

Firm Attributes, Financial Ratios, and Working Capital in Emerging Markets: Evidence from Malaysia

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ABSTRACT

Working capital is the backbone of corporate financial management in relation to how it affects a firm's profitability, liquidity, and risks. This study's goal is to investigate the connections between firm attributes and financial ratios and the working capital of companies in Malaysia. This study examines the impact of seven variables on working capital, namely, firm size (measured by net sales), leverage (measured by debt ratio), equity capital, share price, dividend share, quick ratio is a measure of liquidity, whereas EPS is a measure of profitability. Cross-sectional data for 200 companies in Malaysia were manually collected from their annual reports for the year 2018. Both Ordinary Least Squares regression (OLS) and Two-stage Least Squares (2SLS) are used to examine the collected data and to solve any analytical problems such as endogeneity. The findings show that firm size, equity capital, and dividend share are positively and strongly related to working capital; leverage and share price, and profitability are negatively and significantly related to working capital, and liquidity does not show any significant relationship with working capital. Practically, these results can benefit managers in understanding the relationship between firm attributes and financial ratios and working capital in companies in Malaysia. They may also encourage investors to check the factors that influence working capital investment in companies. This study provides updated results on working capital in Malaysia, especially after the deterioration of the Malaysian currency to 49% of its value in 2013, which put pressure on company managers to choose the appropriate working capital for companies' financial health and operational success. Theoretically, this study supports each of trade-off theory, resource-based theory and pecking order theory. This study is also unique as it empirically examines new variables in the context of Malaysia, i.e., dividend share and shares price.

Keywords: Working capital, leverage, share price, dividend share, Malaysia

Paper type: Research paper

INTRODUCTION

Firm managers have recently focused more on the working capital structure's function in effective corporate financial management and how it affects a firm's profitability, liquidity, and risk (Deloof, 2003, Afza & Nazir, 2008; Alarussi & Alhadary, 2018). Firms attempt to create an ideal working capital structure that can increase their value, save them from bankruptcy, and gain more profit (Deesomsak and Chau, 2011). The difference between current assets and current liabilities is known as working capital. Working capital management describes a company's capacity to effectively manage its current assets such as cash, banks, account receivables, and short-term investments as well as to manage current liabilities, such as current payables (Chiou et al., 2006). Working capital can be positive (when current assets exceed short-term liabilities) or negative (when short-term liabilities exceed current assets); however, positive working capital is always desirable as it denotes the capability of a company to pay its operating expenses. Stakeholders always prefer positive working capital over negative working capital (Huynh, 2012; Rehana, 2017). Equitable working capital allows firms to easily settle their current obligations and pay their future operating expenses. This is the type of working capital that assures a firm's continuity and not be forced out of business due to failure to pay its current commitments, even if it is a profitable firm (Sushil, 1991). It is, therefore, crucial for any firm to successfully maintain a balanced working capital that guarantees the firm's continuity, avoids the risk of overtrading, and maximizes its value (Atseye, et al., 2015); this can be achieved if managers understand the determinants of working capital. This has motivated scholars to undertake research on the drivers of working capital (e.g. Ng et al., 2017; Pushpavathi and Kamalavalli, 2017; Raza & ul Haq, 2020; Abdul at al., 2021).

In Malaysia, working capital management becomes very crucial due to several factors that affect the Malaysian economy such as the currency depreciation of more than 50% since 2015, the US-China trade war, and recently the COVID-19 pandemic. PWC (2022) analyzed data from 407 listed companies across 14 industries in Malaysia and concluded that there is a continuous deterioration in the net working capital days and in cash conversion efficiency (CCE) by 19% and 21% respectively comparing to the year 2020, however, this deterioration is due to the wake of the pandemic, inflation, supply chain disruptions and operational restructuring. Therefore, it is a fundamental for Malaysian companies to determine the optimal working capital requirements to successfully face these challenges. Hence, this study aims to provide a deep insight of working capital requirements by empirically examines the association between firm size, leverage, equity capital, share price, dividend share, liquidity, and profitability with working capital in Malaysia. The selected variables are based on prior theoretical and empirical studies. This study is different from earlier studies in a number of ways; first, although the literature on finance has long discussed the factors that affect working capital. Little is known about developing countries because many earlier studies were carried out in developed countries. Furthermore, obtaining robust and widely accepted determinants has been problematic due to a lack of consistency in the findings of previous studies; for example, at the time that Shin and Soenen (1998) and Akinlo (2012) found the firm size was positively related to working capital, other studies found it to be negatively related (Nakamura & Polambini, 2012; Wasiuzzaman & Arumugam, 2013) or not related at all (Chiou et al., 2006;

Kieschnick et al., 2006), which make generalizing the findings across studies difficult, this study, however, uses financial ratios to get more accurate results. Second, previous studies in Malaysia focus more on the influence of different types of working capital (e.g., investment and policies) on companies' financial performance (Pushpavathi and Kamalavalli, 2017; Alarussi, 2021; Ahmad et al., 2021; Randa, 2022), this study focus on the factors that impact on working capital requirements which help companies' managers, investors, and related parties to make their decisions. Third, the current study chooses the period after 2013 because the value of the Malaysian currency lost up to 49% of its value, which put pressure on company managers to choose the appropriate working capital. Investors also faced problems in selecting companies to invest in. finally, this study includes new variables in the context of Malaysia, i.e., dividend share and share price, which provide more understanding of working capital in Malaysian companies.

The remaining parts of this paper are as follows: A brief summary of previous studies and hypotheses development are given in section 2; section 3 explains the methodology of data collection and analysis; a discussion of the results is provided in section 4, and section 5 concludes the study.

LITERATURE REVIEW

Prior Studies

Over the last decades, many researchers have responded to management's concerns about the ideal working capital and investigated its determinants. Most of these researchers have examined the connection between profitability and working capital (Le, 2019; Baños-Caballero & Martínez-Solano, 2014; Ahmed & zain, 2017; Randa, 2022). In this regard, Abdul et al. (2021) investigated the influence of working capital management on manufacturing firms' performance in Malaysia. Days of Inventory, account receivable, and account payable are used as proxies for working capital management. The findings showed that account receivable and inventory days have an inverse and significant correlation with a company's performance. However, account payable days did not show any significant impact on firm performance. Randa (2022) used the data from manufacturing firms in Malaysia to examine the impact of working capital policies on their financial performance. The results showed the current asset to total asset ratio (a proxy of working capital investment policy) significantly and negatively related to firms' performance. However, a conservative working capital financing policy was substantially and positively connected to firms' performance. Other studies have examined the association between firm attributes and the efficiency of working capital management (Hayajneh & Yassine, 2011; Ng et.al., 2017; Al-Mawsheki et al., 2019; Nason & Lumpkin, 2015; Alarussi, 2021). In this respect also, Ahmad et al. (2021) looked into the variables that influence the working capital policies of trading and service companies. The results demonstrated that adopting a conservative working capital investment policy is significantly and favorably correlated with age, free cash flow, company size, growth rate, and profitability, however, leverage is negatively related to adopting conservative policy. Al-Mawsheki et al. (2019) studied how the performance of manufacturing enterprises was affected by effective working capital management and legislation. They discovered that a firm's performance as assessed by economic value added was strongly and inversely correlated with effective working capital management, as evaluated by cash conversion cycle, however, the ratio of

current assets to total assets, which measures the working capital investment program, shows a strong and favorable relationship between the firm's performance. There was no apparent association between leverage ratio and company performance.

Earlier study by Wasiuzzaman and Chettiar (2013) found in the times of economic growth, the highest investment in operating working capital is strongly correlated with small businesses with few tangible assets, little debt, rapid sales growth, and high operating cash flows. The results also show that investment in operating working capital is also influenced by different factors such as firm age, firm size, growth, profitability, revenue volatility and asymmetric information. Other studies focus on the factors influence working capital: for example, Gill (2011) empirically examined the determinants of working capital requirements in Canadian firms, and found that ROA, internationalization of the firm, operating cycle, company size, financial leverage, and Tobin's Q, affect the working capital requirements in the industrial companies, but working capital in the service sector are influenced by factors like operating cycle, ROA, sales growth, and company size. Similar results are reported by Afza and Nazir (2008). Other studies concluded that managers can still increase firm profit if they effectively manage cash conversion cycle as a measure of working capital as well as maintain a reasonable level of receivables (Gill & Mathur, 2010).

In Malaysia, several studies considered the working capital components (e.g. Ng et al., 2017; Ahmed & zain, 2017; Al-Mawsheki et al., 2019; Raza & Ul Haq, 2020). in this regard, Zariyawati et al., (2010) used the data of 119 Malaysian companies to investigate the determinants of working capital management. The findings showed a negative association between debt ratio, company growth, firm size, and inflation, and working capital. However, economic growth has a positive relationship with working capital management. Similar results were found by Wasiuzzaman and Arumugam (2013) When the components of working capital investment were analyzed, the findings revealed a negative correlation between each company size, tangible assets, and leverage. They also concluded that firms with high sales growth, operating cash flows, and fewer volatility revenues are positively related to the level of financing in net operating working capital. Another study is done by Binti Mohamad (2013) examined the determinants of working capital management by using the data of 150 public listed companies, for a period between 2002-2011, the findings showed a negative association between debt level and capital expenditure and working capital requirement while free cash flow showed a positive relationship. Surprisingly, firm growth and the gross domestic product did not show any significant relationship with the working capital requirement. Based on the above review, this study intends to update the results and examines the determinants of working capital by using firm attributes and financial ratios, i.e., firm size, leverage, equity capital, share price, dividend share, liquidity, and profitability

Selection of variables, Hypotheses development

Firm Size

Although several studies have examined the association between company size and the working capital in firms (Ahmad et al., 2021; Mueller and Stegmaier, 2015; Wasiuzzaman and Arumugam, 2013; Nason and Lumpkin, 2015), the findings have been mixed. Those who have

found a positive relationship with working capital, believe that large firms can influence working capital management since it has more negotiating power with customers or suppliers to get discounts and better payment terms, with higher inventory turnover. Ahmad et al. (2021) showed a significant and favorable connection between firm size and adopting conservative working capital investment policy. Nason and Lumpkin (2015) concluded that there is a difference in using corporate entrepreneurship to study its relationship with small and large companies; small companies use it to grow and settle liabilities, while large companies use it to learn how to overcome liabilities due to inactivity. However, Rimo and Panbunyuen (2010) reported a negative association between working capital and firm size. They suggested that large firms use smaller amounts of working capital because they effectively manage it compared to the amount of working capital used by small firms. This relationship is supported by Uyar (2009), where he argued that due to the use of technology nowadays in e-commerce and sales, it is no longer connected to the total assets of a firm. According to the above argument, the first hypothesis can be formulated as follows:

Hypothesis 1: There is a connection between working capital and firm size.

Financial Leverage

Financial leverage is a significant element of a firm's capital structure, and firms always consider a trade-off between financial risk and business before choosing between debt and equity (Alarussi et. al., 2009). In this regard, firms are more likely to borrow more money to finance their activities if this money does not add new shareholders to their firms (Yazdanfar, 2013). Empirical studies have reported conflicting results of the relationships between leverage and working capital; some studies reported a positive relationship Lewellen & Lewellen (2006); Coles et al. (2006); and others reported a negative relationship Ahmed & zain (2017); Ahmad et al., (2021). The association between leverage and working capital might be interpreted based on the assumption of the Pecking Order Theory, which argues that firms with higher debt tend to follow aggressive working capital strategies that avail them with more cash flow to repay their debt or to renew it (Nwaeze et al., 2006). On the other hand, the interpretation of the adverse relationship between working capital and financial leverage is that firms, with low working capital, prefer to finance their operations externally, which leads to a higher debt ratio (Jeng-Ren et al., 2006). This study examines the connection between financial leverage and working capital. Thus, considering the earlier argument, the second hypothesis can be formulated as follows:

Hypothesis 2: There is an adverse correlation between financial leverage and working capital.

Equity capital

Equity capital represents the total equity in the firm, and it is an important variable due to its impact on several aspects. Previous related studies have included equity capital; for example, Kangarlouei et al. (2012) found that equity capital has an adverse influence on operating cash flow in the firm. Githinji (2020) found a favorable connection between equity capital and company performance when he examined 11 commercial banks listed on Security Exchange in Nairobi, Kenya. Similar results were found by Saeed (2014) and Batten & Vo (2019). In the context of working capital, it has been argued that firms with higher equity have higher working capital as it does not depend on external funding. Based on the Pecking Order

Theory, firms order the source of funding as follows: If a company has sufficient internal capital, they avoid using external cash; then firms avoid new equity financing whenever they have a chance to get new debt financing (Philippe & Mohamed, 2015). It has been concluded that firms must maintain suitable working capital to avoid a liquidity crisis or a reduction in profitability (Raza & ul Haq, 2020), and to maximize share value, and maintain firm value. Therefore, according to the above discussion, the third hypothesis can be stated as follows:

Hypothesis 3: There is a correlation between equity capital and working capital.

Share Price

Share price refers to the current stock price in the market. Several studies have reported a positive impact of the share price on firm value (Nicholl, 2001), dividend yield (Asghar et al., 2011), and price-earnings ratio (Nirmala & Sanju, 2011). Deylami et al. (2012) investigated the influence of working capital management on stock prices. The results show that stock prices are influenced by working capital management. Pouraghajan et al. (2015) studied the effect of working capital management strategies (conservative, moderate strategies, and bold) on stock price changes after collecting the data of 110 firms listed on the Tehran Stock Exchange during 2008-2012. They found that working capital strategies (bold and moderate strategies) affect the stock prices of the studied companies, but not conservative strategy. Moradi et al. (2014) found that the bold strategy had the highest share price among other strategies of other industries. In line with Deylami et al. (2012), this study empirically examines whether the movement of share price encourages firm management to manipulate (increase or decrease) the working capital in Malaysian companies. Therefore, the fourth hypothesis can be stated as follows:

Hypothesis 4: There is a positive association between share price and working capital.

Dividend Share

A dividend share is defined as a payment (usually in cash) made by firms to their shareholders. Previous studies have investigated the effect of dividend shares on other ways, such as firm growth, firm performance, and share price (Brigham, 1995; Miller and Rock, 1985). Brigham (1995) reported a positive association between dividend share and company performance. Suleiman (2011) found a positive and significant connection between dividend shares and share price in Pakistani companies. In terms of working capital, it has been argued that firms with suitable working capital have enough free cash that can be paid as higher dividends. Margaret & Akenga (2017) examined the association between dividend share and working capital in Kenyan companies, the findings show a positive relationship between dividend share and working capital. However, YAkubu (2019) examined the association between working capital management and dividend policy, and he reported an adverse relationship between the two variables. This study empirically examines the association between dividend shares and working capital. According to the above argument, the fifth hypothesis can be stated as follows:

Hypothesis 5: There is a positive connection between dividend share and working capital.

Liquidity

Liquidity refers to how quickly firms convert assets into cash. Utilizing different working capital management techniques might have an impact on how much liquidity a company has.

It has been argued that liquidity is a variable that is related to working capital in a firm because liquidity represents the company's ability to meet its short-term commitments. A lack of liquidity indicates a delay in payments. Lamberson (1995) reported working capital and liquidity have a positive connection during economic expansion. Similar results were found by Mandal and Goswami (2010). However, Raza & ul Haq, (2020) reported a negative association between liquidity and working capital management, similar results are reported by Randa (2022). Silva et al. (2019) found also similar results when they examined the connection between determinants of working capital requirements and net operating cycle requirements of Brazilian publicly held non-financial corporations. They stated that the reason behind this negative relationship is that firms that can easily fulfill their short-term obligations may require lower working capital requirements. According to the above arguments, the sixth hypothesis is:

Hypothesis 6: There is a positive association between working capital and liquidity.

Profitability

Profitability is an important variable to working capital management. Silva et al. (2019) found that profitability is one of the significant factors of working capital requirements in Brazilian public companies, the results showed a significant and positive association between profitability and working capital. Wasiuzzaman and Chettiar (2013) reported a positive connection between profitability and the investment in operating working capital. These results are supported by Ahmed & zain (2017) who found a positive association between working capital and profitability. Similar results were found earlier by Gill (2011), as profitable firms may not give that much consideration to efficient working capital management. However, Mansoori and Muhammad (2012) analyzed the data of 92 Singaporean firms from 2004 to 2011 and found a negative relationship between working capital management and profitability. Similar results were found by Yaaqobnejad et al. (2010). An earlier study done by Shin & Soenen (1998) reported a strong negative association between profitability and cash conversion cycle, and they recommended that the more managers reduce the cash conversion cycle, the more the chances for them to create value for their shareholders. Considering the above argument, the seventh hypothesis is as follows:

Hypothesis 7: There is a positive connection between profitability and working capital.

METHODOLOGY

Description of data

The current study uses secondary data manually gathered from the annual reports of a random selection, for the year 2018, there are 200 non-financial enterprises listed on Bursa Malaysia (www.bursamalaysia.com). This year has been chosen as it is the latest year this study is conducted, and it is coming after the depreciation of the Malaysian currency, so it allows to check the current determining factors of working capital in Malaysian companies. The study looked at the most significant factors that, theoretically, affected working capital, as commonly used in previous studies. Some of these variables are new in the Malaysian context, i.e., share price, equity capital, and dividend share. Table 1. shows the measurement of the variables in this study.

The gathered data are examined using both Ordinary Least Squares (OLS) and Two-Stage Least Squares (2SLS) regression estimators; In order to account for model specification, multicollinearity, heteroscedasticity, and autocorrelation, ordinary least squares regression is employed. Endogeneity is addressed via two-stage least squares regression. The following is how the study's model describes working capital:

$$WC = \alpha + \beta_1 NSALS + \beta_2 DBTRIO + \beta_3 EQUCPT + \beta_4 SHRPRCE + \beta_5 DIVSHR + \beta_6 QUICKRIO + \beta_7 EPS + \varepsilon.$$

Where:

The dependent variable is Working Capital (WC); α and β_1 – β_2 are coefficients; Net Assets (NSALS); Debt Ratio (DBTRIO); Equity Capital (EQUCPT); Share Price (SHRPRCE); Dividend Share (DIVSHR); Quick Ratio (QUICKRIO); Earnings Per Share (EPS) are explanatory variables, and ε is the residual error term.

[Click here for Table 1:](#)

Table 1. Vvariables measurements

No	Variable Name	Variables Measurements	Supported previous studies
Explanatory variables			
1	Working Capital	Current Asset- Current liabilities	Sagan (1955), Alarussi et al.(2013)
2	Firm Size	Net Sales	Al_Arussi & Alhadary (2018)
3	Leverage	Total Liabilities/Total Asset	Wiwattanakantang,(1999)
4	Equity capital	Total Equity	Caselli, (2010)
5	Share price	Share Price	Armenter et al. (2012)
6	Dividend Share	Total dividends /outstanding shares	Hashemijoo et al, (2012)
7	Liquidity	Quick Ratios	Doina & Mircea (2008).
8	Profitability	Earnings Per Share	Missy et al. (2016), Sarpong et al. (2022), Nawafly & Al_arussi(2016)

Table 2 displays the descriptive statistics. It can be noticed that the mean (median) of absolute value for WC is 8759968.340 (420006.00); NSALS is 27200083.24 (3091128.50); DBTRIO is .4630 (.4598); EQUCPT is 34662731.14 (1691381.50); SHRPRCE is 3.0319 (1.1600); DIVSHR is 10.0762 (3.3750); QUICKRIO is 2.6813 (1.2075); and EPS is 2.85 (.0447). But the lowest value is negative..07 that is a loss.

[Click here for Table 2:](#)

Table 2 Descriptive statistics

Variable	Median	Mean	Minimum	Maximum	Std. Dev
WC	420006.00	8759968.340	-170044665	255229658.0	43547690.08
NSALS	3091128.50	27200083.24	14084.00	459957103.0	78909547.78
DBTRIO	0.4598	0.4630	0.03	0.93	0.22347
EQUCPT	1691381.50	34662731.14	8871.00	528999579.0	86954262.84
SHRPRCE	1.1600	3.0319	0.05	24.28	4.81780
DIVSHR	3.3750	10.0762	0.00	135.00	18.48528
QUCKRIO	1.2075	2.6813	0.18	65.85	6.93229
EPS	11.155	22.6893	-5.84	275	37.5155

Table 3 presents the correlation between the independent and dependent variables, It can be noticed that net sales, equity capital, and quick ratio are positively and substantially correlated with working capital. Share price and dividend share have a correlation with working capital but are not significant. Leverage and profitability are negatively and significantly related to working capital. Similar results were found by Dar & Dar (2017) and Chiou et al. (2006).

[Click here for Table 3:](#)

Table 3 IVs and DV Correlations

Variable	WC	NSALS	DBTRIO	SHREQU	SHRPRC	DIVSHR	QUCKRI	EPS
				E			O	
WC	1.0000							
NSALS	0.117**	1.0000						
DBTRIO	-0.316**	0.106	1.0000					
EQUCPT	0.092*	0.671***	0.103	1.0000				
SHRPRCE	-0.071	-0.084	-0.094	-0.130*	1.0000			
DIVSHR	0.062	-0.072	0.029	-0.130*	0.586***	1.0000		
QUCKRIO	0.215**	-0.022	0.339***	-0.28	-0.016	-0.012	1.0000	
<u>EPS</u>	<u>-0.103*</u>	<u>-0.116</u>	<u>0.119*</u>	<u>-0.152</u>	<u>0.436**</u>	<u>0.510***</u>	<u>-0.089</u>	<u>1.0000</u>

*** significant at 1% level ** significant at 5% level * significant at 10% level

Any econometric issue involving serial correlation, such as multicollinearity, is addressed. It can be noted that the maximum correlation between the IVs is 0.671 (between net sales and equity capital) which is far below the threshold of nine. Furthermore, it is argued that if the variance inflation factor (VIF) value exceeds 10, then give concern before considering the regression results (Myers, 1990). In this study, the VIF values are far below 10, at 1.83, which means multicollinearity is not a problematic issue or a concern, however, the problem of endogeneity still exists and this study also used The Two-Stage Least Squares (2SLS) estimator to address this problem and get a robust result by using an instrumental variable approach, and These measurements should be substantially correlated with independent factors rather than the error term (Wooldridge, 2009). Due to their strong correlation with the independent variables but lack of correlation with the error term, lagged values of the independent variables are utilized as instruments, following Brooks (2008); Wooldridge (2009); Bellemare et al. (2017), Abodoma (2018). The results of linear regression analysis and Two-Stage least squares (2SLS) are displayed in table 4.

Table 4 shows the results of the relationship between the DV and the seven IVs. It can be noticed that the results of 2SLS are not significantly different from the results of OLS which refers that the results are robust. The results show that NSALS and DIVSHR have positive and significant relationships with WC; the coefficient is 0.324 and 0.473 respectively at a significant level of 1%. However, DBTRIO, EQUQPT, SHRPRCE, and EPS show negative and significant relationships with WC; the coefficient is 0.314 at the 1% significance level, 0.299, 0.237 and 0.348 at the 5% significance level, respectively. Surprisingly, QUICKRIO does not show any significant relationships with WC. These results show the importance of firm size, dividend share, leverage, and share price in Malaysian companies. The R2 is 0.246, and the Adj-R2 is 0.198, which is acceptable.

RESULTS AND DISCUSSION

The purpose of this study is to empirically examine the association between financial indicators and working capital. These financial indicators are namely, firm size (net sales), leverage (debt ratio), equity capital (total share equity), share price, dividend share, liquidity (quick ratio), and profitability (EPS), which are the IVs and working capital as the DV in this study. The results are explained as follows.

Table 4 Linear Regression Analysis and 2SLS of DV and IVs

Variable	OLS		2SLS		VIF
	Coefficient	t-Statistics	Coefficient	t-Statistics	
NSALS	0.324	2.664***	0.985	3.033***	1.849
DBTRIO	-0.314	-3.380***	-0.783	-2.857***	1.221
EQUQPT	-0.299	-2.444**	-0.697	-2.135**	1.878
SHRPRCE	-0.237	-2.109**	-0.198	-1.784*	1.563
DIVSHR	0.473	2.827***	1.029	3.106***	1.641
QUICKRIO	0.154	1.587	0.096	0.687	1.138
EPS	-0.348	-2.271**	-0.781	-2.103**	1.182
Constant	4.336		4.2235		
ANOVA	0.000		0.000		
Std.Error	3.978034		67.4321		
Durbin Watson	1.351		2.017		
Sig. F	0.001		0.05		
F Value	5.067		3.898		
R Square	.246		.225		
Adjust R Square	.198		.167		

*** significant at 1% level ** significant at 5% level * significant at 10% level

Firm size

The findings of the regression analysis reveal a favorable and significant correlation between working capital and firm size, as determined by net sales. The coefficient t-value = 0.324 and $p < 0.01$, show a substantial and positive correlation between them. This research confirms that large companies have a variety of marketplaces to sell their goods in, in addition to having a great number of projects that require operating capital. The findings also support the resource-based theory that as a company size increases, it leads to running a huge amount of working capital, compared to small and medium companies. Similar results have been found by Dar & Dar (2017) and Ahmad et al. (2021). Hence, the first hypothesis is supported.

Leverage

Table 4 shows an adverse result but significant relationship between financial leverage (measured by debt ratio) and working capital; the coefficient t-value = - 0.314 and $p < 0.01$, show this correlation with working capital is unfavorable and significant. Financial leverage is one of a company's capital structures and a part of working capital, as is well recognized. Based on the trade-off theory, a firm should choose between suitable debt finance and equity finance that can balance the costs and benefits between business and financial risk, which ultimately determine working capital in the firm. This an adverse and significant correlation between financial leverage and working capital can also be interpreted by the Pecking Order Theory; it is argued that firms with higher debt tend to follow strict working capital strategies that help them to get more cash flow to repay their debt or to renew it (Nwaeze et al., 2006). This is a logical conclusion considering that a corporation can choose to finance its operations using either equity, debt, or both depending on the organization's structure and working capital. Alike results have been reported by previous studies, such as Bereźnicka (2014); Ahmed & zain (2017); and Ahmad et al., (2021). Hence, the second hypothesis is accepted.

Equity Capital

Working capital and equity capital have a favorable and significant relationship, as seen in Table 4: The coefficient t-value = -0.299 and $p < 0.05$, demonstrate this significant association. This result supports that a firm with higher equity has higher working capital as it does not depend more on external funds. Philippe & Mohamed (2015) argued that according to the Pecking Order Theory, firms follow this order when they come across the source of funding; firms always prefer internal funds (if they have enough) to external funds; then firms avoid new equity financing whenever they have a chance to get new debt financing. Many earlier studies have examined the association between debt capital and working capital, but none has examined the relationship between equity capital and working capital, which is a contribution of this study. Hence, the third hypothesis is accepted.

Share Price

Surprisingly, results in Table 4 show an adverse and significant association between share price and working capital. This adverse and significant link is shown by the coefficient t-value of - 0.214 and the significance level of 0.10. The relationship between share price and working capital can be used to explain this antagonistic relationship being based on how efficient a firm is when it manages working capital. In other words, if a firm decreases the opportunity cost

that keeping too much of working capital, this will enhance the share price value and vice versa. Pouraghajan et al. (2015) concluded that share price could be affected by different intra-organizational factors, including the type of policies that are used to manage working capital; therefore, if managers of firms reduce the level of investment in working requirements, this leads to an increase firms' share prices. Similar results were found by Bandara (2015), Mansoori and Muhammad (2012). Therefore, the fourth hypothesis can be accepted.

Dividend Share

Table 4 shows that dividend share (measured by total dividends/outstanding shares) and working capital have a favorable and significant connection. The coefficient t -value = -0.237 and $p < 0.05$, indicating this significant relationship, which supports the argument that a firm with higher working capital can distribute higher dividends to satisfy huge investors. In addition, higher working capital refers to higher current assets, and this, in turn, leads to higher dividends (Van Horne and Wachowicz, 2004). Similar findings were reported by Reuben et al. (2015). Hence, the fifth hypothesis is supported.

Firm liquidity

The results in the table show that there is a connection but not significant between liquidity (measured by quick ratio) and working capital, which is unexpected in terms of liquidity. Hence, the sixth hypothesis is rejected. Similar results were found by Sugiono and Christiawan (2013).

Profitability

For profitability, Table 4 shows Working capital and profitability (as measured by EPS) have a bad and significant relationship. The coefficient t -value = -0.348 and $p < 0.05$, demonstrates the negative and significant association between them. This result can be explained in that higher working capital does not necessarily lead to higher profitability and distribution of dividends but to increasing the shareholders' wealth. This is supported by the results that demonstrate a highly favorable correlation between company size and working capital. Hence, the seventh hypothesis cannot be rejected. Similar results were found by Mansoori and Muhammad (2012).

CONCLUSION

The goal of this study is to empirically examine the relationships between firm attributes, financial ratios and working capital in Malaysian listed companies. Firm size, leverage, equity capital, share price, dividend share, liquidity, and profitability are chosen as the IVs, and working capital is the DV. A cross-sectional data of 200 companies listed in Bursa Malaysia was collected from their annual reports for the year 2018. Linear regression analysis and Two-Stage least squares (2SLS) were used to analyze the data. Interestingly, according to outcomes, working capital is positively and significantly correlated with firm size, equity capital, and dividend share.; leverage, share price, and profitability are negatively and significantly correlated to working capital; however, there is no apparent relationship between liquidity and working capital. This study, like any other study, has limitations. Due to time and cost constraints, the data of this study is limited to 200 listed firms, and it covers only the year 2018,

which is considered a short period; duplicating this study with more variables for a long period may present more comprehensive results. Using moderating variable will add more value to the findings. Finally, this study used one single measurement for each variable which follows some previous studies; however, using more than one measurement may help get robust results. Nevertheless, the findings of this study will benefit managers to understand the determinants of working capital and so how to make it positive therefore enhancing the value of the firm and reducing the risks as it is recommended by PWC (2022). Investors may use the results of this study to select the appropriate companies for their investments with low risk and high profit, which is important for them. Moreover, the study offers empirical evidence that supports each of trade-off theory, resource-based theory and pecking order theory.

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