
**ST. MARY'S UNIVERSITY**

**SCHOOL OF GRADUATE STUDIES**

# ASSESSMENT OF WORKING CAPITAL MANAGEMENT PRACTICES: THE CASE OF BOTTLED WATER COMPANIES IN ADDIS ABABA.

**BY**

**DEGITU MESFIN**

**JUNE, 2019**

**ADDIS ABABA, ETHIOPIA**

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**(SGS/0307/2009A)**

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**APPROVED BY BOARD OF EXAMINERS**

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| **Advisor** | **Signature** |
| **External Examiner** | **Signature** |
| **Internal Examiner** | **Signature** |

# Declaration

I, the undersigned hereby declare that this thesis is my original work, prepared under guidance of **Asmamaw Getie (Asst. Prof.).** All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or full to any other higher learning institution for the purpose of earning any degree.

**.....** **.....**

Degitu Mesfin Signature

St. Mary's University, Addis Ababa June, 2018

# Endorsement

This thesis has been submited to St. Mary's University, School of Graduate Studies for Examination with my approval as university advisor.

Asmamaw Getie (Asst. Prof.) .....

Advisor Signature

St. Mary's University, Addis Ababa June, 2019

# Contents

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# List of Abbrevations and Acronyms

**CSA:** Central Stastistics Agency

**MoFED:** Ministry of Finance and education

**WCM:** Working Capital Management

**NWC:** Net Working Capital

**ARP:** Accounts Reciavable Period

**IHP:** Inventory Holding Period

**APP:** Accounts Payable Period

**CCC:** Cash Conversion Cycle

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# ABSTRACT

*The main thrust of this study is to examine the working capital management practices of selected water bottled manufacturing companies in Addis Ababa, Ethiopia. A well designed and implemented working capital management is expected to contribute positively to the creation of firm's values. The study used descriptive statistics for data analysis and presentation. The result of the study indicated that: initial source of budget for most of the bottled water manufacturing companies in Addis Ababa is bank loan even though few companies use self-financing, the shortest interval of time for which majority of the companies' firm utilizes cash budgeting is quarterly whereas it is monthly and weekly for few of the companies, companies use industry guidelines on the appropriate amounts to replenish their warehouses or other inventory storage points, availability of parts and materials is the most commonly used parameter to decide on replenishment quantities for inventory purchased by majority of the companies. It was also identified that technology, inventory management, employees' financial capability, credit policy, management, payable management, management system, organizational behavior, operational management/supply chain management, investment policy, management financial capacity, upstream collaboration, customer needs, financing requirements, supplier influence, shareholders wealth maximization and competitors' effect are the major internal and external challenges that influence the choice of WCM practices in bottled water companies of Addis Ababa. It was recommended that the companies should have effective payables management, Create a re-order level policy for their institutions that will create an enabling environment for them to request for the supply of moderate and high quality stocks and Thus, bottled water manufacturing companies under this study should emphasize on that predictor and put the above activities in to consideration to improve effectiveness of WCM practices of their company*

# CHAPTER ONE

# INTRODUCTION

## 1.1. Background of the Study

Working Capital is the portion of an enterprise's total capital which is employed in short-term operations, that is current assets. A typical list of these assets in order of liquidity includes cash in hand and at bank, short-term investments, payments in advance, accounts receivable, raw materials inventory, inventory of goods in process and finished goods inventory (Clarkson & Elliott, 1972). Cash being the most liquid of all current assets is at the top of the list and inventories being the least liquid are recorded at the end.

A decade ago, the idea of bottled water for many Ethiopians was a trend that characterized the diaspora and the modern, wealth-driven way of life. Today, it is common to see people purchase bottled water along with their groceries in super markets and kiosks. Young people order bottled water in cafés and restaurants. In several offices, bottled water also has become another choice in addition to the "tea or coffee" offered by secretaries to visitors. Bottled water has a constant presence at meetings and discussion forums. Urbanites from many different walks of life have made it part of everyday consumption (Central Statistics Agency (CSA) 2010/11 survey).

There are many reasons for this fast growth. The general economic growth the country has been registering in the past decade is just one reason. Though this growth is accompanied by unprecedented inflation, the income of the urban population has also shown tremendous growth.

Many factors, such as the growing number of conferences and summits in Addis Ababa, the increased tourist traffic and the expansion of the hospitality sector have contributed to this growth. This can be easily seen in the growth of the number of soft drinks and bottled water producing factories from 13 in 2006/7 to 53 in 2010/11 E.C. Furthermore, according to sources at the Ministry of Industry, several other companies are in the pipe line to join the industry.

## 1.2. Statement of the Problem

Pass and Pike (1987) emphasized that short term finance area particularly working capital management was given very less attention in contrast to long term investment even if it played a very vital and important role in the growth of firm and in enhancement of profitability. Deficiency in the planning and control of working capital management is one of the main causes of business failure and it is a neglected subject which has been too little investigated or written about. The two main objectives need to be satisfied by working capital management is liquidity and profitability but there should be a trade-off balance between these two objectives.

In comparison to the globe working capital management practices in Ethiopia are still immature. If manufacturing sector in Ethiopia adopts comprehensive working capital management, this would be directly affecting profit and value maximization of the organization (Ephrem, 2011).

Different researchers conducted their research on this topic in Ethiopia. However, the researcher believed that there is a research gap in establishing the relationship between working capital management and firms' performance in water service provider firms in Ethiopia.

Consequently, the researcher believed that, the problem is almost untouched and there is a knowledge gap on this area. Hence, keeping the above problem in mind, it is believed that this study will fill the existed gap on the working capital management practices on purified water bottled manufacturing companies in Addis Ababa, Ethiopia which were operational for at least five years.

## 1.3. Objective of the Study

### 1.3.1. General Objective

General objective of this study is to examine the working capital management practices of selected purified water bottled manufacturing companies in Addis Ababa.

### 1.3.2. Specific objectives of the Study

This study has the following specific objectives:

- ✓ To assess the challenges that influence the choice of WCM practices of the purified bottled water manufacturing companies in Addis Ababa.
- ✓ To determine the effectiveness of the WCM practices employed by the purified bottled water manufacturing companies in Addis Ababa.
- ✓ To determine the inventory management system of purified bottled water manufacturing companies with respect to working capital management.

### 1.3.3. Basic Questions of the Research

1. What are the challenges that influence the choice of WCM practices of the purified bottled water manufacturing companies in Addis Ababa?
2. Are the WCM practices employed by the purified bottled water manufacturing companies in Addis Ababa effective?
3. What does the inventory management system of purified bottled water manufacturing companies with respect to working capital management look like?

## 1.4. Definition of Terms

**Net working capital (NWC):** The amount of assets or cash that remain after subtracting a company's current liabilities (Brealey and Myers, 2006)

**Permanent Working Capital:** A minimum amount of investment in all working capital which is required at all times to carry out minimum level of business activities (Brigham and Houston, 2003).

**Temporary Working Capital:** The amount of investment required to take care of the fluctuations in the business activity (Fabozzi and Peterson, 2003)

**Executive Portfolio Strategy:** A strategy of managing a receivables asset.

**Inventory Management Practices:** The procedure for the minimization of the entire cost of inventory (Arsham, 2006)

## 1.5. Significance of the Study

The result of this study benefits managers, experts and other concerned bodies. The result of this study would be expected to help all experts and managers in bottled water companies directly. They may be aware to provide them with a well-organized working capital management using the result as source of information.

The study may also serve as the basis for future plans of action by WCM managers with regard to the necessary actions to develop understandings in developing effective working capital management framework. This enables them to minimize the likelihood of the failure of their business

Furthermore, this study would serve as a source of information for policy makers so that they can reassess the policy in such a way that it improves working capital management practices for selected purified bottled water manufacturing companies in Addis Ababa, Ethiopia. This study may also serve as a theoretical model for future studies of the same nature if ever the existing problem has penetrated in this case will exist in the future. Future researchers will benefit from this study and it will provide them the facts needed to compare their study during their respective time and usability.

## 1.6. Delimitation of the Study

This study aims in identifying working capital management practices in selected purified bottled water manufacturing companies in Addis Ababa, Ethiopia. It is delimited to purified bottled water manufacturing companies found in Addis Ababa which was operational in the past five years from 2012 - 2016**.** In doing so, sample companies were selected randomly from purified bottled water manufacturing companies located in Addis Ababa.

## 1.7. Organization of the Paper

This paper is organized into five major chapters. The first chapter deals with the introduction, statement of the problem, objective and significance of the study with its scope and limitation. The second chapter contains bird eye view of related literatures. Chapter three addresses research methodology, research design, population, sample size and sampling procedures, data sources and collection method and data analysis. Data analysis and presentation of the study is described under chapter four. Finally the fifth chapter presents the major conclusion drawn from analysis and findings of the study and possible recommendation.

# CHAPTER TWO

# REVIEW OF RELATED LITERATURE

## 2.1. Theoretical Review of Working Capital

The term working capital implies company's investment in short term assets like cash, short term securities, accounts receivables and inventories (Weston and Brigham, 1977). Precisely, these assets are financed by short-term liabilities like accounts payable and short term borrowings; thus net working capital is defined as the difference between current assets and current liabilities. Working capital management is the decision relating to working capital and short term financing, and this includes managing the relationship between the company's short term assets and its short term liabilities. This enables the company to continue operations and to have enough cash flow at its disposal to satisfy both maturing short-term debts and upcoming operational expenses which is the major objective of working capital management.

### 2.1.1. The Concept and Definition of Working Capital

The term working capital is originated with the old Yankee peddler, who would load up his wagon with goods and then go off on his route to peddle his wares. The merchandise was called working capital because it was what he actually sold, or "turned over," to produce his profits. The wagon and horse were his fixed assets. He generally owned the horse and wagon so they were financed with "equity" capital but he borrowed the funds to buy the merchandise. These borrowings were called working capital loans and they had to be repaid after each trip to demonstrate to the bank that the credit was sound. If the peddler was able to repay the loan, then the bank would make another loan and banks that followed this procedure were said to be employing "sound banking practices" (Brigham and Houston, 2003).

### 2.1.2. Nature and Importance of Working Capital

The working capital meets the short-term financial requirements of a business enterprise. It is a trading capital not retained in the business in a particular form for longer than a year. The money invested in it changes form and substance during the normal course of business operations. The need for maintaining an adequate working capital can hardly be questioned. Just as circulation of

blood is very necessary in the human body to maintain life, the flow of funds is very necessary to maintain business. If it becomes weak, the business can hardly prosper and survive. Working capital starvation is generally credited as a major cause of business failure in many developed and developing countries. The success of a firm depends ultimately on its ability to generate cash receipts in excess of disbursements. The cash flow problems of many businesses are worsened by poor financial management and in particular the lack of planning cash requirements (Jarvis et al, 1996).

### 2.1.3. Components of Working Capital

According to Paramasivan and Subramanian (2009), there are two concepts of working capital known as gross and net. Gross working capital (GWC) generally deals with overall corporate assets. It is also the total cash and cash equivalent that a business has on-hand to run the business. Cash equivalents may include inventory, account receivable and investments on marketable securities which may be liquidated within the calendar year (Paramasivan and Subramanian, 2009). Generally, gross working capital is simply called as the total current assets of a firm.

**Net working capital (NWC):** it's the amount of assets or cash that remain after subtracting a company's current liabilities which refers to the claims of outsiders which are expected to mature for payment within an accounting year and include creditors for goods, bills payable, bank overdraft and accrued expenses from its total current asset (Brealey and Myers, 2006). This can be mathematically presented as:

***Working Capital = Current Assets- Current Liabilities***

In this equation, net working capital may be positive or negative. A positive net working capital arises when current assets exceed current liabilities and a negative net working capital arises when current liabilities exceed current assets. According to Brigham and Houston (2003), both positive and negative NWC aspects have equal importance for management. Therefore, positive WC focuses on the attention of the optimum investment in and financing of the current assets while negative WC indicates the liquidity position of the firm and suggests the extent to which working capital needs may be financed by permanent sources of funds.

### 2.1.4. Types of Working Capital (WC)

Most businesses experience seasonal or cyclical fluctuations. For example, construction firms have peaks in the spring and summer, retailer's peak around Christmas and manufacturers who supply both construction companies and retailers follow similar patterns. Similarly, all businesses must build up current assets when the economy is strong but they sell off inventories and reduce receivables when the economy slacks off. Hence, based on time, working capital may be classified into two important types as permanent and temporary working capital (Paramasivan and Subramanian, 2009).

**Permanent Working Capital:** It's also known as fixed working capital and it refers to a minimum amount of investment in all working capital which is required at all times to carry out minimum level of business activities Brigham and Houston (2003). In other words, it represents the current assets required on a continuing basis over the entire year.

**Temporary Working Capital:** It's also known as the circulating or transitory working capital. This is the amount of investment required to take care of the fluctuations in the business activity. Fabozzi and Peterson (2003) defined it as a rise of working capital from seasonal fluctuations in a firm's business.

### 2.1.5. Factors Determining Working Capital Requirements

The total working capital requirement of a firm is determined by a wide variety of factors. These factors affect different organizations differently and they also vary from time to time. In general, factors influencing working capital decisions of a firm may be classified as two groups such as internal factors and external factors (Paramasivan and Subramanian, 2009). The internal factor includes nature of business, size of business, firm's product policy, credit policy and growth and expansion of business. The external factors include business fluctuations, changes in the technology, infrastructural facilities, import policy and the taxation policy. These factors are discussed in brief in the following paragraphs:

#### Internal factors

According to Mekonnen, (2011), there are factors that the companies will take in to account while determining the optimal level of working capital needed for the business concern by looking inherent factors related to the business and they are presented as follows:

**Nature and size of the business:** The working capital requirements of a firm are basically influenced by the nature and size of the business. Size may be measured in terms of the scale of operations. A firm with larger scale of operations will need more working capital than a small firm. Similarly, the nature of the business influences the working capital decisions. Trading and financial firms have less investment in fixed assets Mekonnen, (2011).

**Firm's production policy:** The firm's production policy (manufacturing cycle) is an important factor to decide the working capital requirement of a firm. The production cycle starts with the purchase and use of raw material and completes with the production of finished goods. On the other hand, production policy, either uniform production policy or seasonal production policy also influences the working capital decisions Mekonnen, (2011).

**Firm's credit policy:** The credit policy of a firm influences credit policy of working capital. A firm following liberal credit policy to all customers requires funds. On the other hand, the firm adopting strict credit policy and grant credit facilities to few potential customers will require less amount of working capital Mekonnen, (2011).

**Growth and expansion of business:** Working capital requirement of a business firm tends to increase in correspondence with growth in sales volume and fixed assets. A growing firm may need funds to invest in fixed assets in order to sustain its growing production and sales Mekonnen, (2011).

**External factors**

Sometime firm's working capital requirement can be affected by external factors which will not be controlled through the business internal administration and management process and they are discussed as follows:

**Business fluctuations:** Most firms experience fluctuations in demand for their products and services. These business variations affect the working capital requirements. When there is an upward swing in the economy, sales will increase correspondingly the firm's investment in inventories and book debts will also increase. Under boom, additional investment in fixed assets may be made by some firms to increase their productive capacity. This act of the firm will require additional funds. On the other hand, when there is a decline in economy, sales will come down and consequently the conditions, the firm tries to reduce their short-term borrowings.

Similarly, the seasonal fluctuations may also affect the requirement of working capital of a firm (Mekonnen, 2011).

**Changes in the technology:** The technological changes and developments in the area of production can have immediate effects on the need for working capital. If the firm wish to install a new machine in the place of old system, the new system can utilize less expensive raw materials, the inventory needs may be reduced there by working capital needs may be affected (Mekonnen ,2011).

**Taxation policy:** The amount of tax to be paid is determined by the prevailing tax regulations and very often taxes have to be paid in advance. If tax liability increases, it will lead to an increase in the level of working capital and vice versa (Mekonnen, 2011).

Generally, firm's financial manager should have to take in to account the above determinants while deciding on the optimal level of working capital needed and the timing for day to day activities of the business operations.

### 2.1.6. Working Capital Management Practice

#### 2.1.6.1. Cash Management Practices

Cash and treasury management seem to be an important function in most firms' ( kytönen, 2004). Accordingly, cash management should maximize equity and holder return. Maximizing profit can be obtained from investing cash and keeping an appropriate level of liquidity (Ward, 2010). In such respect, it is much expected to identify the role of financial transaction in cash management process as it adds value to the firm and has seen a direction of change in firms behavior ( kytönen, 2004).

For a firm to experience a successful financial transaction costs, a tight cash management policy plays a key role. According to Briggs and Singh (2000), the ability of a firm holding small amount of cash depends upon its access to money and the capital market or a possible sale of assets ( kytönen,2004). In the order face of taught, a firm holding too much of cash than what is expected will lead to an opportunity cost of money. With the transactional model a firm's cash management policy tries to minimize the adverse effect of opportunity cost thereby maximizing the profit on cash management (Briggs & Singh, 2000). Cash management forms an aspect of working capital management which encompasses the manner in which cash under goes

different process and procedures of handling a firm's liquidity in it monitoring and planning (Lamberg & Vålming, 2009). An effective monitory of cash management ensures an improved profit margins and higher earnings ratio which in turn can lead to higher profitability, (Larsson & Hammarlund, 2005). In such regards, the shorter cash convention is the better for the company (Maness & Zietlow, 2005). Such changes in the time line critically depend on management in their critical understudy of its timeline.

With reference to Larsson (2000) for firms to ensure a control that can adjust its financial routine, the level of efficiency in its value chain can be improved. One among such control which has a great potential but often neglected is the management of liquid capital or cash management by organizational management. Larsson (2000) in looking at the perspective of cash management classified it as "theories and methods for handling liquid capital". Working capital management is evolving in a cycle around certain factors of control which serve as an attribute and benchmark of determinant. Such factors comprises of four principal elements: trade debtors, trade creditors, stock, and incoming cash, among all debtors are vital in the aspect of cash conversion cycle. Wilson (2008) is evident that the causes of business failures are due to poor working capital management with late payment being an anchor.

Regarding earlier discussion, pragmatically studies have tended to bring into play financial reports. For case in point, Raheman and Nasr (2007) investigated the bang of average compilation period, inventory return in days and average disbursement phase and cash alteration cycle on the net operating profitability of firms. Literally, finance is stuffed with studies on working capital management (Filbeck and Krueger, 2005; Lazaridis and Tryfonidis, 2006; Padachi, 2006; Rahemanand Nasr, 2007; Teruel and Solano, 2007). Such studies appear to comprise a harmony on conceptualizing working capital management as the setting up and management of payables, receivables, inventory and cash is sort to maximize profitability and eradicate the threat of illiquidity .

### 2.1.6.2. Account Receivable (AR) Management Practices

According to Atrill (2006), working capital represents a net venture in short term assets. These resources which are continually flowing (circulating) into and out of the business are

fundamental for day-to day operations. The analysis of such structure is very key since firm transactions are track through account receivables which signifies a key attention to such structure, (Wendorf, 2011). Notwithstanding the fact that firms have the choice of internally seeing to the management of credit extension but also get in touch with relationship between the credit extender and buyer the more probable that account management is to be outsource (Wendorf, 2011). But in which direction it might go, the system of a strategic credit policy to successfully manage credit account is of much concern. According to William (2014), It must always be observed that account receivables are arise through credit sales which is recorded by the seller as account receivables and by the buyer as account payables notwithstanding, it is as an interim debt.

#### 2.1.6.2.1. Determinants of Account Receivable Management Practices

Developing a strong accounts receivable (AR) department is vital for business success. A lot of organizations are struggling to identify success surrounding the entire 'credit to cash" cycle. Numerous businesses work to make their Account Receivables departments faster at collections or more cost effective assuming that these steps are keys to a best practice solution. Burnett (2005) makes it clear that the "faster and cheaper" concept for Account Receivables management best practices is a partial thought process. There is also no "one size fits all" blue print for a best practice solution. What works for one industry or company is not guaranteed to be economical or effective for another. A key to a successive new approach to internal AR challenges is to examine your internal structure- across departmental lines and the landscape of your current customers along with some core guidelines and principals. This will provide a base for a new best practice process. In essence, what Burnett (2005) is trying to put across is that, to produce an effective solution for collections and dispute management, companies must address their inimitable challenges. Companies need not seek out for that one best practice blueprint that solves every issue. In implementing a new solution and process, may it be a new software or structure: you may want to keep an eye on flexibility with workflow, efficiency approaches, dexterity with analysis and automating workflow and communications. You will certainly have a set of your own custom best practices that fit your customer base, your organization and your industry.

### 2.1.6.2.2. Achieving Excellence in Managing Accounts Receivable

Achieving excellence in managing accounts receivable is critical to realizing and optimizing the profit (Salek, 2006). This approach by default seeks to minimize the investment in receivable management and cost of the asset while not constricting sales too much. In the process of implementing best practices in receivables management, Salek (2006) has discovered that these three keys for unlocking greater profitability need to be present:

1. **Executive Portfolio Strategy:** A portfolio strategy is a definition of how to manage a receivables asset. Just as different customer segments require customized marketing approaches, various collection approaches are needed for distinct categories of customers. For instance, categories to be managed differently are government versus private sector, export versus domestic and national accounts versus small accounts. This will keep cash flowing and minimize bad debt exposure.
2. **Dispute Resolution Process:** A dispute is any reason (other than cash constraints) for a customer to delay or take a "deduction" from an invoice. Disputes generally arise from invoicing the wrong price or quantity, omitting purchase order numbers or product or service quality issues. Experience by Salek (2006) shows that over half of receivables greater than 30 days past due are disputed so the speed in which disputes are researched and resolved with the customer can directly decrease the number of past-due receivables**.**
3. **Accurate Order Fulfillment and Invoicing:** The receivables asset reflects the quality of the entire revenue cycle operation. If an error is made in taking an order, fulfilling it, invoicing it or applying the customer payment or if the customer is dissatisfied with the product or service, it will manifest itself as a past due or short payment in the receivables ledger. The quality of the receivables asset is an excellent barometer of customer service. Accurate order fulfillment and invoicing is the corollary of an effective and rapid dispute resolution process. If all orders are fulfilled correctly and billed accurately, the customer has no good reason to delay or short-pay an invoice and disputes should be prevented.

### 2.1.6.3. Accounts Payable (AP) Management Practices

**Accounts payable** is money owed by a business to its suppliers (trade creditors) shown as a current (short-term) liability on a company's balance sheet, (Anonymou2, 2012). Payables are often categorized as Trade Payables, payables for the purchase of physical goods that are

recorded in Inventory and Expense Payables, payables for the purchase of goods or services that are expensed. Common examples of Expense Payables are advertising, travel, entertainment, office supplies and utilities. Other examples of accounts payable include: Sales taxes payable - sales taxes collected from customers that must be paid to the state department of revenue. Payroll taxes payable - amounts withheld from employee pay for income taxes and employment taxes and amounts owed by the employer for that payroll and which must be paid to the IRS for withholding. Loans payable and mortgages payable - total amounts due and amounts currently due for loans and mortgages. Account payable is a form of credit that suppliers put forward to their clients by allowing them to reimburse for a product or service after it has already been received. In ensuring a system of prompt payment or a discount and late payment for fees, there are five best ways such practices could be handled.

**Commitment:** For such practices of prompt payment discount and late payment fees, there should be a total commitment of all management and all key stake holders for such policy to hold. The sharing of such commitment must be very proactive at the level of senior staffs and which also need to affect every functional activity within the company especially of sales, customer service and management in general, (Salek, 2005).

**Automation:** This enables transaction of determining and handling late payment fees and unearned prompt payment discount which take a great deal of staff time due its high volume, low value transactions (Salek,2005). The automation of such system enables such transactions handled easily in such development activities such as the following will be fast track easily: a) Notification to customers b) Transaction write-off or adjustment. **Giving a stipulated grace period for due dates:** Is of a great challenge to enforce charges for payment that is few days late, therefore here is the need to give a stipulated grace period which will still be considered on time for the purpose of accessing late payment fees (Salek, 2005). Using late payment fees and / or prompt payment discount as a collection tool: This help in a proactive customer contact as it alert customers service of a proactive call. This call prompts the customer and alerting him of an opportunity to save money (Salek, 2005). Recording late payment fees to a suspense account in addition to prompt payment discount instead of directly to interest income or revenue (Salek, 2005).

### 2.1.6.4. Inventory Management Practices

According to (Arsham, 2006), inventory management is the procedure for the minimization of the entire cost of inventory. This means keeping the general costs linked with having inventory as little as possible devoid of creating troubles. Stock and inventory are often used interchangeably to attribute to the same thing (wild, 2002), but as it stand when inventory management is mentioned there is a slight differences with stock: the scope of inventory management is quite broad than stocks: as it is defined as management of materials either in motion and at rest (coyle et al, 2003). Oxford Learner's Dictionary defines inventory as the catalog of merchandise and materials that are held accessible in stock by a business. A company's working capital consists of its reserves in current assets, which includes short-term assets cash and bank balance, inventories, market securities and receivables. According to Wild (2002), inventory controls organizes the convenience of items to the customers. It coordinates the purchasing, manufacturing and distribution purpose to congregate the marketing needs. This responsibility includes make available of current sale items, new products, consumables: spare parts, obsolete items and all other supplies. For effective inventory management practices, quantity to be ordered and time or period of order are two key factors which needs to be considered (Adu, 2013). Therefore, the questions of how much and when it should be ordered.

In reference to Clodfelter (2003), inventory control system offer succeeding benefits to sales. But not for inventory control events in place, stores can turn out to be overstocked or under stocked. According to (Reid & sanders, 2007), there are two goals that inventory management practice seek; first a good practice of inventory management must ensure the availability of goods. Secondly, not all items can be held in stock against every cost. In this regards, emphasizing the pertinence of the subject matter Gourdin (2001), remarks that inventory is one spot of logistics that has received enormous deal of management's awareness over the years. Therefore, executives currently realize that holding extreme stocks is purely too costly.

### 2.1.7. The Choice of Working Capital Management Practices.

In reference to Horne (2000), functioning capital management is the organization of current assets in the name of money, saleable securities, receivables and inventories. Block and Hirt (1992) are of the analysis that working capital management involves the financing and management of the current assets of the organization. The concern in the management of firms working capital take a look at their short term capital which is the capital firm use on a daily basis for their operational activities. Such capital compasses "current assets and current liabilities", (Rimo & Panbunyuen, 2010). According to (Jeng Ren, et al, 2006), for the ability of a firm to ensure its wellbeing in the market in respect to liquidity depends on the choice of working capital practices. Working capital is seen as the net working capital, which is defined as the current assets less current liabilities (Hillier et al., 2010). **Net working capital =** Current assets – current liabilities. According to Baig (2009), the choice of a working capital management practices can be viewed in two dimensional perspectives which take a look at the internal and external perspective.

The internal perspective deals with the management of investment in relation to current assets and short-term financing in addition to operational functions that interferes with the balance of current assets and liabilities Baig (2009). This ensures the maximization of benefits and minimizing of the working capital assets cost with short term financing.

### 2.1.8. Working Capital Policies

Working capital policy can be best described as a strategy which provides the guideline to manage the current assets and current liabilities in such a way that it reduces the risk of default (Afza and Nazir, 2007). Working capital policy is mainly focusing on the liquidity of current assets to meet current liabilities. Liquidity is very important because, if the level of liquidity is too high then a company has lot of idle resources and it has to bear the cost of these idle resources. However, if liquidity is too low then it will face lack of resources to meet its current financial liabilities (Arnold, 2008). Current assets are key component of working capital and the WCP also depends on the level of current assets against the level of current liabilities (Afza and Nazir, 2007) as cited in (Wubshet, 2014)

### 2.1.8.1. The Level of Working Capital Policy

**Aggressive policy:** An aggressive policy with regard to the level of investment in working capital means that a company chooses to operate with lower levels of inventory, trade receivables and cash for a given level of activity or sales (Cheatham, 1989). According to Gallagher & Joseph (2000), an aggressive policy will increase profitability since less cash will be tied up in current assets but it will also increase risk because the difference between short term or liquid assets and short term liabilities turns very little. Furthermore, few finance managers take even more risk by financing long term asset with short term debts and this approach push the working capital on the negative side.

**Conservative policy:** Conservative and more flexible working capital policy for a given level of turnover would be associated with maintaining a larger cash balance, perhaps even investing in short-term securities, offering more generous credit terms to customers and holding higher levels of inventory by using long term debt and equity. Such a policy will give rise to a lower risk of financial problems or inventory problems at the expense of reducing profitability because long term debt offers high interest rate which will increase the cost of financing (Cheatham 1989).

**A moderate policy:** A moderate policy would trample a middle path between the aggressive and conservative approaches. So, in order to balance the risk and return these firms are following the moderate approach. This approach is a mixture of defensive working capital policy and aggressive working capital policy. In these approach temporary current assets, assets which appear on the balance sheet for short period will be financed by the short term borrowings and long term debts are used to finance fixed assets and permanent current asset. Thus the follower of this approach finds the moderate level of working capital with moderate risk and return (Siddiquee and Khan 2008).

### 2.1.9. Measures of Working Capital Management

Cash conversion cycle and liquidity ratios are used in the finance literature to measure working capital management. Often the term working capital is used as a metric to assess the liquidity position of a firm. In line with this, analysts compare the levels of current assets with current liabilities to determine firm's ability to meet its short term obligations. Those measures that compare the level of current assets with current liabilities are the liquidity ratios.

Preliminary studies have used them as metrics of working capital management, because determination of optimum levels of current assets and current liability rests on the working capital management concern. Cash conversion cycle is used as a comprehensive measure of working capital management in view of the fact that it shows the time lag between the cash outlay for purchase of raw materials and the cash collection from customers (Padachi, 2006). Furthermore, the cash conversion cycle is disaggregated in to three segments (Serrasqueiro, 2014); namely the accounts receivable period (ARP), inventory holding period (IHP) and accounts payable period (APP). Following is the detail of those measures:

**Accounts Receivable Period (ARP):** Signifies for the average time lag the firm allows its customers to pay after the sale of the product takes place. This variable represents the number of days the firm takes to collect the payments from the customer. The higher the number of days the more working capital investment is because the firm's cash is used by customers to finance their own operation. Mathematically it is expressed as:

$$\text{Accounts Receivable Period (ARP)} = \frac{\text{Average Accounts Receivable}}{\text{Sales}} \times 365$$

**Inventory Holding Period (IHP):** refers to the average number of days a firm holds its inventory in store. The higher the number of days the more working capital investment is because cash is tied up in unsold inventories. Mathematically it is expressed as:

$$\text{Inventory Holding Period (IHP)} = \frac{\text{Average Inventories}}{\text{Cost of Goods Sold}} \times 365$$

**Accounts Payable Period (APP):** Signifies to the average number of days a firm takes to pay for its suppliers. High number of days in this measure implies that a firm is paying late and it is financing its operation from suppliers' cash thus the less firm's working capital investment it is. Mathematically it is expressed as follow:

$$\text{Accounts Payable Period (APP)} = \frac{\text{Average Accounts Payable}}{\text{Cost of Goods Sold}} \times 365$$

**Cash Conversion Cycle (CCC):** It represents the length of time between the firm's payment for raw materials and the collection of payment from the customer (Brealey et al, 2001). It is an additive measure derived from the above metrics and mathematically expressed as:

Cash Conversion Cycle (CCC)=ARP+IHP−APP

The longer the cash conversion cycle, the more cash a firm has tied up in inventories and a longer it takes customers to pay their bills, the higher the value of accounts receivable. On the other hand, if a firm can delay paying for its own materials, it may reduce the amount of cash it needs, i.e., accounts payable reduces net working capital (Brealey et al, 2001).

### 2.1.10. Effectiveness of the WCM Practices

Liquidity and profitability are the two very important aspects of corporate business existence (Panwala, 2009). Therefore, liquidity measures the capacity of a company to meet all the growing obligations. The efficient management of working capital is the most crucial factor in ensuring the survival, liquidity, solvency and profitability of a business organization (Samuel, 2011). As mentioned earlier, liquidity is troubled with the capability of a company to make happy its financial obligations on a day to day basis (Moyer, et al., 2009). Moreover, two differing notions are recognized within this period believed to contribute to effective WCM; that is financial viewpoint and organizational context. More emphatically efficient working capital management involves preparation and scheming current assets and current liabilities to put off the hazard of a company's incapability to meet due short period obligations on the one hand and to keep away from unnecessary venture in these assets on the other hand (Eljelly, 2004). Working resources is personally connected with day-to-day operations of a business. Thus, the managing of working capital becomes compulsory (Virendra C., 2007). In wide-ranging practice it refers to the surplus of current assets over current liabilities.

Working capital management consequently deal with the tribulations which happen to administer the current assets, current liabilities and the inter relationship exists sandwiched between them. The consequence of working capital to the achievement of any business cannot be overemphasized. One of the serious predicaments faced by the majority monetary managers is how to effectively and efficiently manage working capital to the

advantage of their organization (Samuel, 2011). This is because working capital comprises a number of different items and its administration is complicated since these are often linked. Therefore changing one item may impact unfavorably upon other areas of the business. A acceptable level of working capital is to be maintained in the basic goal of working capital management since both circumstances are Bad for a business unit i.e. insufficient working capital and excessive working capital Jani, Virendra, C., 2007). Insufficient working capital possibly will show the way the firm to liquidation and extreme working capital implies idle money which earn more income for the business. Operational capital management policies of a firm have a great consequence on its profitability, liquidity and healthy structure of the organization, (Jani, Virendra C., 2007

Shorter cash conversion cycle will possibly be connected to soaring profitability since the longer the cash conversion cycle the better it necessitates for expensive external financing. Consequently, by dipping the period that cash is tied up in working capital, company can function more efficiently (Nobanee and AlHajjar, 2009). In that respect, cash conversion cycle can be shortened by reducing the inventory conversion period by means of processing and selling merchandise further quickly; or by lessening the receivables compilation phase through speeding up collections; or by increasing the payables deferral period through slowing down payments to suppliers (Nobanee, 2009). This increases companies' efficiency of internal operations and consequences on higher profitability and higher market value.

## 2.2. Review of Empirical Studies

This section reviews the empirical studies on the impact of working capital management on firms' profitability. There are a number of studies that assessed working capital management from the perspective of both developing and developed nations.

Deloof (2003) conducted his research on the relationship between working capital management and firms' profitability of 1,009 large Belgian non-financial corporations' from 1992 to 1996. He has used correlation and regression on his study and found that there is a significant negative relationship between gross operating income with the number of day's accounts receivable, inventories and accounts payable of Belgian companies. Based on his finding, Deloof

recommended managers to increase corporate profitability by minimizing the number of day's accounts receivable and inventories.

Falope and Ajilore (2009) conducted their research on the impact of working capital management on the firms profitability by taking sample of 50 Nigerian non-financial firms listed on the Nigerian Stock Exchange from 1996 to 2005 based on the panel data econometrics for pooled regression. They found that there is a significant negative relationship between net operating profit and the average collection period, inventory turnover, average payment period and cash conversion cycle.

Based on their findings, shareholders value can be boosted by efficiently managing working capital being employed through minimizing the days of accounts receivable.

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

## 3.1. Research Approach and Design

There are three approaches that are used in conducting a given research Creswell (2003). These are quantitative, qualitative and mixed research approach. Quantitative approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion and qualitative approach is concerned with subjective assessment of attitudes, opinions and behavior. Research in such a situation is a function of researcher's insights and impressions (Kothari, 2009**).** The quantitative research approach employ measurement that can be quantifiable while qualitative cannot be measured (Bryman& Bell, 2007). In mixed research approach inquirers draw liberally from both qualitative and quantitative assumptions (Creswell, 2009). The study therefore adopted the mixed method approach (a combination of both quantitative and qualitative approaches).

The study design adopted was descriptive and analytical sample survey. It was chosen in view of the facts that, it is a Small- Scale study of relatively short duration and it involves a systematic collection and presentation of data to give a clear picture of a particular situation. It was aimed at getting relevant information related to working capital management of bottled water manufacturing companies in Addis Ababa.

## 3.2. Population and Sampling Techniques

The total population of the study includes purified water bottling manufacturing companies located and operating in Addis Ababa city administration. The population of the study consisted of five (5) bottled water companies registered associated with the Central Statistics Agency (CSA) 2010/11 survey in Addis Ababa, Ethiopia. Namely: Yes, Abyssinia, Aqua Addis, Cheers and origin. The researcher used judgmental sampling techniques to select sample companies included in this study.

In designing a sample, the sample selection was on a comprehensive list of potential respondents who have knowledge on this area. However, the researcher determined the sample size

considering limited resources and thus after identifying the whole population, a total sample of twenty six (26) employees were selected using judgmental technique to respond to the questionnaire.

### 3.4. Data Collection

Both primary and secondary data is used in the study. In order to collect primary data, the researchers have prepared a structured questionnaire composed of open-ended response questions and fixed-alternative questions. The researcher was adopted direct approach to select respondents to collect primary data. In this case, the researcher has made an appointment with the GM (Finance) / Director (Finance) / Manager (Finance) of different sample companies depending on the cases.

Accordingly, researcher has gone to the office of sample companies and collected the filled questionnaire. Of course, the financial data of the concerned samples had been filled by respective executive of concerned sample companies. Secondary data for the study was collected from published sources: Annual Reports of the selected companies, Statistical Year Book, Ethiopian Economic Survey and Related Websites.

### 3.6. Data Analysis

In this study, the data gathered from the field was edited to ensure that the questionnaire is properly completed and contained accurate information. The data is coded and entered in to the computer. The statistical package for the social science (SPSS) was used for data coding, entry and analysis. The data analysis was done using descriptive statistics and presented using tables.

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## 4.1. Demographic Data of Respondents

The demographic data of the study focused on the category of gender, level of education, age, field of study and work experience. Results from the research revealed that 16 male and 10 female respondents were participated in the study. About 16 (61%) of participants are male whereas the rest 10 (39%) are female.

With reference to the respondents' educational level, the results in Table 4.1 illustrates that 22 (84.6%) of the 26 respondents are bachelor holders whereas the rest 4(15.4%) are Master's degree holders. Thus, the findings signify that most of the respondents had obtained tertiary education.

***Table 4. 1. Demographic Data of participants***

| Level of Education | Frequency | Percentage |
|---|---|---|
| College Diploma | | |
| University Degree | 22 | 84.6%) |
| Masters | 4 | 15.4%) |

*Source: Field data, 2018*

Table 4.2 illustrates the age groups of respondents. The respondents were classified into four categories within the ranges of 18 to 30 years, 31 to 40 years, 41 to 50 years and 51-60 years old. Out of 26 respondents, 4(15.4%) are between 18 to 31 years old, 20(76.9%) respondents which constituted the majority of age group respondents are between 31-40 years old. The 51-60 years category had only 2 respondents which constitutes 7.7% of the total population. The rest of the categories had no respondents. Thus, the analyses implied that majority of the employers are adult.

***Table 4. 2. Age group of respondents***

| Age Groups | Frequency | Percentage |
|---|---|---|
| 18 -30 | 4 | 15.4 |
| 31 -40 | 20 | 76.9 |
| 41 -50 | 0 | 0 |
| 51- 60 | 2 | 7.7 |

*Source: Field data, 2018*

As illustrated by table 4.3 below, respondents were classified into four categories based on their work experience within the ranges of 1 to 5 years, 6 to 10 years, 11 to 15 years and 16-20 years' experience. Out of the total respondents, 18 (69.23%) are between,1-5, 6(23.1%) are between 6-10 and the rest 2 (7.7%) are between16-20 years of experience. This indicates that majority of the employers have less than five years' experience.

***Table 4. 3. Work experience of respondents***

| Experience Ranges | Frequency | Percentage |
|---|---|---|
| 1-5 | 18 | 69.23 |
| 6-10 | 6 | 23.1 |
| 11- 15 | 2 | 0 |
| 16 – 20 | | 7.7 |

*Source: Field data, 2018*

## 4. 2. Cash Management Practices

About 20(76.9%) of respondents replied that initial source of their investment is bank loan whereas 6(23.1%) respondents answered it is self-financing. This implies that initial source of investment for most of bottled water companies in Addis Ababa are bank loan. The alternative mechanisms by which the respondents get initial finance for the investment is displayed in Table 4.4 below.

***Table 4. 4. Source of investment funds***

| Source of initial investment | Frequency | Percentage |
|---|---|---|
| Bank loan | 20 | 76.9 |
| Self-financing | 6 | 23.1 |

*Source: Field data, 2018*

It can be analyzed from the above table that initial source of investment for majority of sample companies is bank loan.

About 22(84.6%) of respondents agreed that the business keeps proper records of the cash flow movement whereas the rest 4(15.4%) refused. This indicates that most of the company's business keeps proper records of the cash flow movement.

***Table 4. 5. Records of cash flow movement***

| Proper records of cash flow movement | Frequency | Percentage |
|---|---|---|
| Yes | 22 | 84.6 |
| No | 4 | 15.4 |
| Total | 26 | 100 |

*Source: Field data, 2018*

Results from the study showed further that majority of the companies normally get cash target in advance for their business. 18(69.23%) respondents confirms this whereas 4(15.4%) didn't agree to the above statement. However, 2 of the respondents decline to respond to this question.

***Table 4. 6. Cash target in advance***

| Do you get cash target in advance for your business | Frequency | Percentage |
|---|---|---|
| Yes | 18 | 69.23 |
| No | 4 | 15.4 |
| Total | 22 | 84.63 |

*Source: Field data, 2018*

Going through the questionnaire, when they experienced shortages of funds in undertaking their business dealings, majority of the respondents refused to reveal their coping mechanisms as to how they offset shortages in their business operations. Only 4 out of 26 participants reacted to this question and they indicated that they cell different resources of the company and receive loan from sister companies.

## 4.3. Receivable Management Practices

The account receivables were examined in line with the credit terms offered by bottled water companies. Sales on credit are inevitable in every business in the world today. Out of the 26 respondents, this was affirmed by 10(38.46%) who said they use the "five C"s" of credit technique to decide on granting technique and 10(38.46%) replied that they use sequential credit analysis. Four (15.39%) of respondents said they use credit scoring. Two of the participants decline to respond to this question. The techniques used by bottled water companies in Addis Ababa to decide on granting credit are presented in table 4.7 below.

***Table 4. 7. Techniques used to decide on granting credit***

| Techniques used to decide on granting credit | Frequency | Percentage |
|---|---|---|
| The "five C"s" of credit | 10 | 38.46% |
| Sequential credit analysis | 10 | 38.46% |
| Credit scoring | 4 | 15.39% |
| Total | 24 | 92.31% |

*Source: Field data, 2018*

It could be concluded from the above table that majority of the bottled water companies use the "five C"s" of credit and sequential credit analysis technique to decide on granting technique.

Regarding formal credit investigation, 22(84.62%) respondents agreed that their company undertake formal investigation before granting credit to their customer. However, 4(15.38%) refused (Table 4.8).

***Table 4. 8. Formal credit investigation***

| Companies undertake formal investigation before granting credit to their customer | Frequency | Percentage |
|---|---|---|
| Yes | 22 | 84.62% |
| No | 4 | 15.38% |
| Total | 26 | 100% |

*Source: Field data, 2018*

The above table indicates that majority of bottled water companies in Ethiopia undertake formal investigation before granting credit to their customer.

In monitoring the payment behavior of the company's credit customers, 28.57% of participants respond that account receivable turnover is most useful, about 50% of the respondents choose collection periods and the rest 21.43% replied that aging schedule is the most useful measure. Table 4.9 below presents useful measures in monitoring the payment behavior of the sample company's customers' credit.

***Table 4. 9. Measure in monitoring the payment behavior of sample companies***

| Measure in monitoring the payment behavior | Frequency | Percentage |
|---|---|---|
| Accounts receivable turnover | 8 | 28.57% |
| Collection period | 14 | 50% |
| Aging schedule | 6 | 21.% |
| Total | 28 | 100% |

*Source: Field data, 2018*

This indicates that majority of the sample companies prefer collection period to monitor the payment behavior of the company's credit customers.

Regarding criteria utilized in evaluating proposed changes in the credit terms of the companies, the majority of the respondents (71.43%) said that they utilize effect on level of accounts receivable, 21.43% respond that they make use of effect on return on investment whereas the rest 7.14% indicated that they use effect on firm sales.

***Table 4. 10. Criteria utilized in evaluating proposed changes***

| Criteria Utilized | Frequency | Percentage |
|---|---|---|
| Effect on firm sales | 2 | 7.14% |
| Effect on level of accounts receivable | 20 | 71.43% |
| Effect on level of firm profits | - | - |
| Effect on return on investment | 6 | 21.43% |
| Total | 28 | 100 |

*Source: Field data, 2018*

This shows that most of the sample bottled water companies utilize effect on level of accounts receivable to evaluate proposed changes in the credit terms of their company.

## 4.4. Inventory Management Practices

Inventory management focused on issues bordering on the source of raw materials, stock taking and stock requesting policy. Findings from the study depicted that 16(53.33%) of the respondents chose the appropriate amounts to replenish their warehouses or other inventory storage points through industry guidelines, 8(26.67%) by computerized inventory control systems, 4(13.33%) through cost balancing models and the rest 2(6.67%) respond that they use Ad hoc decision. Implicitly, the results indicated that majority of the respondents chose industry guidelines on the appropriate amounts to replenish their warehouses or other inventory storage points.

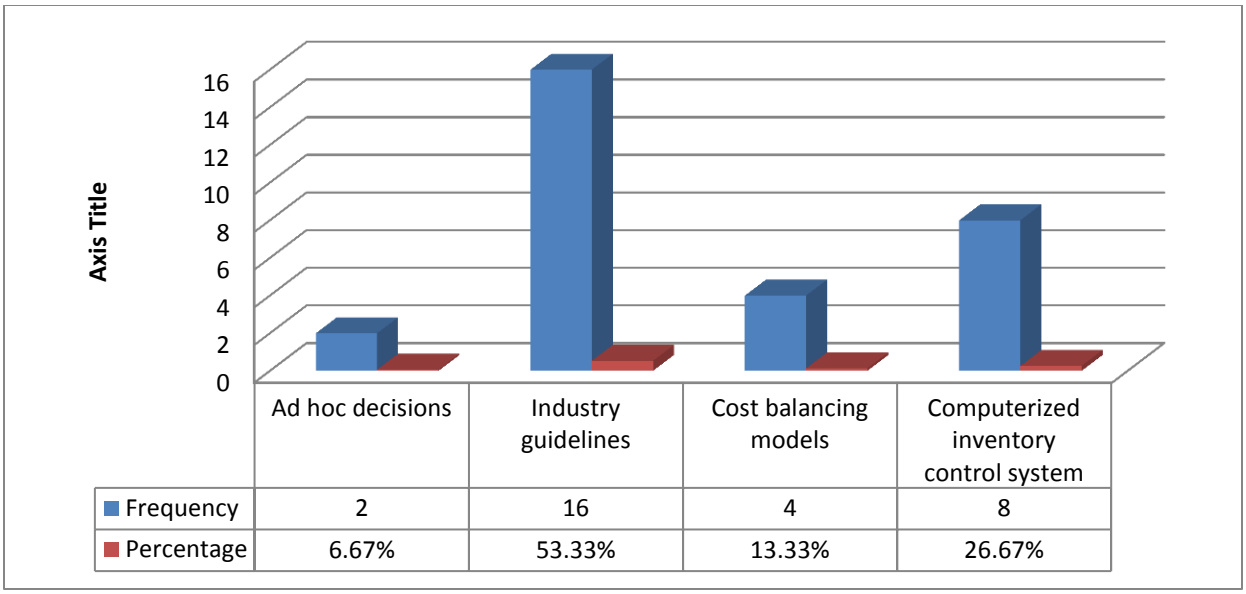


*Figure 4.1. Means of decision on an appropriate amounts to replenish warehouses*

*Source: Field data, 2018*

In parameter selection to decide on replenishment quantities for inventory purchased by the sample companies, 18(50%) of participants respond that they prefer availability of parts and materials, 10(27.78%) prefer credit terms offered by their suppliers and the rest 8(22.22%) chose shortage costs. This is illustrated in table 4.12 below.

***Table 4. 11. Parameter selection to decide on replenishment quantities***

| Parameters | Frequency | Percentage |
|---|---|---|
| Availability of parts and materials | 18 | 50% |
| Credit terms offered by your suppliers | 10 | 27.78% |
| Shortage costs | 8 | 22.22% |
| Inventory effects | - | - |
| Total | 26 | 100% |

*Source: Field data, 2018*

This indicates that majority of the companies prefer credit terms offered by their suppliers in parameter selection to decide on replenishment quantities for inventory.

## 4.5. Payable Management Practices

With regard to managing accounts payable, the annual cost of the company's trade credit obtained from the suppliers is 1.0-5.9% according to the response from participants. Only 2(9.1%) of respondents replied that it is greater than 15.0%. Four participants decline to respond to this question. Table 4.13 below describes the annual cost of the companies' trade credit.

***Table 4. 12. Annual cost associated credit***

| Annual cost | Frequency | Percentage |
|---|---|---|
| Zero% | - | - |
| 1.9 - 5.9% | 20 | 9o.9% |
| 6.0 - 10.9% | - | - |
| 11.0 - 14.9% | - | - |
| Greater than 15.0% | 2 | 9.1% |
| Total | 22 | 100% |

*Source: Field data, 2018*

This indicates that the annual cost of the companies trade credit obtained from the suppliers is 1.0-5.9%.

Regarding policy practices with respect to cash discounts offered by the companies' supplier, 12(37.5%) of participants said that they always take the discount by paying on the discount date, 14(43.75%) indicated that they sometimes take the discount by paying on the discount date whereas 6(18.75%) participants replied that their company never take the discount.

***Table 4. 13. Policy practices with respect to cash discounts***

| Policy Practices | Frequency | Percentage |
|---|---|---|
| Always take the discount by paying on the discount date | 12 | 46.15 |
| Sometimes take the discount by paying on the discount date | 10 | 38.46% |
| Never takes the discount | 6 | 15.39% |
| Total | 26 | 100% |

*Source: Field data, 2018*

This means majority of the sample companies sometimes take the discounts offered by their suppliers by paying on the discount date and the others always do this.

The participants were also asked if their company uses collateral as a part of short term loans. 4(15.38%) answered that loans never require collateral, 8(30.77%) said that loans occasionally require collateral and the majority of respondents 14(53.85%) indicated that loans always require collateral.

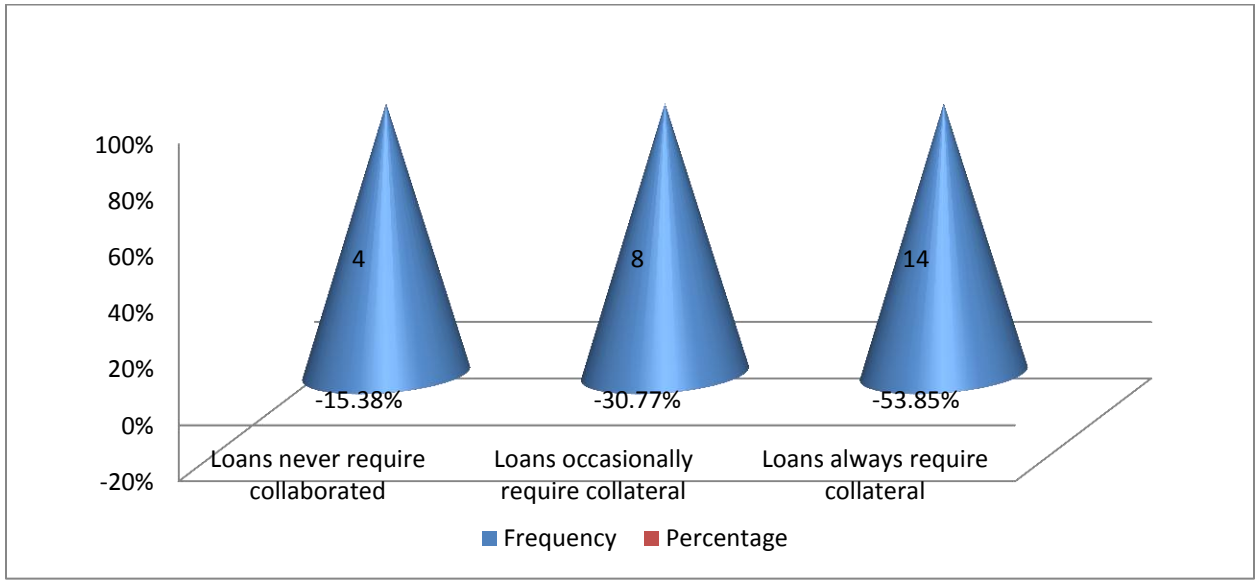


*Figure 4.2. Collateral as part of short term loans*

*Source: Field data, 2018*

This indicates that majority of the sample companies' loan always require collateral as part of short term.

## 4.6. Challenges of WCM Practices on Bottled Water Manufacturing Companies in Addis Ababa

### 4.6.1. Descriptive Statistics and Discussion

According to Best (1977), standard deviation of the score from 1-1.80 is lowest, from 1.81- 2.61 is lower, from 2.62 - 3.41 is average/moderate, from 3.42 - 4.21 is good/high, and 4.22-5 is considered very well. Besides, the decision rules used in the analysis is: average mean less than 3 is considered as low, average mean equal to 3 is considered as medium and average mean greater than 3 is considered as high (Best and khan1995).

#### 4.6.1.1. *External Macro Challenges*

*Table 4. 14. External Macro Challenges to Choice of WCM Practices*

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| How influential is politics to your choice of WCM practice? | 26 | 2.00 | 5.00 | 4.0000 | 1.05830 |
| How influential is business and economic environment/knowledge to your choice of WCM practice? | 26 | 4.00 | 5.00 | 4.7692 | .42967 |
| How influential is industries effect management to your choice of WCM practice? | 26 | 2.00 | 5.00 | 4.5385 | .94787 |
| How influential is legislation to your choice of WCM practice? | 26 | 2.00 | 5.00 | 3.3077 | 1.34964 |
| Valid N (list wise) | 26 | | | | |

*Source: Output of SPSS 20*

It can be analyzed from the above table that politics, business and economic environment/knowledge, industries effect management and legislation externally challenge the choice of WCM practices of bottled water companies in Addis Ababa.

#### 4.6.1.2. External Micro Challenges

***Table 4. 15. External Micro Challenges to the Choice of WCM Practices***

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| How influential is customer needs/requirement to your choice of WCM practice? | 26 | 1.00 | 5.00 | 4.5385 | .90469 |
| How influential is financing requirements/methods to your choice of WCM practice? | 26 | 3.00 | 5.00 | 4.2692 | .91903 |
| How influential is technology to your choice of WCM practice? | 26 | 1.00 | 5.00 | 3.3846 | 1.41639 |
| How influential is supplier influence/collaboration to your choice of WCM practice? | 26 | 3.00 | 5.00 | 4.2308 | .81524 |
| How influential is shareholders wealth maximization to your choice of WCM practice? | 26 | 1.00 | 5.00 | 3.4615 | 1.47596 |
| How influential is competitors' effect to your choice of WCM practice? | 26 | 1.00 | 5.00 | 4.1538 | 1.48842 |
| Valid N (list wise) | 26 | | | | |

*Source: Output of SPSS 20*

The descriptive statistics indicated that customer needs/requirement, financing requirements/methods technology; supplier influence/collaboration; shareholders wealth maximization and competitors' effect are among the external micro challenges to choice of WCM practices in bottled water companies in Addis Ababa.

#### 4.6.1.3. Internal Macro Challenges

***Table 4. 16. Internal macro challenges to the choice of WCM Practices***

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| How influential is management system/method/practice to your choice of WCM practice? | 26 | 5.00 | 5.00 | 5.0000 | .00000 |
| How influential is organizational behavior to your choice of WCM practice? | 26 | 4.00 | 5.00 | 4.6154 | .49614 |
| How influential is operation management/supply chain management to your choice of WCM practice? | 26 | 1.00 | 5.00 | 4.2692 | 1.21845 |
| How influential is investment policy to your choice of WCM practice? | 26 | 2.00 | 5.00 | 4.2308 | 1.03180 |
| How influential is management financial capacity/knowledge to your choice of WCM practice? | 26 | 3.00 | 5.00 | 4.7692 | .58704 |
| How influential is upstream collaboration to your choice of WCM practice? | 26 | 1.00 | 5.00 | 3.5000 | 1.36382 |
| Valid N (list wise) | 26 | | | | |

*Source: Output of SPSS 20*

The analysis of descriptive statistics showed that management system/method/practice, organizational behavior, operational management/supply chain management, investment policy and management financial capacity/knowledge upstream collaboration are internal macro challenges that influence the choice of WCM practices of bottled water companies in Addis Ababa.

#### 4.6.1.4. Internal Micro Challenges

***Table 4. 17. Internal micro challenges to the choice of WCM Practices***

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| How influential is inventory management to your choice of WCM practice? | 26 | 3.00 | 5.00 | 4.6923 | .61769 |
| How influential is employees' financial capability/knowledge to your choice of WCM practice? | 26 | 4.00 | 5.00 | 4.8077 | .40192 |
| How influential is credit policy/collaboration management to your choice of WCM practice? | 26 | 2.00 | 5.00 | 4.5385 | .94787 |
| How influential is payable management to your choice of WCM practice? | 26 | 2.00 | 5.00 | 4.3462 | .97744 |
| Valid N (list wise) | 26 | | | | |

*Source: Output of SPSS 20*

Inventory management, employees' financial capability/knowledge, credit policy/collaboration management, credit policy/collaboration management and payable management are among internal micro challenges that influence the choice of WCM practices of bottled water companies in Addis Ababa as indicated by the descriptive statistics.

## 4.7. Experience of Companies in Improved Liquidity, Profitability, Competitive position, Shareholders' value, Reduction in Funds Tied Up in Working Capital and Unlocking of Capital to Finance Growth

***Table 4. 18. Experience of companies***

**Descriptive Statistics**

| | | Your company experience improved liquidity. | Your company experience improved profitability. | Your company experience improved competitive position. | Your company experience improved shareholders' value | Your company experience improved reduction in funds tied up in working capital. | Your company experience in unlocking of capital to finance growth. |
|---|---|---|---|---|---|---|---|
| N | Valid | 26 | 26 | 26 | 26 | 26 | 26 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | | 4.8077 | 4.8077 | 4.2308 | 3.6538 | 4.0769 | 4.3077 |
| Median | | 5.0000 | 5.0000 | 5.0000 | 4.0000 | 4.0000 | 4.0000 |
| Mode | | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.00[a] |
| Std. Deviation | | .40192 | .40192 | 1.27460 | 1.54770 | 1.23038 | .83758 |
| Variance | | .162 | .162 | 1.625 | 2.395 | 1.514 | .702 |
| Minimum | | 4.00 | 4.00 | 1.00 | 1.00 | 1.00 | 2.00 |
| Maximum | | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Sum | | 125.00 | 125.00 | 110.00 | 95.00 | 106.00 | 112.00 |

a. Multiple modes exist. The smallest value is shown

*Source: Output of SPSS 20*

The mean distribution of improved liquidity is 4.8077 which are greater than 3 and its standard deviation is 0.40192 which is less than 1. This indicates that, in view of the respondents, flow of liquidity is well practiced in bottled water companies in Addis Ababa. Figure 4.6 below illustrates the above justification.

The mean distribution of improved profitability in this study is 4.8077 which is greater than 3 and standard deviation statistics for the same variable is 0.40192 which is less than 1. This shows that as per the respondent's perception, profitability is experienced well in the sample companies (Table 4.20).

***Table 4. 19. Experience of improved profitability***

| **Your company experience improved profitability.** | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Agree | 5 | 19.2 | 19.2 | 19.2 |
| | Strongly agree | 21 | 80.8 | 80.8 | 100.0 |
| | Total | 26 | 100.0 | 100.0 | |

*Source: Output of SPSS 20*

The mean value of improved competitive position experience is 4.2308 which are greater than 3 with standard deviation of 1.27460. This implies that, competitive position practice is common in bottled water companies in Addis Ababa as per respondents' perception. This is well illustrated with figure below.

The mean value of improved shareholders' value is 3.6538 which are greater than its moderate value with lowest standard deviation of 1.54770. This indicates that there is good flow of shareholders' value in majority of bottled water companies in Addis Ababa (Table 4.8).

***Table 4. 20. Experience of improved shareholders' value***

| Your company experience improved shareholders' value. | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | strongly disagree | 4 | 15.4 | 15.4 | 15.4 |
| | Disagree | 4 | 15.4 | 15.4 | 30.8 |
| | Agree | 7 | 26.9 | 26.9 | 57.7 |
| | Strongly agree | 11 | 42.3 | 42.3 | 100.0 |
| | Total | 26 | 100.0 | 100.0 | |

*Source: Output of SPSS 20*

The mean value of improved reduction in funds tied up with working capital is 4.0769 which is greater than its moderate level with the standard deviation of 0.23038 which is less than its average. So, its implication is that, improved reduction in funds tied up with working capital is practiced in bottled water companies.

The average mean value of unlocking of capital to finance growth practiced in large tax payer's office was rated as 4.3077 which is greater than 3 and its standard deviation is 0.83758 which is less than its moderate level. This implies that, the respondent's perception on unlocking of capital to finance growth experience in bottled water companies in Addis Ababa is high. This is more illustrated in the frequency table below.

***Table 4. 21. Experience in unlocking of capital to finance growth***

| Your company experience in unlocking of capital to finance growth. | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Disagree | 2 | 7.7 | 7.7 | 7.7 |
| | Agree | 12 | 46.2 | 46.2 | 53.8 |
| | Strongly agree | 12 | 46.2 | 46.2 | 100.0 |
| | Total | 26 | 100.0 | 100.0 | |

*Source: Output of SPSS 20*

Moreover, the mode and median of improved liquidity, profitability, competitive position, shareholders' value, reduction in funds and unlocking of capital to finance growth tied up with working capital management is 5(strongly agree) which means these activities are being well practiced and have a smooth flow in bottled water companies in Addis Ababa as per the perception of participants. Table of frequencies and pie charts also clearly justify the above analyses.

# CHAPTER FIVE

# SUMMARY, CONCLUSSION AND RECOMMENDATIONS

## 5.1. Summary

The main purpose of the study was to examine the working capital management practices of selected purified water bottled manufacturing companies in Addis Ababa. The population of the study was consisted five (5) bottled water companies registered associated with the Central Statistics Agency (CSA) 2010/11 survey in Addis Ababa, Ethiopia. Total samples of twenty six (26) employees were randomly selected using random sampling technique to respond to the questionnaire. Findings of the study show the following results.

The analysis shows that initial source of budget for most of the bottled water manufacturing companies in Addis Ababa are bank loan. About 20(76.9%) of respondents replied that initial source of their investment is bank loan whereas 6(23.1%) respondents answered it is self-financing. This implies that initial source of investment for most of bottled water companies in Addis Ababa are bank loan.

Results from the study showed further that majority of the companies normally get cash target in advance for their business. Participants' respond confirms that most of the sample companies normally get cash in advance for their business. However, few respondents didn't agree to the above statement.

"Five C"s" of credit and sequential credit analysis techniques are the technique used by majority of the bottled water companies to decide on granting credit. The analysis indicated that "five C"s" of credit and sequential credit analysis techniques are widely used techniques by the companies whereas credit scoring is rarely used.

Majority of bottled water companies undertake formal investigation before granting credit to their customer. About 22(84.62%) respondents agreed that their company undertake formal investigation before granting credit to their customer even though the rest 4(15.39%) didn't agree to this statement.

Collection period is the measure preferred by the sample companies to monitor the payment behavior of their credit customers. The analysis indicated that majority of the sample bottled manufacturing companies use collection period whereas few of them prefer accounts receivable turnover and aging schedule to monitor the payment behavior of the their credit customers.

Effect on level of accounts receivable is the most widely utilized criteria in evaluating proposed changes in the sample bottled water companies. It was analyzed that most of the companies use effect on level of accounts receivable but few of them utilize effect on firm sales and effect on return on investment.

Regarding inventory management practices, the analysis indicated that majority of the companies chose industry guidelines on the appropriate amounts to replenish their warehouses or other inventory storage points and prefer credit terms offered by their suppliers in parameter selection to decide on replenishment quantities for inventory.

The analysis of payable management practices showed that the companies sometimes take the discounts offered by their suppliers by paying on the discount date, sample companies' loan always require collateral as part of short term and the annual cost of the companies trade credit obtained from the suppliers is 1.0-5.9%.

Inventory management, employees' financial capability, credit policy, management, payable management, management system, organizational behavior, operational management/supply chain management, investment policy, management financial capacity/knowledge, upstream collaboration, customer needs, financing requirements, supplier influence, shareholders wealth maximization and competitors' effect are among the major challenges that influence the choice of WCM practices in bottled water companies of Addis Ababa.

The descriptive statistics clearly indicated that improved liquidity, profitability, competitive position, shareholders' value, reduction in funds and unlocking of capital to finance growth tied up with working capital management are being well practiced and have a smooth flow in bottled water companies in Addis Ababa.

## 5.2. Conclusions

The result of the study enabled the researcher to conclude that initial source of budget for most of the bottled water manufacturing companies in Addis Ababa is bank loan despite the fact that few companies use self-financing. The shortest interval of time for which majority of the companies' firm utilizes cash budgeting is quarterly whereas it is monthly and weekly for few of the companies.

The study indicated that most of the bottled water manufacturing companies functioning in Addis Ababa keep proper records of cash flow movement of their business.

The buying of stocks from local companies and using in deposit account with commercial bank were the strategies used by the companies in managing their surplus cash.

In monitoring the payment behavior of the company's credit customers, most of the companies use account turnover and collection period. The companies utilize effect on level of accounts receivable as a criteria to evaluate proposed changes in the credit terms.

With regard to inventory management practices, the study indicated that the companies use industry guidelines on the appropriate amounts to replenish their warehouses or other inventory storage points. Availability of parts and materials is the most commonly used parameter to decide on replenishment quantities for inventory purchased by majority of the companies.

In managing accounts payable, the annual cost of the companies' trade credit obtained from the suppliers is 1.0-5.9%.

Regarding policy practices with respect to cash discounts offered by the companies' supplier, most of the companies frequently take the discount by paying on the discount date and loan always require collateral.

Technology, inventory management, employees' financial capability, credit policy, management, payable management, management system, organizational behavior, operational management/supply chain management, investment policy, management financial capacity, upstream collaboration, customer needs, financing requirements, supplier influence, shareholders

wealth maximization and competitors' effect are the major internal and external challenges that influence the choice of WCM practices in bottled water companies of Addis Ababa.

The study confirmed that activities like improved liquidity, profitability, competitive position, shareholders' value, reduction in funds and unlocking of capital to finance growth tied up with working capital management are being well practiced and have a smooth flow in bottled water companies under study.

### 5.3. Recommendations

The recommendations of the research were premised on conclusions from the results and discussion. Based on the summaries of the analyses and conclusions, bottled water manufacturing companies in Addis Ababa should consider the following points to improve effectiveness of their WCM practices:

- The Accounts payable of a company is an important working capital account. Thus, the companies should have effective payables management to enhance their short-term cash flow position through the design of optimal timing of payments to suppliers.

- Create a re-order level policy for their institutions that will create an enabling environment for them to request for the supply of moderate and high quality stocks. An institution of such a policy paves the way for businesses to identify the best sellers of their wanted stocks in the market at peculiar seasons.

- As was it explained, technology, inventory management, employees' financial capability, credit policy, management, payable management, management system, organizational behavior, operational management/supply chain management, investment policy, management financial capacity, upstream collaboration, customer needs, financing requirements, supplier influence, shareholders wealth maximization and competitors' effect are the major challenges that influence the choice of WCM practices in bottled water companies of Addis Ababa. Thus, bottled water manufacturing companies under this study should emphasize on that predictor and put these activities in to consideration to improve effectiveness of WCM practices of their company.

## 5.4. Limitation of the Study

Since the quality of any research depends on the frank information obtained from target populations or companies, lack of willingness and trustworthiness of in some sample companies while collecting the data was the main problem in conducting this study. Similarly, deficiency of sufficient accounting disclosure and treatment has also limited the result of the study. In addition to these, lack of up-to-date reference books and literature in Ethiopian context, shortage of resources, unavailability of sufficient data and the like constricted the outcome of study.

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Mathios Ensurmu: Trends in Bottled water Use Survey in Addis Ababa: Implication on Reverse Logistics of Bottled Water Manufacturing in Ethiopia

# APPENDICES

## Questionnaire

Dear respondents,

This questionnaire is proposed to gather data that helps to identify the challenges faced when working capital management is practically applied in bottled water manufacturing companies in Addis Ababa. You are one among those who are selected to participate in the study. Therefore, the researcher requests you for valuable response and thanks for your willingness to support the research effort.

You need not write your name. The information given by you will be used only for this research purpose. Please give your honest and sincere response. Provide your responses to the questions by making "√" symbol in the square "□" provided.

Kind regards,

Degitu Mesfin

.

**I. General Information**

**1) Gender**

a. Male □ b. Female□

**2) Educational experience**

a. Diploma □ b, Degree □

c. 2nd degree □ d. Master degree□

**3) Age Range**

a.18 – 30 □b.31 – 40 □

c.41 – 50□ d. 51 – 60□

**4) To which department did you study?**

a. Accounting or auditing□ b. management □

c. IT□ d. Store □ e. others□

**5) Work Experience**

a.1 – 5 □ c. 11 - 15 □

b. 6 – 10 □ d.16 - 20 □

**II. CASH MANAGEMENT PRACTICE**

**6) What is the source of initial investment for your company?**

a. Bank loan□

b. Self-financing □

c. issuing stock □

d Purchase on credit □

**7. What is the shortest interval of time for which your firm utilizes cash budgeting?**

a , Daily □

b , Weekly□

c, Monthly□

d. Quarterly□

e, Other (please specify in the space provided) _____

**8) Does the business keep proper records of the cash flow movement?**

a. Yes □ b. No□

**9) Do you normally get cash target in advance for your business?**

a. Yes□ b. No □

**10. How do you manage your surplus cash? You may choose more than One.**

a, In deposit account with Commercial Bank□

b, Purchase of stock from other companies. □

c, Plough back into the business□

d, Acquire capital assets□

e. Other (please specify).....

**11) How do you manage the difference in your required cash where there is shortage?**

.....

## III. RECEIVABLE MANAGEMENT PRACTICES

12. With respect to managing ACCOUNTS RECEIVABLE, which of the following techniques do you use to decide on granting credit?

(a), The "five C"s" of credit□

(b(, Sequential credit analysis□

(c), Credit scoring□

(d)Other (please specify)……..

13. Do you undertake formal credit investigation before granting credit to your customers?

a. Yes □ b. No □

14. In monitoring the payment behavior of your credit customers, which of the following measures do you find most useful?

(a)Account receivable Turnover□

(b)Collection period□

(c)Aging schedule□

(d)Other (please specify)……..

15. What criteria do you utilize in evaluating proposed changes in the credit terms of your company?

a. Effect on firm sales□

b. Effect on level of accounts receivable□

c. Effect on level of firm profits□

d. Effect on return on investment□

## IV. INVENTORY MANAGEMENT PRACTICES

16. With respect to managing INVENTORY, how do you decide on the appropriate amounts to replenish your warehouses or other inventory storage points?

(a) Ad hoc decisions□

(b) Industry guidelines□

(c) Cost balancing models□

(d)Computerized inventory control systems □

(e) Other (please specify)_____

17. In deciding on replenishment quantities for inventory PURCHASED by your

Company, which of the following parameters are considered?

a. Availability of parts and materials□

b. Credit terms offered by your suppliers□

c. Shortage costs□

d. Inflationary effects□

e. Other (please specify) _____

## VI. PAYABL E MANAGEMENT PRACTICES

18. With respect to managing ACCOUNTS PAYABLE, what do you estimate to be the annualized cost to your company of the trade credit obtained from your suppliers? (Thus, what is the annual cost associated with buying on credit) Choose from

(a), Zero%□

(b), 1.0-5.9%□

(c), 6.0-10.9%□

(d), 11.0-14.9%□

(e) ,Greater than 15.0%□

19. What is your policy/practice with respect to cash discounts offered by your supplier?

(a) Always take the discount by paying on the discount date□

(b)Sometimes take the discount by paying on the discount date □

(c)Never takes the discount□

20. Do you use collateral as a part of your short term loans?

(a) Loans never require collateral□

(b) Loans occasionally require collateral□

(c) Loans always require collateral□

**VII. CHALLENGES TO THE CHOICE OF WCM PRACTICES**

From question 21 to 30, select the factor(s) that influence your company's choice of working capital management practices.

**21. External MACRO Challenges**

Choose the alternative(s) that influence your choice of WCM practice

1=Not at all influential, 2= slightly influential, 3= moderately influential, 4= Very influential and 5= extremely influential

| Factors | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Politics | | | | | |
| Business and economic environment (knowledge) | | | | | |
| Industries effect management | | | | | |
| Legislation | | | | | |

22. External MICRO factors

Choose the alternative(s) that influence your choice of WCM practice 1=Not at all influential, 5=Extremely influential- - - 1 2 3 4 5

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Customer needs/requirements | | | | | |
| Financing requirements/methods | | | | | |
| Technology | | | | | |
| Supplier influence/collaboration | | | | | |
| Shareholders wealth maximization | | | | | |
| Competitors‟ effect | | | | | |

23. Internal MACRO factors

Choose the alternative(s) that influence your choice of WCM practice1=1=Not at all influential, 5=extremely influential- - - 1 2 3 4 5

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Management System/Method/Practice | | | | | |
| Organizational behavior | | | | | |
| Operation management /Supply Chain management | | | | | |
| Investment policy | | | | | |
| Management financial capability (knowledge) | | | | | |
| Upstream collaboration | | | | | |

24. Internal MICRO factors

Choose the alternative(s) that influence your choice of WCM practice in order of their importance to you1=Not at all influential, 5=extremely influential- - - 1 2 3 4 5

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Inventory management | | | | | |
| Employees‟ financial capability (knowledge) | | | | | |
| Credit policy/Collection management | | | | | |
| Payable Management | | | | | |

25. To what level does your company experience any of the following effects?

| | Strongly disagree | disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|
| Improved Liquidity | | | | | |
| Improved Profitability | | | | | |
| Improved competitive Position | | | | | |
| Improved shareholders Value | | | | | |
| Reduction in funds tied up in working capital | | | | | |
| Unlocking of capital to finance growth | | | | | |

**26) Please write what you feel towards working capital management**

_____

_____

_____

_____

_____

Thank you!