

The Determinants of Working Capital Management Practices: A Malaysian Perspective

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Purpose of research – this study examines the practice of Working Capital Management (WCM) in an organizational context, specifically Malaysian listed companies. Even though many studies of WCM have been undertaken in many countries around the world, the understanding of WCM practices in an organizational context has neither been adequately documented nor understood. Scholars have largely concentrated on developing sophisticated financial models, however managers need easy to use models (Gitman, Moses, & White, 1979). In the event of changes in organizational context, it is argued that the failure of WCM research to reflect the characteristics and challenges of contemporary organizational settings has led to a lack of understanding and gives rise to the need for a conceptual framework explaining current WCM practices. This study intends to first develop an understanding of the determinants of the various WCM practices currently used in organizations; and secondly to develop a conceptual framework explaining the dynamics of WCM in a Malaysian context.

Design and methodology – this research used multiple-case studies of five Malaysian companies listed on the main board of Bursa Malaysia. Key informants, representing various functional areas and hierarchical levels, were interviewed to gain insights about how working capital components were managed within the organizational context. The semi-structured interviews were designed to explore the diversity of WCM practices. Data was analyzed using qualitative methods to gain rich narratives and in-depth understanding of WCM practices for each case, then, cross case analysis enabled this research to develop a conceptual framework.

Main finding - this study proposes a conceptual framework to provide a comprehensive understanding of WCM in an organizational context. A conceptual framework was developed based on observed patterns in five determining perspectives from multiple case studies which

enabled this study to distinguish two differing WCM approaches, namely integrated and non-integrated WCM approaches. This study suggests that the conditions of these determining perspectives influenced the choice of WCM approach. The five determining perspectives were: perceived environmental uncertainty, budgetary control, organizational structure, interdependency and information technology, and organizational culture.

Contribution of study – the conceptual framework adds value to the body of WCM knowledge by identifying how Malaysian companies manage their working capital and describes the dynamics of WCM that have previously not been explained. In terms of managerial practice, this study provides practitioners and academicians views about the influence of determining perspectives over the approach taken in WCM practices.

Keywords: Working Capital Management, Organizational Context, Theory and Practice, Managerial Approach

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Abbreviations

AFTA	Asian Free Trade Agreement	FA	Forecast Accuracy
BE	Budget Empasis	GR	Government Regulations
BR	Bank Regulation	HF	Horizontal Flow
CD	Customer Demand	IT	Information Technology
CEO	Chief Executive Officer	IE	Innovation Effort
CFO	Chief Financial Officer	IM	Inventory Management
CIM	Competing in Market	JIT	Just In Time
CMC	Compromising Minimise Conflict	KPI	Key Performance Indicator
CO	Consistency	NAP	National Automotive Policy
CR	Competitors' Reaction	OP	Ongoing Planning
CSR	Corporate Social Report	PEU	Perceived Environment Uncertainty
CS	Centralized Structure	RAPM	Reliance on Accounting Performance Measure
DS	Decentralized Structure	RO	Result Oriented
ES	Economic Situations	SFM	Short-term Financial Management
EM	Energy and Material Cost	SIT	Specialization on Individual Task
ERP	Entreprise Resource Planning	SM	Sense Making
ED	ERP Dependency	VF	Vertical Flow
ER	Exchange rates	WCM	Working Capital Management

Chapter 1

Introduction

1.1 Purpose of Research

The significant decline of corporate performance during the late 1990s financial crisis saw corporations in South East Asia, including Malaysia, pay more attention to Working Capital Management (WCM) (Claessens, Djankov, & Xu, 2000). For example, at Telekom Malaysia, one of the largest companies in Malaysia, their main concern shifted to improving WCM due to customers' slow payments, as rival companies offering competitive rates made cash collection even more difficult (Crane, 2001). According to a survey by REL Consultancy Group, Asian companies, including those in Malaysia, are gradually improving their WCM performance, but have yet to equal the WCM performance of other multi-national corporations (Bacani, 2007). Even though a number of studies on WCM have been and still are undertaken around the world, especially in Western countries, the understanding about how to manage working capital from a whole organizational context is not explicit.

Improving WCM is important for companies to withstand the impacts of economic turbulence (Kolay, 1991; Reason, 2008). Alternatively, effective WCM is also essential for companies during booming economic periods (Lo, 2005). WCM is not only to insulate corporations from financial upheaval but can be managed strategically to improve competitive position and profitability as the wider perspectives of WCM contribute to greater opportunities to create wealth. Appropriate speed of a cash cycle through receivable and payable management helps enhance profitability and liquidity (Johnson & Soenen, 2003). Furthermore, effective inventory management is also critical to the management of liquidity and profitability in many companies.

WCM is related to all aspects of managing current assets and current liabilities (Emery, Finnerty, & Stowe, 2004; Hampton & Wagner, 1989; Hill & Sartoris, 1992; Scherr, 1989; Vander Weide & Maier, 1985). Each individual component of WCM – cash, receivables, payables, and inventory management – influence WCM performance via its own objectives and functions (Schilling, 1996). In addition, the decisions made in any one WCM component have an impact on the other components (Sartoris, Hill, & Kallberg, 1983).

It is argued that, since WCM involves the full range of business processes, effective WCM should be *integrated* along the processes in order to maximize organizational performance (Arcelus & Srinivasan, 1993; Crum, Klingman, & Tavis, 1983; Damon & Schramm, 1972). However, a study in New Zealand by McInness (2000) showed that 94% of companies manage WCM components in a segregated manner. McInness's study explained the phenomenon in New Zealand which is allegedly different to the WCM practices of Malaysian companies. Nevertheless, it is argued that the failure of WCM research to reflect the characteristics and challenges of contemporary organizational settings has led to lack of understanding and gives rise to the need for a conceptual framework explaining WCM practices.

The development of a theory, as well as interpreting the practice of WCM, should be cognisant of the surrounding organizational environment. Furthermore, theory and practice exist in a reciprocal relationship. While theory can be used to guide practice, theory itself should be developed from an interpretation of practice. The first step in narrowing this gap is to understand WCM practices in actual organizational settings. The second step is to develop a conceptual framework identifying the determinants of WCM practices, thus providing a guide to formulating an effective WCM strategy in the Malaysian context.

Therefore this study is intended to:

- Develop an understanding of the determinants of the various WCM practices currently used in selected Malaysian listed companies
- Develop a WCM conceptual framework explaining the dynamics of WCM in selected Malaysian listed companies.

1.2 Research Questions

The primary research question is: *How is working capital managed in the Malaysian Listed Companies' context?* Two secondary questions are designed to answer this primary question.

- First, to develop an understanding of the determinants of various WCM practices currently used in Malaysian listed companies: How do internal and external factors affect the style of WCM?
- Second, to develop a WCM conceptual framework explaining the dynamics of WCM in Malaysian listed companies: What factors affect managers' WCM decision making processes?

1.3 Significance of the Study

A WCM conceptual framework intends to provide a comprehensive explanation of WCM in contemporary organizational settings; this proposes an understanding of various WCM practices for use in formulating effective WCM strategies and invites future research. Furthermore, this is the first study examining determinants of WCM practices in an organizational context, specifically Malaysian companies. In addition, this study contributes to the body of WCM knowledge by identifying how companies manage working capital in a local setting. It is believed that managers, academicians, and professionals can use this framework to evaluate WCM practices within organizational contexts.

1.4 Malaysian Context

Malaysian firms are selected for the study because of the researcher's familiarity with the local social and economic environment. Understanding the Malaysian environment enables the development of a conceptual framework to be more relevant within the context of the study. For example, the influence of culture on managerial practice requires an understanding about ethnic groups, religious beliefs, current trends, and so forth to properly interpret data. Thus, the findings can be described as being of the Malaysian context.

This section provides information about economics, society, and workforce conditions in Malaysia. This information is useful as a reflection of the Malaysian environment within which WCM is conducted.

1.4.1 Malaysian Economic Background

Over a decade after the Asian financial crises, the Malaysian economy, recovered from the economic turmoil from macroeconomic aspects (Ariff, 2007; Ching, 2004). Ariff (2007), showed that the Malaysian Gross Domestic Product (GDP) grew at a rate of 5.4 percent on average between 1999 and 2006, compared to a contraction of 7.4 percent in 1998. In 2009, the main drivers of GDP consisted of services, manufacturing, and agriculture sectors, in that order (Ministry of Finance Malaysia, 2008).

The Malaysian economy, known for its high degree of openness, is sensitive to what is happening in the surrounding environment (Ariff, 2007), and export trade is one of the important drivers of growth (Ching, 2004). According to the Economist Intelligence Unit (2008), export oriented manufacturing dominated the total Malaysian production output, accounting for about 80% in 2007. However the recent global economic recession with the epicentre in the United States has weakened the buying power of developed countries like the United States, Japan, and many others (Malaysian Central Bank, 2009). According to the Ministry of International Trade and Industry (2010), Japan (ranked third) and the United

States (ranked fourth) were major export market destinations for Malaysian firms in 2010, and recent global economic instabilities have influenced Malaysian exports to developed countries (Malaysian Central Bank, 2009). This indicates that the Malaysian economy is impacted by market volatility (Ching, 2004).

1.4.2 Malaysian Society and Workforce

Malaysia is a multi-cultural society consisting of three main ethnic groups; Malay, Chinese, and Indian. The three main ethnic groups have been working and living together since the founding of Malacca as the main trading centre for entrepreneurs from India, Middle East, and China since the 1400s (Andaya & Andaya, 1982). Malaysia is a collectivist society where ethnic values are embedded in daily life and respected across ethnic groups (Storz, 1999). In other words, Malaysians are allowed to practice their cultural and religious beliefs while being respectful of differences from others.

In terms of workforce, Ahmad and Singh (2001) found that the Malaysian workforce lacks any dominant managerial practice due to ethnic differences. In that sense, managerial style is observed to be different in many companies, which leads to no dominating managerial style being called “Malaysian management practice” (Wan, 2008). However, ethnic differences are not considered a main constraint, as in fact the Malaysian workforce is demonstrably diverse and versatile (Ahmad & Singh, 2001; Bhopal & Rowley, 2005; Wan, 2008). In other words, this suggests that Malaysian managers are able to adapt to foreign organizational values.

Malaysian managers are predominantly influenced by foreign oriented concepts which they have learnt from managerial textbooks developed from Western organizational values although the theories are argued as irrelevant to the Malaysian context (Ahmad & Singh, 2001). Wan (2008) found that foreign multinational companies based in Malaysia adopt hybrid organizational values. She suggested that American or British companies are

observed to embed Western and local values within organizational practice, while Japanese companies have combined oriental practice with Malaysian values.

1.5 Overview of WCM Components

Before discussing the research methodology, it is useful to describe the four main WCM components used in this study, namely cash, inventory, payables, and receivables. It should be acknowledged that WCM is not limited to internal interaction, but is implicated in multiple levels of interaction both internally and externally (Brigham & Ehrhardt, 2008; Gentry, Metha, Bhattacharyya, Cobbaut, & Scaringella, 1979). The nature of the four WCM components will be explored in the following subsections.

1.5.1 Cash Management

Cash acts as a buffer for a company to finance its operations in a manner that is suitable for the nature of its business operating cycle (Boisjoly & Izzo, 2009; Emery, et al., 2004; Gitman, 2009; Scherr, 1989). The challenge in cash management is to balance the appropriate level of cash and marketable securities that reduce the risk of insufficient funds for operations with the opportunity cost of holding excessively high levels of these resources. The integrative style of cash management is dependent on the cycle of the business operation, and changes in cash management would directly influence working capital performance (Boisjoly & Izzo, 2009). Various activities are involved in maintaining the balance of cash, and thus, a company's competency should include the ability to formulate a cash management strategy including the synchronizing of cash inflows and outflows through cash budgeting and cash forecasting.

Cash budgeting constitutes the projected cash receipts, cash disbursements, and cash balance over a period of time (Brigham & Ehrhardt, 2008; Moyer, McGuigan, & Kretlow, 2009). The cash budget is an important tool for managers in maintaining a specified level of

liquidity. In order to achieve and maintain liquidity, managers rely on understanding the business operation cycle.

Cash forecasting includes estimating cash needed for operations on a daily, weekly, monthly, or annual basis. It is largely dependent on business activities such as sales and marketing, production cycle, supply chain, cash collection, and cash disbursements (Gitman, et al., 1979). A manager's ability to predict cash shortages or surpluses gives ample time (for finance managers) to seek financing alternatives or investments in marketable securities (Moyer, et al., 2009).

1.5.2 Inventory Management

Inventory management (the second component) plays an important role in business activities of purchasing, producing, and marketing (Crum, et al., 1983). Furthermore, maintaining appropriate inventory levels is associated with the cycle of business activities, and it incurs inventory related costs such as ordering, carrying, and stock out costs (Moyer, et al., 2009). Ordering cost refers to all costs of placing orders and receiving materials into the warehouse. Carrying cost refers to all costs of holding materials for certain periods of time. The longer times required to hold inventory increases carrying cost. Stock out cost refers to all cost incurred due to situations where demand is higher than available stock. This includes costs to reordering materials and delivering inventories into the markets.

The approach taken in inventory management directly influences the working capital performance (Yang, Ronald, & Chu, 2005). Holding too much inventory may incur high carrying costs; however it also reduces risk of 'stock-out' shortages.

A company's ability to respond to market demands is largely dependent on how efficiently it manages inventories and how responsive suppliers are to supplying materials for production, sale or rendering services. Therefore, closer relationships with suppliers are

important for companies to cope with fluctuation of market demands (Bowersox, Closs, & Stank, 2003).

1.5.3 Payables Management

The third component is accounts payables; one of the major sources of spontaneous finance (Gitman, 2009; Hill & Sartoris, 1992; Moyer, et al., 2009). Companies along with their suppliers need to agree to establish a relationship or partnership with specific arrangements including credit terms (Hill & Sartoris, 1992).

Credit terms generally include payment terms, such as credit period, cash discount, credit guarantee, and so forth (Gitman, 2003; Moyer, et al., 2009). Credit period refers to time specifying maximum days in which payment should be made to suppliers. Cash discount refers to incentives (in percentage format) given to companies for early payments. A company is entitled to a discount (i.e. two percent of the total amount) when payment is made during the discount period; however this term is not always available and is dependent on the suppliers' credit terms.

In some cases, a customer is requested to provide a credit guarantee from a financial institution. This normally occurs when suppliers question the customer's creditworthiness or the risk of credit default is high. In circumstances of credit default, suppliers are entitled to claim a credit guarantee to settle overdue accounts. However, this arrangement is not always imposed and it depends on suppliers' credit terms. In a sense, there is no such fixed standard of credit terms and it is normally based on companies and suppliers credit arrangements.

Delaying payments to the end of the credit period or beyond the credit period creates additional short-term financing costs for the company. Although this gives an additional cushion to finance business operations; it may ruin the company's reputation (i.e. credit background), forego cash discount savings, and weaken a healthy financial supply chain (Brigham & Ehrhardt, 2008; Moyer, et al., 2009; Rafuse, 1996).

1.5.4 Receivable Management

Accounts receivables are credit sales given to customers for the purchases of goods or services. The management of accounts receivable (fourth component) is largely influenced by credit policy and collection procedures (Brigham & Ehrhardt, 2008; Moyer, et al., 2009). Credit policy and collection procedures affect cash inflows, sales, and risk of bad debts (Hill & Sartoris, 1992). Any changes made in credit policy will have direct impact on working capital performance. For example, management's decision to reduce or increase credit period is to influence the cash conversion cycle.

A credit policy normally includes credit standards, credit period, and cash discounts (Gitman, 2003; Moyer, et al., 2009). Credit standards specify requirements to establish the worthiness of customer's credit background. The credit period is the length of time given to customers to pay the invoices. Cash discounts refer to cash incentives given to customers for early payments made within discount period; however this option may not be available depending on the company's credit policy.

Collection procedures aim to reduce delays in collecting outstanding receivables. The collection activities may include but are not limited to collection processes such as sending a letter of demand, follow up calls, collection agency, and legal action. The collection procedures may be different in some companies due to the volume and values of receivables (Moyer, et al., 2009).

It is evident that the process of managing the working capital components is embedded within normal operating business activities and involves the participation of multiple levels of members within an organization (Gitman, 2009). It is argued that the operating business activities of some companies may involve synchronizing of WCM components to improve organizational performance. For example, companies placing orders to purchase materials (inventory management) in advance then payments (payable

management) are made before cash receipts (cash management). The nature of operational activities creates cash flows that are neither instantaneous nor synchronized. Hence the working capital decision making process is becoming more difficult, and in some companies, working capital transactions are far more complex and responsibility of managing WCM components is widely distributed throughout an organization.

1.6 Research Methodology

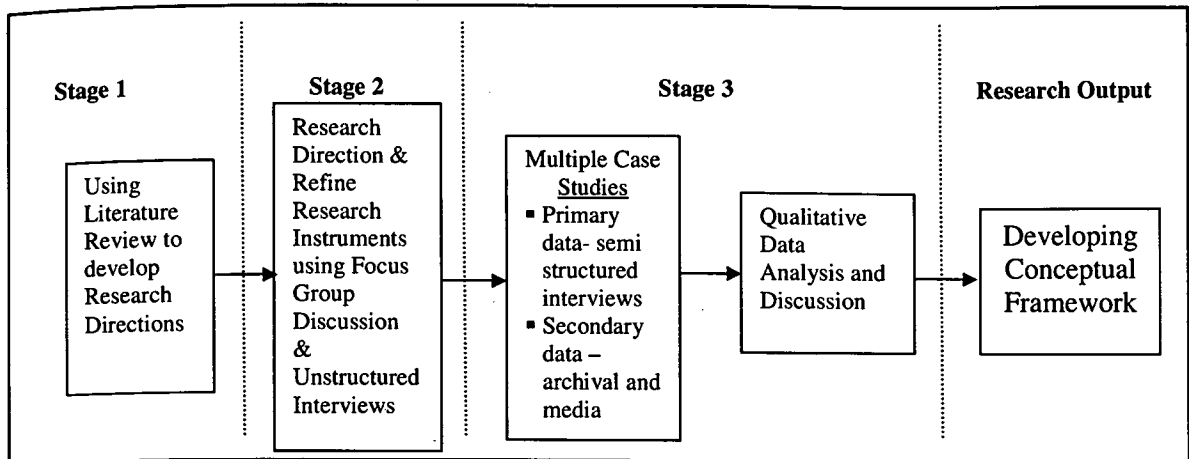
This study employs qualitative research methodology which enables an in-depth understanding of various WCM practices and leads to the development of a conceptual framework. In particular, a multiple-case study approach is used to enable the researcher to observe replication between organizations for conceptualization purposes. Eisenhardt and Graebner (2007) have emphasized that multiple case studies generate a more robust conceptual framework because the propositions are grounded in rich evidence. Furthermore, the multiple-case study approach enables the researcher to view issues from the lenses of the informants, which involve narratives and dialogues in telling stories and presenting other evidence that arises from their natural settings. Case study researchers frequently discover new issues during their journeys (Auerbach & Silverstein, 2003).

1.6.1 Research Sequence

This study consists of three stages which serve the purpose of identifying the determinants of WCM practices and ultimately developing a conceptual framework. Figure 1.1 illustrates the sequences of this study:

Stage 1: Undertaking an extensive WCM literature review involving a wide range of academic disciplines (accounting, strategic management, operation management, and organizational behaviour) to identify the research questions.

Figure 1.1 Research Sequence



Stage 2: Using research questions as a topic for focus group discussion and unstructured interviews (consist of management accountants and treasurers) to narrow the focus of study and refine research instruments for subsequent fieldwork.

Stage 3: The research instrument is to be used to collect relevant data. Multiple-cases are to be employed and semi-structured interviews (primary data) are to be conducted with key informants from various functional areas (finance, marketing, production, and supply chain) who are directly involved in WCM. The interviews are to be recorded and transcribed for analysis, and stored according to appropriate ethical standards. Data is coded, categorised and themed for theoretical constructs and narrative explanations. Archival records and media (secondary data) are accessed (also through appropriate ethical process) to provide further insights.

1.6.2 Developing Conceptual Framework

The insights gained from the research sequence offers a theoretical conjecture from an iteration process of extant literature along with multiple case study research findings. This process requires a constant comparison of data to develop a conceptual framework. Case reports are developed for each case explaining how and why a particular proposition is or is

not identified (Yin, 2003). In comparing cases, the explanation of why replication of patterns is identified in certain cases, but not in some cases (Yin, 2003).

1.7 Thesis Structure

The remainder of this thesis is organized into six chapters and followed by appendices. In chapter 2, this study begins with an extensive literature review of WCM. There are four main sections in this chapter. The first section identifies four distinct eras describing major transitions in WCM research. The second section extends the literature review to other disciplines, specifically investigating factors that have influenced WCM, and (third) previous WCM studies examining WCM practices. The fourth section discusses the issue of relevance of extant WCM literature in explaining WCM practices in the organizational context.

Initially, the research question is too broad and requires preliminary work to narrow the focus of this study. Chapter 3 discusses the preliminary work seeking an early understanding of WCM practices in the Malaysian context. The early work comprises a focus group discussion and unstructured interviews. The data analysis findings, along with extant literature, suggest propositions for subsequent fieldwork and methodology recommendations.

Chapter 4 explains the rationale of using qualitative research methodology. This study adopts multiple-case methodology in order to answer the research questions and stated objectives. Moreover, detailed descriptions about research design, case selection, data collection, and data analysis are given. The following discussion, chapters 5 and 6 present the result of data analysis and the development of a conceptual framework.

In chapter 5, the findings from multiple-case studies are explained in detail. The data analysis explores the propositions stated in chapter 3 and constructs determining perspectives (including a new perspective emerged during data collection) that have influenced the WCM practices of Malaysian companies. Additionally, the evidence suggests that each determinant

perspective comprises variations which enable this research to identify the similarities and differences of the characteristics of WCM practices.

Chapter 6 extends the analysis from chapter 5 and proposes a conceptual framework describing WCM practices. A WCM typology is developed based on consistent patterns of the determining perspectives as observed from the five intensive cases. Furthermore, the research findings are linked to extant literature enabling the development process of an emerging framework.

In chapter 7, the concluding remarks comprise a discussion of the contribution to the body of WCM knowledge, implications for managerial practice, key limitations, and future research.

Chapter 2

Literature Review

2.1 Introduction

Making sense of WCM practices today and likely future directions requires an in-depth understanding of historical perspectives. This chapter aims to develop an understanding from extant literature about the development of WCM research, explaining WCM in particular environments from the 1900's until the present. This includes exploring three agendas in relation to working capital: first, the evolution of WCM research, which includes major transition stages along the journey; second, factors influencing the management of working capital; and third, a review of previous studies of WCM practices. In doing so, the relevance of models, concepts or frameworks developed to serve managers' needs in particular operating environments will be examined.

The remainder of this chapter is arranged in five sections. The second section is a description of the evolution of WCM research, while the third section examines factors influencing WCM and the fourth reviews previous studies of WCM practices. The fifth section explores the relevance of WCM studies in explaining practices adopted in complex organizational settings and, finally, section six summarizes this chapter.

2.2 Evolution of Working Capital Management Research

In this section, the review of WCM literature examines the journey of working capital research from the earliest awareness era (1900s-1940s), to a pre and post World-War II era (1920s-1950s), to the optimization and simulation approaches of working capital in the industrialisation era (1950s-1980s), through to the focus on the effectiveness of WCM in the current, globalisation era (1990s-2000s). Each section will explore the important issues associated with the evolving development of WCM research in these different periods.