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Impact of Capital Investment on Working Capital Management

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Abstract – *Working capital management is the mechanism to achieve balance between current assets and current liabilities of firm to meet the maturing obligations and the fixed assets are properly serviced. This paper investigates the impact of capital investment on working capital management across Malaysian technology firms from 2007 to 2011. Proxies of working capital management are the net liquidity balance and working capital requirement, instead of the traditional financial ratios. Panel data analysis and robust regression techniques result of 115 observations shows capital investment impact net liquidity balance negatively. On the other hand, significant positive impact of capital investment on working capital requirement identified. This signifies that firms capital investment promote the working capital requirement to ascertain the firm's liquidity level and simultaneously creates value from liquid assets. Leverage is the strong substitute for net liquidity balance capitalization that increases the influence of financial expenditure-net liquidity balance relationship. Hence, working capital management is dependent on capital investment in Malaysian technology firms, which indicates that long-term investment decision does influence short-term financial management.*

Keywords: Capital Investment, Working Capital Management, Net Liquidity Balance, Working Capital Requirement

1.0 INTRODUCTION

Working capital management is the mechanism to achieve balance between current assets and current liabilities of firm to meet the maturing obligations and fixed assets are properly serviced. Khan *et al*. [1] suggest that efficient working capital management is aimed by achieving optimal level of tradeoffs between liquidity and profitability of the firm. However, Ray [2] stated that achieving maximum profitability and liquidity simultaneously is complex. Financial officer faces difficulty to achieve both goals as long-term profitability comes with a greater risk. The high level of capital investment reduces the internal fund of the firm with lower liquidity position [3], which may eventually place the firm in unstable condition.

Capital investment is the fixed assets' investment that usually has lengthy lifespans with measureable monetary value, which involves enormous firm's sources for longer term. In past two decades, working capital management areas have been studied extensively regardless of

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the financial constraint position of firm on capital investment's decision. Past literature assumed that cash flow and capital investment relation is fixed based on long-term financing policy of the firm, which determine the firm's future profitability [4] and financial structure [5]. The assumption offer little insight on working capital decision making process, where Liu [5] recognized that working capital is able to cover shortfalls for period between capital investment is made until the cash flow is generated from the investment. This study strongly supported by Ozbebek et al. [6], capital investment is more widely seen as strategic investment decisions. Thus, the decision-making process on diverse working capital components may become frequent and inefficient to anticipate shortfalls due to capital investment decision.

This paper focused on the importance of capital investment on firm's growth, which is a magnitude of small and growing countries, like Asian countries [7]. It is crucial as Malaysian firms has tendency to maintain high liquidity for profit generation and take up longer period for the financial managers to monitor the liquidity position of the firm [8]. Thus, the inadequate cash flow management leads firms in Malaysia to face financial distress as they unable to meet the short-term financial obligations [9]. Malaysia is generally considered as one of the most successful non-western nations that achieved a moderately smooth economic transition from conventional to modern economic [10]. Asian countries increasingly begun to compete on knowledge and technology basis since 2005 [11], whereby Malaysia had shifted the investment focus more on high-technology and capital intensive industries starting from 2012 [12]. The knowledge on the impact and relation of capital investment and working capital management seems to be crucial for firms to achieve promising business growth without fully depending on capital market.

Study by Fazzari et al. [23] showed that financial aspects is affected by investment decision but it varies according to the types of firm that involved. Appuhami [17] agreed with Shulman and Cox [24] that the components of working capital depend on the type of the business and industry. Liquidity of technology sector is critical since it strongly relates to extensive capital investment in Malaysia's technology sector [13]. Even though technology firms are the major source of nation's innovation and development [14], firms do face financial constraint. Securing funds at lower cost especially the long-term fund is difficult and challenging for the technology sector to sustain continuous growth [15]. Since it is difficult to establish the monetary value and forecast on intellectual capital rather than on the physical assets of the firm [14], these weakening the opportunity to obtain funding with collateral as technology firms have lower level of tangible asset. As the external financing is costly, technology firms strive for efficient working capital management to reduce their operating cost and this will release the fund tied up in working capital for further investment [16]. Failure to understand the components and factor influencing the working capital may direct the firm to financial distress.

Few researches highlights the effect of capital investment on working capital management across industries in Thailand [17], Small Medium Enterprises (SMEs) in Tunisian [18], across industries in Iran [19], cement, sugar and energy industries in Pakistan [20], across firms in China [21], across manufacturing sector of Istanbul [4], and companies listed in China's stock market [5]. This study was undertaken to enhance the understanding of technology sector's capital investment in Malaysia as technology sector plays an important role in influencing economic development of a country [22]. Hence, the key contribution from findings may avoid inefficient capital investment that central issue for financially distress firm or overinvesting firms. Therefore, this paper draw closely to Malaysian technology sector and the focus is on

the relationship and how capital investment impact the net liquidity balance and working capital requirement at firm level. The remaining of this paper is organized as follows. Section 2 reviews the relevant literatures; section 3 discusses the data and methodology; section 4 presents and discusses empirical results and section 5 concludes the findings.

2.0 LITERATURE REVIEW

Firm's decision on investment strategy mainly is to determine the future growth and profitability. Decisions made on long-term financing policy for capital investment may associate with short-term financial management decisions. On the other hand, capital investment may create a need for additional working capital, for example increases in cash balance, trade credit and inventories [25]. However, the traditional financial ratios on measuring working capital management does not representing the ongoing concern of the firm [24]. Studies supported by Appuhumai [17], Bellouma [18], Raheman et al. [20] and Valipour et al. [19] showed that net liquidity balance and working capital requirement are the best indicators of working capital management efficiency.

The initial investment outlay is expected to bring future benefit and selection of investment process is capital budgeting [26]. Capital expenditure is the fund used by firm to upgrade or acquire the physical asset that will bring potential profit to the firm and to maintain or to increase the scope of business operation [5]. Generally, in cash flow statement, capital expenditure is recorded as an investment [27] and most of the capital expenditures involve a large cash outlay that affects the firm's future value [28].

The expanding fixed asset may influence the operating expenditure [25] due to change in operation efficiency [29]. Appuhami [17] described that operating expenditure has a positive significant effect on working capital management. The increase in operating expenditure may lead to increase in the required capital and reduce the liquidity level in firm [30]. Similar to operating expenditure, the finance expenditure is cost associated with capital expenditure. Additional funding for capital expenditure may incur additional financial cost to the firm [31]. An increase in financial expenditure directly increases the working capital requirement as companies hold more current assets when they have commitments to pay interest [17]. Hence, the operating cash flow is cost associated with capital expenditure decision that made largely the capital investment conceptualization.

The main objective of liquidity management is to make certain the firms' solvency position [32] and net liquidity balance is partly relevant to working capital management [20]. Authors discovered net liquidity balance has relation with cash that can be improved by managing well the working capital management. Likewise, a good collection of account receivables will lead to better net liquidity balance based on firms in cement, sugar and energy sectors [20]. Capital investment reduces the net liquidity balances and does reduce the level of liquid assets. Eventually, the firm will not have sufficient internally generated fund for long term fixed investment. This suggests that working capital management's policy is influenced by nature of firm due to the different liquidity level maintenance. Moreover, Hill et al. [33] identified working capital requirement as the proxy of operating working capital in investigating the factors influencing net investment. They discovered that firms' operation situation and financing capacity have significant effect on working capital requirement. The increase in

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operating expenditure may lead to increase in required capital and reduction in liquidity level of the firm [30].

Biddle and Hilary [34] have seen capital investment as assets that may generate internal fund to the firm. Additionally, the excess cash generated from capital investment is assumed would not all be returned to the investor but certain amount is retained in the firm as fund for future investment. For certain conditions, investment in long-term asset will affect the cost of funding externally where external funding may place the firm with better liquidity position. As highlighted by Shin and Park [31] the opportunity to obtain external funding is high but it is expensive. Hence, to avoid the financing cost, the firm may increase the fund availability for capital investment by derogates the amount tied up in current asset [35].

Generally, the small firms in technology sector use a combination of personal equity and debt that often secured by the personal assets of the entrepreneur, which the large firms obtains external funding from the financial market. The growth opportunity of technology sector firms encourages more external sources of capital. As described by Coleman and Robb [14], securing funds for technology sector is challenging as technology sector firms involved with high level of intangible asset particularly intellectual capitals where, funding constraints is much wider for the technology sector. Thus, internal fund is the most favorable as it easily obtained and incur lower cost to the firm, which may affect the working capital management.

Working capital is intensively reversible liquidity compared to capital investment [36], and changing the level of investment is costly rather maintaining the stable level of investment path within the same working capital. The authors have put forward that capital investment has a significant negative relationship with net liquidity balance and working capital requirement ([24]; [18]; [20]). Study carried out by Appuhami [17] on listed companies in Thailand stock exchange across sectors found significant relationship of operating cash flow with working capital management. Listed companies in Thailand are modifying their working capital management policy based on many factors such as capital expenditure, operating cash flow and sales growth since the inefficient working capital management may direct to low profitability as a result from other investment in working capital.

Capital investment is positively affecting the cash holding position of the firm as return on investment (ROI) increase the cash position of the firm. On the other hand, investment reduces the level of working capital required which is addressed as a dual effect of investment. Indulgent on how capital investment play a role in working capital can be prevailed over the liquidity dilemma of export SMEs in Tunisia by Bellouma [18]. He indicated that capital investment is the liquidity generator of future compared to expenses that lower the liquidity position at present. In contrast, Valipour et al. [19] concluded that capital investment has no significant relationship with growth opportunities, working capital requirement and net liquidity balance. Interestingly, it shows liquidity in Tehran stock exchange's firms is not determined by the capital investment. There are financing mismatch between short-term fund and lives of capital expenditure, whereby this might be due to Iran's inflation condition that directs financial managers to concern on short-term profitability in isolation.

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3.0 DATA AND METHODOLOGY

This study considers Shulman and Cox [24] working capital management efficiency measurement by using net liquidity balance and working capital requirement as proxy of dependent variable. The study employed capital expenditure, operating expenditure and finance expenditure as dimensions of capital investment as independent variable, which were used to test the hypothesis. The investigation is based on the secondary data for the period of 5 years from 2007 until 2011, comprise of technology firms listed in the Main Board of Bursa Malaysia. Regression models specification are listed as per Table 1 to test eight hypotheses.

Table 1: Model Specification

Model	Equation
I	$NLB_{it} = \alpha_0 + \beta_1 CI_{it} + \beta_2 GRW_{it} + \beta_3 LVR_{it} + \beta_4 OCAF_{it} + \varepsilon_{it}$
II	$NLB_{it} = \alpha_0 + \beta_1 CPEX_{it} + \beta_2 OPEX_{it} + \beta_3 FIEX_{it} + \beta_4 GRW_{it} + \beta_5 LVR_{it} + \beta_6 OCAF_{it} + \varepsilon_{it}$
III	$WCR_{it} = \alpha_0 + \beta_1 CI_{it} + \beta_2 GRW_{it} + \beta_3 LVR_{it} + \beta_4 OCAF_{it} + \varepsilon_{it}$
IV	$WCR_{it} = \alpha_0 + \beta_1 CPEX_{it} + \beta_2 OPEX_{it} + \beta_3 FIEX_{it} + \beta_4 GRW_{it} + \beta_5 LVR_{it} + \beta_6 OCAF_{it} + \varepsilon_{it}$

where:

NLB:	Net liquidity balance
WCR:	Working capital requirement
CI:	Capital investment
CPEX:	Capital expenditure
OPEX:	Operating expenditure
FIEX:	Finance expenditure
GRW:	Growth
LVR:	Leverage
OCAF:	Operating Cash Flow
α_0:	Intercept of equation
β_i:	Coefficients of independent and control variables
t:	Time of 1, 2, 3, 4, 5 years.
i:	Number of 1, 2, …, 23 firms
ε:	Error term

The model specifications based on Table 1 are the four regressions generated for analysis based on the liquidity-profitability tradeoff theory [37]. The theory exhorts that maximization of profitability will lead minimum level of liquidity and vice versa. The first group of study is to identify the impact on net liquidity balance, which is explained by model I and II. Bellouma [18] indicates that capital investment does affect net liquidity balance significantly and opposing to that, Valipour et al. [19] found capital investment has no significant impact on net liquidity balance and working capital requirement. Considering the previous literature, the following four hypotheses has been developed:

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H_1: Capital investment has significant negative effect on net liquidity balance.
H_2: Capital expenditure has significant negative effect on net liquidity balance.
H_3: Operating expenditure has significant negative effect on net liquidity balance.
H_4: Finance expenditure has significant negative effect on net liquidity balance.

Second group of study is to identify the impact on working capital requirement, which is explained by model III and IV. Capital investment affects working capital requirement negatively as per findings of Bellouma [18] and Raheman et al. [20]. Ding et al. [21] added that, the efficient working capital management might relieve the firm's financial constraint for fixed investment, thus the hypothesis will test whether the working capital requirement is increased to facilitate the capital investment. Considering the previous literature, the following four hypotheses has been developed:

H_5: Capital investment has significant positive effect on working capital requirement.
H_6: Capital expenditure has significant positive effect on working capital requirement.
H_7: Operating expenditure has significant positive effect on working capital requirement.
H_8: Finance expenditure has significant positive effect on working capital requirement.

Prior to regression analysis, the diagnostic test was conducted on raw data set based on the Ordinary Least Square (OLS) assumptions i.e. linearity, normality, multicollinearity and homoscedasticity. The linearity test performed shows that all the points are not randomly dispersed and the plots suggest that there is a pattern in the data analyzed which indicating that variables has a linear relationship. The degree of unevenness of a distribution and the kurtosis for independent variables and control variables indicates the heaviness of a distribution side denoting non-normal distribution. Thus, the data are transformed to normal distribution by operating square root and natural log function. The plots presented as per Figs 1-4 referring to the linearity and normal distribution of variables. Based on multicollinearity test, the entire models fulfilled the basic assumptions of multicollinearity with mean variance inflation factor of less than 10. As for homoscedasticity test of models I, II and III, the Breusch-Pagan's test rejects the H_0 hypothesis with variance of the residuals is irregular. Heteroscedasticity regression noted for model IV that was substituted to robust regression.

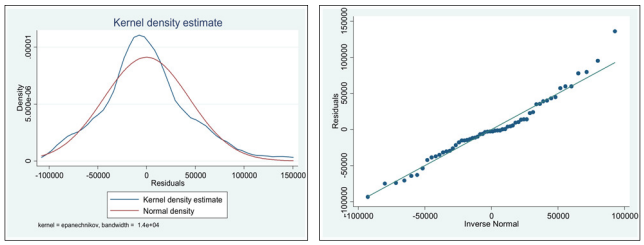

Figure 1: Normality and Linearity of Regression Model I

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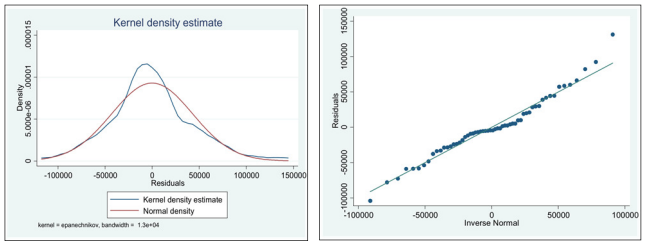

Figure 2: Normality and Linearity of Regression Model II

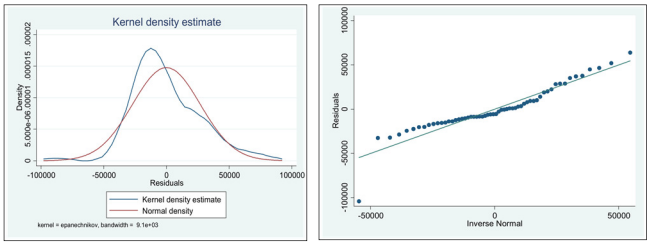

Figure 3: Normality and Linearity of Regression Model III

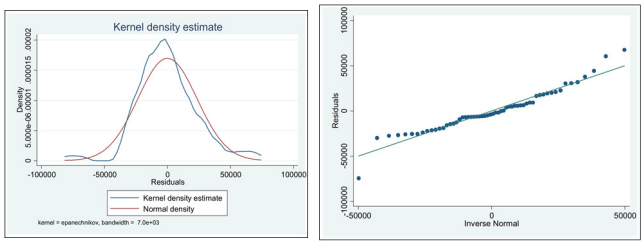

Figure 4: Normality and Linearity of Regression Model IV

4.0 FINDING AND DISCUSSION

4.1 Descriptive and Correlation Analysis

Table 2 illustrates the 5 years observations, with highest mean score of 227.26 for capital investment. The variation of capital investment from the mean of 406.85 shows the large variation that was mainly due to the difference across the size of firms in technology sector. The variation from the mean of capital expenditure, operating expenditure and finance expenditure were 336.03, 72.12 and 7.17.

Capital expenditure and finance expenditure was highly dispersed and this is probably due to different firm size across technology sector in Malaysia. It appeared that, the working capital management carries average mean score of 45.75 and standard deviation 66.43. Net liquidity balance has lower mean score of 13.37 compared to the working capital requirement with the mean score of 32.38. This highlights that technology firms maintained lower cash or near cash items compared to all other current assets.

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To achieve the first objective of this paper, Table 3 demonstrates the relationship between variables. The correlation analysis indicates that all the variables have linear relationship. Capital investment and capital expenditure has moderate negative significant relationship with working capital management at 5% significance level. Capital investment has significant relationship with all the variables except growth, which indicates that capital investment is not a determinant of firms' growth. Correlation analysis suggest that capital investment is significantly and negatively related to net liquidity balance and significant positive relation with working capital requirement.

Table 2: Descriptive Analysis

Variable	N	Mean	Median	Standard Deviation	Minimum	Maximum
WCM	115	45.75	44.10	66.43	-173.08	196.66
NLB	115	13.37	13.34	63.62	-223.38	163.21
WCR	115	32.38	27.36	28.26	-53.35	117.50
CI	115	227.36	71.25	406.85	2.62	1639.22
CPEX	115	177.00	56.16	336.03	1.40	1444.27
OPEX	115	46.48	17.58	72.12	0.73	317.62
FIEX	115	3.88	0.59	7.17	0	33.62
GRW	115	0.10	0.06	0.36	-0.72	1.49
LVR	115	0.19	0.10	0.22	0	1.19
OCAF	115	36.16	24.33	35.34	0.84	170.82

WCM= Working capital management, NLB =Net liquidity balance, WCR=Working capital requirement, CI=Capital investment, CPEX=Capital expenditure, OPEX=Operating expenditure, FIEX=Financial expenditure, GRW=Growth, LVR=Leverage and OCAF=Operating cash flow.

Table 3: Correlation Matrix

VARIABLE	CI	WCM	NLB	WCR	CPEX	OPEX	FIEX	GRW	LVR	OCAF
CI	1.0000									
WCM	-0.1793**	1.0000								
NLB	-0.4143***	0.6160***	1.0000							
WCR	0.2740***	0.3413***	-0.1203	1.0000						
CPEX	0.9916***	-0.1629**	-0.3970***	0.2932***	1.0000					
OPEX	0.9175***	0.0334	0.4043***	0.2097*	0.8644***	1.0000				
FIEX	0.8017***	-0.0699	-0.4629***	0.1489	0.7641*	0.7930***	1.0000			
GRW	0.0257***	0.1146	0.1634	-0.1733	0.0218	0.0297	0.0703	1.0000		
LVR	0.5499***	-0.0267	-0.2755*	0.3010***	0.5204*	0.5860***	0.7293***	0.0195	1.0000	
OCAF	0.6437***	0.3719***	0.0677	0.1233	0.6149***	0.6571***	0.6113***	0.0893	0.3386*	1.0000

***is significant at p<0.01 **is significant at p<0.05 and *is significant at p<0.10. Number of observation (N) =115, WCM= Working capital management, NLB=Net liquidity balance, WCR=Working capital requirement, CI=Capital investment, CPEX=Capital expenditure, OPEX=Operating expenditure, FIEX=Financial expenditure, GRW=Growth, LVR=Leverage and OCAF=Operating cash flow.

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4.2 Regression Model I and Model III

Table 4 demonstrates the impact of capital investment on two working capital measurement, which was tested using hypothesis H_1 and H_5. The findings show divergent results across pooled OLS, firm-fixed impact and time-fixed effect. Based on pooled OLS and firm fixed effect, the findings highlight a significant negative impact of capital investment on net liquidity balance and therefore the H_1 hypothesis is not rejected. This finding supports previous research by Shulman and Cox [24], Bellouma [18] and Raheman et al. [20].

However, as the time fixed, capital investment affects net liquidity balance positively on year three and year four, which is year 2009 and year 2010 respectively. Apart the global slowdown; Malaysia continued to receive a significant amount of new investments in 2009. This is partially due to capital-intensive projects approval [38], and encouragement through capital investment tax incentive for high technology firms on year 2009 and 2010. The tax incentive may contribute to greater cash balance in firm compared to other years of study. On top of that, study performed on SMEs in Tunisia reveals that capital investment has significant positive effect on net liquidity balance and this is consistent with result derived by time fixed effect in Malaysia. This indicates, technology firms look at capital investment as liquidity generator rather than high cash outflow activity since firms may avoid costly capital investment that will lead to financial constraint to firms. Demonstrated by Minton and Schrand [39], if the firm facing liquidity shortage the firm rather permanently forgoes that particular capital investment.

Table 4: Regression Model I and III

WCM	**Net Liquidity Balance**						**Working Capital Requirement**					
Variable	OLS		OLS-Fixed effect across firm		OLS-Fixed effect across time		Ordinary Least Square		OLS-Fixed effect across firm		OLS-Fixed effect across time	
	P -VALUE (Coefficient)											
CI	0.042**	(-0.729)	0.001**	(-3.572)	0.012**	(3.485)	0.000**	(0.803)	0.975	(0.021)	0.724	(-0.284)
GRW	0.923	(0.029)	0.773	(-0.090)	0.644	(-0.135)	0.095*	(-0.299)	0.452	(-0.169)	0.592	(-0.135)
LVR	0.589	(-0.177)	0.116	(-0.534)	0.199	(-0.556)	0.241	(0.226)	0.282	(0.260)	0.139	(0.325)
OCAF	0.163	(-0.148)	0.597	(0.0517)	0.878	(0.013)	0.501	(0.041)	0.572	(0.039)	0.725	(0.034)
YEAR 1					0.181	(0.644)					0.671	(-0.157)
YEAR 3					0.022**	(0.601)					0.564	(-0.131)
YEAR 4					0.023**	(0.832)					0.381	(0.135)
YEAR 5					0.424	(0.416)					0.924	(0.035)
	MODEL I						MODEL III					

Number of observation (N) =115, CI=Capital Investment GRW=Growth, LVR=Leverage, OCAF=Operating cash flow, WCM=Working capital management. **are significant at p<0.05 and *are significant at p<0.10.

Based on the regression model III (refer Table 4), the findings highlight the impact of capital investment on working capital requirement. According to pooled OLS, the capital investment is positively affects the working capital requirement at 5% significance level. The growth is also illustrating the significant effect on working capital requirement at significant level of 10%. However, the firm-fixed effect and time-fixed effect shows insignificant results. This study confirms that technology firms that listed on Bursa Malaysia dependent on stable working capital and it is consistent with Zainudin [40] who argues that large firms in Malaysia

have high liquidity level to satisfy the working capital requirement. However, this result is contradictory with Fazzari and Petersen [41] and Bellouma [18] who found that increased in fixed investment reduces working capital requirement.

4.3 Regression Model II and Model IV

Result presented in Table 5 highlights that capital expenditure and operating expenditure is statistically insignificant on net liquidity balance. Despite, significant positive impact of finance expenditure and negative impact of leverage on net liquidity balance constructed based on all three sets of regression. This denoting that leverage provide alternative for net liquidity balance capitalization that evidenced by financial expenditure. The positive impact of financial expenditure estimated to influence the net liquidity balance level which to mitigate the risk of inability to meet short-term obligations [33]. The time-fixed effect across time also support the existing findings and shows significant impact of expenditures on net liquidity balance.

Table 5: Regression Model II and IV

WCM	**Net Liquidity Balance**			**Working Capital Requirement**		
Variable	OLS	OLS-Fixed effect across firm	OLS-Fixed effect across time	OLS	OLS-Fixed effect across firm	OLS-Fixed effect across time
	P -VALUE (Coefficient)					
CPEX	0.921 (-0.042)	0.785 (0.328)	0.319 (0.929)	0.003** (0.843)	0.649 (-0.422)	0.432 (-0.284)
OPEX	0.630 (0.305)	0.108 (1.358)	0.246 (1.133)	0.794 (-0.102)	0.302 (0.661)	0.661 (0.489)
FIEX	0.016** (1.173)	0.016**(1.433)	0.006** (1.496)	0.292 (-0.306)	0.297 (-0.452)	0.125 (-0.505)
GRW	0.682 (-0.123)	0.585 (0.167)	0.727 (0.095)	0.296 (-0.206)	0.443 (-0.181)	0.563 (-0.153)
LVR	0.042** (-0.963)	0.011**(-1.179)	0.000**(-1.463)	0.156 (0.411)	0.079* (0.602)	0.024** (0.816)
OCAF	0.181 (-0.134)	0.923 (-0.009)	0.143 (-0.060)	0.538 (0.037)	0.461 (0.053)	0.552 (0.057)
YEAR 1			0.085* (0.706)			0.691 (-0.149)
YEAR 3			0.025** (0.570)			0.572 (-0.125)
YEAR 4			0.017** (0.884)			0.634 (0.093)
YEAR 5			0.386 (0.142)			0.304 (0.277)
	MODEL II			MODEL IV		

Number of observation (N) =115, CI=Capital investment, CPEX=Capital expenditure, OPEX=Operating expenditure, FIEX= Finance expenditure, GRW=Growth, LVR =Leverage, OCAF=Operating cash flow, WCM=Working capital management. **are significant at p<0.05*are significant at p<0.10.

Based on Table 5, the pooled OLS analysis shows that the capital expenditure established a positive significant impact on working capital requirement. Thus, the study does not reject the H_6 hypothesis and this result is contradicting with Celik and Boyagioglu [4]. This indicates technology firms in Malaysia likely to increase the ROI and simultaneously creates value from other current asset items. This practices probably to generate ROI without positioning the firm in difficult condition in running day-to-day operation. In addition, different results were observed across firm-fixed effect and time-fixed effect. Leverage has significant positive impact on working capital requirement demonstrated by firm-fixed effect and time-fixed effect. This result is consistent with Booth et al. [42] who found firms in developing countries have the tendency to obtain short-term debt compared to long-term debt to achieve the working capital requirement. However, Hill et al. [33] discovered the opposite result. Their study shows firms' operation activity and financing activity have significant impact on working capital

requirement. Inspection of Valipour et al. [19] in Iran partially supporting findings of Hill et al. [33] indicated positive significant impact of finance expenditure on working capital requirement across firms Iran.

5.0 CONCLUSION

This study contributes to the literature of working capital management theory with mixed findings and empirical evidence of the emerging economy, i.e. Malaysia. Essentially, study extends the paper of Bellouma [18] that highlights the effect of capital investment on working capital management. It adds new aspects to the existing research of capital investment decision during financial constraint. This study has urged that capital investment could be financed by adjustments in management of working capital requirement. Furthermore, study also fills the gap of empirical evidence in technology sector firms in Malaysia. The study fills the gap of empirical evidence in technology sector firms in Malaysia and may facilitate the improvement of the policy implementation in developing country. Thus, it may accelerate firms to experience R&D activity and lead to mass production that eventually contributes to economy growth. In addition, this study enlightens the financial officer's burden; the sound liquidity management may avoid corporate insolvency. The net liquidity balance and working capital requirement showing different reaction towards capital investment implementation in the technology sector firms. Capital investment has significant negative impact on net liquidity balance and positive impact on working capital requirement. The financially constraint firms may dependent on the less liquid resources to employ capital investment that may lead to higher net liquidity balance in the firm. Thus, the presented findings may demonstrate how each cost associated with capital expenditure, influence the net liquidity balance and working capital requirement. Limited data reported in this study, as only 68% (23 firms) technology firm have balanced dataset from year 2007-2011. Future studies may focus on conducting the same study in sectoral basis to provide better understanding for practitioners to recognize specific behavior of sector in operating their working capital.

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