Comparative Analysis Of Working Capital Management Of MSMEs In India

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Abstract: - As the world economy develops, those who decide to start or to develop business and those who analyze world trends, have to learn different studies from different countries to make right decision and to be proficient. The BRIC (Brazil, Russia, India and China) countries became strong driving force and it is quite a mistake to underestimate potential of these countries. The study you are reading now was conducted to analyze the working capital management of various micro, small and medium enterprises in Ludhiana, a city and a municipal corporation in Ludhiana district in the Indian state of Punjab. It is the largest city in the state, with an estimated population of more than 3.5 million. We'd like to stress that taking this big industrial city as an example is very revealing, in all BRIC countries such cities with such infrastructure are dominating in economics development, taking a bigger slice of pie and any scholar can analyze tendencies and build forecast on a base of economic development of these cities. To make this study objective, we carried out it in country other than our residential country by taking into consideration 5 samples each from micro, small and medium enterprises from Ludhiana, India. An effort was made in order to analyze and compare their working capital requirements. The study aimed to examine different sources of financing working capital and to suggest effective measures for the effective utilization of the working capital. For achieving the stated objectives, surveys were conducted by visiting the MSMEs personally in order to get the predesigned-structured questionnaires filled. Required information was collected from the respective managers managing the working capital requirements of the MSMEs.

Key-Words: - Working capital management, MSMEs, Working capital finance, capital budgeting, pay-back period, accounting rate of return

1 Working Capital

This chapter contains information about meaning of the working capital, its management and of Micro, Small and Medium Enterprise and types of working capital. It also covers the significance of adequate working capital. It also includes the principles of working capital management policy.

1.1 Meaning of Working Capital Management

Every business needs funds for two purposes - for its establishment and to carry out its day-to-day activities. Long term funds are required to create production facilities through purchase of fixed assets such as plant and machinery, land and building, furniture etc. Investment in these assets is called fixed capital which represent part of firm's capital is blocked. However, funds are needed for short-term purposes for the purchase of raw materials, payment of wages and other day-to-day expenses etc. These funds are known as working capital. In simple words, working capital refers to that part of firm's capital which is required for financing short-term or current assets such as cash, marketable securities, debtors and inventories.

Working Capital, in general practice, refers to the current assets over current liabilities. Management of working capital therefore, is considered with the problems that arise in attempting to manage the current assets, current liabilities and inter-relationship that exists between them. In other words, it refers to all aspects of administration of both current assets and current liabilities. The basic objective of working capital management is to

manage the current assets and current liabilities of an enterprise in such a way that a satisfactory level of working capital is maintained, i.e. it is neither inadequate nor excessive. Working capital management policies of an enterprise have a great effect on the profitability, liquidity and structural health of the organization. In this context, working capital is three-dimensional in nature:
(i) Dimension I is concerned with the formulation of policies with regard to profitability, risk and liquidity.
(ii) Dimension II is concerned with the decisions about the composition and level of current assets.
(iii) Dimension III is concerned with the decisions about the composition and level of current liabilities.
When a business is started, working capital is needed for purchasing the raw materials. The raw material is then converted into finished goods by incurring some additional cost on it leading ultimately to the sale of goods. Sales don't convert into cash instantly because there is invariably some credit sales. Thus there exists a time lag between the sale of goods and receipt of cash. During this period, expenses are to be borne for continuing business operations. For this purpose, working capital is needed. The time period which is required to convert raw materials into finished goods and then into cash is known as operating cycle or cash cycle. Greater the time period, more will be the need for working capital.

1.2 Definition of Micro, Small and Medium Enterprise

The Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 in terms of which the definition of micro, small and medium enterprises is as under:
(a) Enterprises engaged in the manufacture or production, processing or preservation of goods as specified below:
(i) A micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs. 25 lakh;
(ii) A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed Rs. 5 crore; and
(iii) A medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.
(b) Enterprises engaged in providing or rendering of services and whose investment in equipment (original cost excluding land and building and furniture, fittings and other items) not directly related to the service rendered or as may be notified under the MSMED Act, 2006 are specified below.
(i) A micro enterprise is an enterprise where the investment in equipment does not exceed Rs. 10 lakh;
(ii) A small enterprise is an enterprise where the investment in equipment is more than Rs.10 lakh but does not exceed Rs. 2 crore; and
(iii) A medium enterprise is an enterprise where the investment in equipment is more than Rs. 2 crore but does not exceed Rs. 5 crore.
What is interesting is that every country interprets definition of micro, small and medium enterprises differently. In Russia, micro enterprise is an enterprise with average amount of employees – 15 and annual gross income is not more than 60 million rubles (which is Rs. 10 lakh), small enterprise is an enterprise with 30-100 employees and annual gross income is not more than 400 million rubles (which is roughly Rs 67 lakh), etc. In any event, scholar should consider such nuances while analyzing MSME.

1.3 Types of Working Capital

The corporate finance literature has traditionally focused on the study of long-term financial decisions such as investments, capital structure, dividends etc. whereas current assets are important components of total assets and need to be carefully analyzed as well The investment that the firms make in short-term assets, and the resources used with maturities of under one year, represent the main share of items on a firm's balance sheet and are highly associated with the firm's liquidity, operating efficiency, riskiness, profitability and hence value. In this sense, it can be assumed that working capital is the lifeblood of a firm. Correspondingly, through dealing with the working capital, short-term financing and the relationship between a firm's current assets and current liabilities, a major purpose of working capital management is to keep sufficient liquidity to sustain operations and to meet obligations. Hence, traditionally, efficiency of working capital management is based on the principle of speeding up collections as quickly as possible and slowing down disbursements as slowly as possible which will enable to minimize the risk of having insufficient funds to pay for the short term liabilities. However, holding too much liquidity will work to reduce the risk at the cost of decreased profitability. On the other hand, investing less in working capital will increase the profits as well as the associated risk. This trade-off between profitability and risk is the key to working capital management which aims at maintaining a balance between liquidity and profitability while conducting the day-to-day operations of a business. Thus, efficient working capital management, involves the planning and the controlling of the current assets and the current liabilities in such a manner that eliminates the risk of inability to meet due short term obligations while avoiding excessive investment in these assets.

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, adequate flow of funds is also considered to be very necessary to run business. If it becomes weak, the business can hardly prosper and survive. The success of a firm depends on its ability to generate cash receipts in excess of payments. The cash flow problems of many small businesses are the result of poor financial management and in particular the lack of proper planning of cash requirements. The need to evolve a proper working capital management is important for good solvency and liquidity of the firm. Maintaining liquidity on daily base operation to make sure it's running and meets its commitment is a crucial part required in managing working capital. It is a difficult task for mangers to make sure that the business function running in well-organized and advantageous manner. There are chances of inequality of current assets and current liability during this procedure Firm's growth and profitability will be affected if this occurs and firm manger wouldn't be able to manage it efficiently.

1.4 Importance of adequate Working Capital

For the smooth running an enterprise, adequate amount of working capital is very essential. Efficiency in this area can help, to utilize fixed assets gainfully, to assure its long-term success and to achieve the overall objective of maximization of the shareholders' wealth. Shortage or bad management of cash may result in loss of cash discount and loss of reputation due to non-payment of obligation on due dates. Insufficient inventories may be the main cause of production held up and it may compel the enterprises to purchase raw materials at unfavourable rates. Like-wise facility of credit sale is also very essential for sales promotions. It is rightly observed that "many a times business failure takes place due to lack of working capital." Adequate working capital provides a cushion for bad days, as a concern can pass its period of depression without much difficulty. O' Donnel et al. correctly explained the significance of adequate working capital and mentioned that "to avoid interruption in the production schedule and maintain sales, a concern requires funds to finance inventories and receivables." The adequacy of cash and current assets together with their efficient handling virtually determines the survival or demise of a concern. An enterprise should maintain adequate working capital for its smooth functioning. Both, excessive working capital and inadequate working capital will impair the profitability and general health of a concern. An enterprise can exist and survive without making profit but cannot survive without having adequate working capital funds. If an enterprise is not earning profits, it may be termed as 'sick', but not having working capital may cause its bankruptcy. Thus, each firm must decide how to balance the amount of working capital it holds, against the risk of failure. Working capital has acquired a great significance and sound position in the recent times for the twin objects of profitability and liquidity. In period of rising capital costs and scarce funds, the working capital is one of the most important areas requiring management review. It is rightly observed that constant management review is required to maintain appropriate levels in the various working capital accounts. Mainly the success of a concern depends upon the proper management of working capital so working capital management has been looked upon as the driving seat of financial manager.

1.5 Principles of Working Capital Management Policy

Maintaining liquidity on daily base operations in order to meet its commitment is a crucial part required in managing working capital. It is a difficult task for mangers to make sure that the business is running in well-organized and advantageous manner. There can be chances of inequality between the current assets and current liabilities, thereby affecting firm's growth and profitability and making it difficult for managers to maintain it efficiently. MSMEs should make every effort to relate maturity of payments to its flow of internally generated funds. There should be the least disparity between the maturities of an enterprise's short-term debt instruments and its flow of internally generated funds, because a greater risk is generated with greater disparity. A margin of safety should, however, be provided for any short-term debt payment. As the level of working capital relative to sales decreases, the degree of risk increases. When the degree of risk increases, the opportunity for gain and loss also increases. Thus, if the level of working capital goes up, amount of risk goes down, and vice-versa, the opportunity for gain is like-wise adversely affected. Every rupee invested in the working capital needs to contribute to the net worth of the enterprise. Profit maximization is undoubtedly the basic aim of every business venture. Profitability is imperative for any firm that is profit–oriented or concerned with maximization of profits. One of the objectives of working capital management is to increase the profitability of a company and to ensure that it has sufficient liquidity to meet its short-term obligations as they fall due in order to continue the business. The two main objectives of working capital management are to increase profitability and to ensure that MSMEs have sufficient liquidity to meet their short-term obligations. For this reason, it becomes necessary for them to maintain a certain level of equilibrium between liquidity and profitability while running their daily operations. This can be achieved primarily through the proper management of current assets as well as current liabilities.

1.6 Need for the study

Working capital is the life blood and nerve center of business. It is very essential to maintain the smooth running of a business. No business can run successfully without an adequate amount of working capital. This study has been undertaken in order to know how micro, small and medium enterprise in Ludhiana manage their working capital requirements. The study aims to find what has been the impact of current scenario on the liquidity position of the enterprise. It was conducted to find out whether the persons managing the working capital in their respective enterprise are aware of the concepts of inventory management, cash management and receivables management. The primary data will be collected by getting filled a pre-designed, structured questionnaire from the respondents who manage the working capital requirements. Personal interviews and telephonic conversations are also carried out in order to get broader knowledge regarding their views regarding working capital management. The present study aims to achieve the following objectives:

1. To analyze the working capital requirements by the MSMEs in Ludhiana.
2. To examine the different sources of working capital finance.

2 Review Of The Literature

An attempt has been made to present, in brief, a review of past studies, which have a direct or indirect relevance to this study. This is likely to provide a glimpse of work done on the studies related to working capital management by various industries. These studies have been placed in chronological order so that proper perspective may be developed for pursuing the present project.

Dey (1995) stated that working capital needs vary from time to time even if there is same level of business activity [6]. This may vary due to increase or decrease in stock turnover rate and debtors turnover rate etc. He also discussed that there are three types of approaches used in working capital management namely: conservative approach, matching approach and aggressive approach. Three factors to be taken in consideration simultaneously are comfortable liquidity position, adequate profitability and tolerable risk. Dutta (1995) stated that working capital management is a significant facet of financial management due to the fact that it plays a pivotal role on keeping the wheels of the business enterprise running [7]. We shall hardly find a firm which does not require any amount of working capital for its normal operations. The adequacy of working capital can be measured with the help of 1) sales to working capital ratio 2) working capital in terms of month's cost of production. Maheshwari (1996) raises questions about the present quality crunch [11]. The current crisis of liquidity has its origin back to 1991-94 period when the economy opened its doors to the world. Due to heavy inflow of foreign investment, the money supply in the domestic market increases, so it fuels inflation. When inflation reaches alarming high level RBI applied monetary brakes, FII's withdrew their money from economy. The situation seems to be easening out now with RBI cutting CRR from 12% to 10% making companies to take special care of their working capital requirements which should match with the production and the sources to be tapped for it. Mallick and Sur (1998) said that there is a considerable academic debate about the impact of working capital on the profitability of a firm [12]. One school of thought argues that fixed capital only plays a significant role in profit generating process while the other school of thought argues that unless there is a minimum level of investment in the working capital, output and sales cannot be maintained. Rahman and Nasar (2007) studied the relationship between working capital management and profitability – case of Pakistani firms. They said that working capital management has its effect on liquidity as well on profitability of the firm [16]. In this research, we have selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years from 1999 – 2004, we have studied the effect of different variables of working capital management including the Average collection period, Inventory turnover in days, Average payment period, Cash conversion cycle and Current ratio on the Net operating profitability of Pakistani firms. Debt ratio, size of the firm (measured in terms of natural logarithm of sales) and financial assets to total assets ratio have been used as control variables. Pearson's correlation, and regression analysis (Pooled least square and general least square with cross section weight models) are used for analysis. The results show that there is a strong negative relationship between variables of the working capital management and profitability of the firm. It means that as the cash conversion cycle increases it will lead to decreasing profitability of the firm, and managers can create a positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level. We find that there is a significant negative relationship between liquidity and profitability. We also find that there is a positive relationship between size of the firm and its profitability. There is also a significant negative relationship between debt used by the firm and its profitability. Teruel and Solano (2007) studied the effects of working capital management on SME profitability. The object of the research presented in this paper is to provide empirical evidence on the effects of working capital management on the profitability of a sample of small and medium-sized Spanish firms. The authors have collected a panel of 8,872 small to medium-sized enterprises (SMEs) covering the period 1996-2002. The authors tested the effects of working capital management on SME profitability using the panel data methodology. The results, which are robust to the presence of endogeneity, demonstrate that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability [21]. This work contributes to the literature in two ways. First, no previous such evidence exists for the case of SMEs. Second, unlike previous studies, in the current work robust test have been conducted for the possible presence of endogeneity problems. The aim is to ensure that the relationships found in the analysis carried out are due to the effects of the cash conversion cycle on corporate profitability and not vice versa. Sharma and Kumar (2008) studied the effect of working capital management on the firm's profitability. The main aim of this article is to examine the effect of working capital on profitability of Indian firms. They collected data of a sample of 263 non-financial BSE 500 firms listed at the Bombay Stock (BSE) from 2000 to 2008 and evaluated the data using OLS multiple regression. The results revealed that working capital management and profitability is positively correlated in Indian companies. The study further revealed that inventory of number of days and number of days of accounts payable are negatively correlated with a firm's profitability, whereas number of days accounts receivables and cash conversion period exhibit a positive relationship with corporate profitability [19]. Moon (2010) analyzed the problems and prospects of MSMEs in India. MSMEs have been significantly contributing towards employment, export, manufacturing sector in India. They occupy an important place in India's industrialization strategy and display enormous growth potential. These units produce a wide range of items employing traditional to state-of-the-art technology. This vibrant segment of the Indian economy, has been contributing over 45 per cent of the manufacturing sector output, close to 40 per cent of the national exports. There has been a paradigm shift in the approach of the Government towards this sector. MSME is the best vehicle for inclusive growth, to create local demand and consumption. The contribution of service sector apart from manufacturing sector was realized and with the introduction of MSMED Act, 2007, the importance of service enterprises along with the need to shift from small enterprises to medium enterprises has been clearly brought out. There have been many policies protecting this sector and yet there are number of challenges faced by MSMEs. This paper examines the trends in performance and growth of MSMEs. The paper also makes an attempt to understand various problems faced by this sector. An attempt is made to offer few suggestions to augment the success of this sector [13]. Rao et al (2010) studied financial management focus on working capital utilization in the Indian Cotton Industry: Methodological analysis. This paper is aimed at analyzing the trends and patterns of efficiency of WC (WC) utilization in respect of size of firms of cotton textile sector in India on the application of three indices viz., Performance Index (PI), Utilization Index (UI), and Efficiency Index (EI). For the purpose of analysis the selected firms are classified into three size categories viz "Small", "Medium" and "Large" based on average assets size over the study period. The study reveals that Linear Growth Rate (LGR) of PI, UI and EI in respect of WC efficiency for small size firms is significant per Motaals test, the liquidity position of the selected company is better in 2007-08 followed by 2008-09, 2006-07, 2005-06 and 2004-05. The current ratio of the company always remained above the standard norm of 2:1, during all the years under study. Hence, the performance of the company is satisfactory in terms of current ratio during the study period. The performance of the company in terms of quick ratio is also satisfactory, since the ratio remained above the standard norm of 1:1 during all the years under study. Finally, there exists significant negative relationship between liquidity and profitability, which indicates that Cipla Ltd. has maintained post optimal level of liquidity [10]. Padachi et al (2012) investigates the approach of small- to medium-sized Mauritian manufacturing firms to working capital finance using a survey-based approach and case studies. Financing has been cited as one of the most common problems faced by SMEs and is often viewed as one of their main barriers to growth. Using parametric and non-parametric techniques, the important variables that affect the demand for financing are examined. Interestingly, it is observed that the sample firms adopted more informal sources of financing and networking to meet their financing requirements. The financing preferences of the firms were predominantly short-term and there was conclusive evidence that they were reluctant to move down the pecking order for fear of losing control of their businesses. The findings confirmed that internal resources, non-bank sources and short-term debt represent the main sources of financing. The research findings provided some new evidence in support of the different approaches to financing working capital. These SMEs used more informal sources such as shareholder loans and bootstrap finance. These results indirectly suggest that firms experience significant information costs that prevent them from gaining access to the traditional sources of financing. The findings of the study will be useful to the financial institutions that fund SMEs and to policy makers [14]. Pieterson (2012) wrote about the working capital management practices of small and medium scale enterprises in the Western Region of Ghana. A well designed and implemented working capital management is expected to contributes positively to the creation of a firms' values. The study used descriptive and analytical sample survey for the representation and the analysis of the findings. The result shows that 87.4% of the entrepreneurs functioned as sole proprietors, whiles 14.1% as partnership and the remaining 1.5% as cooperative societies. The results again shows that 46.1% received credit from suppliers and the average credit period given by SMEs to their credit customers ranged between seven to sixty days (7- 60days).From the study , two main problems faced by SMEs in dealing with credit customers are late payment and bad debts. The result shows that 52.8% of the respondents use note books to represents cash books while none of the respondents uses computer inventory control. 65.3% of the respondents have bank accounts for their businesses. Personal savings accounted for about 35.7% of the startup capital and SMEs consider inflation to be more problematic than even high debtors turnover period and low stock turnover. Consequently, it is recommended that there should be greater collaboration between the Business Advisory Centres (BACs) and the various associations of SMEs for the financial training of the entrepreneurs [15].

Arunkumar and Ramanan (2013) analyze the effect of working capital management on the profitability of manufacturing firms. The data analysis was carried for 1198 manufacturing firms listed in Centre for Monitoring Indian Economy for a period of 5 years. The relationship of debtor's days, inventory days, creditor's days, current ratio, ratio of current liability to total assets, assets turnover ratio, financial assets to total assets, and size with return on assets employed is analyzed in this study. The authors apply correlation analysis and group wise weighted least squares regression analysis to identify the effects of these variables on profitability. The correlation analysis shows that the firms' profitability is highly influenced by the variables relating to assets. We find a positive relationship between profitability and debtors' days and inventory days. We conduct sensitivity analysis to find out the range of return on assets to the given level of independent variables. The study has been conducted on manufacturing industries, irrespective of the business differences. The findings of the analysis show a positive relationship between return on assets and debtors' days and inventory days. Creditors' days shows a significant negative relationship with return on assets. The negative relationship between creditors days and profitability suggest that long number of days of accounts payable leads the firm to a low level of profitability and vice versa [2]. Chaklader and Shrivastava (2013) studied the relationship of working capital management of with the firm's profitability during the period of global slowdown. It was intended to know the importance components of working capital and to find about the working capital policies of these firms. The purpose of this study is to find out the effect of working capital management policies on the profitability of manufacturing firms listed in Bombay Stock Exchange (BSE) 500. There are several studies that are conducted to find out the level of profitability and the components of working capital management but there is no study manufacturing firms during the period starting of global slowdown [5]. Sharma and Kumar (2011) had conducted a similar kind of study taking the sample of non financial firms. It was therefore intended by us to make an attempt to conduct this study taking manufacturing firms as our sample. The period of study was from 2008 till 2011. This is the period when manufacturing sector was hit by global recession. The dataset was taken from CMIE prowess data base. For the purpose of our study, out of 11208 manufacturing firms from CMIE Prowess database, those firms were selected that are listed in BSE 500 as financial information of the listed firms were available. There are 254 firms that were of manufacturing nature listed in BSE 500. 169 firms were finally selected as complete information from 2008 onward was available for these firms. Return on capital was taken as a measure of profitability and average inventory turnover days, average collection period, average payable period, cash conversion cycle and the ratio of current assets to total assets were taken as various exogenous variables. Multicolinearity check was done and Hausman test was conducted, Results of Hausman test indicated that random effect model is true. Panel data regression was run through random effect method [19]. John (2013) examined the relationship between working capital management and profitability: a study of selected cement industry in India. Working capital is defined as a major issue in financial decision-making given that it is being a part of savings in asset which calls for appropriate financing investment. The source of financial and economic data of the selected companies is based on the NSE (national stock exchange). Five companies are randomly selected from all listed companies in the NSE, but financial companies are excluded while drawing the sample. The time-dimension of panel data runs yearly from 2011 to 2012. The findings confirm that correlation between long-term debt and other independent variables has been checked. The results shows that longer the current assets, operating profit, liquidity and interest coverage ratio is negative relationship with LTD (long term debt) and other three components of working capital management have a positive relationship. Accordingly, the findings of our results indicate that debt used by the firm are negatively associated with firm's profitability. Results show that companies could make a low debt ratio tend to have a shorter period to keep their inventory. Company will use the internal finance may earn the high profitability [9]. Saravanan and Ramganesh (2013) conducted an empirical study on the effects of working capital on profitability with special reference to Associated Cement Companies Limited. The heart of corporate finance literature is long term investment, capital structure and different valuation methods. They have been focus of intention for many researchers in the past. In short it is mainly concern with the long term financial planning or decisions. On the other hand it is believed that financial decisions of short term assets and short term liabilities management also influence the stock price. These financial decisions are vital because they demonstrate the financial stability of the firm and market develops perception about the firm accordingly. In order to find new ways of value creation, most of the empirical studies focused on inventory management and account receivables management but working capital management has a broader view. The present piece of research analyses the impact of working capital on profitability of Associated Cement Companies Limited [18]. Singh and Singh (2013) say that The Micro, Small and Medium Enterprises (MSMEs) are playing a very important role in the economic development of our country. The MSMEs are the second major contributor to the industrial economy. The distinguishing features of MSMEs lie in its potential for creation of gainful employment and especially self employment opportunities to the youths. Working capital is the amount of funds which is required for the day-to-day operations of every enterprise. Efficient management of working capital is one of the pre-conditions for the success of an enterprise. Inadequate working capital has the potential to disrupt operations of a well-managed business enterprise, while excess working capital has an adverse impact on the profitability of the enterprise. Thus, the management of working capital is an integral part of business finance for the MSMEs [20]. In this study, an attempt is made to examine the various aspects of working capital management of MSMEs in Manipur selected for this purpose. And we have selected a sample of 100 units to analyze and examine the management of various components of working capital viz. inventories, cash and account receivables. The various studies conducted in the area of working capital management and micro, small and medium enterprises reveal that there is not much study conducted regarding the comparative analysis of working capital management of MSMEs in

Ludhiana. The present study has been an attempt to fill up this vaccum.

3 Research Methodology

It is imperative to decide upon the research methodology well in advance to carry out the research in the most effective and systematic way. This chapter describes the research methodology adopted to serve the objective of the study in an effective manner. This chapter consists of mainly five sections.

3.1 Conceptual Framework

The present study is based on a comparative analysis of working capital of MSMEs in Ludhiana. To achieve the objective of the study, 5 micro, 5 small and 5 medium enterprises are taken into consideration. For the purpose of present study, only primary data has been used. An effort will be made in order to analyze and compare their working capital requirements. The study aims to examine different sources of financing working capital needs and to suggest effective measures for effective utilization of the working capital. For achieving the stated objectives, surveys will be conducted by visiting the MSMEs personally in order to get the predesigned structured questionnaires filled. Required information will be collected from the respective manager managing the working capital requirements of the MSME. The collected data is collected, tabulated and classified in a systematic manner. Percentage method has been used to achieve the objective of the study.

3.2 Population and sample selection

Out of the total number of registered MSMEs prevailing in Ludhiana, the sample size of 15 i.e. 5 from micro, 5 from small and 5 from medium enterprises, was included in the study. For the purpose of the sample selection, snowball sampling has been used. The required information was collected from the respective managers of the MSMEs. Various aspects of the working capital were discussed by the manager itself to get a broader view regarding how they manage their working capital requirements.

3.3 Data Collection

To meet the objective of the study, only primary data was collected. Primary data was collected through a predesigned, structured questionnaire. Various studies were reviewed to have a thorough understanding and knowledge about various aspects to be included in the questionnaire and accordingly, a self–administered and structured questionnaire (as given in the Appendix) was designed to collect information from the respondents.

Questions were designed in order to know how the MSMEs tend to manage their working capital in an effective manner. Respondents were asked if they used any techniques in order to manage their working capital, inventory, receivables and cash, in order to know their awareness about these techniques. Respondents were asked if the current economic condition has affected their liquidity position, in order to know whether it has resulted in the increase, decrease or has resulted in no change in liquidity. Both open-ended and close-ended questions were asked. Respondents were asked multiple choice questions and were interviewed personally so that they can express their views effectively.

Suitable changes were made in the questionnaire before the final selection of text of the questionnaire. Before getting the questionnaire filled, main objectives of the research were explained to the respondent. Apart from questionnaire, observation and discussion method were used for the collection of primary data.

3.4 Data Analysis

After the collection of the required data, the next step is to analyze and interpret the collected data. The purpose of the data analysis and interpretation phase is to transform the data collected into credible evidence about the development of the intervention and its performance. Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facts and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains. In order to compare and analyze the working capital requirements of micro, small and medium enterprises, percentage method has been used. Questionnaires were got filled from 5 micro, 5 small and 5 medium enterprises. Apart from getting the questionnaires filled, telephonic conversations with the respondents were also made as and when required, in order to get in-depth knowledge about their working capital requirements. The responses of the respondents were tabulated in the form of percentage in order to compare data in an effective manner.

3.5 Limitations of the study

Any study based on survey through questionnaire suffers from the basic limitation of possibility of difference between what is recorded and what is the truth, no matter how carefully the questionnaire has been designed and field investigation has been carried out. This is so because respondents may not deliberately report their true perceptions and even if they want to do so, there are bound to be differences owing to problems in filters of communication process. This error has been tried to be minimized as much as possible by conducting interviews personally, yet there is no way of obviating the possibility of error creeping in. In addition to this:

Scarcity of time appeared to be a major constraint in the study.

Respondents were not fully aware about the concept of working capital management.

3. Due to the lack of awareness of working capital, the results regarding the effectiveness of using various techniques were not much impressive.

4. Respondents were hesitant to provide the accurate information regarding their financing of working capital.

5. Many aspects might have been ignored due to small size of the sample being taken.

4 Discussion

This chapter includes the analysis of primary data collected from 5 micro, 5 small and 5 medium enterprises prevailing in Ludhiana. The data were collected by the way of getting predesigned-structured questionnaires filled in order to analyze the working capital requirements of MSMEs in Ludhiana and to examine the different sources of financing their working capital requirements. The analysis of questionnaire has been done under four headings which are as follows:

4.1 Profile of Sampled MSMEs

Table 1: Form of organization

	Micro	Small	Medium
Sole Trading	4 (80%)	3 (60%)	5 (100%)
Partnership firm	1 (20%)	1 (20%)	-
Private Ltd.	-	1 (20%)	-
Public Ltd.	-	-	-
Total	100%	100%	100%

From the above table, it is found that 80% of the micro, 60% of the small and 100% of the medium enterprises are sole trading organizations, followed by 20% each of the micro and small enterprises are partnership firms.

Table 2: Annual turnover as on 31st March, 2013

	Micro	Small	Medium
Less than Rs. 30,00,000	3 (60%)	1 (20%)	-
Rs. 30,00,000 to 60,00,000	2 (40%)	3 (60%)	1 (20%)
Rs. 60,00,000 to Rs. 90,00,000	-	1 (20%)	3 (60%)
More than Rs. 90,00,000	-	-	1 (20%)
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that 60% of the micro enterprises had annual turnover of less than Rs. 30,00,000 followed by 40% of the micro enterprises who had annual turnover between the range of Rs.30,00,000 and Rs.60,00,000. Most of the small enterprises had annual turnover between the range of Rs.30,00,000 and Rs.60,00,000, while 60% of the medium enterprises had annual turnover between the range of Rs. 60,00,000 and Rs. 90,00,000.

Table 3: Age of the sampled MSMEs

	Micro	Small	Medium
Less than 5 years	1 (20%)	-	-
5 to 10 years	3 (60%)	4 (80%)	2 (40%)
10 to 20 years	1 (20%)	1 (20%)	3 (60%)
Above 20 years	-	-	-
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that 60% of the micro enterprises and 80% of the small enterprises were 5 to 10 years old, while 60% of the medium enterprises were 10 to 20 years old.

4.2 Management of Working Capital Requirements

Table 4: Person managing working capital requirements (n=15)

	Micro	Small	Medium
Self	(3) 60%	80%	40%
Manager	(1) 20%	-	40%
Accountant	(1) 20%	20%	20%
Total	100%	100%	100%

From the above table, it is found that in case of micro enterprises, 60% of the respondents i.e. owners manage their working capital requirements by themselves followed by 20% each of managers and accountants. In case of small enterprise, 80% of the respondents i.e. owners manage their working capital by themselves, followed by 20% of the respondents who were accountants. In case of medium enterprises, working capital requirements are managed by 40% each of the owners and managers themselves followed by 20% accountants.

Table 5: Educational qualification of the person managing working capital

	Micro	Small	Medium
10th pass	-	20%	-
10+2 pass	20%	20%	40%
Graduate	80%	60%	60%
Total	100%	100%	100%

From the above table, it is found that majority of the respondents i.e. 80% were graduates in case of micro enterprises who manage working capital requirements followed by 20% who were 10+2 pass. While in case of small enterprises, 60% of the respondents were graduates followed by 20% each of the respondents who were either 10th or 10+2 pass. In case of medium enterprises, 60% of the respondents were graduates followed by 40% of the respondents who were 10+2 pass, managing working capital requirements.

Table 6: Level of current assets as on 31st March, 2013

	Micro	Small	Medium
Less than Rs.20,00,000	2 (40%)	-	-
Rs 20,00,000 to Rs.40,00,000	3 (60%)	2 (40%)	1 (20%)
Rs.40,00,000 to Rs.60,00,000	-	2 (40%)	3 (60%)
Above Rs.60,00,000	-	1 (20%)	1 (20%)
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that 60% of the micro enterprises maintained current assets between the range of Rs. 20,00,000 and Rs. 40,00,000 followed by 40% of the micro enterprises who maintained current assets less than Rs.20,00,000. 40% of the small enterprises had current assets between the range of Rs.20,00,000 and Rs.40,00,000 as on 31st March, 2013. Majority of the medium enterprises i.e.60% had current assets within the range of Rs.40,00,000 and Rs.60,00,000.

Table 7: Effect of current economic climate on the liquidity position

	Micro	Small	Medium
Decreased	80%	60%	20%
Remained the same	20%	20%	60%
Increased	-	20%	20%
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that 80% of the respondents agreed that the current economic climate had decreased their liquidity position followed by 20% of the respondents who said that their liquidity position had not been affected by it. In case of small enterprises, 60% of the respondents said that current economic climate had decreased their liquidity position, while 20% of the respondents said that the current economic climate brought no change in their appetite for liquidity. In case of medium enterprises, it is found that 60% of the respondents said that their liquidity position remained constant, while 20% of the respondents said that their liquidity position increased due to current economic climate.

Table 8: Proportion of inventory in current assets

	Micro	Small	Medium
0-20%	-	20%	-
20%-40%	20%	-	20%
40%-60%	60%	20%	80%
60%-80%	20%	60%	-
80%-100%	-	-	-
Total	100%	100%	100%

From the above table, it is found that 60% of the micro enterprises used 40% - 60% inventory as a part of their current assets followed by 60% of the small enterprises who used 60-80% inventory. In medium enterprises, majority of the respondents i.e. 80% said that 40% -60% inventory constituted their part of current assets.

Table 9: Proportion of cash in current assets

	Micro	Small	Medium
0-20%	40%	80%	20%
20%-40%	60%	-	60%
40%-60%	-	20%	20%
60%-80%	-	-	-
80%-100%	-	-	-
Total	100%	100%	100%

From the above table, it is found that 20% - 40% cash constituted part of current assets in 60% micro enterprises. While cash level upto 20% constituted part of current assets in 80% small enterprises, followed by 60% of the medium enterprises where 20-40% cash was being maintained.

Table 10: Proportion of receivables in current assets

	Micro	Small	Medium
0-20%	40%	40%	40%
20%-40%	40%	20%	40%
40%-60%	20%	40%	20%
60%-80%	-	-	-
80%-100%	-	-	-
Total	100%	100%	100%

From the above table, it is found that 20% - 40% receivables constituted part of current assets in 40% micro enterprises. While 40%-60% receivables constituted part of current assets in 40% small enterprises, followed by 40% of the medium enterprises where 20-40% receivables were being maintained.

Table 11: Techniques used for working capital analysis

	Micro	Small	Medium
Ratio Analysis		20%	20%
Fund Flow Analysis	20%	-	-
Budgeting	40%	-	80%
None	40%	80%	-
Total	100%	100%	100%

From the above table, it is found that in case of micro enterprises, 40% of the respondents used budgeting as a tool for analyzing working capital, while 40% used none of the techniques followed by 20% of the respondents who used fund flow analysis. In case of small enterprises, 80% of the respondents used none of the techniques to analyze their working capital followed by 20% of the respondents who used ratio analysis for the same. In case of medium enterprises, 80% of the respondents used budgeting in order to analyze working capital followed by 20% of the respondents who used ratio analysis for the same.

Table 12: Basis of preparation of working capital budget

	Micro	Small	Medium
Daily	20%	20%	20%
Weekly	40%	-	
Monthly	20%	60%	60%
Quarterly	20%	-	20%
Annual	-	20%	-
Total	100%	100%	100%

From the above table, it is found that 40% of the respondents prepared working capital budget on weekly basis, while each of the 20% respondents prepared it on daily, monthly and quarterly basis. In case of small enterprises, 60% of the respondents prepared it on monthly basis, while each of the 20% respondents prepared it on daily and quarterly basis. In case of medium enterprises, majority of the respondents i.e. 60% prepared working capital budget on monthly basis followed by 20% each on daily and quarterly basis.

Table 13: Problem of shortage of working capital

	Micro	Small	Medium
Yes	80%	60%	60%
No	20%	40%	40%
Total	100%	100%	100%

From the above table, it is found that 80% of the respondents agreed that they suffered from working capital shortage in micro enterprises, while the rest 20% did not. Both in small and medium enterprises, 60% of the respondents suffered from this shortage, while 40% of the respondents didn't.

Table 14: Reasons for suffering from the shortage of working capital

	Micro	Small	Medium
Excess inventory	2 (50%)	1 (33.3%)	1 (33.3%)
Excess receivables	1 (25%)	1 (33.3%)	-
Shortage of inventory	1 (25%)	-	1 (33.3%)
Shortage of receivables	-	1 (33.3%)	1 (33.3%)
Total	4 (100%)	3 (100%)	3 (100%)

From the above table, it is found that in case of micro enterprise, 50% of the respondents suffered from the problem of excess inventory followed by 25% of the respondents who suffered from the inventory shortage, which ultimately led to the shortage of working capital. In small enterprises, 33.3% of the respondents suffered from the problem of excess inventory, 33.3% of the respondents suffered from the problem of excess receivables which became reason behind the shortage of working capital. In medium enterprise, 33.3% of the respondents suffered from the problem of shortage of inventory and 33.3% of the respondents suffered from the shortage of receivables which arose the shortage of working capital.

Table 15: Basis of estimating your working capital requirements

	Micro	Small	Medium
Total costs incurred on raw materials, wages and overheads	-	1 (20%)	-
Time duration for which raw materials remain in stores	-	-	1 (20%)
Length of sales cycle	3 (60%)	4 (80%)	2 (40%)
Length of production cycle	2 (40%)	-	2 (40%)
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that 60% of the micro enterprises estimated their working capital requirements by taking into consideration the length of sales cycle, while 40% of the micro enterprises made length of production cycle as a base for the same. In small enterprises, 80% of the respondents said that they made the length of sales cycle the basis for estimating their working capital requirements, while 40% each of the medium enterprises estimated their working capital requirements by taking into consideration the length of sales and production cycle.

Table 16: Factors affecting the working capital the most as per current scenario

	Micro	Small	Medium
Length of the production cycle	40%	40%	40%
Seasonal variations	40%	20%	20%
Credit Policy	-	20%	40%
Earning capacity	20%	20%	-
If any other, please specify			
Total	100%	100%	100%

From the above table, it is found that in micro enterprise, 40% of the respondents said that seasonal variations and seasonal variations affected their working capital the most followed by 20% of the respondents who said that their earning capacity affected their working capital the most. In small enterprises, it is found that 40% of the respondents said that length of the production cycle affected their working capital the most, followed by 20% of the respondents who said that credit policy had a great impact on their working capital. In case of medium enterprises, 40% of the respondents said that their credit policy affected their working capital the most followed by 20% of the respondents who said that seasonal variations affected their working capital the most.

4.3 Financing working capital requirements

Table 17: Percentage of total funds raised for financing working capital requirements

	Micro	Small	Medium
Less than 20%	-	-	-
20% to 40%	1 (20%)	2 (40%)	1 (20%)
40% to 60%	3 (60%)	3 (60%)	3 (60%)
60% - 80%	1 (20%)	1 (20%)	1 (20%)
More than 80%	-	-	-
Total	5 (100%)	5 (100%)	5 (100%)

From the above table, it is found that in case of 60% of the micro , small and medium enterprises, 40% to 60% of the total funds were raised in order to finance their working capital requirements. In case of 40% of the small enterprises, 20% to 40% of the of the total funds were raised for financing their working capital requirements.

Table 18: Proportion of sources used for financing working capital requirements

	Micro	Small	Medium
Loan	16%	30%	22%
Bank Overdraft	45%	30%	25%
Trade credit	21%	25%	19%
Instalment Credit	18%	15%	34%
Total	100%	100%	100%

From the above table, it is found that micro enterprises relied on bank overdraft facility the most to finance their working capital, followed by trade credit facility. The small enterprises relied on 30% each of the loan and bank overdraft the most in order to finance their working capital. The medium enterprises financed their working capital through instalment credit the most stating that 34% of their working capital requirements were financed through instalment credit.

4.4 Inventory, receivables and cash management

Table 19: Techniques for inventory management

	Micro	Small	Medium
ABC analysis	20%	20%	40%
VED analysis	40%	-	20%
Inventory Turnover	-	-	-

Ratio			
Just-in-time Control system	20%	40%	20%
If any other, please specify	-	-	-
None	20%	40%	20%
Total	100%	100%	100%

From the above table, it is found that 40% of the respondents used VED analysis to manage their inventory, while 20%of the respondents used ABC analysis and just-in-time control system followed by 20% of the respondents who did not use any technique for the same. In small enterprise, 40% of the respondents used just-in-time control system followed by 20% of the respondents who used ABC analysis to manage their inventory. In medium enterprises, 40% of the respondents use ABC analysis followed by 20% of the respondents who used VED analysis and just-in-time control system, while 20% of the respondents didn't use any technique to manage their inventory

Table 20: Techniques for receivables management

	Micro	Small	Medium
Receivables Turnover Ratio	20%	-	-
Average collection period	80%	40%	80%
If any other, please specify	-	-	-
None	-	60%	20%
Total	100%	100%	100%

From the above table, it is found out that majority of the respondents i.e.80% used average collection period technique to manage their receivables, while 20% of the respondents used receivables turnover ratio for the same. In small enterprises, 60% of the respondents did not use any technique to manage their receivables, while 40% of the respondents used average collection period for the same. In medium enterprise, 80% of the respondents used average collection period for receivables management while 20% of the respondents did not use any technique for receivables management.

Table 21: Forecasting your receivables

	Micro	Small	Medium
Credit period allowed	40%	80%	80%
Forecasting expenses	40%	-	20%
Forecasting average collection period and discounts	-	-	-
Average size of receivables	20%	20%	-
If any other, please specify	-	-	-
Total	100%	100%	100%

From the above table, it is found that in case of micro enterprises, 40% of the respondents forecasted their receivables on the basis of credit period allowed followed by 20% of the respondents who forecasted their receivables on the basis of average size of receivables. In small enterprise, 80% of the respondents forecasted their receivables on the basis of credit period allowed followed by 20% of the respondents who considered average size of receivables for the same. In case of medium enterprises, majority of the respondents i.e. 80% forecasted their receivables on the basis of credit period allowed followed by 20% of the respondents who used forecasting expenses for the same.

Table 22: Techniques for cash management

	Micro	Small	Medium
Cash planning	-	40%	40%
Cash budget	80%	20%	-
Cash flow statement	20%	40%	20%
Lock box system	-	-	-
If any other, please specify	-	-	-
None	-	-	40%
Total	100%	100%	100%

From the above table, it is found that in case of micro enterprises, 80% of the respondents used cash budget for managing their cash followed by 20% of the respondents who used cash flow statement for the same. In small enterprise, 40% of the respondents used cash planning, 40% of the respondents used cash flow statement followed by 20% of the respondents who used cash budget for the same. In medium enterprise, it is found that 40% of the respondents used cash planning for managing cash, 40% of the respondents used no technique of managing their cash followed by 20% of the respondents who used cash flow statement for the purpose of cash management.

4.5 Conclusion

As per the responses obtained from the respondents of the sampled MSMEs, it was found that majority of the respondents of micro and small enterprises are owners themselves, who do not rely on any other person for managing their day-to-day operations of the business. Despite the fact that the majority of the respondents are graduates in MSMEs, they still seemed not to be fully aware about the concept of working capital. Majority of the micro enterprises maintained current assets within the range of Rs.20,00,000 and Rs.40,00,000, while majority of the medium enterprises maintained current assets between Rs.40,00,000 and Rs.60,00,000 which formed the part of their gross working capital. Majority of the micro and small enterprises said that the current economic climate decreased their appetite for liquidity, while majority of the medium enterprises said that it had no impact on their liquidity position. Most of the micro and medium enterprises maintained 40% to 60% inventory which formed part of current assets, while most of the small enterprises maintained 60% to 80% of their inventory as part of their current assets. Most of the micro enterprises prepared weekly budget for maintaining their working capital, while both small and medium enterprises prepared monthly budgets for the same purpose. It was found that most of the micro, small and medium enterprises suffered from the problem of shortage of working capital. Majority of the micro and small enterprises made length of sales cycle the basis for estimating their working capital requirements, while respondents of most of the medium enterprises said that they made both length of sales cycle and length of the production cycle the basis for estimating their working capital requirements. Most of the micro enterprises invested 40% to 60% of the total funds in financing their working capital requirements, while majority of small enterprises invested 20% to 40% and 40% to 60% of the total funds for the same. Most of the micro enterprises used bank overdraft facility the most to finance their working capital requirements, while small enterprises used both loan and bank overdraft facility for the same. In medium enterprises, majority of the finance for working capital requirements was arranged through instalment credit. The above mentioned information has been collected by the respondents of the selected micro, small and medium enterprises by personally interviewing them and getting the predesigned structured questionnaires filled by them.

3 Problem Solution

Figures and Tables should be numbered as follows: Fig.1, Fig.2, … etc Table 1, Table 2, ….etc.

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5 Conclusion

In this chapter, a brief summary of the study has been presented, so as to understand the implications of the findings. The chapter also discusses recommendations and scope of the study.

5.1 Summary

The significance of efficient working capital management cannot be disputed in corporate viability, performance, sustainability and competitive entrepreneurship. Business viability relies to a greater extent, on its ability to effectively manage receivables, inventory and cash. Thus, much managerial effort needs to be spent on bringing non-optimal level of current assets and liabilities back to their optimal levels. The working capital is affected by a number of factors, including the nature of the business, credit policy, conditions of supply, price level changes, seasonal variations etc. A company must be able to generate sufficient cash funds in order to meet its immediate obligations and thus continue trading without any problem. Inadequate knowledge regarding working capital decisions has been referenced consistently as causes of micro, small and medium enterprises' failure. While conducting study, it has been found that micro and small enterprises mostly relied on short-term sources of financing their working capital, while the medium enterprises relied on bank loans the most. In micro enterprises, cash budgets were prepared to manage their cash for a definite period of time, while in small enterprises, both cash flow statements and cash planning were being carried out. However, medium enterprises either relied on cash planning or they didn't use any technique to manage their cash. While conducting personal interview, it was found that most of the respondents were not happy with the tedious process of getting loans from financial institutions in order to finance their day-to-day operations of the business. There appeared to be lack of proper knowledge among the most of the respondents regarding the various aspects of working capital management. It was further found that only 20% of the respondents said that they didn't suffer from the shortage of working capital due to adoption and execution of proper planning policies, while the rest suffered from the same due to excess inventory leading to blocking of working capital, excess receivables which led to non-availability of cash as and when required.

5.2 Findings of the study

This section deals with findings and conclusion drawn from the study.

- All the respondents were not aware about the concept of working capital management.
- Majority of the micro enterprises stated that they had an annual turnover of less than Rs.20,00,000, while majority of the selected small enterprises said that they had an annual turnover between the range of Rs.20,00,000 and Rs.40,00,000. In contrast, the majority of selected medium enterprises said that they recorded an annual turnover between the range of Rs.40,00,000 and Rs.60,00,000 as on 31st March, 2013.
- Majority of the sampled micro enterprises maintained current assets between the range of Rs.20,00,000 and Rs.40,00,000, while 40% of the selected small and 60% of the medium enterprises invested in current assets within the range of Rs.40,00,000 and Rs.60,00,000.
- 80% of the respondents of small enterprise managed their working capital by themselves only followed by 60% of the respondents of micro enterprise and 40% medium enterprises. This signifies that there is lack of trust and a higher degree of secrecy involved regarding the management of their day-to-day operations.
- The current economic climate has decreased liquidity position of 80% respondents in micro enterprises followed by 60% of the small enterprises. While in 60% of the medium enterprises, the current economic climate had no impact on their liquidity position.
- In majority of medium and micro enterprises, 40% - 60% of the working capital formed the part of the inventory followed by 60% -80% inventory in case of small enterprises.
- In majority of micro and medium enterprises, 20% - 40% of working capital formed the part of cash, while in small enterprises, upto 20% of the working capital constituted cash component.
- Every enterprise used different methods for analyzing working capital. In 40% micro and 80% small enterprises, no method was being used in order to analyze their working capital.
- Majority of the small and medium enterprises prepare their working capital budget on monthly basis, while majority of the small enterprises prepare their working capital budgets on weekly basis in order to manage their day-to-day operations.
- 80% of the micro enterprises, 60% of both small and medium enterprises suffer from the problem of shortage of working capital. The major reason behind this occurred to be excess inventory in case of micro enterprises, while excess inventory, excess receivables and shortage of receivables occurred to be reason in small enterprises, shortage of inventory, shortage of receivables and excess inventory were the reasons in case of medium enterprises.
- Majority of the micro enterprises used Vital Essential Desired analysis, small enterprises used Just-in-time control system and medium enterprises used ABC analysis in order to manage their inventory.
- Majority of the micro and medium enterprises used average collection period in order to manage their receivables, while majority of the small enterprises did not use any method for receivables management.
- Majority of the micro enterprises forecasted their receivables on the basis of the credit period allowed and forecasting expenses, while in case of small and medium enterprises, 80% of the respondents said that they forecasted their receivables on the basis of credit period allowed.
- 80% of the respondents in micro enterprises said that they used cash budget in order to manage cash, 40% of the respondents in small enterprise said that they used cash planning for managing their cash requirements, while 40% of the respondents in medium enterprises said that they used none of the techniques to manage their cash.
- Most of the micro and small enterprises said that they made length of sales cycle for estimating their working capital requirements, while 40% each of the medium enterprises stated that they used length of sales cycle and production cycle most of the times for the same.
- Majority of the micro, small and medium enterprises said that they raised 40% to 60%

of the total funds for financing their working capital requirements.

- Majority of the respondents in micro used bank overdraft facility the most for the purpose of financing their working capital requirements, while majority of the small enterprises used loan and bank overdraft facility to finance their working capital needs. In medium enterprises, it was found that they mostly used instalment credit for financing their working capital requirements.
- There have been various factors which affect the working capital of the enterprises. Out of those, 40% of the micro enterprises said that seasonal variations affected their working capital the most in the recent times, 40% of the small enterprises said that length of the production cycle had the major impact on their working capital, while 40% of the medium enterprises said that their credit policy affected their working capital the most in the recent times.
- Working capital is being managed by the untrained personnel who did not know how to manage their working capital in an effective manner.

5.3 Conclusion

The need for working capital in micro, small and medium enterprises can't be over emphasized. Every enterprise needs some amount of working capital in order to incur day-to-day expenses. The need for working capital arises due to the time gap between the production and realization of cash from sales. Adequate working capital should be maintained which has a positive impact on the solvency and goodwill of the business. To avoid the shortage of working capital, an estimate of working capital requirements should be made in advance so that arrangements can be made to procure adequate working capital.

5.4 Recommendations of the study

After analyzing the responses from questionnaires, following recommendations have been given so that the MSMEs manage their working capital in an effective manner.

1. Banks and other financial institutions should offer more discount to micro, small and medium enterprises and formulate their credit lending policy in a liberal manner.
2. The units should avoid piling up of inventory i.e. excess inventory due to which units are unable to earn a proper rate of return on its investments.
3. The units should avoid the situation of suffering from the shortage of inventory which makes it difficult for them to buy its requirements in bulk.
4. Executives should try to manage their debtors effectively by formulating an appropriate receivables policy.
5. The units should plan a proper financing mix. They should plan properly variety of sources through which their working capital can be financed easily.
6. Working capital budgets should be prepared each time they intend to incur major expenses. This will forescast unnecessary, unwanted, overestimated and underestimated expenses.
7. Due to lack of sufficient knowledge about the basics of working capital, entrepreneurs can organize on-the-job training programmes to train their respective managers, accountants and themselves.

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References

[1] Abuzayed B., *Working capital management and firms' performance in emerging markets: the case of Jordan.* Int J of Man Fin8, 2012, pp. 155-179.

[2] Arunkumar O.N & Ramanan T.R., *Working Capital Management and Profitability: A Sensitivity Analysis.* Retrieved on 15th March, 2014 from http://www.oalib.com

[3] Bagchi B. and Khamrui B., *Relationship between Working Capital Management and Profitability: A Study of Selected FMCG Companies in India.* Retrieved on 15th March,2014 from http://astonjournals.com/manuscripts/Vol2012/BEJ-60_Vol2012.pdf

[4] Bhunia A, Islamuddin K. and Somnath M., *A Study of Managing Liquidity.* J of Mgmt Res3, 2011 pp. 1-22

[5] Chaklader B and Shrivastava N, *Relationship of Working Capital Management with Firm's Profitability during the Period of Global Slowdown: An Empirical Study of Manufacturing Firms in India.* Res J of Econ & Busi Studies2, 2013, pp. 41-50

[6] Dey B., *Managing working capital in cooperatives.* The Mgmt Acct30, 1995, pp. 270-272.

[7] Dutta S., *Working capital management through financial statements: Analysis of proper*

industry in West Bengal. The Mgmt Acct30, 1995, pp. 826-832.
[8] James K., *Effective Working Capital Management in Small and Medium Scale Enterprises (SMEs)*. Int J of Busi & Mgmt6, 2011, pp. 271-279.
[9] John M., *Working Capital Management And Profitability: A Study Of Selected Cement Industry In India*. Retrieved on 15th March, 2014 from http://www.isrj.net/ArchiveArticle.aspx?ArticleID=2769
[10] Joshi L and Ghosh S., *Working capital management of Cipla Limited: An empirical study*. Int J of Mktng, Finan Services & Mgmt Res1, 2012, pp. 171-186.
[11] Maheshwari A., *Money supply – how bad is the famine?* Char Finan Anal4, 1996, pp. 15-25.
[12] Mallick A and Sur D., *Working capital and profitability: A case study in inter relation*. The Mgmt Acct 33, 1998, pp. 805-08.
[13] Moon U., *Problems and prospects of MSME in India*. Retrieved on September 10, 2013 from http://www.abhinavjournal.com
[14] Padachi K, Howorth C and Narasimhan, *Working Capital Financing Preferences: The Case of Mauritian Manufacturing Small and Medium Sized Enterprises (SMEs)*. Asian Academy of Mgmt J of Acct & Fin8., 2012, pp. 125-157
[15] Pieterson A., *Working capital management practices of small and medium enterprises in the western region: A survey of selected SMEs in the Sekondi-Takoradi metropolis*. Retrieved on September 8, 2013 from http://dspace.knust.edu.gh:8080
[16] Raheman A and Nasr M., *Working Capital Management And Profitability – Case Of Pakistani Firms*. Int Rev of Busi Res Ppr3, 2007, pp. 279 – 300
[17] Rao V C, Azhagaiah R and Rao K C, *Financial management focus on working capital utilization in the Indian Cotton Textile Industry: Methodological Analysis*. J of Finan Mgmt & Anal23, 2010, pp. 63-84.
[18] Saravanan and Ramganesh, *An Empirical Study on Effects of Working Capital on Profitability (With Special Reference to Associated Cement Companies Limited)*. Retrieved on 15th March, 2014 from www.globaljournals.com
[19] Sharma A and Kumar S, *Effect of working capital management on firm profitability: Empirical evidence from India*. Retrieved on September 12, 2013 from http://gbr.sagepub.com
[20] Singh M B and Singh T, *Working capital management of micro, small and medium enterprises (MSMES) in Manipur: An empirical study*. Int J Res Comp App & Mgmt3, 2013, pp. 104-08.
[21] Teruel P and Solano P., *Effects of working capital management on SME profitability*. Int J of Man Fin3, 2007, pp. 164 - 177