SIZE$$

(S.E) (0.016) (0.012)\*\*\*  
 (0.001) (0.000) (0.003)\*\*\*  
 (0.002)\*\*\*

(\*\*\* indicates significant at 1%; S.E. is standard error, Adjusted R square is 0.61 and F-stats significant at 1% level)

Result from property industry regression is consistent with results from combine both wholesale & retail and property, where CATAR and SIZE are positive-significant, CLTAR is negative-significant while SLGR and LEV are not significant. For wholesale & retail, both SLGR and LEV are significant at 1% level. This result has proven that wholesale & retail industry depended on sales to achieve profit but property industry did not highly depend on sales to increase profit.

#### 4.2 Tobin's Q (TQ)

The results of linear regression analysis for Equation 2 (TQ) are shown in Table 2a and 2b for combine wholesale &

retail and property industry. Its regression equation is as below:

$$TQ = -0.155 + 0.517CATAR - 0.014SLGR + 0.00008LEV - 0.022CLTAR + 0.099SIZE$$

(S.E) (0.078)\*\* (0.086)\*\*\* (0.010)  
 (0.007) (0.033) (0.012)\*\*\*

(\*\*\* indicates significant at 1%, \*\* significant at 5%; S.E. is standard error)

The result shows that CATAR and SIZE have positive effect on ROA at 1% level while LEV, SLGR and CLTAR are not significant. Positive coefficient of CATAR implies that firm should adopt low level of aggressiveness in working capital investment policy in order to create value for shareholders' wealth. This result is consistent with the research conducted by Nazir and Afza (2009) and Mona (2012) who also found negative relationship between aggressive

investment policy and firm's value (TQ). The result proposes that both firms' strategy on conservative investment to expand their business had attracted the confidence of stockholders, hence increase their market value.

Positive coefficient of Firm Size (SIZE) implies that larger firms are more profitable. This result is in confirmation with the previous study conducted by Nazir and Afza (2009), Mona (2012) and Vahid, Mohsen and Mohammadreza (2012) who also found size of the firm had positive effect on firm's performance (TQ). Increasing of the wholesale & retail and property industries provides an indicator that Malaysia is doing reasonably well and the economic growth is stable that giving them the opportunity in expanding the business.

**Table 2a: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Model Summary<sup>b</sup>)**

<i>Performances: Tobin's Q (TQ)</i>											
Equation	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson	
					R Square Change	F Change (F-Statistic)	df 1	df 2	Sig. F Change		
2	0.234 <sub>a</sub>	0.055	0.052	0.759	0.055	23.545	5	2034	0.000	0.367	
a. Predictors: (Constant), SIZE, LEV, SLGR, CATAR, CLTAR											
b. Dependent Variable: TQ											
c. $TQ = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i$											

**Table 2b: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Coefficients<sup>a</sup>)**

<i>Performances: Tobin's Q (TQ)</i>					
Independent & Control Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.155	0.078		1.978	0.048
CATAR	0.517	0.086	0.133	6.043	0.000
SLGR	-0.014	0.010	-0.032	-1.472	0.141
LEV	7.956E-005	0.000	0.007	0.320	0.749
CLTAR	-0.022	0.033	-0.015	-0.678	0.498
SIZE	0.099	0.012	0.183	8.405	0.000

a. Dependent Variable: TQ
b. $TQ = a + \beta_1 (CATAR) + \beta_2 (CLTAR) + \beta_3 (SIZE) + \beta_4 (SLGR) + \beta_5 (LEV) + \epsilon_i$

Result of SLGR is not significant which is consistent with Nazir and Afza (2009) and Mona (2012). This suggests that the shareholders did not focusing on the sales of the firms and their major objective is to achieve their wealth maximisation. The insignificant result of LEV is consistent with Pouraghajan and Emamgholipourarchi (2012). The insignificant result of CLTAR is consistent Pouraghajan and Emamgholipourarchi (2012). This result also supports the analysis as mentioned before where the firms main source of financing was not from bond market and it was from equity market, as the consequence they did not have high leverage problem.

Comparing to regression of ROA (Equation 1), result on TQ is consistent except CLTAR is significant in ROA equation but not significant in TQ equation.

The regression equation for Equation 2 (TQ) for wholesale & retail is as below:

$$TQ = -0.076 + 0.315CATAR - 0.008SLGR - 0.001LEV + 0.043CLTAR + 0.189SIZE$$

(S.E)	(0.109)	(0.141)**
	(0.053)	(0.144)
	(0.018)***	

(\*\*\* indicates significant at 1%, \*\* significant at 5%; S.E. is standard error, Adjusted R square is 0.095 and F-stats significant at 1% level)

The regression equation for Equation 2 (TQ) for property industry is as below:

$$TQ = -0.087 + 0.300CATAR - 0.005SLGR + 0.00018LEV - 0.027CLTAR + 0.086SIZE$$

(S.E)	(0.063)	(0.044)***
	(0.003)	(0.012)**
	(0.009)***	(0.000)**

(\*\*\* indicates significant at 1%, \*\* significant at 5%; S.E. is standard error, Adjusted R square is 0.16 and F-stats significant at 1% level)

Result from wholesale & retail regression is consistent with results from combine both wholesale & retail and property, where CATAR and SIZE are positive and significant while SLGR, LEV and CLTAR are not significant. For property industry, both LEVR and CLTAR are significant at 5% level. As comparison for wholesale & retail results, three independent variables (SLGR, LEV and CLTAR) are significant in ROA equation but not in TQ equation. Meanwhile, LEV is significant in TQ equation regression for property industry but not significant in ROA equation regression.

### 5. Conclusion

This study examines the impact of the WCM on firm's performance. The two components of working capital are the independent variables which include Current Assets to Total Assets Ratio (CATAR) and Current Liabilities to Total Assets Ratio (CLTAR). Firm's performance is measured by both the profitability known as Return on Assets (ROA) and market value known as Tobin's Q (TQ). There are three control variables which are related to firm's working capital and profitability are included in this study as well and consist of Firm Size (SIZE), Sales Growth (SLGR) and Financial Leverage (LEV).

CATAR and SIZE are found to be the most consistent variables because both the CATAR and SIZE prove to have significant positive impact on the firm's performance (ROA and TQ) from the combination of wholesale & retail and property industry, wholesale & retail industry and property industry. This signal provide a large extent on the evidence that both wholesale & retail and property industries are adopting conservative investment strategy to expand the business and this stability indeed assisting Malaysia to grow consistently to achieve as a developed country.

CLTAR is also considered consistent because CLTAR also has significant positive or negative impact on the firm's performance (ROA and TQ) from the combination of wholesale & retail and property industry, wholesale & retail industry and property industry except for the TQ from the combination of wholesale & retail products and property industry which shows insignificant impact. LEV only has significant negative impact on firm's profitability (ROA) from wholesale & retail industry and significant positive impact on firm's market value (TQ) from property industry while impact on the others is insignificant. Finally, SLGR is found to have only significant positive impact on firm's profitability (ROA).

This study will lead to an identification and understanding of impact of WCM on firm's performance, particularly for wholesale & retail industry and property industry in Malaysia public listed companies. The goal and objective of a firm is to maximize profits and create value for their shareholders. Thus, managers should adopt strategies that that have positive impact on the firm's performance. Besides, managers should reduce the tactics that will cause negative impact on the firm's performance.

As a conclusion, the overall results of this study imply that Malaysian firms should pursue conservative investment policy by having high level of short term investment in order to increase firms' performance. However, following aggressive investment policy by using long term investment will cause Malaysian firms to have their profitability and value to depreciate. Overall results of this study also implicate that larger Malaysian firms seems to favour the generation of profitability and thus larger Malaysian firms are more profitable and can create more value for their shareholders. These results suggest that Malaysian firms should increase their size in order to have higher

profits and create more value to their shareholders.

### Recommendations

Future researcher can include firms from other industries as they may provide different results that can be used to compare against the results of this study. Furthermore, future study could include other dependent, independent, and control variables in their studies to investigate more variables that could have significant impact to the WCM.

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