



**UNIVERSITI PUTRA MALAYSIA**

***WORKING CAPITAL MANAGEMENT, FIRM PERFORMANCE AND  
EARNINGS MANAGEMENT OF PUBLIC LISTED COMPANIES IN  
MALAYSIA AND THAILAND***

**ZARIYAWATI MOHD ASHHARI**

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By

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**Chairman: Professor Dr. Annuar Md Nassir**

**Faculty: Graduate School of Management**

Long term financial decision particularly capital structure, dividends and firm valuation decision were established focusing in the area of corporate finance. However, this pattern has changed in recent years. Most of the researchers have diverted their focus to short term financial research, which is working capital management. This change occurs because the researchers have adopted and believed the theory of Smith (1973). This theory could explain the reasons why many firms are facing financial problems and cease their operation during Asian financial crisis in 1997/1998. Smith (1973) suggested that a business will fail due to the lack of emphasis on working capital in financial decision making. However, working capital engaged in daily business operations only. It is a short-term investment in nature,

hence playing an important role in firm's financial decision to ensure that firm can survive in the long term period.

Previous researches on working capital management have been done in developed countries, such as United States and United Kingdom. However, financial markets in developed countries differ from developing countries such as Malaysia and Thailand. In developed countries, firm's share widely dispersed share ownership. Meanwhile, most of the listed firms are controlled by a few shareholders (individual or institutions) in developing countries. Furthermore, previous researches mainly focused on the relationship between working capital management and firm's performance.

This study examines the behaviour of working capital management for firms in Malaysia and Thailand. Panel data of 244 firms from Malaysia and 149 firms from Thailand for the period of 1994 to 2007 were used in this study. Generalized Moment Method (GMM) model is conducted to achieve the objective of the study. The first objective is to determine the factors of working capital management. The results showed firm-characteristic, corporate governance and macroeconomics are important factors which influencing working capital management.

For the second objective, this study investigates the effect of working capital management on firm performance. The results showed that firms' working capital management in Malaysia have negative significant effect on all measurement (return on assets, Tobin's-q and market to book value). Empirical evidence also shows that no relationship exist between working capital management and firm performance before

the Asian financial crisis. Results for second objective of Thailand are consistent with Malaysia. This result reveals that manager of firms do not manage working capital efficiently before the crisis. Consequently, investment in working capital management does not contribute to firm performance. However, after the crisis in demonstrate that manager had learned from Asian financial crisis. They put more effort to establish efficient working capital management. Hence, firm performance is increased after the crisis.

Further, the third objective of this study is to examine the involvement of earnings management in working capital management of firms in Malaysia and Thailand. This study found that earnings management has a significant relationship with firm's working capital management. However, the involvement of earnings management in the firm's financial decision is a common practice for both countries. Therefore, managers should put more attention in managing working capital in order to avoid from experiencing financial difficulties which consequently will result in termination of business operations.

As a whole, the behavior of working capital management in Malaysia and Thailand are akin to each other. The determinant factors of working capital management for both countries have changed after the Asian financial crisis compared to the period prior to the financial crisis. Findings showed that working capital management affects firm performance and the effect is obvious after financial crisis. This study also revealed the existence of earnings management in firm's working capital

management. As a conclusion of this study, managers of firms in both countries had learned from past experiences. After the Asian financial crisis, they gave more emphasis in working capital management in order to be more efficient and consequently increase firms' performance.



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PENGURUSAN MODAL KERJA, PRESTASI SYARIKAT DAN PENGURUSAN  
HASIL OLEH SYARIKAT AWAM TERSENARAI DI MALAYSIA DAN  
THAILAND

By

**ZARIYAWATI MOHD ASHHARI**

**November 2012**

**Pengerusi: Professor Dr. Annuar Md Nassir**

**Fakulti: Sekolah Pengajian Siswazah Pengurusan**

Keputusan jangka panjang kewangan terutamanya struktur modal, dividen dan keputusan penilaian firma adalah tumpuan adat dalam kewangan korporat. Walau bagaimanapun, corak ini telah berubah pada tahun kebelakangan ini. Kebanyakan penyelidik telah mengubah tumpuan mereka kepada kewangan jangka pendek iaitu pengurusan modal kerja. Perubahan ini berlaku kerana penyelidik-penyelidik percaya teori Smith (1973) dapat menghuraikan kenapa banyak syarikat menghadapi masalah kewangan dan tutup perniagaan semasa krisis kewangan Asian pada tahun 1997/1998. Smith (1973) mencadangkan bahawa sesebuah perniagaan itu akan gagal disebabkan kurang tumpuan terhadap modal kerja dalam membuat keputusan kewangan syarikat. Sedangkan modal kerja terlibat dalam operasi harian perniagaan. Secara sifatnya, ia adalah pelaburan jangka pendek yang menjadikannya penting dalam keputusan

kewangan bagi memastikan sesebuah syarikat mampu bertahan dalam tempoh yang panjang.

Penyelidikan pengurusan modal kerja sebelum ini lebih tertumpu kepada negara-negara maju seperti United States dan United Kingdom. Walaubagaimanapun pasaran kewangan di negara maju berbeza dengan pasaran kewangan di negara-negara yang sedang membangun seperti Malaysia dan Thailand. Pemilikan saham syarikat di negara-negara maju dibahagikan secara meluas. Manakala, pemilikan saham di negara-negara yang sedang membangun dikawal oleh kumpulan pemilik saham tertentu seperti individu atau institusi. Tambahan pula penyelidikan sebelum ini banyak tertumpu kepada perhubungan antara pengurusan modal kerja dan prestasi syarikat.

Kajian ini meneliti cara pengurusan modal kerja bagi syarikat-syarikat di Malaysia dan Thailand. Data panel dari 244 syarikat dari Malaysia dan 149 buah syarikat dari Thailand untuk tempoh 1994 hingga 2007 digunakan dalam kajian ini. GMM (Generalized Moment Method) model telah digunakan bagi mencapai objektif kajian. Objektif pertama adalah untuk menentukan faktor-faktor pengurusan modal kerja. Keputusan menunjukkan ciri-ciri firma, tadbir urus korporat dan makroekonomi adalah faktor penting yang mempengaruhi pengurusan modal kerja.

Objektif kedua kajian ialah untuk mengkaji kesan pengurusan modal kerja terhadap prestasi firma. Hasil kajian menunjukkan bahawa modal kerja pengurusan firma di Malaysia mempunyai kesan yang signifikan negatif terhadap semua ukuran prestasi

firma (pulangan ke atas aset, nilai Tobin-q dan pasaran kepada nilai buku). Bukti empirikal juga menunjukkan bahawa hubungan tidak wujud di antara pengurusan modal kerja dan prestasi firma sebelum krisis kewangan Asia. Keputusan objektif kedua Thailand adalah konsisten dengan Malaysia. Keputusan ini mendedahkan bahawa pengurus firma tidak menguruskan modal kerja dengan cekap sebelum krisis kewangan. Oleh itu, pelaburan dalam pengurusan modal kerja tidak menyumbang kepada prestasi firma. Walau bagaimanapun, selepas krisis, dapat dilihat pengurus telah belajar dari krisis kewangan Asia. Mereka lebih berusaha bagi mewujudkan pengurusan modal kerja yang cekap. Oleh itu, prestasi firma meningkat selepas krisis.

Selanjutnya, objektif ketiga kajian ini adalah untuk mengesan penglibatan unsur pengurusan perolehan dalam pengurusan modal kerja syarikat di Malaysia dan Thailand. Hasil kajian mendapati pengurusan perolehan mempunyai hubungan yang bererti dengan pengurusan modal kerja. Walau bagaimanapun, penglibatan pengurusan perolehan dalam keputusan kewangan syarikat adalah amalan biasa. Oleh itu, pengurus perlu meletakkan perhatian yang lebih dalam pengurusan modal kerja supaya syarikat dapat mengelak daripada menghadapi masalah kewangan yang seterusnya menyebabkan operasi perniagaan diberhentikan.

Secara menyeluruhnya, cara pengurusan modal kerja di Malaysia dan Thailand adalah serupa antara satu sama lain. Faktor-faktor penentu pengurusan modal kerja bagi kedua-dua negara telah berubah selepas krisis kewangan Asian jika dibandingkan dengan tempoh sebelum krisis kewangan. Penemuan kajian mendapati bahawa pengurusan modal kerja memberi kesan kepada prestasi syarikat terutama sekali



selepas krisis kewangan. Kajian ini juga mendedahkan wujudnya unsur pengurusan perolehan dalam pengurusan modal kerja syarikat. Kesimpulannya, pengurus syarikat telah mempelajari dari pengalaman yang lalu. Selepas krisis kewangan telah memberikan penekanan yang lebih dalam pengurusan modal kerja supaya ia lebih cekap dan menyumbang kepada peningkatan prestasi syarikat.





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# CHAPTER 1

## INTRODUCTION

This chapter provides a general background of the study concerning strategic issues in working capital management and its relationship with value of the firms. It also highlights the importance of agency cost on working capital management. The problem statement and objectives of the study are identified. The research questions are outlined and the contribution of the research is spelled out. Finally, a brief summary of chapter one is documented at the end of this chapter.

### 1.1 Background of the study

Most finance textbooks emphasise the importance of setting the objective of a firm in relation to maximising the value of the firm, that is, to maximize shareholders' wealth. This objective could be achieved with good management on all aspects including managing the working capital. The goal is especially critical, when making financial decisions. Yet, it has always been disregarded (Tewolde, 2002) since it does not contribute to return on equity that operates as a restraint to financial performance (Sanger, 2001). Poor emphasis on firms' working capital in financial decision making would affect the business failure (Smith, 1973). This is due to working capital involvements in day-to-day operation. It is a short term investment in nature that

makes it essential in making decision to ensure a firm's sustainability in long term period.

In a perfect world, the cost per unit of producing goods will not change with the amount produced. Hence, working capital is not crucial since there would be no transaction costs, no uncertainty of product demands, and no scheduling costs of production or constraints of technology (Tewolde, 2002). The interest rate for firms borrow and lend are same (Modigliani & Miller, 1958). Sources of business like capital, labour and product markets would reflect all available information and would be perfectly competitive. Thus, no inventory needed by a firm since the demand of the product is known in advance. The due date will be recorded by supplier and when the time comes the product will be ordered automatically and produced by suppliers. The product will then be delivered to the customer without incurring any cost and delay. Therefore, no cash holding required for working capital except for initial cost. Hence, there would also be no account receivable and account payable since all the transactions are cash transaction due to availability of capital.

However, the assumption of ideal world as mentioned above was not practical and never occurred in the real situation. Firms do not know in advance the demand of the product by their customers. For that reason, a firm need to have some amount of inventory and hold some cash. Firms are motivated to hold cash for precautionary, speculative and transaction motive (Firth, 1976; Moyer, Mcguigan & Kretlow, 2003; Ross, Westerfield & Jordan, 2006) such as purchasing inventories in order to fulfil the bigger demand if they are insufficient. Further, if the customers do not pay cash upon product delivery, firms have to hold some amount of cash in order to pay to the

suppliers. When a firm requires to accomplish demand from a customer but do not have an adequate amount of cash to obtain more inventories due to delayed in payments by previous customers, then the firm will get the inventories in the form of credit from suppliers (Walker & Petty, 1978).

Therefore, working capital is essential due to the emergence of inventories, cash, account receivable and account payable. In addition, working capital is an important issue during firms' financial decision making, since it is a part of investment in current asset that requires appropriate financing. Trade credit is the cheapest financing instrument of working capital (Firth, 1976). However, firms always depend on short term debt to finance its investment in working capital if they do not have enough cash and when suppliers refused to provide credit on inventories. When connecting with short term debt, it makes working capital more crucial in financing decision since debt associates with interest rate. Managers akin to acquire short term debt compare to other sources of financing since the cost is cheaper and can be obtained much faster than long term debt (Brigham & Ehrhardt, 2005; Moyer *et al.*, 2003). This means that the interest rate of short term debt is lower compared to long term debt (Firth, 1976).

Furthermore, interest rate is closely associated with economic condition and fluctuates widely (Brigham & Ehrhardt, 2005). For this reason, firm's interest expenses and expected earnings after tax are subjected to more variation over time. Hence, there is always a chance that a firm will not be able to refinance its short term debt (Moyer *et al.*, 2003). Firm could either pay off the debt to reduce its debt or to arrange for new financing when short term debt matures. However, if a firm borrowed heavily on short term debt, a temporary recession may cause the firm to be incapable in repaying

this debt. Therefore, a firm will experience financial distress or bankrupt if it has weak financial position (Firth, 1976; Moyer *et al.*, 2003). Additionally, this financing is in risk since the profit arising from the sales may be lesser than the cost of short term debt (McCosker, 2000). This will now raise a question to managers whether to choose short term or long term debt by considering trade-off between risk and return of these options in managing working capital.

The trade-off between risk and return should be applied by firm's manager when maintaining and controlling account in both component of working capital (i.e., current assets and current liabilities) in order to achieve optimal working capital management. This trade-off is also known as trade-off between liquidity and profitability by previous researchers (Eljelly, 2004; Raheman & Nasr, 2007; Shin & Soenen, 1998; Smith, 1980). The higher level of current assets can easily gain higher return on investment but it also depends on the cost of operation. The higher the amount of current assets over current liabilities, the more liquid the working capital of a firm is. It is easier to run a business when firm has high current assets level or high liquidity. But, this also means that more cost will be incurred. For example, large inventories satisfy customers because firm can accomplished their demand immediately. In spite of that, it can cost more such as to finance, storage cost and obsolescence of inventories. When a business operation incurs more cost, it would affect the profitability of a firm. Hence, firms with big working capital, which high liquidity will face higher cost and this may result in low profitability.

Conversely, firms with too low current assets (low liquidity) may incur shortages and difficulties in maintaining smooth operations (Anand & Gupta, 2002). Even though

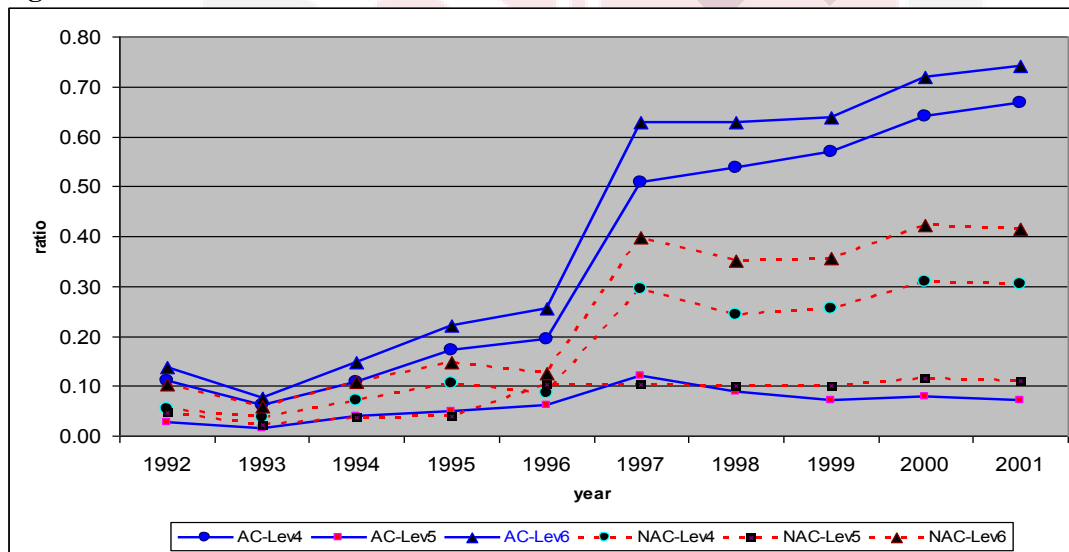
low level of working capital will minimise the cost of daily operation, production activities may be delayed due to material insufficiency. Low level of firm's liquidity will also cause higher risk as a result of difficulties in responding to short term obligation, thus leading to financial distress if firms fail to handle the trade-off between liquidity and profitability effectively (Firth, 1976). However, referring to the risk and return theory, it is reasonable to have high risk investment in working capital management for the cause to yield higher return.

To sum up, working capital involved two types of cost, namely carrying cost and shortage cost (Vishnani & Shah, 2007). Carrying cost is the return forgone when keeping too much current assets in working capital. Meanwhile, shortage cost would affect returns due to firm running out of short term asset in working capital. Since working capital is associated with costs, therefore firms will get more benefit if cost of working capital is minimised. The cost of working capital would minimise when the trade off between liquidity and profitability take position appropriately. Thus, it is the manager's responsibility to establish firm's working capital policy, and to manage it efficiently to create shareholders' wealth.

However, the deficiency in working capital management would affect firms involved with financial distress (Smith, 1973). This is demonstrated by many firms which faced financial problem when Asian financial crisis 1997/1998 occurred. For example, in Malaysia they were categorized as PN4 firms. PN4 firms are firms that fail to meet its financial condition to continue trading and listing due to financial crisis. Hence, they were classified under PN4 sector which was introduced by Bursa Malaysia on 15 February 2001. Until December 2001, about 115 firms comprising of 58 Main Board

and 57 Second Board were listed in PN4 sector. Figure 1 clearly shows the firms' short term, long term and total debt ratio by PN4 or affected (AC) and non PN4 or non-affected (NAC) firms (Mohamad Isa, Annuar, Shamsher, & Taufiq, 2005). From Figure 1, total debt of AC increased remarkably compared to NAC that increase moderately during post crisis period. The huge difference of total debt between AC and NAC is due to the drastic increase in the portion of short term debt by AC. This happens when AC relied more on short term debt to finance its operations and long term investments. As a result, this situation affects the working capital of the firm and eventually firms performance.

**Figure 1: The Debt Level of PN4 and Non PN4 Firms**



Notes: AC = Affected firms, NAC = Non affected firms, Lev4=short term debt, Lev5=long term debt and lev6=total debt)

In addition, Table 1.0 shows that during crisis period, Kuala Lumpur Composite Index (KLCI) components firms registered its working capital drop drastically to RM41,684 million at the end of 1998 (1997 : RM220,187 million) with working capital ratio 1.06 % (1997: 6.15%).



This situation is seen to be worse in Thailand market. As shown in Table 1.1, average working capital of firms in SET 100 index plunge drastically to THB -5,667 million at the end of year 1998 (1997: THB -2,537 million) with working capital ratio -5.60 (1997: -2.51). When firms' working capital is too small, it is difficult to execute the short term obligation and day-to-day operation smoothly. When this happens continuously, firms will face financial difficulties and thus affecting firms' performance. Hence, they will be classified as financial distress. Therefore, efficient working capital management is one of the most essential factors that contribute to the improvement of firm's performance.

**Table 1.0: Average of Total Assets, Working Capital and Working Capital Ratio of Composite Index Firms in Bursa Malaysia.**

Items Year	Working Capital(WC)	Total Assets (TA)	WC/TA (%)	Current Liabilities(CL)	Current Assets (CA)
	(RM '000 )	(RM '000 )		(RM '000 )	(RM '000 )
1993	145,912.15	1,843,636.89	7.91	399840.8654	545,753.04
1994	127,841.72	2,219,388.04	5.76	505,162.21	633,003.91
1995	118,771.87	2,449,553.83	4.85	586,673.88	705,445.73
1996	142,874.42	2,961,557.76	4.82	693,289.69	836,164.15
1997	220,187.88	3,578,435.95	6.15	872,040.72	1,092,228.59
1998	41,684.03	3,940,456.01	1.06	971,570.31	1,013,254.37
1999	58,614.89	3,878,176.10	1.51	927,454.10	986,068.99
2000	135,133.19	4,191,575.88	3.22	940,373.48	1,075,506.68
2001	148,364.36	3,931,570.09	3.77	890,842.13	1,039,204.39
2002	156,468.00	4,140,183.09	3.78	941,683.79	1,098,152.45
2003	433,200.53	4,288,815.58	10.10	759,618.09	1,192,817.51
2004	595,024.07	4,713,229.24	12.62	827,996.53	1,423,020.86
2005	639,956.81	5,087,076.04	12.58	883,231.13	1,523,188.07
2006	575,216.37	5,415,479.04	10.62	1,028,506.10	1,603,722.93
2007	845,417.61	6,800,151.23	12.43	1,297,776.68	2,143,194.58
2008	1,032,956.15	7,195,717.96	14.36	1,400,956.58	2,433,914.24
Average	338,601.50	4,164,687.67	7.22	870,438.52	1,209,040.03

(Source: DataStream Database)

However, working capital management has not been a crucial issue in the literature of emerging market or developing countries. Till date, many studies that relates with this issue have been done on developed market (Belt, 1979; Smith, 1980; Belt & Smith,

1991; Shin & Soenen, 1998; Howorth & Westhead, 2003; Filbeck, Krueger, & Preece, 2007; Kieschnick, Laplante, & Moussawi, 2008). Therefore, these are the vital issues of working capital management and firm performance that require attention. Hence, this study is important since it contributes to the finance literature of working capital management. Moreover, this research also enriches the study of corporate managers' behaviour in managing working capital especially from emerging market.

**Table 1.1: Average of Total Assets, Working Capital and Working Capital Ratio firms in SET 100 Index in Stock Exchange of Thailand**

Items Year	Working Capital (WC) (THB'000)	Total Assets (TA) (THB'000)	WC/TA (%)	Current Liabilities (CL) (THB '000)	Current Assets (CA) (THB '000)
1993	1,107,925.26	63,421,827.55	1.75	3,580,973.29	4,688,898.60
1994	2,188,009.03	74,812,607.27	2.92	4,979,018.38	7,167,027.38
1995	2,386,978.12	83,826,797.83	2.85	5,881,733.34	8,268,711.54
1996	1,127,723.62	87,007,396.98	1.30	7,869,562.53	8,997,286.29
1997	-2,537,456.17	101,143,721.79	-2.51	11,962,447.24	9,424,991.15
1998	-5,667,346.72	101,191,975.36	-5.60	13,620,170.17	7,952,823.54
1999	-4,660,368.74	92,642,699.33	-5.03	12,824,097.62	8,163,728.87
2000	-3,307,791.70	83,614,660.88	-3.96	12,760,777.16	9,452,986.07
2001	51,618.00	80,440,296.49	0.06	9,396,468.77	9,448,096.87
2002	129,148.18	77,418,623.45	0.17	8,950,756.70	9,079,909.62
2003	1,426,803.07	77,756,704.38	1.83	8,195,619.18	9,622,422.45
2004	2,613,966.38	85,638,389.57	3.05	10,161,354.11	12,775,320.67
2005	3,614,040.14	91,773,535.27	3.94	11,041,271.70	14,655,310.10
2006	3,243,040.79	98,683,631.78	3.29	12,598,975.90	15,842,018.03
2007	4,000,062.00	104,189,560.02	3.84	13,992,840.45	17,992,901.59
2008	3,231,689.61	113,700,343.02	2.84	13,991,748.65	17,223,456.54
Average	559,252.55	88,578,923.19	0.67	10,112,988.45	10,672,243.08

(Source: DataStream Database)

## 1.2 Problem Statement

Working capital is an important component in firm management to ensure that a firm can sustain in longer period and further increase a firm value (Moyer *et al.*, 2003). However, working capital has always being disregard (Filbeck & Krueger, 2005;

Tewolde, 2002) in the financial decision making stage since it involves investment and financing in short term period. It also act as a restrain in financial performance, since it does not contribute to return on equity (Sanger, 2001). Hence, these deficiencies in working capital management would affect a firm facing financial distress (Smith, 1973).

The crucial part is managing working capital. A firm is required to maintain its liquidity in day-to-day operation to ensure its smooth running and in order to meet its obligation. Yet, this is not a simple task as managers must ensure that business operation is running an efficient and profitable manner. There are possibilities of mismatch of current assets and current liabilities during this process, especially when a firm is depending on short term debt to finance its investment in working capital. Short term debt is preferred because its cost is lower than long term debt (*Moyer et al.*, 2003). However, this cost is determined by interest rate that is closely associated with economic circumstances (Brigham & Ehrhardt, 2005). The changes in economic situation would influence changes of interest rate. Furthermore, short term interest rate tends to fluctuate more over time compared to long term debt. As a result, firms' expenses and profit after tax are more variation and unpredictable. Hence, when economic changes and influence interest rate; firm could face financial problem and results in business failure if working capital management is inefficient (Brigham & Ehrhardt, 2005; Moyer *et al.*, 2003; Firth, 1976).

Therefore, business failure or financial distress could be avoided if firms maintained efficient working capital management. For this purpose, firms' manager should know the determinants and how they effect on working capital management. The

determinants of working capital management should consist of internal or external factor; or both. Previous researchers have provided empirical evidence on internal factors but failed to consider external factors as the determinant of working capital management (Chiou, Cheng & Wu, 2006; Kieschnick, LaPlante & Moussawi, 2006).

However, recent study by Ali & Khan (2011) found that firm's working capital policies are differently affected by macroeconomic conditions. Additionally, Lamberson (1995) found that the liquidity level of working capital of small firms had increased slightly during economic slowdown. This reveals that not only internal but external factor should be considered in working capital management. Further, after the Asian financial crisis, corporate governance has been identified as one of the important factors that affecting firms. The most important function of corporate governance is to ensure the quality of financial reporting process (Cohen, Krishnamoorthy, & Wright, 2004). Therefore, the weakness of corporate governance was believed to be one of the reasons causing firms' financial distress during the crisis. Hence, besides internal factors or firm's characteristic factors, corporate governance factors have to be taken into account when managing working capital. Meanwhile, the external factors such as economic condition and exchange rate should not be ignored as well.

Perhaps an efficient working capital management is established when all determinants associated with it, are being considered. Consequently, firm value will increase and thus creates shareholders' wealth. However, in the process of managing working capital, the conflict of interest between firm's owner and management would come into view. Misalignment of managers' and shareholders' incentive could induce

managers to use their discretion on working capital management. For example, the exercise of accruals component ( Jiraporn, Miller, Yoon, & Kim, 2008; Kerstein & Rai, 2007; Ali & Pope, 1995). Previous researcher (Kerstein & Rai, 2007) have found that managers use discretionary accruals in earning management. On one hand, they employed discretionary accrual to keep out of sight firm's poor performance or to delay a part of unusually good current earnings to future year (Guay, Kothari, & Watts, 1996) for better remuneration or bonus. On the other hand, discretionary accrual helps managers to produce a reliable and timely measurement of firm performance such as earning (Arya, Glover & Sunder, 2003).

Whether managers employ discretionary accruals to provide better measurement of firm's performance or to hide poor firm's performance, this will affect firm's value. This is as such because firm's performance or earning conveys information (Subramanyam, 1996) to investors whether the firm is in good circumstances or not. If the investors translate the information from earning that firm is being operated well, then the firm value will increase. Meanwhile, firm value could be reduced when investors interpret earning on the other side of view. However, the worst situation occurs when firm value increase even though the earning provided results from discretionary accrual that was used purposely by managers to hide poor firm performance (Sloan, 1996). If this happens continuously, this will contribute to firm distress and further bankruptcy, similar to the case of Enron and WorldCom.

In addition, previous studies on working capital focused on the relationship between working capital and the effect on firm's profitability (Zahra & Azam 2012; Raheman & Nasr, 2007; Lazaridis & Tryfonidis, 2006; Padachi, 2006; Shin & Soenon, 1998).

Some authors concluded firms' value by adopting the results from firm profitability. This could be biased and the result might not be appropriate (Kieschnick *et al.*, 2008). Meanwhile, there are limited studies on the determinants and involvement of agency problem in working capital management especially in the emerging market such as Malaysia and Thailand. On top of that, most of the studies in working capital use static regression model only. The static regression model such as cross sectional data analysis has limited explanation on working capital decision changes overtime.

### **1.3 Working Capital Management, Firm Value and Earning Management**

A good working capital management will give a positive impact on firm value. For this reason, firm manager should develop an optimal working capital management. However, the conflict of interest between management and owner could exist in the process of developing working capital management.

#### **1.3.1 Policies and Determinants of Working Capital**

In managing working capital, managers should take into account the expected future returns and risk associated with these returns because ultimately it have an impact on shareholders' wealth (Gentry, 1988). Managers can follow some guide from working capital policies. They can either follow the aggressive working capital policies with high risk or conservative working capital policies which is less risky. Previous studies have found that when aggressive working capital asset policies are being followed,

they are relatively balanced by conservative working capital financial policies (Weinraub & Visscher, 1998; Salawu, 2006; Zariyawati & Annuar, 2009). In addition, these policies differ between sectors. Hence, this is consistent with Moyer *et al.*, (2003) that there are no one single working capital policy that is applicable to all firms.

The management of working capital varies across industries and firm's size (Borde & McCarty, 1998; Moyer *et al.*, 2003; Raheman & Nasr, 2007). It also depends on the size of investment and the nature of firm's investment in current asset. For example, working capital (measured by current assets) of United States firms in manufacturing sector comprised about 40 percent of total assets (Moyer *et al.*, 2003), meanwhile firms in the agriculture sector have lesser working capital. Referring to the theory of working capital, this may be seen as high risk and thus should provide higher return as well. However, the lower working capital in the agriculture sector may be due to the nature of its business activities that require only low level of investment in working capital (Shin & Soenen, 1998).

Furthermore, the economic circumstances are also part of the important factors that should be considered when making investment decision in working capital. Again it relates to the size of firm. Lamberson (1995) did a study of working capital among small firms' responses to the changes of economic activities and found that liquidity increased slightly during economic expansion. However, he did not find any liquidity changes due to economic slowdown. The reason why size does matter is because larger firms can devote more external financing (Walker & Petty, 1978) and more expertise (Howorth & Westhead, 2003) to manage their current assets.

In conclusion, the firm's level of investment and financing working capital depends on various internal and external factors. Thus, it will be the firm manager's duty to analyse and maintain the optimal working capital after considering all factors. Generally, firms will use cash conversion cycle as a measurement tool in managing working capital (Deloof, 2003; Howorth & Westhead, 2003; Moyer *et al.*, 2003; Raheman & Nasr, 2007).

### **1.3.2 Working Capital Management and Firm Performance**

Working capital management (WCM) is the decision in relation to working capital and short term financing. WCM concerns with the problems that arise in attempting to manage current assets, current liabilities, and the interrelationships that exist between them (Belt & Smith, 1991). The goal of working capital management is to ensure that firms are able to continue its operation and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. This is to ensure that firm has long run growth and survival (Moyer *et al.*, 2003). For instance, if a firm lack of working capital and need to expand production and sales it may lose revenues and profit. Therefore, efficient working capital management is an integral part of corporate strategy to create shareholders' value.

Previous studies have mentioned that the establishment in working capital management results in higher profit and enhanced firm's value (Shin & Soenen, 1998; Deloof, 2003; Filbeck & Krueger, 2005; Raheman & Nasr, 2007). Consistent with the traditional view of working capital management, they suggested that short cash



conversion cycle will be beneficial to firms' performance. The optimal level of working capital is sustained to attain efficient working capital management. Furthermore, the trade off between liquidity and profitability should be considered in achieving efficient working capital management (Shin & Soenen, 1998; Smith, 1980). In other word, managers are responsible to establish efficient working capital management that take into account the trade off between risk and return components in working capital.

### **1.3.3 Agency Problem, Earning Management and Working Capital Management**

On the whole, firm managers are responsible to manage working capital efficiency, hence creates firm value. However, referring to the agency theory the separation of firm ownership and management would result in managerial decision-making not in line with firm's owner interest (Fama & Jensen, 1983; Jensen & Meckling, 1976). For example, shareholders demand high dividend payment. However, high dividend contribution to shareholders would lessen the money in the firm. This contradicts with the manager's view as lesser money available in the firm translates to tougher business expansion activities in the firm.

In addition, Jensen & Meckling (1976) assumed that managers are opportunistic agents who focused in maximising their welfare at the expense of shareholders. This could happen when firm managers were motivated to use their managerial discretion in managing working capital. Consequently, this could affect a firm's goal to

maximise shareholders' wealth. For example, managers utilise discretionary accrual in working capital (Dechow & Dichev, 2002; Karacaer, Aygun, & Kapusuzoglu, 2009; Kerstein & Rai, 2007) due to the flexibility of Generally Accepted Accounting Principles (GAAP) (Peasnell, Pope, & Young, 2005).

Even though earning manipulation could be implemented using other ways such as real activities (Bushee, 1998; Poitras, Wilkins & Kwan, 2002; Roychowdhury, 2006) but the cost is higher than discretionary accrual. Thus, manipulation of accruals will be the first instrument chosen by managers to achieve their interest (Peasnell *et al.*, 2005). The rationale of firms managers manipulating earning is to ensure smooth earning and big bath since firms are facing financial distress and relative performance (Peasnell, Pope & Young, 2000a; Zuo & Hussain, 2008). Hence, managers will still be able to secure bonus payment (Healy, 1985). However, if this matter takes place continuously, it would affect firm's value and causing further distress to the firm (Dechow & Sloan, 1991; Holthausen, Larker & Sloan, 1995). Therefore, firms should have a good act or law such a code of corporate governance rule, which is believed to be able to mitigate the agency problem.

#### **1.3.4 The Importance of Corporate Governance**

The Organization for Economic Co-operation & Development (OECD) (2004) has described corporate governance as involving a set of relationships between a firm's management, its board, its shareholders and other stakeholders. The purpose is to optimize resources to promote accountability and efficiency within the corporate

structure which the objectives of the firm are set. The basic views of corporate governance are accountability, responsibility, equitable treatment, transparency, vision, and ethics.

The East Asian financial crisis 1997/1998 had demonstrated the importance of effective corporate governance in developing countries (Radelet & Sachs, 1998; Rasiah 1999). Malaysia and Thailand was adversely affected by this financial crisis. Much of the overinvestment and diversification efforts came at the expense of shareholders, with many firms in effect expropriating wealth from shareholders. The contraction of the economy, along with instability in the exchange rate and a marked decline in share prices, adversely affected the corporate sector. This resulted in considerable retrenchment and downsizing of operations, and the closure of many firms.

Poor governance standards were blamed in part for the East Asian financial crisis which governance practices did not match international standards and expectations. In Asia, corporations tend to follow the “insider” model, with the dominant control held by the original owners and large shareholders (Sycip, 1998) which further affect the minority shareholders (Limpaphayom & Connelly, 2004). The erosion of investor confidence was identified as one of the major factors that exacerbate the financial crisis in Asian countries. Noordin (1999) argued that the erosion of investor confidence was brought about by the country’s poor corporate governance standards and a lack of transparency in the financial system. Hence, in order to re-establish the confidence in the economy by investors; it will rely on improvements in corporate governance standards, especially in the areas of accountability, responsibility,

equitable treatment, and transparency. When most East Asian countries recover from the crisis, attention has understandably been drawn to addressing and researching the underlying issues and factors that led to the crisis, with a view to learning how to prevent a recurrence of the crisis.

Therefore, most Asian countries have established, enhanced and revised the framework of corporate governance and setting best practices for the capital market. Malaysia Code of Corporate Governance was launched by Securities Commission in March 2000, two years after the formation of High Level Finance Committee by government to enhance the standard of corporate governance in Malaysia. However, corporate governance reform in Thailand has been much slower compared to other Asian countries (Limpaphayom & Connelly, 2004). This is due to reforms in Thailand has had neither the speed nor scope of drastic new legislation as in some Asian countries or like the Sarbanes-Oxley Act in the United States. Shortly after the financial crisis, corporate governance practices in Thailand emerged from near obscurity to slowly moving closer to the forefront of discussions about reform. When awareness of good governance practices had leapt within 5 years period, only in 2002 the Prime Minister of Thailand created a national corporate governance committee to focus attention on governance practices.

### **1.3.5 Bursa Malaysia: An Overview**

The Stock Exchange of Malaysia was established in 1964. However, in 1965 the Stock Exchange of Malaysia was known as the Stock Exchange of Malaysia and

Singapore when Singapore decided to be separated from Malaysia. The Stock Exchange of Malaysia and Singapore then was divided into Kuala Lumpur Stock Exchange Berhad and Stock Exchange of Singapore after eight years under the same roof due to currency differences. Finally, the operation of Kuala Lumpur Stock Exchange Berhad is taken over by Kuala Lumpur Stock Exchange (KLSE) which was incorporated on December 14, 1976 as a company limited by guarantee. Again, KLSE changed its name to Bursa Malaysia Berhad on April 14, 2004 subsequently of demutualisation exercise. The reason behind it is to enhance competitive position and to respond to global trends in the exchange sector by being more customer-driven and market-oriented.

From time to time, Bursa Malaysia will put effort in improving the Malaysian market. Today, about 1100 listed firms offering a wide range of investment choices to the world were listed in Bursa Malaysia. It is also known as one of the largest bourses in Asia. Firms are either listed on Main Board for larger capitalised firms, the Second Board for medium sized companies or the MESDAQ Market for high growth and technology firms. In addition, Kuala Lumpur Composite Index (KLCI) was introduced since 4 April 1986 based on 100 shares in Main Board as performance benchmark for Malaysian Equity. At the end of February 2008, the KLCI reach 1357.4 point. However, it drops to 884.45 point in January 2009 affected by global economic crisis which begin end of year 2008 (Source: Bursa Malaysia website).

Table 1.0 (refer to page 7) shows the average of total assets, working capital and working capital over total assets ratios by firms in constituent of KLCI. All variables are in increasing trends from year 1993 to 2008 even though some are fall in certain

years. Working capitals value and ratio are rise from RM145.912million to RM1.032 billion and from 7.91 to 14.36 percent respectively during 16 years period. However, it displays a drastic drop in the value of working capital and its ratio RM50 million and RM60 million in year 1998 and 1999 respectively, as a result of Asian economic crisis. It is also clearly seen that working capital over total assets ratio were reduced to 1.06 and 1.51 percent for both years. However, both working capital value and ratio increased and enhanced beginning year 2000 concurrently due to the improvement of Malaysian economic after the crisis.

Meanwhile, Table 1.2 shows the average value of main components in current assets and its ratio over current assets from year 1993 to 2008 by firms in constituent of KLCI. Overall, cash contribute the least proportion in current asset while account receivable is the highest with the 7.26 percent and 35.23 percent respectively. Proportion of short term investment over current asset is 34.84 percent that almost similar to account receivable ratio with different less than one percent only.

**Table 1.2: Average Value and Proportion of Items in Current Assets of Firms in Composite Index of Bursa Malaysia**

Items Year	Cash (RM'000)	Cash/CA (%)	Account Receivables (RM'000)	Account Receivables/ CA (%)	Inventories (RM'000)	Inventories /CA (%)	Short Term Investem (RM'000)	Short Term Investem/C A (%)
1993	39,770.76	7.29	221,552.74	40.60	115,755.52	21.21	166,089.04	30.43
1994	49,860.50	7.88	257,579.70	40.69	133,918.91	21.16	175,818.39	27.78
1995	51,732.34	7.33	279,780.00	39.66	166,441.56	23.59	191,609.23	27.16
1996	68,931.03	8.24	342,948.06	41.01	186,912.44	22.35	239,930.06	28.69
1997	53,017.29	4.85	414,154.36	37.92	221,815.31	20.31	405,300.30	37.11
1998	45,332.04	4.47	370,713.93	36.59	236,060.21	23.30	364,396.79	35.96
1999	48,114.82	4.88	381,672.18	38.71	204,380.25	20.73	346,091.16	35.10
2000	61,818.56	5.75	449,354.95	41.78	215,966.47	20.08	335,251.12	31.17
2001	53,589.75	5.16	406,149.68	39.08	213,530.78	20.55	338,729.34	32.60
2002	67,938.46	6.19	423,788.14	38.59	239,278.51	21.79	352,940.32	32.14
2003	73,919.59	6.20	430,750.27	36.11	256,186.64	21.48	433,358.07	36.33
2004	88,606.67	6.23	447,360.99	31.44	276,786.52	19.45	579,025.92	40.69
2005	113,562.09	7.46	473,715.30	31.10	292,117.87	19.18	615,767.51	40.43
2006	109,012.47	6.80	516,923.99	32.23	317,898.05	19.82	613,348.56	38.25
2007	202,792.94	9.46	633,807.00	29.57	418,315.10	19.52	796,662.37	37.17
2008	277,276.87	11.39	765,644.09	31.46	526,012.76	21.61	785,204.88	32.26
Average	87,829.76	7.26	425,993.46	35.23	251,336.06	20.79	421,220.19	34.84

(Source: DataStream Database)

Meanwhile ratio of inventories over current assets is 20.79 percent. Whether the percentage of account receivables are involved in managerial discretion in Malaysia or not, further investigation is needed. From the table also we can see the cash, inventory and account receivable ratio is decreased but ratio of short term investment is increased in year 1997. This could be explained that production activities are reduced during economic crisis and firms attempt to gain profit from short term investment in this period.

Table 1.3 shows the average value of main components in current liabilities and its ratio over current assets from year 1993 to 2008 by firms in constituent of KLCI. Short term debt is the highest proportion of current liabilities compared to account payable. Where, both overall ratios are 39.0 percent and 25.83 percent respectively. Economic crisis in 1997 also affected firm to increase short term debt and thus decrease account payables. Short term debt increment may be due to the shortage of cash (Table 1.2). Meanwhile, reduction in account payables is concurrent with account receivables and inventories resulting from low production activities.

**Table 1.3: Average value and Proportion of Items in Current Liabilities (CL) of Firms in Composite index of Bursa Malaysia**

Items Year	Short Term Debt (RM'000)	Short Term Debt/CL (%)	Account Payables (RM'000)	Account Payable/CL (%)
1993	104,527.52	26.14	107,327.38	26.84
1994	155,095.07	30.70	130,446.17	25.82
1995	173,459.92	29.57	183,319.84	31.25
1996	244,399.43	35.25	193,798.30	27.95
1997	360,533.04	41.34	209,846.17	24.06
1998	425,073.09	43.75	211,201.49	21.74
1999	402,828.84	43.43	186,116.48	20.07
2000	419,373.17	44.60	213,248.71	22.68
2001	385,796.18	43.31	212,980.22	23.91
2002	438,333.18	46.55	187,704.39	19.93
2003	312,070.00	41.08	209,581.27	27.59
2004	350,708.91	42.36	209,140.80	25.26
2005	322,875.26	36.56	253,736.83	28.73
2006	400,056.13	38.90	275,411.95	26.78
2007	443,900.14	34.20	379,454.62	29.24
2008	492,312.91	35.14	433,551.47	30.95
<b>Average</b>	<b>339,458.92</b>	<b>39.00</b>	<b>224,804.13</b>	<b>25.83</b>

(Source: DataStream Database)

In order to ensure the expansion of Bursa Malaysia, a Cooperation Agreement with FTSE International Limited was signed on 12 January 2006. FTSE Group is a world leader in the creation and management of indexes. The collaboration is to develop the new set of equities indices which is comprehensive range real time indices for Malaysia that will better reflect the performance of various segments of the Malaysia market. The indices cover all firms listed in Bursa Malaysia divide to large, mid, small cap, fledging and Shariah-compliant to give investor more selection on the flexibility to measure and invest in these distinct segments. Later, on 21 January 2009, Bursa Malaysia announced that KLCI will adopt the FTSE global index standard and will known as the FTSE Bursa Malaysia KLCI beginning on 6 July 2009. Hence, it means that Malaysia's benchmark now is base on the largest 30 firms listed in Bursa Malaysia's Main Board that meet the eligibility requirement in the FTSE Bursa Malaysia Ground Rules. This step will increase the frequency of index calculation from 60 seconds to every 15 seconds tracks the market pulse closely and more efficiently.

### **1.3.6 Capital Market of Thailand**

The inception of Thai stock market began in 1962, when a private group established and organized stock exchange as limited partnership. The group later became a limited company and changes its name to the "Bangkok Stock Exchange Company Limited" (BSE). Despite its well-intended foundation the BSE was rather inactive. The annual turnover value consisted of only 160 million Baht in 1968 and 114 million Baht in 1969. Further, in continued to perform poorly with turnover hitting an all time



low of only 26 million Baht. The BSE finally ceased operations in the early 1970s. Generally, it was accepted that the failure of BSE due to lack of official government support and a limited investor understanding of the equity market. Despite the failure of the BSE, the concept of an orderly, officially supported securities market in Thailand had by then attracted considerable attention. In this regard, the Second National Economic and Second Development Plan (1967-1971) proposed, for the first time, a plan for establishment of such market, with appropriate facilities and procedures for securities trading. Following from that, “The Securities Exchange of Thailand” (SET) was enacted. SET officially started trading on 30 April 1975. Further, in 1 January 1991 was formally changed to “The Stock Exchange of Thailand” (SET). From only 21 listed firms with THB 5,394 million market value in the year of officially started; latest in 2010, there about 474 firms listed in SET which worth THB 8,334,684 million market value.

Previously, Table 1.1 presents average of total assets, working capital and working capital ratio of firms in SET 100 index in Stock Exchange of Thailand (SET). Similar to Malaysia, all variables in this table shows incline trend. Total asset was increased to THB 113,700 million in 2008 from only 63,422 million baht in 1993. Meanwhile, working capital rose from 1,108 million baht in 1993 to THB 3,232 million in 2008. However, we can see that working capital and working capital ratio prior to Asian crisis period. Working capital to total asset ratio shows decreasing trend beginning 1996 and the worst during crisis period 1998 with -5.60 percent. The negative percentage reveals that Thailand situation is worse than Malaysia where we can see the working capital in 1998 is worst with negative value (THB -5,667 million). This indicates that the current liabilities are much higher than the current assets which were

being revealed in the table 1.1, the values of current liabilities are almost double from the value of current assets.

Further, Table 1.4 shows the average value and proportion of item in current assets of firms in SET 100 index in Stock Exchange of Thailand. On average, the highest part is inventories (31.42 percent), followed by account receivables (28.29 percent) which are of not much different. Short term investment of firms in Thailand market was half from the inventories that is 14.73 percent. The small portion in short term investments could be a reason of higher portion of cash (11.8 percent) compared to Malaysia (7.26 percent). Further, it also reveals that the component of cash is higher after the crisis period than before crisis. Meanwhile, short term investment before the crisis is higher compared to after crisis period. It may be concluded that firms in Thailand held more cash compared to short term investment after the crisis. It was mentioned earlier that the current liabilities of firms in Thailand is higher than the current assets especially in crisis period. This is due to the proportion of short term debt which more than 65 percent during the period as exhibited in Table 1.5.

**Table 1.4: Average value and Proportion of Item in Current Assets (CA) of firms in SET100 index in Stock Exchange of Thailand**

Items Year	Cash/CA (THB '000)	Cash (%)	Short Term Investments (THB'000)	Short Term Investment /CA (%)	Inventories (THB'000)	Inventories /CA (%)	Account Receivables (THB'000)	Account Receivables (%)
1993	410,804.81	8.76	1,062,665.55	22.66	1,475,352.30	31.46	1,022,394.03	21.80
1994	720,985.26	10.06	1,704,782.34	23.79	2,119,997.28	29.58	1,459,366.85	20.36
1995	548,070.10	6.63	1,474,579.54	17.83	3,228,964.17	39.05	1,838,733.76	22.24
1996	391,247.59	4.35	1,711,600.69	19.02	3,194,058.20	35.50	2,315,010.67	25.73
1997	566,215.39	6.01	1,163,921.31	12.35	3,340,593.23	35.44	2,407,031.02	25.54
1998	973,777.60	12.24	779,306.47	9.80	3,095,706.28	38.93	2,043,108.18	25.69
1999	1,118,436.19	13.70	928,921.35	11.38	3,173,626.09	38.87	2,416,743.37	29.60
2000	1,175,282.63	12.43	1,290,082.11	13.65	2,887,360.91	30.54	2,953,577.98	31.24
2001	1,445,850.72	15.30	1,258,125.04	13.32	2,645,067.45	28.00	2,731,069.16	28.91
2002	1,267,141.47	13.96	1,029,800.18	11.34	2,695,440.11	29.69	2,721,219.29	29.97
2003	1,230,419.61	12.79	1,670,200.42	17.36	2,827,838.23	29.39	2,620,030.99	27.23
2004	1,727,611.88	13.52	2,282,742.26	17.87	3,540,032.15	27.71	3,587,594.46	28.08
2005	2,142,461.98	14.62	1,937,294.12	13.22	4,159,616.62	28.38	4,562,787.46	31.13
2006	2,512,976.85	15.86	1,532,897.82	9.68	4,298,701.02	27.13	5,443,346.80	34.36
2007	2,160,877.38	12.01	1,901,985.93	10.57	4,712,665.12	26.19	7,066,445.75	39.27
2008	2,862,270.23	16.62	2,040,156.64	11.85	4,637,082.80	26.92	5,424,047.33	31.49
Average	1,328,401.86	11.80	1,485,566.36	14.73	3,252,006.37	31.42	3,163,281.69	28.29

(Source: DataStream Database)

Consequently, this will also affect firms' performance which will further leads to financial distress if the firms cannot pay the debt. Table 1.5 illustrates the average value and proportion of item in current liabilities (CL) of firms in SET100 index in Stock Exchange of Thailand. On average the component of short term debt (75.82 percent) are very much higher compared to account payables (22.95 percent).

**Table 1.5: Average value and Proportion of Item in Current Liabilities (CL) of firms in SET100 index in Stock Exchange of Thailand**

Items Year	Short Term Debt (THB '000)	Short Term Debt/CL (%)	Account Payables (THB'000)	Account Payables/ CL (%)
1993	5,393,464.93	150.61	854,703.57	23.87
1994	6,619,562.45	132.95	1,062,736.81	21.34
1995	6,938,796.50	117.97	1,383,576.98	23.52
1996	7,448,511.80	94.65	1,639,742.53	20.84
1997	10,446,036.64	87.32	2,389,046.64	19.97
1998	9,327,777.52	68.49	1,903,208.54	13.97
1999	8,419,428.53	65.65	1,520,172.11	11.85
2000	7,109,435.27	55.71	1,843,758.59	14.45
2001	4,967,010.17	52.86	1,952,645.83	20.78
2002	4,492,599.20	50.19	1,941,025.35	21.69
2003	4,524,725.64	55.21	1,863,375.30	22.74
2004	5,524,794.75	54.37	2,371,468.55	23.34
2005	5,655,020.47	51.22	3,081,903.48	27.91
2006	7,081,153.67	56.20	3,963,217.25	31.46
2007	7,141,350.91	51.04	5,793,352.03	41.40
2008	9,606,933.95	68.66	3,923,438.08	28.04
Average	6,918,537.65	75.82	2,342,960.73	22.95

(Source: DataStream Database)

#### 1.4 Objective of the study

The general objective of the study is to examine several strategic issues in relation to working capital management of listed firms in Malaysia and Thailand market. More specifically, these are the three objectives of the study listed as below.

1. To investigate factors determine firm's working capital management.

This study will evaluate the internal and external factors that contribute to decision in investment and financing of working capital. Both of these factors are important since they provide rich information that will be used in managing working capital. The interaction between internal and external factor is assumed as crucial justification of working capital management behaviour of listed firm in Malaysia and Thailand.

2. To determine the impact of working capital management on firm's value.

Working capital management is part of firm financial decision that contributes towards the growth and long run survival of the firm. This objective is to examine the effect of firm's working capital management on firm value. Specifically the objective is to confirm the traditional view that short cash conversion cycle will result to better firm performance.

3. To examine the effect of earning management on firm's working capital management.

The purpose of accounting accrual is to provide better information on firm performance management has always been misused by managers. They employ discretionary accruals in intention of earning management. In addition, component of working capital accrual is subject to earning manipulation. Therefore, misalignment of managers' and shareholders' motivation could affect on how managers make decision in managing working capital.

## 1.5 Research Question

In an attempt to achieve the research objectives following research questions are designed.

- 1) What is the effect of each firm specific characteristic on working capital management?
- 2) What is the effect of each macroeconomic variable on working capital management?
- 3) What is the effect of each corporate governance variable on working capital management?
- 4) Does working capital management affect firm performance significantly?
- 5) Is there any significant relationship between earnings management and working capital management?

## 1.6 Significance of the Study

Beyond doubt, efficient working capital management is an integral part of corporate strategy to achieve firm objective that is maximising firm value. It is similar to maximising shareholders' wealth. Therefore, the stakeholder's parties such as investors, customers, employee and regulator (government) are interested in evaluating firm's overall performance. They aim to find out to what extent firm's goals are achieved. The evaluation of past firm performance is to assess the past results from firm's operations. Further, it is used to produce better performance from better investment decision. In this regard, the management of working capital is

important to ensure the ability of firms running smooth and perform well. However, there is no single working capital management policy that is suitable for all firms in the purpose of creating shareholder values (Moyer *et al.*, 2003). It depends on various factors. Therefore, the determinants of working capital management established in this study could be a good guideline for firms' managers. Where, they could consider internal and external factor in managing working capital efficiently.

In general, firms can choose several alternatives of working capital policy to suit their business operation. Too much investment in working capital means many dollars tied up in inventories and account receivable so firms require external financing to sustain its business operation. However, too little working capital might cause problem if firm cannot meet short term obligations. Due to these, the crucial part is for the manager to achieve the desired trade off between liquidity and profitability in order to attain optimal working capital. This is to ensure firms' growth will further maximise the value of the firm. For that reason, managers should decide the optimal level of working capital that provides the highest firm value because it will be most beneficial to the firm's shareholders. In this respect, this study can provide useful information to the managers in assisting them to achieve efficient working capital management. As a result, it will build up confidence in investors to invest in that firm.

The decision made by managers in working capital management is important since it indirectly acts as a benchmark for investors to the firm. It can attract investors to invest in firms if they are confident that firms have the ability to create value for shareholders. However, conflict of interest between firms' managers and shareholders always result in discretionary of managerial decision. Where, this is including their

discretion on working capital that would affect firm value. In this regard, agency problem is crucial elements in working capital management. Hence, the third objective of this study would assist firms' owner and potential investor on the behavioral of firm's working capital management.

Even though to date there are many studies on working capital, but they do not take into account of many aspect in working capital management. Most of the previous studies attempt to find the relationship between liquidity of working capital and profitability only (Lyroudi & Lazaridis, 2000; Minton & Wruck, 2005; Padachi, 2006). Moreover, only few studies has attempted to relate working capital management with firm value (Shin & Soenen, 1998). This study is important because it takes into account the several aspects relating to working capital. Other than examining the internal and external factor determinants, the emergence of agency problem in working capital management are also being considered. Perhaps, when concerning several aspects of working capital management and the use of a better method of analysis, this will provide a clearer view on how working capital management can affect firms' value.

In addition, previous researchers have focused on developed market (Belt & Smith, 1991; Filbeck & Krueger, 2005; Howorth & Westhead, 2003). Thus, investigating this issue could provide additional insights and perhaps different evidence on the working capital management in the emerging capital market. This will surely enrich the finance literature on this issue. Further, the results of this study would also assist policy-makers to implement new sets of policies regarding the working capital market in developing countries to ensure continuous economic growth.

## 1.7 Structure of the research

The first chapter presents a brief background and motivation of the study. It also consist of primary guidelines like problem statement, objectives, question and significant of study in this chapter. In the second chapter, it deals with literature on theory and determinants of working capital management, and issues of agency problem in working capital management. The methodological issues in this research are introduced in chapter three. This chapter determines the sample selection, specifies the data needed, generate hypotheses and further explains method of the study. Chapter four presents the result of the empirical testing related to objectives of this study. The factors which essential to working capital management, the effect of working capital management to firm performance and the relationship between earning management and firm performance. Finally, chapter five provides a summary of the thesis, including implication of the results, encountered limitation of the study and related areas for further research.



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