

**YANGON UNIVERSITY OF ECONOMICS  
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**EFFECT OF WORKING CAPITAL MANAGEMENT ON  
PERFORMANCE OF SMEs IN NORTH YANGON INDUSTRIAL  
ZONE**

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PERFORMANCE OF SMEs IN NORTH YANGON INDUSTRIAL  
ZONE**

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## **ABSTRACT**

This study identify the working capital management practices of SMEs and examine the effect of working capital management practices on performance of SMEs in North Yangon Industrial Zone. This study used descriptive statistic method and selected a sample of 10% (51 SMEs) from targeted population of 510 SMEs in North Yangon Industrial Zone. The respondents are from accounts, finance and management sections of SMEs. This study used structured questionnaires to collect data and used SPSS. The result of this thesis is that most of the firm practices their working capital actively on day to day basis and it effected on average payment period and cash conversion cycle to be extend or shorten. Then the extended average payment period and shorten cash conversion cycle effected on firm's performance to be better. It can also be interpreted that by extending their average payment period without damaging their credit rating, the firm would employ the funds to generate revenue growth which can enhance the firm's profitability. It was also noted that the shorter the firm takes to convert the resource inputs into cash flow through shorten cash conversion period, short inventory conversion period and shorter average payment period then the firm' would enhance their liquidity which could lead to revenue growth, make increase profitability. Among two variables, cash conversion cycle was the most relative variable for and it has effect on firm's performance where the shorter cash conversion cycle can make increase the firm's performance. Therefore, it is suggested that SMEs should have shorten cash conversion cycle and extended payment period.

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# CONTENTS

	Page
<b>ABSTRACT</b>	<b>i</b>
<b>AC KNOWLEDGEMENTS</b>	<b>ii</b>
<b>CONTENTS</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>v</b>
<b>LIST OF FIGURES</b>	<b>vi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>vii</b>
<b>CHAPTER I INTRODUCTION</b>	
1.1 Rationale of the Study	2
1.2 Objectives of the Study	3
1.3 Scope and Method of the study	3
1.4 Organization of the Study	4
<b>CHAPTER II LITERATURE REVIEW</b>	
2.1 Working Capital	5
2.2 Working Capital Management	5
2.3 The Components of WCM	6
2.4 The Measurements of WCM	7
2.5 The Measurements of Performance	10
2.6 Previous Conceptual Framework	11
2.7 Conceptual Framework of this Study	12
<b>CHAPTER III BACKGROUND INFORMATION OF SMEs AND INDUSTRIAL ZONES IN MYANMAR</b>	
3.1 SMEs in Myanmar	14
3.2 Industrial Zones in Myanmar	17

3.3	Profile of North Yangon Industrial Zone	18
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#### **CHAPTER IV RESEARCH METHODOLOGY**

4.1	Research Design	20
4.2	Demographic Profile of Respondents	21
4.3	The WCM Practices in North Yangon Industrial Zone	23
4.4	The Measurement of Performance	27
4.5	Relationship between WCM Practices and Performance of SMEs	29
4.6	Effect of WCM Practices on Performance of SMEs	29

#### **CHAPTER V CONCLUSION**

5.1	Findings	32
5.2	Recommendations	33
5.3	Suggestions for Further Research	34

#### **REFERENCES**

#### **APPENDIX**

## **LIST OF TABLES**

<b>Table No.</b>	<b>Particulars</b>	<b>Page</b>
3.1	Define of SMEs in Myanmar (1990 revised industry law)	15
3.2	Define of New SMEs in Myanmar, 2015	15
3.3	Sector Distribution of SMEs in Myanmar	16
4.1	SMEs in North Yangon Industrial Zone	20
4.2	Position of the Respondents	21
4.3	Type of Business	22
4.4	Age of the Respondents	22
4.5	Average Payment Period	24
4.6	Cash Conversion Cycle	26
4.7	Revenue Growth	27
4.8	Profitability Growth	28
4.9	Overall Performance	28
4.10	Correlation between WCM Practices and Performance of SMEs	29
4.11	Effect of WCM Practices on Performance of SMEs	30

## **List of Figures**

<b>Figure No.</b>	<b>Particulars</b>	<b>Page</b>
2.1	Previous Conceptual Framework	11
2.2	Conceptual Framework of this Study	12

## **LIST OF ABBREVIATIONS**

WC	Working Capital
WCM	Working Capital Management
AR	Accounts Receivables
AP	Accounts Payables
APP	Average Payment Period
CCC	Cash Conversion Cycle
B2B	Business to Business
B2C	Business to Consumer
DIO	Days Inventory Outstanding
DSO	Days Sales Outstanding
DPO	Days Payable Outstanding
ADI	Average Numbers of Days Inventory
ADR	Average Numbers of Days Receivables
ADP	Average Numbers of Days Payables
ROA	Return on Assets

# **CHAPTER I**

## **INTRODUCTION**

Working capital is vital part of any organization which can be categorized as fund needed for day to day running operation to any business. In another word, management of working capital is important like the management of long term financial management. Working capital management (WCM) is the relationship between current assets and current liabilities. Effective implementation of the working capital management can be improved firm's liquidity, solvency and profitability of the firms.

At present scenario of the global competitive business, no any business can be run without the proper supply of raw material, cash, stock of finished goods and ability to grants credit to customer. Working capital indicated the liquidity position of the organization it refers to efficient management of short term assists. There is direct relationship between a firm growth and its working capital requirement.

On the other hand working capital management is directly concerned with situation which occurs in order to manage current assets and current liability as well as relation between both. Current assets are those assets which can be converted in cash within year such as cash, marketable securities etc. whereas current liability are those liability which are proposed to be paid within a year out of current assets as well as profit such as account payable, bills payable and bank overdraft. Hence well-organized management of working capital is basic part of business as well as overall operation to create shareholders value.

Every Organization, irrespective of size and nature of business, needs necessary amount of working capital. It is the most important factor of maintaining liquidity, profitability, solvency and survival of business. The impact of working capital management on profitability is very important because firms required a balance between risk and efficiency to achieve an optimal level of working capital. The purpose of working capital management is to balance between each of the working capital components, that is, cash, receivables, inventory and payables is a fundamental part of the overall corporate strategy to create value and is an important source of competitive advantages in businesses (Deloof, 2003). The objective behind

working capital management is to ensure continuity in the operations of a firm and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses.

The financial managers of firms spend most of their time and effort on day-to-day working capital management. For instance, Egbide (2009) found that large number of business failures in the past has been attributable to the inability of the financial managers to plan and control the working capital of their respective firms. On the other hand for inadequate working capital, the firm cannot pay day-to-day expenses of its operations and it creates inefficiencies, increases costs and reduces the profits of the business. When there is a surplus working capital, it may lead to unnecessary purchasing and accumulation of inventories causing more chances of waste and losses.

Therefore, to keep an optimal level of working capital is very challenging today. For these reasons working capital management efficiency directly affects the profitability of firms and ineffective management of working capital is one of the major cause of industrial sickness. It can be vary from industry to industry due to the several factors such as the differences in credit policies, inventory management etc. Therefore, efficient management of working capital is one of the important indicators of financial soundness.

## **1.1 Rationale of the Study**

Due to the limitation of Government budget, Myanmar government provides only non- financial assistance to SMEs such as training, technologies etc. The majority sources of funds are only from own funds, borrowing from relatives and friends, reinvestment from profit, advanced receipt from sales and borrowing from informal market. Many private banks are limiting of credit for the small and medium companies because they are considered risky and lack of collaterals.

Only SMIDB bank allow extended three-year SME loans at an interest rate of 8.5% since 2012. But most of the commercial banks are not allowed to extend loans without collaterals such as land and building, gold & jewelry and deposit. They allow only one year loans with the interest of 13% pa. Some of the issues in SMEs financing are the lack of the capacities on the bank's side such as no loan on cash flow basis (with or without collateral), business start-up loans, and working capital loans. The

customers' side issues are lack of proper records and accounting system, reluctant to reveal the true picture of the business and lack of knowledge on banking facilities.

Those difficulties are forcing SMEs to manage for having enough cash. And it is time to look at how important of the working capital management is playing a vital role. The needs to main effective working capital management within small and medium enterprises remain crucial to solvency and liquidity of SMEs. These companies often do not understand about their working capital position. Many of them do not have standard credit policy or have only little regard for the company working capital management. Small and medium companies have generally a simple management. Most of SMEs in Myanmar fail in a short time after they are started. Many of them fail due to poor financial management especially the working capital.

This thesis evaluates and analyzes the system of working capital management practices in SMEs and the effect of working capital management on performance of SMEs in North Yangon Industrial Zone.

## **1.2 Objectives of the Study**

The main objectives of the study are:

- (1) To identify the working capital management practices of SMEs in North Yangon Industrial Zone
- (2) To examine the effect of working capital management practices on performance of SMEs in North Yangon Industrial Zone.

## **1.3 Scope and Method of the Study**

This study is based on primary and secondary data. Primary data is collected through interviews with the owners, the managers, the accountant and the chief financial officer of SMEs in North Yangon Industrial Zone. Secondary data collected from audited annual reports of the SME companies in North Yangon Industrial Zone. A stratified random sampling method was used and the stratification based on the location for selecting SMEs in Industrial Zones from North Yangon, they are Hlaing Tharyar, Shwe pyi thar and mingalardon. Proportionate stratified random sampling was employed to select 10% SMEs each from three Industrial Zones in the North Yangon, It includes 31 SMEs from Hlaing Tharyar Industrial Zone, 17 SMEs from Shwe Pyi Tha and 3 of SMEs from Mingalardon Industrial Zone.

#### **1.4 Organization of the Study**

This thesis is organized by five chapters. Chapter one deals with an introductory one that presents rationale of the study, objectives of the study, scope and method of the study and organization of the study. The second chapter contains literature review of the working capital components, managing of working capital, measurement of working capital and performance and their relationship in SMEs. Chapter three describes the background information of SMEs and Industrial Zones in Myanmar. In chapter four, analysis of working capital management practices and the effect of WCM and performance of SMEs are presented. Finally chapter five contains the findings and discussions and suggestions for further study.

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter include the literature review of working capital, working capital management and its components, the measurement indicators of working capital management and performance. The last part is the elaboration of the conceptual framework from previous study which leads to compile own conceptual framework.

#### **2.1 Working Capital**

Working capital is a measure of both a company's operational efficiency and its short-term financial health. The working capital ratio (current assets/current liabilities), or current ratio, indicates whether a company has enough short-term assets to cover its short-term debt. If a company's current assets do not exceed its current liabilities, then it may have trouble paying back creditors or go bankrupt. A declining working capital ratio is a red flag for financial analysts. They might also look at the quick ratio, which is more of an acid test of short-term liquidity because it only includes cash and cash-equivalents, marketable investments and accounts receivable. Most projects require an investment in working capital, which reduces cash flow, but cash will also fall if money is collected too slowly, or if sales volumes are decreasing which will lead to a fall in accounts receivable.

Working capital is the net investment by a company in operating current assets (such as trade receivable, inventories, bank and cash) and operating current liabilities (such as trade payables and overdraft) (Ward, 2010)

Definition by Deloitte: Working capital is the excess of current assets over liabilities, comprising of accounts receivable, inventory minus accounts payable, represents the liquidity a business requires for day-to-day operations.

#### **2.2 Working Capital Management**

Working capital management is a much broader concept than working capital because it involves the management of current assets, current liabilities, and the interrelationship between them. In practice, we tend to make no distinction between the investment decisions regarding current assets and the financing decisions

regarding current liabilities. In fact, quite often these two are so closely related when spontaneous financing of assets for e.g. a firm buying some inventory on credit. In such a situation, both assets and liabilities are increased simultaneously. The primary purpose of working capital management is to make sure the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations.

Efficient working capital management helps maintain the smooth operation of the operating cycle (the minimum amount of time required to convert net current assets and liabilities into cash) and can also help to improve the company's earnings and profitability. Management of working capital includes inventory management and management of accounts receivables and accounts payables. The main objectives of working capital management include maintaining the working capital operating cycle and ensuring it's ordered, minimizing the cost of capital spent on the working capital, and maximizing the return on current asset investments (Will Kenton, 2011).

### **2.3 The Components of Working Capital Management**

There are three main components in working capital management. They are inventory, accounts receivables (AR) and accounts payables (AP). Among all them, cash management is involved and the primary objective to manage the working capital. The basic sound cash management is to ensure that cash inflows and outflows are effectively controlled. (Chinchu Malu 2013). Therefore, effective management of AP, decelerating the cash out flows which leads to have a longer average payment period and optimal level of AR, AP and inventory which also leads to be shorten cash conversion cycle are the key determinant of efficient working capital management practices. In this study, it was elaborated that AR and accelerating cash inflows, AP and decelerating cash outflows are interrelationship between them and inventory management has mixed relationship with accelerating and decelerating of the cash flows.

Inventories could be made out of both raw materials, work in process as well as finished goods, depending on the nature of business as well as the business strategy. Regardless of how inventory is kept, the need arises from the risk of unexpected increases in demand as well as the increased cost of smaller production runs (economies of scale). By having inventory, companies can thus reduce the risk of

not being able to deliver goods at a set time as well as cutting costs by allowing larger production runs. (Brealey et al., 2013) On the other hand there's also a cost of keeping too much inventory as capital is tied up in assets that does not earn interest. The inventory could also need insurance as well as storage space, both adding costs for the company. Managing inventory levels thus means handling the trade-off between the above mentioned costs. (Brealey et al., 2013) One method to use is the just-in-time principle, which helps companies calculate the right level of inventory in order to answer to the demand so that as little capital as possible is inactive (Hutchins, 1999).

As goods are being delivered to customers there is a need of handling invoices in order to ensure payment. AR is made out by trade credit (for B2B) and consumer credit (for B2C), which are created due to time differences in sales and payment. AR will therefore be dependent on the terms of sale and credit policy that the company applies to their customers. Factors that might impact credit management are for example the credit rating of the customer as well as the importance of a specific customer. (Brealey et al., 2013) By keeping track of the level of AR, a company can measure the efficiency by which it turns sales into cash. If a company's AR is increasing faster than their sales indicates that the company is selling their products without actually getting paid for them. It also means that more excess capital is being tied up, at the price of the opportunity cost. (REL, 2013). According to Johnson (2013) this is a misperception: "It's not the client paying you, it's you initiating the collection". There are several ways to ensure that the customer pays on time. For example, one important aspect is to ensure efficient handling of invoicing. (Johnson, 2013)

While inventory and AR are current assets, AP is a current liability and a common form of short-term financing. By delaying payments, companies' can use the money for a longer period of time thus, lowering the need for other financing. AP is a trade credit and thus an effect of the credit-terms companies agree upon with their suppliers. (Cuñat, 2007) Furthermore, it is a significant source of financing for investments in AR and inventory and thus efficient AP managing is also crucial for the short term financing of companies. (Smith, 2013)

## **2.4 The Measurements of Working Capital Management**

There are two elements have a close connection of working capital. They are cash conversion cycle (CCC) and average payment period (APP) which can measure the working capital management practices.

### **a) Cash Conversion Cycle**

There is a close connection between the components of working capital and the cash conversion cycle (CCC) since the cycle measures the amount of days it takes to receive payment from investments in resources. The CCC can thus be used as a tool to measure the net changes in levels of inventory, AP and AR in order to keep desirable levels. (Shin & Soenen, 1998; Nobanee, 2009) The CCC model is not connected to investments in general, but directly to a company's refining process of supplies. (Gill et al., 2010)

The traditional view of the CCC is that by following the model it is possible to increase a company's profitability, since the working capital is being handled in a more effective way (Nobanee, 2009). However, there are also direct downsides to using the CCC. If the cycle is driven too tight, there is a trade-off as it could create problems for some departments in the company, such as sales and customer relations. It may not be possible to deliver the same customer satisfaction when placing a higher focus on reducing the CCC. (Shin & Soenen, 1998) Thus, connecting a shorter CCC to higher profitability is not as simple as it might seem and conclusions should not be made too quickly (Grosse-Ruyken, Wagner & Jönke, 2011).

The CCC calculates the amount of days it takes to receive payments from investments. It can further be broken down into three individual components, which make up the cycle. These are: days inventory outstanding (DIO), days sales outstanding (DSO) and days payable outstanding (DPO). By analyzing the cycle, companies can identify inefficiencies in the use of capital and thus take appropriate action. (Nobanee et al., 2011)

In a study by Shin & Soenen (1998) the authors analyzed the two American giants Kmart and Wal-Mart and looked into the companies' financials to understand their capital structures. What they found was that the two companies had almost the same structure concerning sales, assets, equity and debt. However, the difference in

profitability was clear. It turned out that the CCC for the two companies differed by 34 % (61 days for Kmart and 40 for Wal-Mart). The difference made Wal-Mart more profitable than Kmart, by 198.3 million dollar per year (Shin & Soenen, 1998; Nobanee et al., 2011). The difference was mainly due to higher costs, related to a larger amount of capital being tied up in Kmart's operations.

Farris II & Hutchinson (2002) bring up the importance of benchmarking and measuring the ability of generating cash against companies within the same industry. Managers can compare data and by that develop strategies fit for their own operations by observing competitors. Liquidity is linked to company value and by a shorter CCC it is possible to drive it up since less capital is being tied up in working capital (Farris II & Hutchinson, 2002).

#### **b) Average Payment Period**

Ponsian, Chrispina, Tago and Mkiibi (2014) embarked on the effect of working capital management on profitability. The study sought to examine statistical significance between company's working capital management and profitability among manufacturing firms listed in Dar es Salaam Stock Exchange. The study used data for the ten year period from 2002 to 2012. The study found that there was a highly positive and significant relationship between APP and profitability. The finding implied that the longer the firm took to pay its creditors, then the more profitable the firm was. Withholding creditors' payments was meant to take advantage of the available cash for the working capital needs. The finding was in line with the working capital management rule that companies should delay disbursements to creditors as much as possible but not strain the business relationship with the creditors. Average payment period, average collection period and inventory conversion period were used as measures of working capital. The study found average payment period highly and positively influenced profitability in these firms. It was argued that the longer the firms took to pay their creditors then the more profitable the firms were. Mwangi (2013) on the other hand examined the association between working capital management and financial performance of private hospitals in Vietnam. The study used average collection period, average payment period and cash conversion cycle as proxies of working capital management. It was found that the average payment period had a negative relationship with profitability. The low levels of profitability noted in

hospitals were ascribed to the long average payment period creditors took to honor their obligations. Kimeli (2012) examined the effects of working capital management on profitability of manufacturing companies in Kenya. The study focused on 6 manufacturing companies listed in the bourse. The study used data from the financial reports for the period 2006 to 2010. It was noted that the gross operating profit of the firms was positively correlated with the average collection period and most important the average payment period. The increase in average payment period was noted to lead to an increase in the gross operating profit.

The study however recommended that firm managers should focus on reducing the cash conversion cycle, reduce the average collection period and delay the payment of creditors so as to channel the money to other profitable investments such as the short term securities. Mathuva's (2010) and Mwangi (2013) studied average payment period and profitability of Kenya firms. However, these studies failed to examine average payment period's influence on profitability on manufacturing firms. Indeed these studies focused on hospitals and listed firms, which is far off the present study.

## **2.5 The Measurements of Performance**

Income or financial profitability measures have been frequently used as indicators of company performance in many studies of strategic evaluation. And the detail analysis as followed:

### **a) Revenue Growth**

Most firms value sales growth. The popular business press contains many examples of companies that focus on sales growth as a key to profitability. For example, Emerson Electric is well known for its string of 40 consecutive years of increased earnings. Sales growth is a metric that measures the ability to increase revenue over a fixed period of time. Without revenue growth, businesses are at risk of being overtaken by competitors and stagnating. Revenue is the gross income generated by a company's operations and can thus be used as an indicator if a company is expanding, stagnating or even decreasing in volume. As mentioned earlier, it has been popular over the years to compare working capital with profitability. However, revenue is not influenced by accounting decisions to the same

extent as profits are, which for various reasons could be window dressed, it could be argued that revenue is more suitable as a proxy for measuring company growth and expansion. (Keiningham, Cooil, Andreassen & Aksoy, 2007; Nooteboom & Thurik, 1985). Therefore, Johansson (2013) argued that revenue is growth through optimal management of working capital. In his study on the working capital management in relation to revenue growth among Sweden listed firms noted that shortening collection period and stretching payment period boost growth of revenue.

#### **b) Profitability Growth**

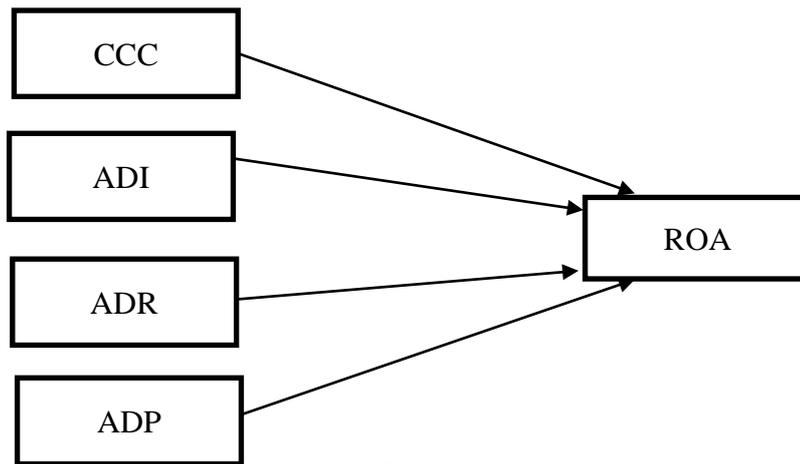
Johansson (2013) also argued that profitability is growth through optimal management of working capital. In his study on the working capital management in relation to profitability among Sweden listed firms noted that shortening collection period and stretching payment period boost growth of profitability. Inventory conversion period was also noted to increase profitability. This is because maintaining higher levels of inventory on hand was argued to reduce production costs due to potential interruptions and price valuations associated with stock outs.

The impact of working capital management on corporate profitability is highly important because firms required a balance between risk and efficiency to achieve an optimal level of working capital. Optimization of working capital balance means minimizing the working capital requirement and realizing maximum possible revenues (Ganesan, 2007). There is a strong relationship between the firm's profitability and its working capital efficiency (Shin, 1998)

### **2.6 Previous Conceptual Framework**

Based on the above review on the relationship between WCM and profitability of firms in general, the following previous conceptual framework (see Figure 2.6A) and my own compilation framework are developed to discuss the relationship between WCM and performance of the firms.

**Figure 2.1 Previous Conceptual Framework**



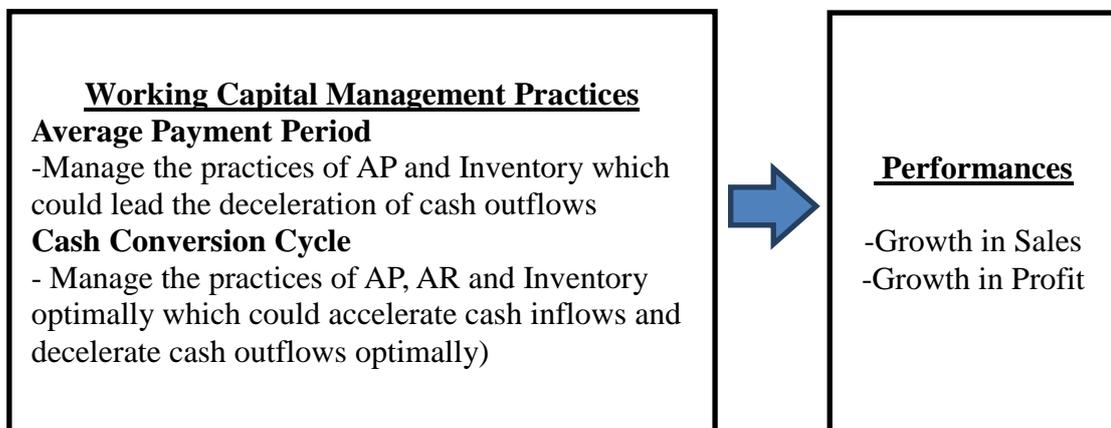
Notes : CCC-Cash Conversion Cycle, ADI-Average Numbers of days Inventory, ADR and ADP -Average Numbers of days Receivables /Payables  
 Sources: International journal of Economics and Finance : Vol8, No6; 2016

The above conceptual framework indicated that cash conversion cycle, average number of days inventory, average number of days accounts receivables and payables as an independent variables and ROA as a dependent variables. The framework further indicated that there was a hypothesis that CCC, ADI, ADR and ADP influencing on ROA of the firm.

**2.7 Conceptual Framework of this Study**

Refer to the above previous conceptual framework, it drives the following conceptual framework of this study to be compiled.

**Figure 2.2 Conceptual Framework of this Study**



Sources: Own Compilation

The above figure indicated that the independent variables were two and included average payment period and cash conversion cycle. Firm's performance

indicator illustrated as the dependent variables. The main concept of the above conceptual framework explained that working capital management practices can be measured with two elements which are average payment period and cash conversion cycle. Also the firm's performance can be explained by those two elements. The framework further indicated that APP and CCC were influencing the firm's performance significantly. Therefore, there is a significant relationship between CCC, APP and firm's profitability as per the following previous studies.

Previous studies examining how CCC and its components are related to profitability reveal inconsistent findings. Some previous studies found negative relationship between WCM and CCC (Akoto et al., 2013; Lazaridis & Tryfonidis, 2006; Falope & Ajilore, 2009), which supports the aggressive approach to WCM. On the other hand, a positive and significant relationship was reported by Sharma and Kumar (2011), Gill et al. (2010), Adjei and Yeboah (2011), which supports the conservative strategy of WCM. Since the type of WCM strategy of SMEs firms used in this study is not known, it can only be expected that there is a significant relationship between WCM and profitability for the firms, but the direction of the relationship cannot be predetermined as used in previous studies (Tauringana & Afrifa, 2013, p. 457). This leads to the hypothesis that there is a significant relationship between cash conversion cycle, average payment period and profitability.

## **CHAPTER III**

### **BACKGROUND INFORMATION OF SMEs AND INDUSTRIAL ZONES IN MYANMAR**

In this chapter, the background information of SMEs in Myanmar is presented. And it further indicated that the industry zones in Myanmar and profile of North Yangon Industrial Zone.

#### **3.1 SMEs in Myanmar**

SMEs play a crucial role in the economic well-being of developed and developing countries alike. 126,237 or approximately 99.4% of all businesses in Myanmar are classified as SMEs. On average, SMEs in Myanmar account for 50-95% of employment and contribute 30-53% of GDP in ASEAN member states. The Government recognizes that SME entrepreneurship will define the country's future national economic development. However, international isolation and a lack of private sector investment, among other factors, have left Myanmar playing catch-up with its regional neighbors. Time is of the essence. With the ASEAN Free Trade Area coming into full effect by 2015 SMEs in Myanmar will no longer be able to rely on government tariffs to protect them from overseas competition. By the same token, the opening up of regional markets represents an enormous opportunity for SMEs in Myanmar but only if they are ready and able to meet the new challenges ahead.

The official definition of SMEs in Myanmar since 1990 given in the following table tends to focus on the industrial sector only. Four measures or criteria, for classification, namely number of employees, capital investment, production volume and electrical usages are applied to distinguish different sizes of Myanmar private firms. No distinction in size is made for enterprises under the trade and service sectors or cottage and handicraft industries. According to the definition of SMEs defined by the Private Industrial Enterprise Law 1990, the definition of SMEs in Myanmar can be described as follow:

**Table 3.1 Define of SMEs in Myanmar (1990 revised industry Law)**

<b>Definition of SMEs in Myanmar, 1990 revised industry law</b>			
<b>Category</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
Power used (horsepower)	3-25	25-50	Over 50
Number of workers	10-50	50-100	Over 100
Capital investment (million kyat)	Up to 1	1-5	Over 5
Annual production (million kyat)	Up to 2.5	2.5-5	Over 5

Sources: Ministry of Industry

**Table 3.2 Define of New SMEs in Myanmar 2015**

<b>New SMEs Definitions, 2015</b>				
<b>Category</b>	<b>Small</b>		<b>Medium</b>	
	<b>Employees</b>	<b>Capital (millions, kyat)</b>	<b>Employees</b>	<b>Capital (millions, kyat)</b>
Manufacturing, Mining, Construction	Up to 50	Up to 500	51-300	501-1000
Labor intensive manufacturing	Up to 300	Up to 500	301-600	501-1000
Wholesales business	Up to 30	Up to 100	31-60	101-300
Retail business	Up to 30	Up to 50	31-60	51-100
Service Business	Up to 30	Up to 100	31-100	101-200
Others	Up to 30	Up to 50	31-60	51-100

Sources: SMEs Development Law, 2015

Historically, the criteria used to define SMEs in Myanmar have varied according to the country's economic condition. According to the Private Industrial Enterprise Law of 1990, the classification of business enterprises in the private sector into small-, medium- and large-scale enterprises is based on four criteria; namely, power usage, number of workers employed, capital invested and annual production.

Having different definitions for SMEs generates problems. For example, it is difficult to classify a business as to whether it is large or small if it employs 15 workers and uses less than 2.237 kw of electricity but invests more than five million kyat. It is also extremely difficult to obtain data based on the actual total number of employees in SMEs as well as the total value of capital investment. Consequently, the

distribution of SMEs in different types of businesses or sectors cannot be determined according to the number of employees or the value of capital investment.

**a) Sector Distribution of SMEs in Myanmar**

The following table shows how the total number of SMEs are broken down into small and medium enterprises; as well as across the sectors. Food and Beverages is the largest sector of the enterprises accounting for 65.36 % in 2008. The small sector is the agricultural equipment manufacturing accounting for 0.16%.

**Table 3.3 Sector Distribution of SMEs in Myanmar**

<b>No</b>	<b>Sub-sector</b>	<b>Small</b>	<b>Medium</b>	<b>Total</b>	<b>Share (%)</b>
1	Food & Beverages	22,451	3,818	26,269	65.36
2	Clothing & apparel	1,436	369	1,805	4.49
3	Construction materials	2,302	512	2,814	7.00
4	Personal goods	431	351	782	1.95
5	Household goods	125	68	193	0.48
6	Printing	198	73	271	0.67
7	Industrial raw material	380	225	605	1.5
8	Mineral & petroleum	1,267	330	1,597	3.97
9	Agricultural equipment	38	27	65	0.16
10	Machinery &	179	74	253	0.63
11	Transport vehicles	65	26	91	0.23
12	Electrical goods	12	16	28	0.07
13	Miscellaneous	4,588	833	5,421	13.49
	<b>Total</b>	<b>33,472</b>	<b>6,722</b>	<b>40,194</b>	<b>100.0</b>

Source: Ministry of Industry (2), 2010.

### **3.2 Industrial Zones in Myanmar**

As per the goal of industrialization process, the State Law and Order Restoration Council Government began establishing industrial zones in the mid-1990s. The objective for creating the zones is to generate employment, expedite the process of industrialization, and increase the efficiency and competitiveness with which the industrial sector operates. To encourage private sector participation in manufacturing and foster industrial clusters, industrial zones were first introduced by the Myanmar authorities in the 1990s, creating a base of manufacturing operations in and around the country's major cities. The number of industrial zones has grown only gradually over the years. At present more than 20 industrial zones are established in Yangon, as the former capital has more developed transport and infrastructure facilities than other areas, including an international airport that has been recently upgraded and a cluster of seaports that handle the bulk of the country's merchandise trade. As a result, most of Myanmar's labor-intensive, export-oriented industries are concentrated in this area to this day.

There are 18 industrial zones located across the country. The following table shows the distribution of SMEs and large enterprises in the industrial zones. The highest number of SMEs are located in Yangon Division with the total of 3,895 enterprises the majority of which are established in East Yangon totaling 1,125 units. Among the industrial zones, Mandalay zone companies the highest number of SMEs while Myeik the lowest. This is mentioned in Appendix (B)

### **3.3 Profile of North Yangon Industrial Zone**

This study focused only SMEs in North Yangon Industrial Zone, which consist of Hlaing Tharyar Industrial Zone, Mingalardon Industrial Zone and Shwe Pri Tha Industrial Zone.

#### **a) Mingalardon Industrial Zone**

The Mingaladon Industrial Park (MIP), located about 20 km north of Yangon city center and 24 km from Yangon Port, was developed in the late 1990s under a joint venture between the Myanmar Government and a privately owned Japanese company in a bid to attract foreign investment. And its land area is about 902.53 acres. The MIP was the first industrial park in the country considered to have met international standards in terms of its utility and transport infrastructure. Access to the MIP will be further enhanced by the Yangon Urban Expressway Development project being developed under a public private partnership (PPP). This expressway project is worth US\$620 million and its first phase covers a four-lane road of 20.5 km connecting Yaykyaw Junction on the Bogyoke Aung San Road to the MIP. The Myanmar Government will contribute 20% of total project costs via official development assistance, with the construction undertaken by a Korea-Myanmar joint venture between Korean construction companies Lotte E&C and Halla Corporation and Myanmar's Capital Diamond Star Group.

#### **b) Hlaing Tharyar Industrial Zone**

Established in 1995, the Hlaing Thar Yar Industrial City is the largest industrial zone in Yangon with a land area of about 567 hectares. As of January 2016, there were over 650 factories operating in this industrial zone, with the top five major industries listed as grain (221 factories), toiletries (127), food-stuffs (83), garments (74) and construction materials (28). There were about 50 wholly foreign-owned operations in the zone, with China and Korea, each with over 20 companies, topping the list.

Similar to the MIP, virtually all land plots in the Hlaing Thar Yar Industrial City are developed, although some of the factories are either vacant or under refurbishment in anticipation of new tenants. Hong Kong manufacturers interested in testing the water in Yangon may consider renting factories in Hlaing Thar Yar at a

basic rate of roughly US\$3-3.5/m<sup>2</sup>, according to industrial sources. However, the availability of other industrial zones within Yangon with vacant factories to let gives Hong Kong companies plenty of choice.

**c) Shwe Pyi Thar Industrial Zone**

Shwe Pyi Tha Industrial Zone is established in 1990 and it located in North Yangon with a land area of about 2903.02 acres. As of January 2016, there were over 311 factories operating in this industrial zone, with the top five major industries listed as toiletries (92), food-stuffs (33), garments (14) and construction materials (28). There were about 10 wholly foreign-owned operations in the zone, with China and Korea, each with over 20 companies, topping the list. Hong Kong manufacturers also interested in testing the water in Yangon may consider renting factories in Shwe pyi Thar at a basic rate of roughly 6 millions (100' x 200'), according to industrial sources. However, the availability of other industrial zones within Yangon with vacant factories to let gives Hong Kong companies plenty of choice.

## CHAPTER IV

### RESEARCH METHODOLOGY

This chapter includes research design, demographic profile of business respondents, the result and discussion of working capital management practices and detail analysis of the data collection of working capital management and performance of SMEs

#### 4.1 Research Design

In this study, descriptive research was conducted and data were collected by using the structured questionnaires. The questionnaires survey consists of three parts, first part is concerned the demographic profile of respondents such as position of respondents, business type and company size, the second part consists of the questions to measure working capital management practices, the questions in the third parts includes the performance of SMEs in North Yangon Industrial Zone.

In analyzing the working capital management practices, all 45 statements are measured by using five-point linkert scale ranging from strongly disagree (1) to strongly agree (5). And the data collected as per the following:

**Table (4.1) SMEs in North Yangon Industrial Zone**

<b>Zone</b>	<b>Registered Business</b>	<b>Registered as SMEs</b>	<b>SMEs according SMEs definition</b>	<b>Sample Size</b>
Hlaing Tharyar	644	593	310	31
Shwe Pyi Tha	311	234	170	17
Mingalardon	64	55	30	3
Total	1019	882	510	51

Sources: Survey data, 2018

Notes : Total 1019 firms is registered in the Zone and 882 firms is recorded as SMEs and among them only 510 firms is eligible as SMEs according 2015 SMEs definition ,selected 10% (51 firms) as sample size for this study.

This study focused mainly on the two purposes which are to identify the working capital management practices and to examine the relationship between the

working capital management practices and performance of SMEs in North Yangon Industrial Zone.

#### 4.2 Demographic Profiles of Respondents

Demographic characteristics of the respondents are analyzed by the position of the respondents, age, type of business and company size. Demographic profile of the respondents is relating to the personal characteristic of the population of the selected firm and consists of the owners, the managers, the accountant and CFO of the surveyed firm. All the data obtained from the questionnaires collected are interpreted and summarized in frequency distribution, percentage distribution and these data can be found in the following.

##### a) Position of the Respondents

The position of the respondents are classified as the accountant, chief accountant, finance manager, internal manager and managing director.

**Table (4.2) Position of the Respondents**

<b>Position</b>	<b>No of Respondents</b>	<b>Percentage (%)</b>
Accountant	21	41
Chief Accountant	2	4
Finance Manager	5	10
Internal Auditor	2	4
Managing Director	21	41
<b>Total</b>	<b>51</b>	<b>100</b>

Sources: Survey data, September 2018

According the Table (4.2), it could be observed that among 51 respondents, the majority of the respondents are accountants and managing directors and 41% each as a percentage. Therefore, the higher number of accountants and managing directors are handling the operation of working capital management practices in SMEs.

##### b) Type of Business

The type of business is classified as manufacturing, construction, distribution etc.

**Table (4.3) Type of Business**

<b>Business Type</b>	<b>No of Respondents</b>	<b>Percentage (%)</b>
Construction	15	30
Distribution	13	25
Manufacturing	23	45
<b>Total</b>	<b>51</b>	<b>100</b>

Sources: Survey data, September 2018

The results of the Table 4.3 showed that most of the manufacturing industry showed the highest level 45% of regular activity towards reaching such desired level while the two other industries showed slightly less activity. Construction is 30% and distribution is 25% respectively.

**c) Age of the Respondents**

The age of respondents are 20-30, 30-40, 40-50 and 50 over as per following Table 4.4.

**Table (4.4) Age of the Respondents**

<b>Age (Years)</b>	<b>No of Respondents</b>	<b>Percentage (%)</b>
20-30	28	55
30-40	15	29
40-50	7	14
50 over	1	2
<b>Total</b>	<b>51</b>	<b>100</b>

Sources: Survey data, September 2018

According to the Table 4.4, the majority of age level 55% of respondents are 20-30 years, 29% is 30-40 years, 14% is 40-50 years and 2% is over 50 years. Therefore, the highest proportion of age level is 20-30 years.

### **4.3 The Working Capital Management Practices in North Yangon Industrial Zone**

This analysis includes two parts of questionnaires and the first part consists average payment period which could decelerate the cash outflows. The second part includes cash conversion cycle which could accelerate the cash inflows which to measure the working capital management practices in SMEs. The detail results from the respondents are as followed.

#### **a) Average Payment Period**

In this part, there have 18 questionnaires to measure whether SMEs are practicing their out flow funds to be decelerated or not.

According to the Table 4.5, it can be observed that the overall mean is 3.84 and concluded that most of the firms practices the decelerating of their cash flows and prefer to have a longer credit term from suppliers which are part of the working capital management practices. Among them, the most practices of SMEs in North Yangon Industrial Zone are negotiates favorable credit term with the suppliers, choosing the suppliers who can give the longer credit term, making sure the optimal stock level to hold.

**Table (4.5) Average Payment Period**

<b>No</b>	<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>
1	Our firm negotiates favorable credit term with the suppliers	4.65	.483
2	Our firm chooses the suppliers who can give the longer credit term	4.65	.483
3	Our firm stretches accounts payables without damaging its credit rating	3.51	.505
4	Our firm takes more than a month to pay its creditors	2.82	.953
5	Our firm is using the Centralized payment system	3.88	.887
6	Our firm knows the optimal stock order quantity to be minimized the ordering and carrying cost	3.61	.777
7	Our firm knows the optimal stock level to hold	4.00	.800
8	Our firm knows the re-order point	3.90	.640
9	Our firm have a proper plan to manage slow moving, obsolete, non-profitable	3.29	.832
10	Negotiating credit term is leading to have a longer APP of our firm	3.18	.740
11	Prefer the suppliers who can give the longer credit term makes our firm's APP to be longer	4.75	.440
12	Stretching accounts payables is also leading our firm to have a longer APP	4.02	.648
13	Centralizing payment system boost our firm's average payment period to be longer	3.71	.901
14	Holding optimal stock level and knowing the stock re-order point make no urgent stock replenishment	5.00	.000
15	No urgent stock replenishment leads to have regular suppliers, they could give your firm's longer credit term(longer APP)	3.43	.500
16	Average payment period is one of an indicator of working capital	4.25	.595
17	Average payment period influences our firm's revenue	3.37	.599
18	Average payment period influences our firm's profitability	3.04	.528
	<b>Overall Mean</b>	3.84	.281

Sources: Survey data, September 2018

**a) Cash Conversion Cycle (CCC)**

In this second part of questionnaires, the questions are set to measure whether they are doing the practices to be shorten their cash conversion cycle which could accelerate the cash inflows, also one of the measurement of WCM practices and the detail findings are as followed.

According the Table 4.6, the overall mean is 3.77 in which most of the firms followed their practices to have a shorter cash conversion cycle which could accelerate the cash inflows. Most of the firms agree that cash conversion cycle is one of an indicator of working capital management according its highest mean value 4.31 among others statement. Also noted that cash conversion cycle is managed by holding optimal level of AP and AR However, most of the firms didn't have a clear credit policy because of its mean value is almost neutral.

**Table (4.6) Cash Conversion Cycle**

<b>No</b>	<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>
1	Our firm is using clear credit policy (eg. Credit limit, review, follow up collection)	3.16	.809
2	Our firm is making every attempts to evaluate the credit worthiness of clients	4.04	.799
3	Our firm is practicing proper billing and invoicing procedures	4.14	.491
4	Decentralization collection system can accelerate the cash inflows	3.88	.621
5	Shorter average age of accounts receivables is better	4.12	.325
6	The shorter our firm receive from its debtors, the more the fund it has for operation (DSO)	4.04	.692
7	Our firm practices to convert raw materials to finished goods faster	3.73	.940
8	Our firm practice to convert finished goods to sales faster (DIO)	4.25	.956
9	Therefore, More inventory turnover if our firm followed Q7 and Q8	3.76	.551
10	Using clear credit policy (eg. Credit Limit, review, follow up collection) is leading to have a shorter CCC	4.35	.594
11	Evaluating the credit worthiness of clients make our firm to have customers with good credit history and it could make our firm's CCC to be shorter	3.49	.644
12	Decentralization collection system help our firm's collection period to be shorten thus CCC is also shorten.	3.69	.969
13	Shorter time to convert raw materials to finished goods makes shorter CCC	3.08	.659
14	Shorter time to convert finished goods to sales makes shorter CCC	3.51	.543
15	Cash Conversion Cycle is managed by ensuring both AP and AR at optimal level	4.22	.461
16	Cash Conversion Cycle is one of an indicator of working capital	4.31	.547
17	Cash Conversion Cycle influences our firm's revenue	3.04	.894
18	Cash Conversion Cycle influences our firm's profitability	3.06	.881
	<b>Overall Mean</b>	<b>3.77</b>	<b>.486</b>

Sources: Survey data, September 2018

#### 4.4 The Measurements of Performance

In this study, the firm's performance can be explained by revenue growth and profitability growth. The following findings were explained how APP and CCC were influencing the firm's performance.

##### a) Revenue Growth

Revenue growth is one of the measurement of the firm's performance and the detail findings are as followed.

**Table (4.7) Revenue Growth**

No	Statements	Mean	Standard Deviation
1	The longer our firm takes to pay its creditors(the longer APP), the more the fund it has for using operations	3.37	.824
2	Increased fund due to longer APP leads revenue growth by comparing the firms' last three years report	3.24	.716
3	The shorter our firm receive from its debtors(shorter CCC), the more the fund it has for operation	3.67	.683
4	Shorter cash conversion cycle enhance firm's liquidity	3.65	.627
5	More fund for operation due to shorter CCC leads revenue growth by comparing last three years report	3.35	.764
	<b>Overall Mean</b>	3.45	.583

Sources: Survey data, September 2018

According the Table 4.7, the average mean is 3.45 in which most of the firms agree that if their firms' extend their average payment period and shorten their cash conversion cycle which lead to increase their operation funds and it can influence to increase the firms' revenue growth. The highest mean 3.67 showed that the shorter CCC make more fund for their operation.

**b) Profitability Growth**

In this study, profitability growth is also the measurement of the firm's performance and the detail findings are as followed.

**Table (4.8) Profitability Growth**

No	Statements	Mean	Standard Deviation
1	Revenue growth due to longer APP enhance the firm's profitability by comparing the firms' last three years report	3.18	.764
2	Therefore, longer average payment period make firm's profit	3.20	.749
3	Revenue growth due to shorter CCC enhance the firm's profitability by comparing the last three years report	3.20	.749
4	Therefore, shorter cash conversion cycle is driving to increase firm's profitability	3.24	.740
	<b>Overall Mean</b>	3.20	.743

Sources: Survey data, September 2018

As per the Table 4.8, the average mean is 3.20 in which most of the firms answered that if their firms' extended average payment period and shorter cash conversion cycle which can enhance the firms' profitability growth. The highest mean 3.24 showed that the shorter CCC makes more profitability of the firm.

**b) Overall Performance**

In this study, overall performance will be measured by combining revenue and profitability growth and the detail findings are as followed.

**Table (4.9) Overall Performance**

No	Statements	Mean	Standard Deviation
1	Revenue growth	3.45	.584
2	Profitability growth	3.20	.743
	<b>Overall Mean</b>	3.33	.634

Sources: Survey data, September 2018

As per the Table 4.9, the average mean is 3.33 which is mean that overall performance is increase due to the firm's involvement of their working capital management which lead to have an extended average payment period and shorten cash conversion cycle.

#### 4.5 Relationship between WCM Practices and Performance of SMEs

In this parts includes the relationship between WCM practices and firm's performance where the results of the descriptive analysis are as followed tables.

**Table (4.10) Correlation between WCM Practices and Performance of SMEs**

	APP	CCC	Performance
APP	1		
CCC	.896**	1	
Performance	.621**	.731**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Sources: SPSS Outputs

It was noted that WCM practices, average payment period and cash conversion cycle, and firm's performance had a positive and statistically significant relationship at 0.01 significant level. Therefore, WCM practices had a positive influence on performance of the firm under this study.

It can be interpreted that the firm which practices the working capital management actively day to day basis will lead to extend average payment period and shorten cash conversion cycle make the firm's performance to be increased due to their positive relationship between them.

#### 4.6 Effect of WCM Practices on Performance of SMEs

This study further evaluated by using inferential analysis for which working capital practices effect on the firm's performance through the use of multiple regression analysis.

**Table (4.11) Effect of WCM Practices on Performance of SMEs**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.484	1.056		.458	.649
APP	-.396	.497	-.176	-.797	.429
CCC	1.158	.287	.889	4.035	.000
R	.735				
R square	.541				
Adjusted R square	.522				
F Value	28.273				

a. Dependent Variable: Performance b. Predictors: (Constant), CCC, APP  
Sources: SPSS Outputs

The results in Table 4.11 are the correlation and coefficient of determination analysis, R and R<sup>2</sup> respectively where R=0.735 while R<sup>2</sup>=0.541. Also the results show that 52.2% of firm's performance could be explained by working capital management practices.

According to the results, the relationship of firm's performance and cash conversion cycle are statistically significant (t=4.035; p<0.05). It is indeed a fact to state that cash conversion cycle was the most significant measurement indicator of working capital management and it has effect on performance where CCC goes up one unit, performance will increase 1.158 unit where all other variables constant.

It also can be interpreted that there is no effect on firm's performance due to their extended average payment period. However, firm's shorter cash conversion cycle can lead to increase the firm's performance.

In Summary, the objectives of this research study are to collect the descriptive evidence on performance of SMEs. The results of data analysis and findings presented in this chapter are linked to the research questions and objectives. The detail findings

are as followed. The results of the questionnaire survey showed that most of the companies that responded tended to actively manage working capital on a daily basis. It was generally concurred that average payment period is a measurement indicator of working capital and increased fund leads to increased profitability and sales. This findings also indicated that the respondents were in agree that cash conversion cycle is also an measurement indicator of working capital, if the firm has a short cash conversion cycle, short conversion cycle enhances firm's liquidity ,managed by both AP and AR at optimal level, cash conversion cycle affects our firm's profitability and enhances our firm's performance.

It was noted that average payment period and performance and cash conversion cycle and performance had a positive and statistically significant relationship at 0.01 significant level. Therefore, average payment period and cash conversion cycle had a positive influence on profitability of the firm under this study. Lastly cash conversion cycle was the most significant indicator of working capital management and it has effect on firm's performance.

## **CHAPTER V**

### **CONCLUSION**

In this chapter, findings and discussion drawn from data analysis and suggestion for further research study will be respectively summarized and presented. This chapter started with findings and then recommendation followed by the suggestion of further research in the future.

#### **5.1 Findings**

As indicated in chapter 1, the first objectives of the thesis was to collect empirical evidence of working capital management practices to describe the practicing working capital management. According to the demographic survey result, the managing directors and accountants play an important role in carrying out all accounting and operating activities of SMEs in North Yangon Industrial Zone. Majority of the survey data has been collected from manufacturing firms.

For decelerating the cash outflows practices, most of the firms negotiate the favorable credit term with the suppliers and they choose the suppliers who can give the longer credit term. Most of the firms stretch the payable without damaging their credit rating but most of them pay their creditors within a month. Also they are using the centralized payment system to boost their cash outflows to be decelerated. The inventory management practices which could decelerate the cash outflows such as most of the SMEs know the optimal stock level to hold to be minimized the ordering and carrying cost, also know the stock re-order point to avoid urgent replenishment. However we couldn't measure whether the respondents have a proper plan to manage slow moving, obsolete and non-profitable stocks.

For accelerating practices, Most of the SMEs didn't have a clear credit policy such as credit limit, credit review and follow up collection. But most of the SMEs are making every attempts to evaluate the credit worthiness of their clients, practicing proper billing and invoicing procedures. Most of the SMEs interested to use decentralization collection system to get shorter age of accounts receivables and it makes the more fund for operation. Inventory management practices which can boost the firm's cash flows to be accelerate are the firms convert raw materials to finished

goods faster, then finished goods to sales to be faster. Therefore the firms will have more inventory turnover.

To conclude that the results of data analysis from the questionnaire survey shows that most of the firms that responded tended to actively manage working capital on a daily basis. It was generally concurred that average payment period and cash conversion cycle are the measurement indicators of working capital management and shorter CCC and longer APP lead to increase fund which boost the firm's performance, sales and profitability.

### **5.1 Recommendation**

To realize enhanced firm profitability, this study recommends that firms should have an extended payment period through negotiation with the firm stakeholders such as the suppliers, creditors and providers of funds in order to utilize the available funds for other firm operations that generate more profits, before the lapse of the payment period. Cash conversion cycle is critical in the management of working capital. It is therefore recommended that firms should have a shorter cash conversion cycle in order to realize cash promptly to run the firm profitably. This may be achieved through optimally managing the average collection period, inventory conversion period and average payment period. In other words, payables and receivables should be optimally managed in order to enhance firm liquidity and profitability.

In summary, SMEs strongly should support all areas of working capital management practices. Cash and inventory budgets need to prepare frequently. Levels of receivables and inventory should also review frequently. However, SME owners should have a strong financial management knowledge. Moreover, the owner's experience should have been seen to be more important than application of theories of financial management. Therefore training skills of financial management for the owners and managers must conducted.

### **5.2 Suggestions for further study**

This study is constrained by resource limitations, both financial and non-financial resources. Limitations of time and scope of the study required the research study to focus on a limited number of objectives. Moreover the research problem and

questions often directly or indirectly involve multiple areas working capital management while limits of time would not make all areas can be investigated.

Because of limited access to scarce resources, this study could not research SMEs in all sectors and regions of Myanmar but only selected SMEs located in North Yangon Industrial Zone. There are the differences in knowledge, style of management between SMEs in different sectors and locations. As a result, an overestimation or underestimation may exist due to the higher or lower level of management knowledge of SMEs selected in this study.

In considering significant aspects of the working capital management practices, this study concentrated on internal factors of SMEs but did not capture much external environment factors. The internal business functions of the greatest concern in this study were financial management while other functions such as production management, marketing management, and personnel management were omitted.

Those above limitations suggest further research to expand and supplement what could not be captured in this research. Descriptive findings of working capital management practices, financial characteristics of SME profitability could be used as the foundations for the further research. Additional implications of this study for the further research could include the following:

This study's findings of working capital management on SMEs could lead to expanded research to the large companies in Myanmar. This research could be used to develop further research on investigating and industry averages of financial ratios in Myanmar.

Working capital is industry specific, thus general conclusions about other industries cannot be made without further research. As the working capital is dependent on many factors that might impact companies' abilities to achieve certain levels of working capital, e.g. size, it is important to analyze these aspects for each company individually in order to draw conclusions on an individual company level. A recommendation for future research is to investigate a single industry in-depth. Thus, industry-specific influences can be detected in order to further develop the understanding of WCM.

To conclude, theory suggests that efficient WCM needs to have an overview perspective. Thus, one suggestion after analyzing the findings is to assign a coordinating role regarding WCM, such as a Working Capital Officer. By incorporating a role of a Working Capital Officer in the top-management, the responsibility would be clearly defined and thus attention to WCM as well as an increased focus on aligning and coordinating the different departments would be ensured.

# APPENDIX (A)

## QUESTIONNAIRES

### INTRODUCTION

This is an academic research being taken by a student of Yangon University of Economics on the topic “**Effect of Working Capital Management on Performance of SMEs**” .I shall be grateful if you could respond to the understated questions. All information shall be treated as confidential.

### PART I: INFORMATION ABOUT THE FIRM

Name of the Company: \_\_\_\_\_

Year of Establishment: \_\_\_\_\_

Name of the Respondent: \_\_\_\_\_

Position of the Respondent: \_\_\_\_\_

Industry (Please circle): Manufacturing, Trading, Construction,

Other (Please specify) \_\_\_\_\_

Number of Employees: \_\_\_\_\_

### PART II: THE WORKING CAPITAL MANAGEMENT PRACTICES

Respondents are requested to answer the following question with answers from strongly agree to strongly disagree on Likert five-point scale. Please cycle your answer to each statement using five-point Likert scale. [(1) = Strongly Disagree; (2)=Disagree; (3)=Neutral; (4)=Agree and (5)=Strongly Agree]

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	<b><u>AVERAGE PAYMENT PERIOD</u></b>					
1	Our firm negotiates favorable credit term with the suppliers	1	2	3	4	5
2	Our firm chooses the suppliers who can give the longer credit term	1	2	3	4	5
3	Our firm stretches accounts payables without damaging its credit rating	1	2	3	4	5
4	Our firm takes more than a month to pay its creditors	1	2	3	4	5
5	Our firm is using the Centralized payment system	1	2	3	4	5
6	Our firm knows the optimal stock order quantity to be minimized the ordering and carrying cost	1	2	3	4	5
7	Our firm knows the optimal stock level to hold	1	2	3	4	5
8	Our firm knows the re-order point	1	2	3	4	5
9	Our firm have a proper plan to manage slow moving, obsolete, non-profitable	1	2	3	4	5
10	Negotiating credit term is leading to have a longer APP of our firm	1	2	3	4	5

11	Prefer the suppliers who can give the longer credit term makes our firm's APP to be longer	1	2	3	4	5
12	Stretching accounts payables is also leading our firm to have a longer APP	1	2	3	4	5
13	Centralizing payment system boost our firm's average payment period to be longer	1	2	3	4	5
14	Holding optimal stock level and knowing the stock re-order point make no urgent stock replenishment	1	2	3	4	5
15	No urgent stock replenishment leads to have regular suppliers, they could give your firm's longer credit term(longer APP)	1	2	3	4	5
16	Average payment period is one of an indicator of working capital	1	2	3	4	5
17	Average payment period influences our firm's revenue	1	2	3	4	5
18	Average payment period influences our firm's profitability	1	2	3	4	5

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	<b><u>CASH CONVERSION CYCLE</u></b>					
1	Our firm is using clear credit policy (eg. Credit limit, review, follow up collection)	1	2	3	4	5
2	Our firm is making every attempts to evaluate the credit worthiness of clients	1	2	3	4	5
3	Our firm is practicing proper billing and invoicing procedures	1	2	3	4	5
4	Decentralization collection system can accelerate the cash inflows	1	2	3	4	5
5	Shorter average age of accounts receivables is better	1	2	3	4	5
6	The shorter our firm receive from its debtors, the more the fund it has for operation (DSO)	1	2	3	4	5
7	Our firm practices to convert raw materials to finished goods faster	1	2	3	4	5
8	Our firm practice to convert finished goods to sales faster (DIO)	1	2	3	4	5
9	Therefore, More inventory turnover if our firm followed Q7 and Q8	1	2	3	4	5
10	Using clear credit policy (eg. Credit Limit, review, follow up collection) is leading to have a shorter CCC	1	2	3	4	5
11	Evaluating the credit worthiness of clients make our firm to have customers with good credit history and it could make our	1	2	3	4	5

	firm's CCC to be shorter					
12	Decentralization collection system help our firm's collection period to be shorten thus CCC is also shorten.	1	2	3	4	5
13	Shorter time to convert raw materials to finished goods makes shorter CCC	1	2	3	4	5
14	Shorter time to convert finished goods to sales makes shorter CCC	1	2	3	4	5
15	Cash Conversion Cycle is managed by ensuring both AP and AR at optimal level	1	2	3	4	5
16	Cash Conversion Cycle is one of an indicator of working capital	1	2	3	4	5
17	Cash Conversion Cycle influences our firm's revenue	1	2	3	4	5
18	Cash Conversion Cycle influences our firm's profitability	1	2	3	4	5

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	<b><u>SALES GROWTH</u></b>					
1	The longer our firm takes to pay its creditors(the longer APP), the more the fund it has for using operations	1	2	3	4	5
2	Increased fund due to longer APP leads revenue growth by comparing the firms' last three years report	1	2	3	4	5
3	The shorter our firm receive from its debtors(shorter CCC), the more the fund it has for operation	1	2	3	4	5
4	Shorter cash conversion cycle enhance firm's liquidity	1	2	3	4	5
5	More fund for operation due to shorter CCC leads revenue growth by comparing last three years report	1	2	3	4	5
	<b><u>REVENUE GROWTH</u></b>					
6	Revenue growth due to longer APP enhance the firm's profitability by comparing the firms' last three years report	1	2	3	4	5
7	Therefore, longer average payment period make firm's profit	1	2	3	4	5
8	Revenue growth due to shorter CCC enhance the firm's profitability by comparing the last three years report	1	2	3	4	5
9	Therefore, shorter cash conversion cycle is driving to increase firm's profitability	1	2	3	4	5

**PART III: THE MEASUREMENTS OF PERFORMANCE**

THANK FOR YOUR COOPERATION

## APPENDIX (B)

### Industrial Zones in Myanmar

No	Zone	No. of Industrial Enterprises			
		Large	Medium	Small	Total
1	Mandalay Industrial Zone	287	189	633	1109
2	Myin Chan Industrial Zone	37	170	123	330
3	Meiktila Industrial Zone	21	110	218	349
4	East Yangon Industrial Zone				
	a. No.1 South Dagon Industrial Zone	95	34	2	131
	b. No.2 South Dagon Industrial Zone	116	364	52	532
	c. No.3 South Dagon Industrial Zone	6	82	45	133
	d. Dagon Myothit (Seikan)	83	8		91
	e. Dagon Myothit (East) Zone	35	18	27	80
	f. North Okkalapa	27	20	18	65
	g. Shwepaukkan	32	82	8	122
	h. South Okkalapa	26	57	31	114
	i. Tharkayta	24	14	10	48
5	West Yangon Industrial Zone	148	274	612	1034
6	South Yangon Industrial Zone	76	150	673	899
7	North Yangon Industrial Zone				
	a. Hlaing Thar Yar	344	41	3	388
	b. Shwe Pyi Thar	134	32	15	181
	c. Mingalardon	81	17	38	136
8	Myaung Mya Industrial Zone	40	33	291	364
9	Hin Tha Da Industrial Zone	13	41	389	443
10	Pathein Industrail Zone	28	86	241	355

11	Monywa Industrial Zone	87	226	582	895
12	Kalay Industrial Zone	8	34	212	254
13	Pyay Industrial Zone	19	87	84	190
14	Yenang Chaung Industrail Zone	8	20	60	88
15	Pakokku Industrial Zone	38	113	122	273
16	Mawlamyine Industrial Zone	41	149	19	209
17	Taungyi (Ayetharyar) Industrial Zone	40	41	669	750
18	Myeik Industrial Zone	19	2	5	26
	<b>Total</b>	<b>1913</b>	<b>2494</b>	<b>5182</b>	<b>9589</b>

Source: Myanmar Industrial Development Committee Facts about 18 Industrial Zones as of 30.09.2009.

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