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The Factors that Affects Corporate Liquidity of Manufacturing Firms in Malaysia: Evidences from Twenty Manufacturing Firms

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Abstract--- *The aim of this study is to find and measure how and to what extend firm size, net working capital, and leverage and cash flow influence corporate liquidity holdings in Malaysia. The study selected 20 manufacturing companies listed in bursa Malaysia (ten top manufacturing companies and ten random manufacturing companies), for the purpose of investigating the relationship between variables as well as for the purpose of comparing the result of the top manufacturing companies and random manufacturing companies. Five years financial data from 2013 to 2017 was selected for the study. Four factors were selected in this study which are firm size, leverage, net working capital and cash flow. The finding of this research had investigated that there the relationship between corporate liquidity of top manufacturing companies and all variable is not significant. However, the results of the random manufacturing firms had indicated that firm size and cash flow are found to be significantly related to corporate liquidity. While, the remaining two factor of random manufacturing companies which are leverage and net working capital are discovered to have insignificant relationship with corporate liquidity.*

Keywords--- *Corporate Liquidity, Firm Size, Leverage, Net Working Capital and Cash Flow.*

I. INTRODUCTION

Cash is an important asset for any company. Liquidity is one of the most significant figures discovered in the portion of assets in balance sheet of all companies. According to [1] "Cash holding is defined as cash in hand or readily available for investment in physical assets and to distribute to investors". Hence, liquidity is considered to be changeable to cash. The cash in bank and in hand, treasury bills, market investment and money market are recognized liquidity. For measurements of its elements and significance in working capital various methods are being adopted. The capital cost being invested in the liquid assets consider as a kind of liquidity as well. The efficient return forgone on liquidity large cash balance is a chance cost to the company. Based on [2], states two classifications of liquidity. First is the interest inevitable opportunity cost and the second is the cost of purchasing power of a company. The least gainful and greatest liquid assets is cash. It plays a major part in financing the company. In accordance to strategies of a company's liquidity is a significant aspect for financial management,

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which is not only in relation to improvement and operations of companies, but as well related to institutional surroundings and corporate governance. Also exchange of services and goods in cash consider as a liquidity form.

Furthermore, [3] cited that one of the causes company's managers hold cash is to protect themselves from harmful cash flow shock that forces them to forget valuable cash investment opportunity due to the high cost of external funding. This high cost external funding is caused by financial gap. This means, with pressure in cash flow, the company needs to hold greater cash to anticipate the loss of investment opportunity.

Very few studies have been carried out on the issue of cash holdings in emerging markets, with most done on developed markets. Malaysia is of special interest, as it is considered as one of the emerging markets recognized to have a rapidly developing economy and was officially promoted to the advanced emerging market status by the FTSE in June 2011 [4]. Also, it has been shown that the structure of firms in Malaysia is different from those of most developed countries. About one fourth of the corporate sector in Malaysia is controlled by the ten largest families [5].

Prior researches have indicated that cash holdings of companies across countries range as follows: 10–15% over the period 1995 to 2004 in Swiss nonfinancial firms [6], 10% in Italian private firms [7], 9.9% in the UK [8], 7.14–8.8% in Spain [9], 18.5% in Japan [10], and 17% over the period 1971 to 1994 in United States. The wide variability in cash level among firms in the various countries may be attributable to several reasons, such as corporate governance [11-14], multinationality [15] and firm-specific variables.

Although some previous researches have dealt with the subject of corporate cash holdings' determinants, they were mostly conducted in those developed countries like United States [16-18], in Japan [19], in the UK [20], in Switzerland [21], in Spain [22], and in Italy [23]. Unlike previous studies, this study examines the topic within an emerging capital market context, namely Turkey.

Most of the researches were examined on the theories of cash holding and as well in the determinants of cash holding based on developed countries data. For instance, [24], taken the data from Canadain firms, [25] used the data obtained from Swiss non-financial firms, [26] data from publicly traded United States companies, [27] used data gathered from private and public companies of United Kingdom.

Despite of the above, there are a little studies conducted based on the developing countries data such as [28].

II. LITERATURE REVIEW

Firm Size

"Small companies are discovered to hold more liquidity than the large firms because of the high costs of obtaining external funds. Large companies are considered to be more varied than their small counterparts and in turn less prone to bankruptcy related costs and therefore less likely to stockpile cash reserves. Equally it could be argued that large companies have less info asymmetry (if compared to small firms), and the flexibility of their managers in financial policies are better and in turn such firms will hold more cash. The results of the research indicate that size of the firm is negatively associated cash holdings, and thus small firms are less able to obtain external funds and are more in need of holding" cash [29].

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According to [30], stated that firm size found to be not significant in determining the cash holdings of South African retail firms. Even though many studies found that size of the firm as one of the significant determinant of cash holding. Similar results in Africa was found by [31], who investigate that firm size and investment to be insignificant. In contrast, the study of [32], identify that size of firm has a highly significant relationship with cash holdings and a rise in size of firms leads to higher cash balances hence larger companies tend to have higher cash balances as against smaller firms. Also, a pervious study was conducted on cash holding factors of Bangladesh manufacturing firms which indicated that, Size of firms have an insignificant association with cash hold by the manufacturing companies [33].

The study on Ethiopian manufacturing share companies had identified that firm size had an inverse effect on the liquidity. The variable of firm size is highly statistically significant at 1% significance level based on the regression coefficient. Furthermore, the positive coefficient between the cash holding and firm's size is clearly identified that larger firms can generate profit from economic of scale and therefore, have better stability of cash balance coupled with a minor probability of financial distress than smaller firms. Also [34] looked into the determinant that affect corporate cash holdings in Canada by taking a sample of 164 listed Canadian firms from 2008-2010 was selected. He discovers that there is a significant relationship between corporate liquidity holding and firm size. The result of the research indicates that corporate cash holding has a positive relationship with firm size.

Based on [35] investigated the factors of corporate cash holdings in real estate industry in Vietnam. A sample of 54 real estate listed firms in Vietnam during 2010-2014 was selected. The outcomes of the study indicate that corporate liquidity has significantly and positively relationship with firm size. The same result was indicated by [36] the firm size coefficient is statistically significant and positive with corporate liquidity. The findings is in line with the financing hierarchy view which suggest that larger companies hold more cash since they have the ability to accumulate cash over time. Another explanation is put forward by the theory of agency costs of managerial discretion, which proposes that large companies hold more cash since they tend to have larger shareholder dispersion that give discretionary power to managers. In contrast, [37] examine the financial factors of corporate liquidity holdings on some emerging markets. In case of Brazil he finds that the size of the firm is not found be as one of the significant determinant of cash holdings.

H1: There is a significant relationship between the firm size and corporate liquidity of manufacturing firms in Malaysia.

Net Working Capital

According to [38], who studied the major determinants of corporate liquidity in Pakistani listed non-financial companies and find that one of the major determinant is net working capital which has a highly significant relationship with cash holdings and an increase in net working capital leads to a higher cash balances thus highly liquid companies tend to have higher cash balances as against lesser liquid firms. [39] determined factors which strongly effect the liquidity decisions by considering manufacturing companies of Bangladesh. Regression analysis was applied to generalize the results. The results indicated that net working capital is significantly related with the liquidity of companies.

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Based on [40] the factors influencing liquidity decisions of Ethiopian manufacturing firms, the findings of the regression analysis were statistically significant association with the rate of 1% significance level between cash holding and net working capital. Therefore, net working capital is discovered as one of the vital driver of the liquidity of manufacturing firms in Ethiopia. That indicates, in the manufacturing share firms in Ethiopia from 2009 to 2014 net working capital is one of the relevant drivers of their liquidity. Moreover, a highly negative coefficient identified that the Ethiopian manufacturing firm's liquidity have an inverse relationship with net working capital and it had greater effect on the cash holding decisions of the manufacturing firms.

The relation between net working capital and bank cash holdings by gathering sample data from 1999-2008 of Ghana listed firms. The random impact technique was applied for the analysis of findings. He determined that profitability was significantly and positively connected with liquidity. Various characteristics like bank size, capital, collection period of debtors and cash conversion cycle have negatively significant relationship with cash holdings of banks [41]. Furthermore, the study on cash holding determinants of Bangladesh manufacturing firms showed that, Net working capital do not have significant relationship with Cash hold by the firms which is consistent with the notion that firms with higher liquid assets hold less cash.

The study of [42] identified that the NWC coefficient a negative association between cash holdings and liquid asset substitution. The association is clarified by the transaction cost motive, which proposes that the necessity of cash reserves declines with available amount of assets that cost-efficiently can be transformed into cash. Similar to the study of [43] who examined the determinant that affects corporate cash holding in Canada. A sample of 164 listed firms was selected.

Net working capital was one of the factors that affects corporate liquidity in Canada. A negatively association between net working capital and corporate liquidity was indicated. In contrast, [44] investigated the elements of corporate cash holding in real estate industry in Vietnam. A sample of 54 listed firms in Vietnam during 2010-2014 was selected. The outcomes of the study indicate that corporate liquidity has a positively and significantly relationship with net working capital.

H2: There is a significant relationship between the net working capital and corporate liquidity of manufacturing firms in Malaysia.

Leverage

According to [45] stated that the leverage is that when a firm purchase most of "its assets on credit with the belief that they will generate adequate income from these assets than from borrowed funds is called leverage. Based on Finance, the leverage is a method to multiply the losses and gains. However, an opposite relationship between leverage and liquidity is expected by trade off theory and pecking order theory. Risk influence all the time contains in leverage as sometimes the assets value reduces or there is an opportunity that the borrowing cost will be greater than income. Company with a high debt ratio have less cash reserves since they have to cover their unpaid debts. In this manner leverage can be" decreased. Furthermore, the leverage ratio indicates the percentage of corporate assets funded by obligations. Low leverage ratio may illustrate that the firm produces high cash flows for financing future expansion (expansion can also be financed by additional shares issues). Contrary to this, a firm reporting high

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leverage ratio may explain that this firms makes low cash flows to fund its expansion. Therefore, it depends on outside borrowings [46].

According to [47] who their research was about the factors of corporate cash holding, the study show that leverage has a highly significant relationship with cash holdings and an increase debt financing leads to lower cash balances therefore higher debt financed firms tend to have lower cash balances as against lesser debt financed companies with higher cash balances. [48] Studied the component that affect cash holding decisions of Ethiopian manufacturing share firms. He indicates that leverage and cash holdings are negatively and insignificantly related to each other.

The study of [49] investigated the factors affecting corporate cash holding in Vietnam. A sample of 54 real estate listed firms in Vietnam during 2010-2014 was chosen. The outcomes of the study indicate that corporate liquidity has a negative and significantly relationship with leverage. [50] argued that leverage suggest a negative impact on liquidity since leverage can be applied as a mechanism to decrease agency costs in free cash flow issues. However, [51] looked into the factors of corporate cash holdings levels in South Africa and indicated that leverage was find to be non-significant in determining the liquidity holdings of South African retail firms.

Based on [52] who studied the financial factors of corporate liquidity on some emerging markets. In case of Brazil he finds that the leverage is not found be a significant determinant of corporate liquidity in Brazilian case. The effect of leverage on the cash level was found to be significantly and negatively. Thus, the higher the leverage, the less cash a firm hold [53]. [54] who find a negative leverage coefficient, statistically significant at the 5% level. The findings is in line with the model of financing hierarchy, which indicates that leverage and cash should follow an opposite pattern. Though, the findings is consistent with the trade-off theory as well. Where, the agency theory of managerial discretion proposes that companies with low leverage are less subject to monitoring and thus have greater chances to hoard cash to pursue investments of their own" objective. The study of [55] used a sample of 50 Public Limited non-financial companies listed on Karachi Stock Exchange over the period of 2012-2014 and they conclude that leverage is non-significant and have a negative association with cash holdings. However, the pervious study of [56] who studied manufacturing firms' cash holding determinants of Bangladesh manufacturing firms showed that, Leverage ratio have a significant relationship with cash hold by the manufacturing firms.

H3: There is a significant relationship between the leverage and corporate liquidity of manufacturing firms in Malaysia.

Cash Flow

The study of [57], investigated a positive association significant at the 1% level between cash holdings and cash flow volatility, in line with the findings of [58] and [59] firms experiencing high cash flow uncertainty will, hence, be driven by the precautionary motive to hold more cash. However, the study of [60] who study the factors affecting the level of corporate liquidity holdings in a broad sample of non-financial listed firms in Turkish from 1997 to 2011. The study found that insignificant effect of volatility on cash level meaning that the cash flow volatility is not a significant factor of influencing cash holding in Turkish companies.

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According to [61], who study the determinants of corporate liquidity for 54 real estate listed firms in Vietnam during 2010-2014. His finding illustrates that cash holding has a positive and significant correlated with cash flows. Another pervious study of [62] who studied cash holding determinants of manufacturing firms in Bangladesh showed that, cash flow does not have significant relationship with Cash hold by the firms.

Based on [63] who studied the elements that affect corporate liquidity of non-financial quoted companies in Nigeria applying a sample of 54 non-financial quoted companies listed on the Nigeria Stock Exchange during 1995-2009. They had investigated that the cash holding and cash flows are positively associated and marginally non-significant at 1%. The result of a positive coefficient of cash flows is confirmed by financing hierarchy or pecking order theory. Which view that companies with a higher cash flows desire to hold greater amounts of cash as a consequence of their preference for internal over external finance. Moreover, [64] studied the factors affecting cash holdings for a sample of Saudi firms during 2006- 2014. It was stated that cash flow is one of the main elements that determine cash holdings of Saudi firms. His research detects that there is a positive association between cash holdings and flow volatility.

The study of [65] “the used two operating cash flows variables. Where, in the first one, they used the total operating cash flows, in the second the comparison of total operating cash flows and total assets was used. Once again, both variables investigated large difference in the amount of operating cash flows and the ratio of cash flows to total assets of the firms covered in the study. Numerous firms reported a negative operating cash flow, while others stated high positive figures. The highly reported standard deviation reflects variations in the reported amount among the firms. Furthermore, [66], investigated cash flow which is tested by after tax profit plus depreciation and amortization to total assets less cash had a positively and statistically significant effect on the decision of liquidity holdings of the manufacturing share firms in Ethiopia. The p-value of this variable demonstrate that it is significant at 5% significance level and the coefficient indicate that cash flow” is positively impacted on the Ethiopian manufacturing firms.

H4: There is a significant relationship between the cash flow and corporate liquidity of manufacturing firms in Malaysia.

III. METHODOLOGY

These research only emphases on the factors affecting corporate liquidity for 20 public listed manufacturing companies in Malaysia 10 of them are the top manufacturing companies which are “British American Tobacco Malaysia, Ppb Group, Nestlé Malaysia, Umw Holdings, Fraser & Neave Holdings, Oriental Holdings, Carlsberg Brewery Malaysia, Msm Malaysia Holdings, Tan Chong Motor Holdings And Knm Group” where the other ten companies were randomly selected which are “Abm Fujiya Berhad, Comfort Gloves Berhad, Ep Manufacturing Bhd, Focus Lumber Berhad, Globaltec Formation Berhad, Hup Seng Industries Berhad, London Biscuits Berhad, Inari Amertron Berhad, K. Seng Seng Corporation Bhd And Karex Berhad”

A five years data was collected from 2013 to 2017. A software, Statistical Package for Social Sciences (SPSS) version 22 was used to analyze the collected data to obtain results of coefficient analysis.

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IV. RESULTS AND FINDINGS

The result based on the top companies which indicates that the proposed hypotheses of all variables are rejected as their sig value is more than 0.05 where firm size has a value of 0.352, net working capital with a value of 0.260, leverage 0.115 and cash flow with a value of 0.733. Furthermore, beta value of standardized coefficient is being used in this study as secondary data used to conduct this research. According to the table above a positive beta value exist for two independent variables which are firm size, net working capital in which net working capital has the highest value with a 0.738, which indicate that net working capital is the most crucial factor compared to other variables. However, a negative beta value was found in the remaining two variables which are leverage with a value of -0.825 and cash flow with a value of -0.209.

The result based on the random companies the significant value of firm size (0.032) and cash flow (0.016) which is less than 0.05. Therefore, the proposed hypotheses of those variables are accepted. However, comparing to significant value of net working capital (0.072) and leverage (0.061) which indicate that the proposed hypotheses of those variables are rejected as the sig value is higher than 0.05. Moreover, beta value of standardized coefficient is being used in this study as secondary data used to conduct this research. A negative beta value was found for three independent variables which are firm size (-1.369), net working capital (-0.961) and leverage (-0.572). Further, a positive beta value exist for one independent variables which is cash flow (1.195). However, firm size was found to be the most crucial factor compared to other variables as firm size has the highest beta value among all variables.

Table I: Model Summary – Top Companies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.735[a]	.540	.173	.07765369313	1.382

a. Predictors: (Constant), CASH FLOW, LEVERAGE, FIRM SIZE, NET WORKING CAPITAL

b. Dependent Variable: CORPORATE LIQUIDITY

According to the Table I (top companies) the *Durbin-Watson* is 1.382 which falls in the normal range of *Durbin-Watson* which is for 1 to 3. This illustrates that there are no autocorrelation problems among residuals. Further, R square also plays a major role in this model where R refer to the strength of forecast's and outcome from this study's relationship. It is shown in table 1 that the value of *R square* is 0.540 or 54% which indicates that 54% of independent variable are directly affecting the dependent variables. In other word, 54% of the total variation of dependent variable "corporate liquidity" are explained by the independent variables "firm size, net working capital, leverage and cash flow". Hence, the other 46% of variation may be explained by other factors.

Table II: Model Summary – Random Companies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.878[a]	.771	.589	.08811368301	1.155

a. Predictors: (Constant), CASH FLOW, NET WORKING CAPITAL, LEVERAGE, FIRM SIZE

b. Dependent Variable: CORPORATE LIQUIDITY MEAN

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According to the Table II (random companies) the *Durbin-Watson* results of random companies which is 1.382. This indicate that there are no autocorrelation problems among residuals as an ideal range of *Durbin-Watson* is from 1 to 3. Furthermore, R square has a significant role in model summary as R measure the relationship in predictors and outcome of this study. As a results, the Table II demonstrates the value of *R square* which is 0.771 or 77.1% which means that 77.1% of independent variable are directly affecting the dependent variables. In other word, 77.1% of the total variation in dependent variable "corporate liquidity" are explained by the independent variables "firm size, net working capital, leverage and cash flow". Thus, the other 22.9% of variation may be explained by other factors.

Table III: Coefficient Analysis – Top Companies

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-.769	.927		-.829	.445		
	FIRM SIZE	.090	.087	.485	1.027	.351	.413	2.421
	NET WORKING CAPITAL	.460	.362	.738	1.270	.260	.272	3.677
	LEVERAGE	-.385	.202	-.825	-1.902	.115	.489	2.044
	CASH FLOW	-4.850E-11	.000	-.209	-.591	.580	.733	1.364

a. Dependent Variable: CORPORATE LIQUIDITY MEAN

According to the table III (top companies) the significant value is illustrated above which indicates that the proposed hypotheses of all variables are rejected as their sig value is more than 0.05 where firm size has a value of 0.352, net working capital with a value of 0.260, leverage 0.115 and cash flow with a value of 0.733. Furthermore, beta value of standardized coefficient is being used in this study as secondary data used to conduct this research. According to the table above a positive beta value exist for two independent variables which are firm size, net working capital in which net working capital has the highest value with a 0.738, which indicate that net working capital is the most crucial factor compared to other variables. However, a negative beta value was found in the remaining two variables which are leverage with a value of -0.825 and cash flow with a value of -0.209. Furthermore, table 4 (random companies) the significant value of firm size (0.032) and cash flow (0.016) which is less than 0.05. Therefore, the proposed hypotheses of those variables are accepted. However, comparing to significant value of net working capital (0.072) and leverage (0.061) which indicate that the proposed hypotheses of those variables are rejected as the sig value is higher than 0.05. Moreover, beta value of standardized coefficient is being used in this study as secondary data used to conduct this research.

Table IV: Coefficient Analysis – Random Companies

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	5.506	1.776		3.100	.027		
	FIRM SIZE	-.580	.196	-1.369	-2.955	.032	.213	4.692
	NET WORKING CAPITAL	-.689	.303	-.961	-2.271	.072	.255	3.915
	LEVERAGE	-.641	.266	-.572	-2.409	.061	.811	1.234
	CASH FLOW	3.274E-9	.000	1.195	3.562	.016	.406	2.463

a. Dependent Variable: CORPORATE LIQUIDITY MEAN

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Based on Table 1V, a negative beta value was found for three independent variables which are firm size (-1.369), net working capital (-0.961) and leverage (-0.572). Further, a positive beta value exist for one independent variables which is cash flow (1.195). However, firm size was found to be the most crucial factor compared to other variables as firm size has the highest beta value among all variables.

V. CONCLUSION

As a conclusion, overall results based on research objective had been discussed by using the findings obtained from SPSS software in terms of correlation analysis and multi regression tests. As indicated above, in the top ten manufacturing firms in Malaysia, all hypotheses were rejected as insignificant relationship was found between corporate liquidity and all variables. In comparison, in the random ten manufacturing firms, two hypotheses were accepted and two were rejected, the hypotheses of firm size and cash flow were accepted as a significant negative relationship exists between firm size and corporate where a significant positive association was found between cash flow and corporate liquidity. Further, the hypotheses of net working capital and leverage in random firms were rejected as the relationship was identified to be insignificant.

VI. RECOMMENDATION FOR THE FUTURE STUDIES

As a recommendation for future research, the researchers are advised to conduct a study with the aim of investigating more independent variables other than the independent variables included in this research, which are firm size, net working capital, leverage and cash flow. There are many other factors that explains corporate liquidity. As indicated in R-square results of this study, the four factors included in this research are only explained 54.1 percent of corporate liquidity of top ten manufacturing firms in Malaysia. However, in the random ten manufacturing firms in Malaysia, firm size, net working capital, leverage and cash flow had explained 77.1 percent of the dependent variable. Therefore, the future researchers should concentrate more on other factors that may affects corporate liquidity in order to enhance the awareness of this issue.

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