THE IMPACT OF WORKING CAPITAL MANAGEMENT ON COMPANY FAILURE IN MALAWI: MANUFACTURING INDUSTRY

MASTERS OF BUSINESS ADMINISTRATION DISSERTATION

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UNIVRSITY OF MALAWI

THE POLYTECHNIC

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MASTERS OF BUSINESS ADMINISTRATION

By

George Logic Harrison Kafuwa

A dissertation submitted to the Faculty of Commerce, The Malawi Polytechnic, in partial fulfillment of the requirements of the Master of Business Administration.

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DECLARATION

I, declare that this research report is my own, unaided work. It is being submitted in partial fulfillment of the requirements for the degree of Master of Business Administration (MBA) in the University of Malawi, it has not been submitted before for any degree or examination in any other University.

Name of Candidate: George Logic Harrison Kafuwa

Date: 30th July 2008

Signature:_____

CERTIFICATE OF APPROVAL

We declare that this dissertation is from the student's own work and effort. Where he has used other sources of information, it has been acknowledged. This dissertation is submitted with our approval.

First Supervisor Name: _____

Signature: _____

Date: _____

Second Supervisor Name: _____

Signature: _____

Date: _____

Head of Department's Name: _____

Signature: _____

Date: _____

DEDICATION

I wish to dedicate this work to my family. To my mother, Delphi who missed my services during the period of studies.

To my wife who missed me a lot and complained tirelessly while undertaking my studies.

To my son George junior, my two daughters Martha and Ellen who at times I had forgotten to pick from school.

Nothing ever comes easily, nothing ever comes without toil, surely, nothing ever comes without sacrifice.

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ABSTRACT

The need to prevent company failures in Malawi is of paramount importance as companies contribute to the economy of a country. This motivated the researcher to carry out a study on Working capital management in relation to company failure on manufacturing industry in Malawi. The research was guided by questions like: What impact does the working capital management have on manufacturing industry in Malawi? How is the working capital related to the closures of companies in Malawi? These questions were to act as a guide in order to achieve the three objectives as outlined: to establish if closure of companies is related to the poor working capital management; to establish elements of Working Capital to see if there are some signals of poor management in the manufacturing industry of Malawi and to come up with recommendations of course of action for future survival of companies in Malawi.

In order to find out whether this topic was also studied either locally or somewhere else, literatures of other researchers were studied. Local researchers like Chibwana et al (2002) studied causes of failure in general; Moloko (2005) studied causes of failure in general and these studies did not attempt to associate poor working capital management with failures of companies. Outside Malawi researchers like Tektas et al (2005) studied WC which did not related to company failure; Ooghe(1998) who studied Working capital Management also did not related to company failure; Refuse et al (1996) studied Working Capital and Neil et al (1991) who studied prediction of bankruptcy just to mention a few. These studies were conducted in other regions of different environments, economies, government policies and development levels compared to Malawi Scenario. This is the gap identified that motivated the study to be embarked on.

The methodology adopts positivism and phenomenology philosophies for ease of coming up with a conclusion. In this research, which was conducted in the city of Blantyre, two types of data were collected i.e. data from documents and data from a survey. This data came from companies that had existed before 1990 and were still in existence at the time of study. Secondly, another data came from key players in the market place who had

knowledge of the events of the failure period. A sample of five companies was chosen for case study and a sample of twenty companies was chosen for survey study. Besides the five companies one company was selected for comparison purposes in performance as the company is about to failed. After collection of both data, analysis was done manually and using Microsoft Excel where computation was required in order to come up with graphs that have been used in discussion. A Stapel scale was created and was then used in failure analysis. The results were then discussed and conclusion was made basing on findings from the discussions.

The findings reveal that poor management of working capital mainly caused the failures of companies, which is a result of failure by managers to take corrective measures in time on changes in working capital elements. This is evidenced by signals of poor working capital management prevalent in 60% of the five companies studied. This was confirmed through the fact that companies with failure rating above 0 according to the devised Stapel scale had in most cases lower current ratios, acid test ratios, negative cash ratios and paid creditors earlier than debtors. The study concludes that the failure of companies in the manufacturing industry was due to failure to monitor working capital elements in time. Therefore the study recommends the existing companies to carry out quarterly monitoring of their working capital elements if they are to take corrective measures in time.

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ATR	Acid Test Ratio
BPPG	Better Payment Practice Group
B2B	Business to Business
B2C	Business to Consumer
CF	Cash Flow
CFS	Cash Flow Statements
CA	Current Assets
CL	Current Liabilities
CPP	Creditors Payment Period
CR	Current Ratio
DCP	Debtors' Collection Period
FMCG	Fast Moving Consumer Goods
FS	Financial Statements
IOBSA	Institute of Bankers in South Africa
IHP	Inventory Holding Period
JIT	Just-In-Time
KPI	Key Performance Indicators
OC	Operation Cycle
OEM	Original Equipment Manufacturers
QR	Quick Ratio
RSA	Republic of South Africa
SME	Small Medium Enterprises
SHP	Stock Holding Period
UK	United Kingdom
USA	United States of America
WIP	Work in Progress
WC	Working Capital
WCM	Working Capital Management

CHAPTER 1

1.0 INTRODUCTION

1.1 Introduction

This dissertation focuses on an investigation of working capital management on company failure a case of manufacturing industry in Malawi. This introductory chapter gives the background of economy and failure of companies in all industries of Malawi early 1990s and draws attention to the purpose and significance of the study. The introduction also outlines research questions and specific objectives that have acted as a guide throughout the study.

1.2 Background

Malawi liberalized its economy and opened most of its business sectors to both local and international community as a deliberate government policy with an intention of boosting business activities. Despite this, firms in Malawi have been closing one after another since the market was liberalized early 1990s (Mzima T, 2004). This increased loss of jobs and economic suffering through the multiplier effect chain. The giant companies that were not expected to collapse actually were the ones that suffered a lot and closed.

Over thirty companies had closed early 1990s and in confirming this Chibwana et al (2002) assert that big and reliable companies which could be regarded as companies with sound health, abruptly closed down. The list would be lengthy if all companies were to be listed down. As an example of the company failures, appendix 5a shows some of the companies and when they changed hands or went into receivership or liquidation.

Before the liberalization of the economy, a lot of business-to-business and business-to-consumer transactions were mainly through credit terms and some could take more than a year to have their debts settled. Yet with the liberalization of the economy combined with stiff competition from international firms that were entering into the barrier free market, firms needed to change the way they managed their finance locked in their day today activities i.e. working capital (WC).

Therefore this research purports to investigate whether working capital management (WCM) played a role in the closures of the companies through studying performance of five existing companies in the manufacturing industry.

1.3 Purposes and Significance of the Study

This research is important as it examines elements of working capital, how working capital is managed and the variations in WC management that are still in existence in the manufacturing industry that can cause company failure. The other important reason is that on the basis of this study's recommendations, companies would be compelled to adopt new strategies that fit with the current Malawi economy. Finally, the study is intended to arouse companies' management to pay attention to the way they are managing their WC.

1.4 Research Questions

The study is designed to answer the following questions that provide the focus of the investigation:

1. What impact does the WCM have on manufacturing industries in Malawi?
2. How is the WCM related to the closures of companies in Malawi?

1.5 The Objectives of the Study

The study is designed to achieve the following objectives:

1. To establish if the closures of the companies is related to poor management of WC.
2. To examine elements of WC to see if there are some signals of poor management in the Manufacturing Industry of Malawi.
3. To come up with recommendations of course of action for the future survival of companies in Malawi.

1.6 Contents Overview

This dissertation prearranged to investigate impact of WCM on manufacturing industry in Malawi. It focuses on debtors, creditors, inventory and cash management through analysis of liquidity and cash ratios, number of days for payables, receivables and stock holding. Below is an outline of how the study has been organized.

Chapter one introduces the dissertation. It gives a brief background on economy and failure of companies in Malawi that happened during 1990s and draws attention to the purpose and significance of the study. The dissertation outlines research questions and specific objectives that have acted as a guide in the study

Chapter two contains the WC literature review. Studies conducted by other researchers have been reviewed with respect to management of cash, inventory debtors and creditors. The chapter has also reviewed studied that have been carried out with respect to failures. Yet chapter three explains the approaches and methodology used in sampling, data collection, analysis, interpretation and presentation. It also covers on philosophy that guided the research.

Chapter four is critical as it is where findings have been discussed. The data that was collected with regards to debtors, creditors, stock and cash from Annual reports, balance sheets and cash flow statements has been discussed in this chapter. Apart from this, the data collected through questionnaire has also been discussed. The deviations from the analyzed data are discussed to provide the basis for recommendations.

Finally chapter five gives conclusion of the effect of the way WC is being managed in the manufacturing industry in Malawi and provides recommendations that would help the companies to avoid further future occurrence of closures.

1.7 Chapter Summary

This introductory chapter has given a brief background of the economy and company failures since the 1990s. In addition it also presented the objectives that the study intended to achieve; the research questions to be investigated and the significance of the study.

The next chapter discusses and reviews the literature that was accessible in the areas of cash, inventory, debtors, creditors, company failures and working capital management.

1.8 Limitations of the Study

This research work had the following limitations:

- There was limited literature regarding manufacturing industry performance in Malawi.
- Poor record keeping at Register General where data of failed companies is kept for access by public.
- Not all companies' data in manufacturing industry were analyzed as time and accessibility would not allow. Thus this may give limited trend.
- Some of the respondents became emotional and defensive;

- Companies had differences in their operational needs such that it was difficult to establish a yardstick. For example some operated on full cash basis while others 90 percent on credit.
- Some respondents kept on saying they will respond and did not responded at all.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 Introduction

The literature review is set in such away that it expounds literature from 27 other researchers' studies basing on themes on issues of WCM and company failures. Each study is reviewed independently though two or more studies may be on one topic. The findings, methodology and conclusions are reviewed. Then it winds up with a summary of the chapter discussions.

2.2 Research Gap Identification

The past decade of 1990s was one of the worst periods in the history of Malawi firms as we saw small to large firms winding up one after another unexpectedly. It was difficult to keep the firms afloat. More than thirty firms had to close down their businesses. However, some of the companies persevered though struggling and looking quite ailing. In effort to try to stop the closures of the remaining firms, government had conducted seminars in order to establish the cause of the failure of the firms in our environment (Chibwana et al, 2002). It is in this light that this study is come about to verify claims from researchers in other environments which are diverse from ours, that "many companies close due to poor management of working capital".

Meigs et al (1979) agrees with Watson et al (2000) by pointing out that many companies have been forced to suspend businesses because of inadequate working capital. As studies show that companies in other economies close down due to inadequate WC, companies in Malawi could be closing down as a result of this and may become epidemic if not studied so that precautions be taken. Thus this study is undertaken in order to

ascertain this assertion if it applies to Malawi situation. Chibwana et al (2002), Moloko (2005), Changaya (2005), Kanjira (2005) and many other local researchers have studied problems in many different areas like general cause of failure of companies, privatization, customer care, performance appraisals to mention a few. Nevertheless the impact of working capital management in relation to company performance and company failure was not addressed. This research has addressed this gap, which has not been tackled fully by local researchers.

Though many other researchers studied some areas of WC in other economies, their studies were conducted in other regions and different environments, different economies, different government policies and different developmental levels compared to Malawi scenario. In addition to that, the methodology used in most studies is not aligned with the study being undertaken though partial alignment is available in some few studies. Therefore the necessity to conduct this study in Malawi is quite imperative.

2.3 Other Researchers' Studies

This section covers contributions from 27 researchers drawn from different parts of the world. The studies have been discussed in relation to this study of WCM being embarked on.

2.3.1 Cash Management

While this study is concentrating much on balancing creditors, debtors, and inventory in WC, it suffices to say that the main issue is cash that keeps operations going on. In light of this, Arnold (2002) looks at cash as very important by asserting that a higher level of general business activity usually requires greater amounts of cash to oil the wheels. This stresses the importance of cash. For this reason many researchers have put endless effort, studying cash in order to establish how best it may be managed. Below are reviews of some of the studies conducted in the area of cash and cash flow.

Negakis (2006) studied Cash Flow Statement (CFS) Implications for the use of the direct or the indirect method with an objective of describing a user-oriented, pedagogical approach that integrates the statement of cash flows throughout the financial accounting course. The essence of this approach was the use of an expanded accounting equation with temporary cash accounts corresponding to major categories on the statement of cash flows. This research provides information about the use of cash flows (CF), which could be used by the undergraduate and graduate students to understand and evaluate the links between CFS and other financial statements. This study filled the gap in educational research by helping students to develop their skills and their critical view on theory and usefulness of the CFS and it is far away from the focus of the study being undertaken.

However, Jooste's (2006) studied cash flow too. The study aimed at making comparison of companies in a developing country with those in a first world. The study evaluated the South African companies in the chemical, food and electronic industries on cash flow ratios and compared with companies in USA in similar industries. Nine cash flow performance ratios were calculated for companies in the USA and RSA industries for the period of 1986 to 1988. Industry norms were calculated for the period, indicating that the potential existed to develop benchmarks for the ratios by industry and comparison was made.

The results revealed that the cash flow sufficiency ratio of the RSA industries had enough cash to pay primary obligations, whereas the USA industries did not. The cash levels generated by RSA industries, the investments in assets and dividend payouts were more than for USA industries. The cash flow generated by assets used in RSA is also more than that of the USA but USA industries retire long-term debt in a shorter period than RSA industries. Jooste's (2006) study focuses much on comparison of cash flow ratios between two types of economic level countries rather than the working capital management. Therefore the study differs in orientation to the study being undertaken in Malawi. At the same time the study shares some aspects in methodology in that it has a specific period of time that the companies' data was studied i.e. the study was done between the 1986 and 1988 while in this study data used is between 1997 and 2006.

Like Negakis (2006), Kousenidis (2006) of Greece studied on CF entitled "A free cash flow version of the cash flow statement: a note". The study of Kousenidis' (2006) was educational oriented too. The main focus was to attempt to design a free cash flow version of CFS not to find out the relationships as this study is focusing. The findings from Kousenidis (2006) are vital as they reveal that the CF resulting from operating and investing activities are exactly equal to the cash flows received by debt and equity holders (financing activities) by using a simple definition of a company's free CF. These results strengthen the reliability of the study being embarked on as part of the data is drawn from cash flows. If the findings had differed then it would have been necessary to specify which cash flow is to be used in this study for consistency.

Yet before Kousenidis (2006), Luo et al (2005) carried out a study with an intention to test two views of bank's role for Japanese firms on firm's cash holding decisions and the implication of cash holding on the firm value. The findings revealed that firms with closer bank relations hold less cash, but some of them are over-borrowing. This implies that banks do not monitor their client firms and are unlikely to push the managers of the firms to take efficient actions on maximizing firm value. Luo et al (2005) also discovered that cash holdings cause more severe agent conflicts for the firms that have the closer relations with banks. Though Luo et al (2005) study takes different focus from that of this study the findings might explain some of the phenomena particularly if some firms depend on banks on their operating capital. This may help firms to properly strategize particularly those that may be holding a lot of cash.

At the same time of Luo et al (2005), Tsemenyi et al (2005) were motivated to study International Cash Management Practices in a Russian Multinational company due to lack of empirical evidence on financial management practices outside the Western World especially from Russia and other Commonwealth of Independent States. The data for analysis was obtained from documentary and in-depth interviews with finance manager in the company. The findings reveal that the company implemented an international cash management system reminiscent of International cash management discussed in the

Western Literature. It was noted that techniques such as netting, leading and lagging, re-invoicing center and CF planning were used in the company. Thus Tsemenyi et al (2005) affirmed that financial management techniques are likely to be the same in Russia as in the Western World.

However, Tsemenyi et al (2005) were quick to point out that differences are likely to be found in the ways in which these techniques are implemented and used in practice due to differences in environmental conditions. This study is of particular importance as it portrays that though countries may differs in geographical positions it is possible to have similarities in practices. The study has similarities in data sources i.e. documentary and interviews. In this case the interviews are replaced by questionnaire, which is intended to get data from senior management of companies. Thus the findings of the study being undertaken may reveal important bearing on how in Malawi WC is managed compared with other countries.

Knowing how one would survive in difficult situations is important. Thus, Jeffrey (2004) carried out a study on Zero Income Survival Times in which he explored liquidity (solvency) position of ten prominent high street retailers using both traditional measures of current asset ratio and quick asset ratio and a more innovative measure (the Defensive interval). The purpose of the study was to establish, using available accounting data, how long such companies could survive if zero cash –in-flow situation were to arise. Though the study of Jeffrey (2004) looks into issues of survival in the area of liquidity by using ratios that will also be used in this study, it differs in direction of focus to that of the study being undertaken on WCM.

Earlier on, Sharma (2001) following claims by literature that cash flow information does not add value to accrual failure prediction models, carried out a study intending to provide a comprehensive, critical review of failure prediction with CF information since Beaver (1996). The study describes the literature as “inconsistent and inconclusive” and discusses possible reasons why the measurement and diversity of CF, lack of model validity, and multi-co linearity. The study also points out the importance of cash solvency

and dividend payouts; and the limitations it placed on creative accounting. Sharma (2001) refers to the literature on bankruptcy prediction (by Zavgren, 1983; Jones, 1987; Neill et al, 1991; and Watson, 1996) as sharing common view that CF information does not contain significant incremental information content over accrual information in distinguishing between bankrupt and non-bankrupt firms. This study had mixed results because CF from operations had not been properly measured and that some researchers had not validated the model using a validation sample. For these reasons Sharma (2001) recommends further studies in this area. Though this study deals with cash flow, its failure to conclude in connecting the cash flow and prediction of company failure renders this study of no importance with regards to the focus of the study being undertaken. It would have been of interest if it had developed relationship between failure and cash flow.

Besides the above studies, Ooghe (1998) carried out a research in China Shanghai with an intention to investigate the financial management practices in China by means of a qualitative, case study approach. Sixteen companies in Shanghai region were interviewed to investigate investment in fixed assets; financing methods and sources; dividend policy; WCM; internationalization; and financial organization and financial departments. Ooghe (1998) on WCM asserts that for many firms there is strong link between investment and financing: short-term financing for WC needs and longer-term financing for fixed assets investments. The study reveals that debt equity decisions is not a deliberate choice for most companies, especially not for the Chinese ones, because they have no clear idea of the advantages and disadvantages of both financing methods and do not put forward a specific target debt percentage. On dividend policy Ooghe (1998) asserts that only a few firms have a more deliberate dividend policy.

Ooghe (1998) findings on the accounts receivables (AR) are very important as the study reveals that the collection of AR is a big problem for many firms, although many of them do not have a clear credit and collection policy, do not evaluate the creditworthiness of their clients nor ask for advance payments. The study goes on exposing that out the amount of trade, payables is sometimes very high and discounts for cash payments are

rather exceptional. The study also confirms that excess cash is generally invested in short-term bank deposits and seldom in shares. The number of staff in financial department is lower for Chinese companies and for listed joint ventures. On this number of staff Ooghe (1998) claims that this number of staff in accounts department probably reflects the minor importance attributed to financial management.

Ooghe (1998) study concludes that there is need for this to be tested further in future in the following areas: the financial management especially with the Chinese state-owned firms and also with some of the listed joint ventures which are still in initial phases of the development; investment evaluation; debt versus equity choice and dividend decisions are rather procedural and formal where a more pronounced ex ante managerial approach is lacking. AR management is rather poor. The financial department is, for the largest part, oriented towards accounting, salary administration, and other administrative tasks, whereas the more long-term finance decisions (investment, financing and dividends) are underdeveloped or even lacking. Ooghe (1998) presents a study, which is too broad, i.e. it has covered too many areas. Though there are some aspects that the study being undertaken may benefit particularly on receivables, it is not relating WCM and company failure.

Before the study of Ooghe (1998), Byers et al (1997) carried out a study focused on the operating cycle (OC), which provided conceptual and practical understanding of issues and relationships of importance to all managers, such as invested capital, flowing capital, and return on capital, lost and idle capital, risk return-value relationships, basic cost relationships and economic break-even. The study emphasizes on how the OC and indeed the survival of the firm and creation of value, are critically dependent on the marketing function. The study demonstrates why the contribution of each individual to the "team" is vital to creating value. It also illustrates the importance of and provides guidelines for applying the concepts in the different functional areas with an example focusing on human resource management.

Byers et al (1997) approach is general though it partially touches the area of how cash generation is achieved which involves WCM. The study illustrates well on effects of turning the same dollar through the cycle several times during the period. It concludes on cash generation that over the long term, a company must generate cash contribution sufficient to meet cash requirements. Yet, Byers et al (1997), quickly, point out that if it does not, it must get fresh capital from external sources to meet cash needs. This portrays a picture that cash is very important part of the WC. This was a good study but it is not relating to company failure. Thus all the studies on cash management have failed to relate cash management and failure of company.

2.3.2 Debtors and Creditors Management

PlanWare (2006) affirms that if a firm can negotiate improved terms with suppliers i.e. by getting longer credit terms or increased credit limits, the firm effectively would create free finance to help fund future sales. At the same time Merville et al (1973) argue that the current assets and current liabilities of a firm are the Stock reflections of closely interrelated operational and financial cash flows. Thus as this study looks at current ratios, the performance of the company can be reflected. The net effect of these combined flows has to be recognized in searching for the optimal credit, inventory, or short-term borrowing policies. In addition PlanWare, (2007) argues that the cheapest and best sources of cash exist as WC right within business and good management of WC will generate cash, will help improve profits and reduce risks. In addition, it is important to note the two elements in business cycle that absorb cash as inventory and receivables while payables, equity and loans are regarded as main sources of cash. Thus the balance between creditors and debtors would help save cash for the daily operations. To underscore this, a study was conducted in UK on creditors and debtors.

Howorth et al (1998) were aroused to study late payment of commercial debt after precipitating much political debate in UK which had led to establishment of Better Payment Practice Group (BPPG) and enforcement legislation of a statutory right to interest on late payment. The study developed 13 small firm case studies where the

management and financing trade credit was analyzed in detail. The case studies drew on a combination of qualitative and quantitative data from interviews transcripts, questionnaire responses and secondary data. Credit management was examined from the firm's perspective as both a supplier and a customer.

The findings revealed that while late payment concerned all firms interviewed some of them managed it better than others. At the extremes there were two distinct types of firms. Those that found late payment to be the greatest problem were juggling various forms of short-term finance to fund their working capital. Their credit management procedures were ad hoc and unsystematic but there was no evidence that they were at the mercy of dominant customers. Firms that managed late payment had systematic credit management procedures in place, a good knowledge of when to expect payment from each of their customers and appear to be more in control of the process. Such findings might be important to the study being undertaken as receivables is one of the key areas being studied.

Arnold (2002) also claims that more sales volume often means that additional credit is granted to customers so that the investment in debtors increases. Greater sales usually means more inventory held in the form of finished goods. PlanWare (2006) states that if a firm can get money move faster around the cycle or reduce the amount of money tied up in inventory, the business will generate more cash or it will need to borrow less money to fund working capital. Further more, as a result of this suggestion, the firm is expected to reduce the cost of bank interest or it will have additional free money available to support additional sales growth or investment.

2.3.3 Inventory Management

According to Arnold (2002) a firm needs to invest in order to thrive. Major long-term investments in a new factory or new machinery are part of that investment. Another necessary element for expansion is additional resources devoted to current assets. For example higher levels of output call for extra inventory of raw materials and WIP i.e.

partly finished goods. This inventory plays a greater role in acting as a buffer in times of shortages in supply chain.

Schall et al (1991) asserts that inventory absorbs fluctuations in deliveries so as to avoid stock outs. For example a low inventory turnover implies a large investment in inventories relative to the amount needed to service sales. At the same time excess inventory ties up resources unproductively. On the other hand it goes without saying that if inventory turnover is too high, then inventories are too small and it may be that the firm is constantly running short of inventory, thereby losing customers. The objective in inventory is to maintain a level of inventory relative to sales that is not excessive but at the same time is sufficient to meet customer needs. According to Schall et al (1991) managing the level of investment in inventory is like maintaining the level of water in a bathtub with an open drain. So it is important to make sure the stock is properly controlled in the firm if cash is to be available for the running of the firm. This is true because it is possible to spend all available cash in buying stock and then you have nothing to use in converting the stocked raw materials into final goods that could be sold.

Refuse (1996) affirms on stock management that reducing stock produces major financial benefits by simultaneously improving cash flow, reducing operating cost levels, lowering the asset base and reducing capital capacity spending. However reducing stock could also cause problems particularly if transportation logistics are not managed well where by production comes to halt due to running out of raw materials. Certainly Refuse (1996) had been successful in his research as he argues confidently that no other single management action can generate such a high degree of financial leverage as the saving do not arise from trade-offs but from genuine waste reduction, not simply transfer from one company to another. This can only be possible if sources of the raw materials are near the production and can be a motivation to sales team in case of stock of already finished products. It means the company is producing goods that are to be consumed directly. Thereby, Refuse's (1996) argument on stock management centers on lean supply chain.

Srinidhi et al (2004), on their study of Just-in-time (JIT) or just in case assert that smaller inventories provide greater information on the efficacy of their efforts and help induce higher effort with lower cost and lower noise in the system. However, this is possible on companies that could be regarded as SME while very large companies it might be difficult not to have large stocks. This is more applicable where production is done basing on orders and where there are no seasonal troughs that are compounded with problems of transportation logistics. Srinidhi et al (2004) in this study purposed to expand the already existing models by including information and incentive effects on JIT apart from focusing on controlling set-up, lead and changeover times to streamline the operations and achieve low optimal inventory levels. The study looked also on another dimension of JIT, which is to forcibly reduce the average inventory to a system and induce the managers to work smartly and use their knowledge, skill and effort to improve the production-inventory process. Since inventory is one of the elements that is being studied in this research, then the results of Srinidhi et at (2004) may help in coming up with strategies that can be used for survival in the manufacturing industry in Malawi.

Earlier on, Kros et al (2000) investigated on the impact of adoption of just-in-time (JIT) on production systems by different Original Equipment Manufacturers (OEMs) on the inventory profiles of their suppliers. This study was conducted in three industries which constitute automotive, electronics, and aircraft industries. The findings reveal that OEM suppliers in the automotive, electronics, and aircraft sectors have shown mixed results in the impact JIT implementation has had on inventory performance measures. Kros et al (2006) assert that where companies employ traditional push systems, financial risk increases because inventory value inputs, work in progress, and final goods inventories frequently lose value with each day they are held due to decreasing product lifecycles and a positive cash-to-cash cycle (customers pay for products when they take possession).

Companies that utilize pull-based systems such as Mercedes, which manufactures their M Class SUV in Vanceboro, AL, typically require first tier (major component) suppliers to locate their facility within a four hours drive of manufacturing facility. This is not possible in Malawi as some of the raw material to make a complete product have to be

ordered from Highly Industrialized Countries, which are very far. Besides this, Malawi is an inland-country, which does not provide for smooth and swift transportation system. Accordingly, first tier suppliers, which assemble made-to-stock components into made-to-order JIT components frequently, establish assembly facilities within a few minutes drive in order to reduce the impact of component availability problems. Second and third tier suppliers, which make or assemble made-to-stock components, tend to be located in more remote locations- in order to take advantage of lower cost inputs- rely on regular shipping schedules and faster (more costly) modes of transportation in order to meet demand schedules.

Yet, Clayycomb et al (1999), examined just in time (JIT) as one of logistic strategy in consideration to prior study which focused on internal and upstream JIT (i.e. production and purchasing), this study focused on examining the extent to which exchange with downstream customers is JIT oriented. The results of this study show that JIT is associated with organizational designs that are more decentralized, integrated, and formalized and with better performance in terms of less finished goods inventory and higher overall financial performance. In addition to this conclusion the analysis controls for firm size, production technology, and tenure of the senior logistic executive and shows that the effects of JIT with customers on organizational structure and performance are, with a limited number of exceptions, relatively robust.

Steele et al (1994) conducted a study in order to find out effective inventory policy in a fast moving consumer goods (FMCG) supply chain to ensure that right stock levels are held in the right place at the right time. The findings in this study reveal that simulation is a powerful and practical tool for both reducing stock through improving inventory policies and bridging the gap between production and distribution when combined with mathematical theory. This tool could be more important in Malawi where strategists are required in planning for transportation. The simulation could give right re-order levels but that would require complicated transport logistics in Malawi environment and would turn to be expensive in the end. Thus though JIT gives good results, practically it has limiting factors that are more prevalent in Malawi environment.

2.3.4 Working Capital Management in General

The study of WC is critical as cash availability depends on how WC is sustained in balance in business. Studies have been conducted relating to this in different parts of the world though focused differently in relation to the study being undertaken. To achieve better control in working capital management may require a multi-pronged approach that would help identifying granular details of WC drivers. This would perhaps ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses. Perhaps adopting an entrepreneurial mindset would help in acting quickly to drive change by combining operational and financial skills, and expand the thinking beyond the financial organization to gain a more complete view of overall operations. Other researchers give their views on this.

Gracia-Teruel et al (2007) have just conducted studies on the effects of WCM on SME profitability with an objective of providing empirical evidence on the effects of WCM on the profitability of a sample of small and medium-sized Spanish firms. The study involved collecting a panel of 8872 small to SMEs covering the period 1996- 2002 and tested the profitability through panel data methodology. The findings of this study reveal that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. In addition shortening the cash conversion cycle also improves the firm profitability. However, SMEs have most of their assets as current assets and they are often financed by the liabilities. Their study shares more aspects in common with the study being undertaken in this research though there are some differences in focus and methodology. This study is looking at firms in general not only SMEs as in Gracia-Teruel et al (2007). It has covered listed companies and Private limited companies but there are no SMEs as access was denied to the database basing on ethics when contacted to involve them in this study.

Earlier on Refuse (1996) conducted a study focused on business fight that existed between the large companies and SMEs. The large companies were enforcing terms on credit with smaller companies who also in turn enforced their terms with those smaller yet. Refuse (1996) claims that creditor management is essentially a Darwinian situation, the survival of the fittest. The study presents that attempts to improve working capital by delaying payment to creditors is counter-productive to individuals and to the economy as a whole and trying to alter debtors and creditors levels for individual tiers within a value system will rarely produce any net benefit. Therefore, Refuse (1996) proposes that stock reduction generates system-wide financial improvements and other important benefits if it is based on lean supply-chain. This study focused on finding ways of improving working capital while the study being undertaken is intended to find if there are signals of poor working capital management in the manufacturing industry in Malawi that would be related to company failure. Yet, still the findings of Refuse (1996) might have input to this research.

2.3.5 Company Failure and Bankruptcy

Scherrer (2003) puts forward a pertinent point in commenting that most managers blame business decline on external market changes, unforeseen competition, and financial market instability and technology changes- uncontrollable elements. In support of these views, Scherrer (2003) ascertains that while these excuses sound good, the major causes of business failure lie within finance, operations and marketing – the internal elements of a business that include within them accounting, production and advertising.

The study conducted by Scherrer (2003) concludes by saying that it is management's responsibility to control these elements as they have direct control over these functions and are the force that drives them, yet eighty percent of business failures are caused by management's inability to control the internal elements. This is in line with the objectives of the study being undertaken, as it is to explore the internal factor of how the finances are managed in the running of the companies. Thus the study being undertaken is supported well with the conclusion of Scherrer (2003) as it is investigating one of the

internal factors to find out if it contributes to company failures in Malawi. The study lists early decline signals of company failure as cash shortage, liquidity strain, decreases in working capital, return of investment decreasing 20-30 percent, late financial information, overdue accounts receivable, stretched accounts payable, flat sales and increase in customer complaints.

Richardson et al (1994) concerned with company failures in UK early 1990s decided to undertake a study with an aim to explore the issues in failure prone organizations, especially the important person-specific characteristics. To show that failures had reached climax, Richardson et al (1994) assert that as we move through the first half of the 1990s, organization failures continued to attain record levels. The study claims that one in 38 active British businesses went into liquidation in the third quarter of 1992. Besides that the study gives statistics that in 1991, a total of 21827 businesses failed compared with 15051 in 1990, representing a 45% jump.

The study embarked on by Richardson et al (1994) stresses that business failure involving organizations which fail in the business sense imply that they run short of money, usually because they have failed to remain competitive and to continue to attract sufficient contributions from customers and other important resource suppliers. The point raised above is critical as whatever business people, managers do must culminate into increased contribution or reduced contribution and continued reduction causes one day a company to run out of money for operations. Basing on this, if one studies the way a firm is managing the WC, which actually brings contribution after being recycled one should be able to determine whether the company is heading for failure or not. At the end Richardson et al (1994) failed to provide a tangible conclusion perhaps because of using metaphors to refer to failure as a bullfrog, tadpoles, drowned frog, boiled frog and frog. This had meant leaping from one type of failure to another and in the end becoming complex to make one consolidated conclusion. Thus, though WC was included in the failure study, there is no relationship in the conclusion that provides WCM as one of the causes of failures. Thus the study being undertaken is necessary in order to unearth the relationship desired.

Increase in bankruptcy cases aroused Aziz et al (2006), who assert that the important bankruptcy cases had led to growing interest in corporate bankruptcy prediction models since the 1960s. As several past reviews of literature on bankruptcy had then been out of date or too narrowly focused and could not provide a complete comparison of the many different approaches towards bankruptcy prediction and had also failed to provide a solution to the problem of model choice in empirical application they decided to conduct a study that would provide a comprehensive analysis of methodologies and the empirical findings. Thus this was applied across ten different countries.

The findings reveal that the predictive accuracies of different models seemed to be generally comparable. Aziz et al (2006) were quick to point out that given that financial ratios have been dominant in most research to date, it may be worthwhile increasing the variety of explanatory variables to include other factors like corporate governance, structures and management practices while developing the research model.

The interesting part of study is that it made use of financial ratios to predict bankruptcy that the study being undertaken is to use. The authors are quick to point out that in determining bankruptcy most researchers have used the financial ratios. The work of Aziz et al (2006) gives confidence that the study being undertaken is in the right direction.

Ooghe et al (2006) conducted a study in failure processes and causes of company bankruptcy, which categorized company failures into four classes. The study classified them into unsuccessful start-up company, which involved case study of four companies; ambitious growth company that involved case study of three companies; dazzled growth company that involved two companies and apathetic established company, which involved also two companies.

Looking at these failure classes the companies in Malawi could be classified in the fourth i.e. the apathetic established company failure, which Ooghe et al (2006) claim as existed

more or less successful for several years. The companies that are of concern in Malawi, existed for longer periods with substantial levels of performance and looked healthier from outside.

The study conducted by Ooghe et al (2006) reveals that this failure process is due to lack of motivation and commitment of the companies' leaders. As a consequence of rigid management or entrepreneurs believe in strategies that were successful in the past. Due to apathy, they are not aware of global changes in environment. As a result of failure to restructure, the company loses its financial strength and starts to suffer from liquidity and solvency problems assert Ooghe et al (2006) in conclusion. The study connects the typology of the four different processes as giving new insight into the evolution of financial performance ratios during the years preceding bankruptcy. It also puts foreward that there are many similarities within the evolution of financial performance ratios for distressed companies. Finally the study concludes that there exist however significant differences in the duration by which these ratios affect each other.

Mardjono (2005) expressed sentiments by saying "history seems to repeat itself in the last decades, when corporate mishaps have endangered and exposed misfortunes for hundreds or thousands and even millions of employees, customers, shareholders, vendors and other stakeholders". In addition Mardjono (2005) asserts that the news about these mishaps unfortunately often spread fast, overwhelming the news about success stories from many fellow corporations. Thus, Mardjono (2005) was motivated to carry out a study aimed at exploring existing studies and theories about good governance principles and corporate sustainability, by means of comparing and contrasting approaches on best practices developed by scholars and world's prominent organisations, enriched by featuring a couple of prominent cases on corporate failure associated with divergence of best practice. Thus the study was conducted with empirical evidence of failure of what happened to Enron of USA and HIH Insurance Group of Australia.

The findings reveal that both Enron and HIH acknowledged good corporate governance as a prevailing framework, yet failed to implement it. Each of the principles had been violated and had served as an attribute to the firms' failure.

Like failure of Enron, failure of HIH Insurance Group was not due to fraud or embezzlement but more to do with attempts to apply cosmetics on financial statements which Bailey (2003) refers to as an attempt to paper over the cracks caused by over-priced acquisitions and too much corporate extravagance based on a misconception that the "money" was there in the business. If one looks at this one would quickly conclude that it is management failure to manage working capital and interpret trends of ratios in the working capital. Failure to make proper entries in the financial records affect the way working capital could signal success or failure. It is possible to interpret good performance when the figures are cosmetic and at the end be overtaken like in the cases of Enron and HIH Insurance Group.

Within the same period, Baker et al (2005) was carrying out a study on failure of Enron with an objective of examining whether Enron should be viewed as an accounting failure, with investors and creditors being severely misled by false financial statements (FS), or whether it was a business failure that was obscured by accounting practices that strained the limits of credibility. The findings reveal that the substance of the transactions was difficult to discern from the footnotes to the FS, and since only the form of the transactions was reflected on the face of FS, it was hard for investors and creditors to obtain a clear view of the financial position and results of operations of Enron prior to the restatements that took place in November 2001.

Thus, Baker (2005) concludes that, had there been an appropriate level of transparency in the FS, investors and creditors would have been provided with a more realistic view of the company's financial position and its results of operations, thus, facilitating their ability to assess the viability of the company and avoid their bankruptcy losses. This implies that the management of Enron applied cosmetics to their financial statements without reflecting realities and the end result is that failure came suddenly which led to

heavy losses. Suffice saying that there was poor WCM. As from details of the study Enron was operating with a very small margin between CA and CL from 1996 to 2000 and to make it worse in 1998 the current liabilities were greater than current assets. Thus Enron is a good example of company failure due to poor working capital management. This could be the case in Malawi, thus embarking on this study.

Besides these studies, Pratten (2004) conducted a study on possible causes of business failures in British Public houses with the objective of identifying some of the reasons for failure of firms, particularly within the licensed trade so that advice could be offered to assist practitioners. This was through reviewing the general literature on businesses failure and by looking at particularly small and micro-business. The study also examined the trading conditions within the public house sector and the importance of business knowledge being recognized. Additionally, several people having experienced serious financial problems were consulted in order to get their comments. This included views of an expert in insolvency, experience particularly in pub failures.

In conclusion, the study points out that external circumstances account for many closures. This contradicts with Scherrer (2003) whose study reveals that failure of companies is mainly caused by internal factors. Yet Pratten (2004) is quick to point out that academics may argue about the specific indicators, but they certainly include an absence of adequate financial controls, in an appropriate location using the necessary service skills. The study conducted by Pretten (2004) shares some aspects with the study being undertaken in that both studies in approach have used views from people affected on the market and at the same time seek views of experts. The study being undertaken will obtain expert views from Malawi Chamber of Commerce. Using such data, combined with a case study, conclusion and recommendations will be made.

Darayseh et al (2003) motivated by 110 manufacturing company failures that took place between 1990 to 1997 decided to conduct a study by matching the failed companies with another 110 of non-failed companies on the basis of total assets, FS on similar dates. The findings of this study indicate that the models estimated using logic analysis are

significant with reference to both the likelihood ratio index and the likelihood ratio tests in distinguishing between failing and non-failing firms, for up to five years prior to failure date. The study is of great value to this study, which is being undertaken though there are differences in methodology. This study is using CA rather than total assets and is not using formula to see failure of the companies but it is using views to come up with conclusion of the previous failures and by monitoring trends of financial ratios of existing companies, future problems can be predicted.

Longenecker et al (1999) fill with zeal to analyze causes of poor performance carried out a study that reviewed perceptions of 359 front-line management personnel as to why their organizations fail to achieve desired results. The aim of the study was to draw lessons for organizational practices on how to prevent failure and improve organizational performance. The methodology of the study involved asking managers of thirty organizations to rate the impact on twenty-five different performance factors have on their ability to get desired results.

The study revealed a variety of people and leadership factors as primary causes of poor performance, while factors such as technology, finances, and government regulations ranked significantly lower in rankings. The study shares some similarity in methodology with this study in that managers of different companies are to be asked to give their views though instead of ranking the factor, the data obtained will be analyzed without ranking but will use percentages to qualify the results.

2.3.6 Strategies and Company Performance

Wery et al (2004) assert that the business news is filled with stories of corporate failure as result they were compelled to undertake a study focusing on why firms with good strategies fail. The study findings reveal that, of all the strategy execution challenges, organizational alignment is perhaps the greatest- and the most frequent cause of failure. Wery et al (2004) claim that often, senior managers are so consumed with functional operations, performance management, budgets, and processes that they have little time

for thinking about the impact of strategic change on the organization yet these very people who keep the operations going are the ones needed to change course.

Later, an interesting study was conducted in Turkey, which investigated the effect of manufacturing strategies of manufacturing companies on their financial performance and also the effect of firm size on the impact of manufacturing strategies. Kazan et al (2006) advocate that companies must use their resources effectively and productively if they are to compete in an increasingly competitive globalized economy. In addition, to be able to do this, companies must know the factors that influence their performance and manage these factors in an effective manner. The study exposes vital findings in that an increase in the quality and cost/flexibility increased financial performance. Kazan et al (2006), however, quickly point out that the rate of delivery did not have any statistical influence on the financial performance. On the basis of the analysis done on the firm size, the findings reveal that the effect of the quality and cost flexibility on financial performance is higher for large companies compared with SME. Proper use of resources involves management of WC. Thus in managing factors will require WC to be taken into account. The problem could be many managers try to manage a factor in isolation, which could be disastrous at the end, as other factors will keep on changing adversely.

2.3.7 Chapter Summary

This chapter has discussed and reviewed the literature that was accessible in the areas of cash, inventory, debtors, creditors, company failures and working capital management. The next chapter presents the research methodology that was used and the philosophy that guided sampling, data collection and the data analysis.

CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter is going to articulate the methodology and technical approach that was adopted in addressing the purpose and objectives of the study. This is essential in order to appreciate the nature of the research and how the research was conducted which has an impact on validity and reliability of the findings. Thus the chapter outlines and discusses the research philosophy, design, approach, strategy and methods used in this study. It also covers on sampling and how the data collection tools were used. Finally it gives a brief account of how the data was analyzed and interpreted.

3.2 Research Philosophy, Design and Strategy

This study was designed in such a way that two types of data were collected using two different methods. The primary data was collected through using questionnaires and direct interviews. The questionnaire appended in appendix (1) was hand delivered by the researcher in order to minimize losses on the way. This method, backed by frequent follow-ups either by phone or by visiting the respondents, helped to develop relationship with the respondents that ended up with good cooperation from the respondents.

The secondary data from audited Annual reports was collected from five companies that have existed beyond 1990s and have been kept anonymous considering sensitivity of the data collected. The five existing companies were used in order to find out if there are still possibilities of other companies continue failing. Besides this, data from a sixth company that had failed was also collected. This was to represent failed companies. The decision to

keep anonymity of the companies was arrived at after two of the companies gave it as a pre-condition for submitting the required data which in true sense reveals the performance of the companies concerned and reflect the capabilities of the management in managing WC.

At the end, the extracted data from the primary data and secondary data were presented in tables and also converted into graphs after computation in order to come up with trends.

Among many philosophies that researchers use, are positivism and phenomenology that this research has also utilized to come up with its results. Blunden (2005) relates that positivism is a branch of philosophy that believes that the only authentic knowledge is scientific knowledge and that such knowledge can only come from positive affirmation of theories through strict scientific method. Blunden (2005) views positivism from point of the moral, scientific, and poetic aspect which is equally valuable and the only principle that can bring humanity safety through the formidable crisis that has ever been undergone. Adopting this in this research, financial records from audited annual reports dating 1998 to 2006 were obtained directly from five companies that had existed during the period that many companies closed and are still in operation. Besides that financial records were also used from one company that had failed so that this could act as a basis for establishing if really WCM was responsible for failure of the companies. This is then related with the performance of the existing companies.

This quantitative data computation was done using Microsoft Excel package to come up with WC ratios to achieve quantitative information. Then the resulting ratios were further processed using the same package to come up with line graphs, which in the end were used for discussion of findings. This is in line with positivism philosophy since Saunders et al (2000) assert that positivism works with observable reality with an aim of producing law like generalizations. Such generalization is used in deducing and making conclusions and act as the basis for explanations.

This study adopts also the phenomenology philosophy as it deals also with qualitative data. Nagel (1974) defines phenomenology as the study of apparent phenomena, and in simpler form, the study of how things seem rather than how they are. The data from questionnaires that aimed at getting general views of key players on the market place were analyzed in line with this philosophy in order to conclude on the qualitative information. The general questionnaires provided the understanding of what seemed to be causing the failure of the companies. Qualitative data was collected through questionnaires and direct interviews particularly from key senior people who understood the financial operations of firms and who have been in operation during the period that many companies failed.

This study was conducted in the city of Blantyre, which is the main commercial city in Malawi and where most industries are well represented. The study took a deduction approach emphasizing on poor management of WC as the main cause of company closures in Malawi and has used WC ratios to deduce on this apart from views obtained through the questionnaire.

3.3 Research Methodology and Applications

This section addresses issues of how the sampling was implemented.

3.3.1 The Sample of the Study

This study deals with two types of samples: the manufacturing industry and the executives that manage the firms. This was done in order to have right caliber of people to supply the data and to isolate those companies selling completed imported goods. The sample of executives involved people like: Chief Executives, General Managers, Managing Directors, Financial Directors, Financial Controllers, and Management Accountants where applicable. In each firm one person was given the questionnaire to respond while in the researcher's absence or with the presence of the researcher.

3.3.2 Sampling Plan

In coming up with the sample in this study, different sampling techniques were applied as follows:

3.3.2.1 Sampling of Companies

Out of a sample of 20 manufacturing companies that have existed before 1990s, a sample of 5 companies was selected within the city of Blantyre. A sample of five companies was chosen considering time frame and how sensitive the data that makes it difficult to obtain favors from all the companies to give access to their key financial figures. The city of Blantyre was chosen as most companies are well represented and is where most headquarters are based.

3.3.2.2 Sample Reliability and Validity

Six important variables in WC were identified as current ratios, Acid test ratios, cash ratios, Debtors collection period, Creditors payment period and Inventory holding period. These variables were computed directly from audited annual reports. Therefore there should be little chance of wrong data contained in it. Secondly, this is the data made available at Register of companies for public use and Register of companies always requires annual reports audited by reputable auditors. Thirdly double check on the data was done to further reduce the possibility of having misrepresented data. Therefore the sampled data is taken to be clean and accurate. As this research is not dealing with classification of the companies, the type I and type II errors are not going to be analyzed as was done by Bian et al (2003) in analysis of non-distressed and distressed companies. Therefore this research will not deal with testing hypothesis and confidence levels. The reliability and validity of the results is based on that the data used was audited by

reputable firms. Secondly though this data is dealing with figures, the analysis will be treated as qualitative as it deals with how management of WC is being compared of failed company with those that still exist. Thus determinant percentage will be 50% such that any results greater than this will be considered as of substantial impact. The 50% has was chosen as it means more than half of the companies share similar performance level and decision will be made using majority rule.

3.3.2.3 Sampling of Survey Sample

Out of the 20 companies, a sample of 17 respondents one from each company was chosen in this part of the study. Once more, it is important to mention here that this involved people who have seen the failures take place while they were in management positions. Apart from these the sample included management personnel from Malawi Stock Exchange, Malawi Stock Brokers and Malawi Chambers of Commerce because of their knowledge in the history of the companies in Malawi. At least one senior executive was selected as a respondent from each company. This is treated as ethnographic typical of data as it deals with descriptive views of executive level of management but it is not using charts and artifacts to tell much of the story. It is using percentage of view and views to justify the results of this research.

3.4 Data Collection

Data collection was achieved through two techniques as follows:

3.4.1 Documentary Data

Firstly, annual audited reports were collected from five manufacturing companies, which chose anonymity due to sensitivity of the data that would be extracted from the documentaries. Then another data was collected from Registrar of companies on one of the companies that had been closed. The annual reports were either released with permission from the most senior person in the company or most senior financial manager.

Then data concerning inventory, cash, creditors, debtors and liquidity were extracted and were presented in tables as in appendix (3&4).

3.4.2 Survey Data

With this technique a general structured and undisguised questionnaire designed for executives to respond was employed. Most questions were open-ended with an exception of one, which was closed question. Most of the questions required more detailed explanations from the respondents. This allowed a wider view of how the WC elements may cause failure of companies and other factors that some felt might have played a greater role.

3.5 Questionnaire Administration

The questionnaire was administered using two techniques. Firstly, when the questionnaire was administered, it was left with the respondent to have his or her own time to respond to the questionnaire and the task of the researcher was to collect the completed questionnaire. The second technique was to meet the respondent with questionnaire in hand and would respond while conversing with the researcher. Using this technique the researcher got a profound implication of WC relating to failure.

3.6 Data Analysis and Interpretation

Most importantly this study is qualitative as it is dealing with how the firms are managed and also is dealing with views of the key people in management of companies. The first part is covering all the analysis that involves the documentary secondary data, which shows trends of the companies' performances. The data analysis therefore involved analyzing debtors, by computing debtors collection days; creditors, by computing creditors payment days; inventory, by computing inventory holding days; cash, by computing cash against asset ratios; and liquidity ratios, by computing current and acid test ratios

The current ratios were computed through dividing current assets by current liabilities with an intention of finding how many times can the current liabilities be covered by the assets that can be converted into cash within a year. Acid test ratios were computed through dividing the difference between current assets and stock by current liabilities with an intention of finding out how many times can current liabilities be covered by the assets that can easily be converted into cash. The debtors' collection period in each case was computed through multiplying trade creditors by 365 days then divide the product by credit sales of that year. Creditors' payment period was computed in each case through getting average trade creditors of trade creditors at the start of the year and of the end of the year. Then the average is multiplied by 365 days and the product is divided by purchases of the year. Inventory holding period was computed through multiplying the average stock at the start of the year and at the end of the year. Then the average is multiplied by 365 days and divided by cost of sales of the year. Cash holding ratio was computed through dividing cash at the end of each year by the current assets. This gives a percentage of assets is the cash in each year.

All these computations were done using simple formulae of addition, subtraction, division and multiplication available in Microsoft Excel. Then the data was presented in tables, which were then converted into graphs using the Microsoft Excel package. The information from this data is then interpreted by looking at trends on graphs and direct from the tabled details to give signals of poor health or healthiness of the companies. In similar manner, the data collected from failed companied were computed.

Then Stapel scaling was then applied on each factor in the analysis but instead of having no neutral point, the scaling had been designed in such away that all acceptable levels were to represent zero failure. Range representing point on staple scale for each factor had to be established basing on acceptable value as zero as in appendix (7). The most stable score being upper limit represented by –5 while undoubtedly failure score being represented by 5. Table 3.1 shows the details on the scale.

Table 3.1 Showing a Stapel Scale (used in Failure Analysis)

VERY STABLE				STABLE			UNSTABLE PRONE TO FAILURE			
-5	-4	-3	-2	-1	0	1	2	3	4	5

With reference to the scale, each factor was given standard values according to range for example on current ratio zero was set equal to a ratio of 2.0. Then less than 2.0 to 1.8 the failure rating would be set equal to 1 while between less than 1.8 and 1.5 then failure rating would be equal to 2. In the same manner if the current ratio is greater than 2.0 up to 2.2 then the failure rating would be equal to –1 while between greater than 2.2 to 2.5 the failure rating would be –2. This was done up to failure ratings of –5 and +5 for each factor including the combination of debtors collection period and creditors collection period. Average scores were computed for each factor and then an average rating of the average scores was computed to act as a score of failure rate for the company. Then the failure rating score of each company was a lined with the scale in table 3.1 to establish whether the company falls under stable position or is prone to failure. To see how the scale was established through computations refer to appendix 6 which contains more details, while the results for the failed company are shown in appendix 7

Questionnaires were also administered besides the documentary data collected in order to get views from key players on the market. Seven questions were asked and the first one required the respondents to say yes or no so that statistics could be achieved for those who felt that closures of the companies were due to poor management of WC or those who did not support these views. The other questions required respondents to give their views. This data was analyzed manually and was sorted out according to themes. The views of respondents were outlined in bullets form as in appendix (2). Then these were discussed in details in line with the computed data.

3.7 Overcoming Limitations

Different strategies were used in different situations in order to limit the effect of the limitations experienced. For example on poor record keeping at the Registrar of companies, only a company that had sufficient data had been sampled, since the date that was required from the Registrar of companies was for one failed company. Some of the literature that was available within the university acted as a sample of studies that have been conducted. The other advantage that I had on carrying out this research was that I had once been an executive of the big institutions, as a result most senior managers trusted me that the confidential data would be handled ethically. Being a friendly person helped to access offices that would be restricted.

3.8 Chapter Summary

This chapter has described the methodology and technical approach that was used to address the research objectives and questions that guided the direction of the whole research. Apart from this it has articulated the research philosophy guiding this study, research design, samples, population issues, questionnaire design and its administration. Briefly it has also presented on how data were analyzed, interpreted and how the limitations were overcome. This leads to the next chapter, which discusses the data that has been analyzed and gives interpretation of the information obtained after data analysis.

CHAPTER 4

4.0 RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and discusses findings of the study on Working Capital Management in Manufacturing Industry in Malawi and how this is related to the failures of companies that took place in the decade of 1990s. Documentary records and senior management contributed in the areas of ratios and views that have led to this discussion.

The senior management expressions of agreeing or disagreeing with the theories on working capital as the cause of closures of companies in Malawi and their reasons have been discussed. In addition the cash ratios and liquidity ratios; DCP; CPP; and Inventory Holding Period (IHP) have been discussed in relation to performance of companies. Then this analyzed data from existing companies and the failed company were linked in discussed in relation with analyzed data obtained from senior management through administration of a questionnaire. Finally, a summary of key findings is outlined basing on this discussion.

4.2 Questionnaires and Respondents

Out of 20 questionnaires that were sent out 17 respondents sent back their responses and out of the seventeen, five were at the level of Chief Executive Officer, Managing Director and General Manager while twelve were at the level of Financial Controller/ Financial Director. Eleven of these respondents agreed that closures of companies in Malawi was due to poor management of Working Capital, three of these did not agree to this and the remaining three had agreed and disagreed with this at the same time. This is shown in appendix 5b, which presents table 1.2 showing a summary of responses.

4.3 Analysis of Responses to Questionnaires

The analysis of the questionnaires was done by looking at facts raised by respondents and these have been presented in themes. It is quite interesting to see how respondents contributed to this study as outlined in the sample of responses in table 4.1. The responses have been discussed according to subject issue below.

Table 4.1 Shows a sample of the responses received from respondents

Question	Factors from respondents	Qty
2. Respondents feel that the failures of companies in Malawi were due to poor management of working capital.	1. Non existence of credit policies 2. Lack of pro-activity in pricing policy 3. Use of short term funds for long term projects 4. Failure to use WCM to achieve competitiveness 5. Difference in objectives pursued by management and shareholders 6. Lack of cash to manage operations and pay off creditors 7. Loosening of credit terms to make more sales 8. Giving too much credit and not collecting 9. Liquidation 10. Lack of control of cash flow 11. Manufacturing easily copied products 12. Failure to strike balance between debtors and creditor terms. 13. Continued deficit position resulting in failure to secure raw materials 14. Failure to collect debts. 15. Lack of planning of working capital 16. Wrong priotization of working capital 17. Overtrading that is not timely addressed 18. Lack of qualified accounting management and financial expertise 19. Lack of management control in general 20. Overstocking of raw materials	1 1 1 1 1 1 1 1 1 2 1 1 1 1 1

4.3.1 Poor WCM and Company Failures

In response to whether the failure of the manufacturing companies was due to poor management of working capital or not, 70% of the respondents supported poor management of working capital as the cause. Some of the respondents qualified their views by saying that some companies lacked credit policies that would have seen them collect debtors before the creditors were paid. They added that credit offering in Malawi was made without specific policies, as there was no much competition on the market since the government controlled the gates for new entrants of competition. They thus felt that managers had relaxed in collection of debts.

They also supported their views by saying that during that time companies were protected and provision of credit would not have much effect as companies got raw materials with accumulated debts up to even four years and some even beyond such a period. Such habits locked WC and with sudden entry of competition on the market and economic changes, huge creditors that required to be settled in short time overwhelmed firms. As a result firms were liquidated. In addition the respondents felt that lack of being pro-active in pricing policy had contributed much to the down fall of the companies. Malawi as a country faced inflations in 1990s and that required quick response in pricing. Delayed responses to inflation with right pricing caused the firms lose working capital. Thus continued loss of capital ended up in liquidation of the companies that failed to respond in time.

The respondents feel, in addition to the factors pointed out, that use of short-term funds for long-term projects was responsible for closures of the companies. These short-term funds would be not consistent in its availability for addressing long-term projects and as a result some projects lacked funding, resulting in closing down or stoppage of the project at certain points before completion. At the same time the respondents claim that it was attributed to failure to use WCM to achieve competitiveness. The managers failed to include WC in their planning for the future consequently at certain point found themselves overtrading due to more activities scrambling for small amount of capital. Thus, in every front the firms lacked competitiveness and its competitors slowly scooped the market share until at the end the firms concerned had no place on the market.

The respondents assert that differences in objectives pursued by management and shareholders also contributed to the failures. This is true where there is conflict in establishing the policies with regard to WC, consequently the firm remains without a formal policy, which could be enforced. Due to this lack of enforcement the firm is run using thumb's rule and as a consequence debtors, creditor and inventory could accumulate. This has a cash locking effect that can equally cause liquidation as suppliers

may stop supplying supplies due to non-payment and lack of effort to sell accumulated finished products.

The respondents pointed out that lack of cash to manage operations and pay off creditors was one of the reasons for closures of companies in Malawi while others considered the loosening of credit terms to stimulate demand so that they could make more sales was another big cause. On the same area the respondents feel that giving too much credit while neglecting collection of debtors had contributed much to the closures as managers were used to a relaxed life. In this line, it was pointed out that lack of CF, due to lack of control of the debtors, creditors and over stocking of inventory added to suffocation of cash in the system. The respondents pointed out lack of striking a balance between debtors and creditors as one of the major problems that caused liquidation of the companies. To complement this, the respondents assert that continued deficit position resulting in failure to secure raw materials had accounted for many closures of companies.

The respondents blame managers, on setting wrong priorities with WC available, overtrading that is not addressed timely which all arise due to lack of management control as a result of lack of qualified accounting management and financial expertise, for the company failures.

4.3.2 Other Factors Cause Failure of Companies Rather than WCM

Thirty percent of the respondents had divergent views to those presented above. They assert that the failures and closures of the companies were not due to poor management of WC. The respondents argued that the market was flooded with cheap products and substandard raw materials. As a result of this, companies failed to compete with these products on the market as their products looked expensive. They considered failure of the companies as an after-effect of lack of managerial personnel who could forecast, plan, execute the plans and control the outcomes expected. They also blamed high interest rates and fewer sources of funds for the closures. At the same time the respondents strongly

claim that lack of creativity, lack of change management had played a greater role in the closures of the companies. They alleged that in addition to the factors already mentioned, high transportation costs on imported raw materials and less duty on imported finished goods and high local surtax on local finished goods had a negative effect that ended up seeing some of the companies closed, as they could not compete on the market.

4.3.3 Payment Periods for Creditors and Debtors.

This area addresses the effect of having debtors' days more than creditors' days. It is recommended that debtors be collected earlier than creditors are paid and 30 days of debtors against 45 days of creditors is seen as a yardstick. This section is addressing the effect of reverse of this for example if creditors were paid within 30 days and debtors take 45 days to collect. The respondents assert that this increases working capital requirements, as the firm would be financing the debtors for 15 days each time they pay their creditors earlier than debtors. Besides this it increases operating costs and reduces working capital available, resulting into reduced liquidity of the company. As the company loses its liquidity then lenders may not be interested to fund its operations in case the firm may want to borrow. At the same time, the suppliers may not offer credit facilities as they may fear non payment in future due to lack of liquidity.

In addition, the respondents affirm that the firms lose free interest finance and that it increases chance of bad debts which by likening cash with life blood where if it dries business dies, then it has an effect of suffocating company operations i.e. cash squeeze, inadequate cash flow and eventually liquidation. Thus such a company may not be able to pay its creditors in the long-term, as such, cash necessary for operations and production will be reduced. Therefore, proper policy in creditors and debtors like paying creditors later after collection of debtors would help in survival of any company.

4.3.4 Effect of Overstocking in Working Capital

This section looks at contributions from respondents with regard to the effect of overstocking in Malawi environment. It was noted that out of seventeen respondents 41% responded in favor of the idea basing on that transportation and availability of stock including difficulties in sourcing raw material would necessitate accumulation of stock despite the bad side of this as claimed by the remaining 59% of the respondents. They also supported this practice as it reduces shortage, as most suppliers are unreliable and overcomes fluctuations of currency. Yet 59% of the respondents that were against these ideas base their argument on that the practice reduces profits as money is tied up in stock and that such accumulation of stock may increase obsolete stocks which lock in cash rendering it difficulty to service creditors and other liabilities in time.

The respondents argued by likening this practice to having longer debtors period than the creditors that end up seeing firms borrowing when the firm could have been able to service the creditors had it been the debtors and creditors were managed well. Confidently the respondents connect the closure of companies as inevitable with overstocking. They added that this practice causes loss of alternative investment opportunities, loss of profits, increased costs and cash flow problems. This is true because the longer the stock takes to turn into cash the higher the negative on the cash flow they argued. These after effects need to be observed by managers as there are consequences following this such as expiring of goods, thefts, and even in some cases being damaged by bad weather.

4.3.5 Effect of Negative Cash.

This part addresses the impact of having negative CF when current ratios and acid test ratios seem to be normal. The respondents as in Appendix 2 argued on this that such a situation means that the firm has relatively higher holding of stock and debtors that result in higher costs. Suffice to say the respondents were quick to point out that such a situation leads to excessive borrowing, and may mean that the company is using overdraft

facility which is costly capital. Thus cost of production will be high as the firm is using borrowed funds due to interest charged. As a result, the firm may not be able to give dividend prompting some of the shareholders withdrawing their capital. Such a condition would also affect the profitability of the company since pricing of products is affected as the firm tries to increase prices to cover up the interest charged in borrowed capital or else the company will be making money for the lenders.

On top of this, the respondents claim that this situation prevents the firm from investing in new projects and ending in lost profitable opportunities. Yet two of the respondents had differing views that the effect varies from firm to firm and claimed that in some situations no impact at all. In conclusion the respondents simply affirmed that situations like these result in liquidation.

4.3.6 Growth and Survival

This section is analyzing the effect of WC in general and refers to the comments made by respondents through the survey as appended in Appendix 2. The respondents felt that the impact of WC in Malawi environment is growth and survival of the firms; as WC provide the vitality of the firm through the cash conversion cycle; as more conversion cycles are achieved the more the profits that can be reinvested back for the growth of the company and for maintenance of the company. Adding to this, the respondents assert that good management of working capital enables good relationship with creditors, bankers and also customers as the company will have no problems in paying its creditors hence ensuring a constant supply of raw materials and machinery spares. Yet the respondents did not hesitate to point out that a complete prudent balancing of stock, debtors and expenses translates into prosperity of a company and failure to manage any one of these leads to company failure.

Nonetheless, the respondents emphasized that working capital is critical to any business success or failure and therefore likewise its proper management. For survival of the company, the respondents recognize that working capital is a big factor for deciding

efficiency. Thus they complement that companies must have enough liquidity to fulfill their debts plus run their businesses at any bad times. At the same time the respondents points out that as from experience having good asset base, big market, yet lacking good decision making can lead companies to closure.

The respondents share the view that the success of any manufacturing company would rest on the WCM of the firm. In addition they feel that efficient and effective use of resources in the firm is largely attributed to the management of WC. In addition the respondents impress deeper views by asserting that with a sound WCM and economic environment firms will prosper but without these firms will fail. Thus the respondent crowned all this by affirming that those firms that manage WC well will prosper while those that do not will struggle and in certain cases fall by the wayside.

This means that in this case firms that fail to manage well WC when the environment is poor will fail. The respondents claim that poor WCM leads companies to collapse, as the companies have either no cash to pay debts or have no adequate stocks to meet customers demand and generate cash. Indeed, cash is portrayed as very important as the respondents point out that an illiquid company can fold up/ close down owing to insolvency. Thus, in their conclusion they pointed out that a perennially negative WC puts the firm at risk of creditors calling on the company's assets resulting on compulsory liquidation or voluntary sequestration. Therefore tremendous success on growth or failure depends on how stock, cash, creditors and debtors are managed.

4.3.7 Reduction of Costs.

This section looks at good management of WC as a way of cost reduction and the comments are from extracts from respondents' views as in Appendix 2. It is important to realize that there is a saving in managing well the WC, commented the respondents to emphasize on benefits of good WCM. To echo on this statement the respondents claim that good management of WC reduces logistic costs in the long run as a firm has good relation with supplier, lenders of capital and customers. In addition, it also helps in

reducing interest in the long run as recycled cash is used and hence reducing gearing of the company. Stressing on the respondents pointed out that the economic situation of Malawi requires constant repositioning of WC resources to be able to remain in profitable existence. Thus WCM is very paramount to prosperity of businesses in many ways than one. They pointed out that if the company passes the acid test on its liquidity, then it can avoid interest charges, in fact it can invest excess cash in acquiring new businesses, opening new branches, or lend banks at a positive interest which can rake in real interest above the company's margins on the core business. Thus by so doing the firm is able to reduce its costs through proper use of working capital.

4.4 **Ratio Analysis**

The CR, ATR and Cash ratios and DCP, CPP and IHP in days have been computed and presented in graphs, which act as a basis for discussion of the performance of the companies in the case study. The graphs are for a period of nine years i.e. from 1998 to 2006 as appended in appendix 3a to 4e.

4.4.1 Ratio Analysis of Company A.

The CR, ATR and Cash ratios for Company A are presented in figure 4.1. The top line represents current ratio, middle line represents acid test ratio and the bottom line represents cash ratio.

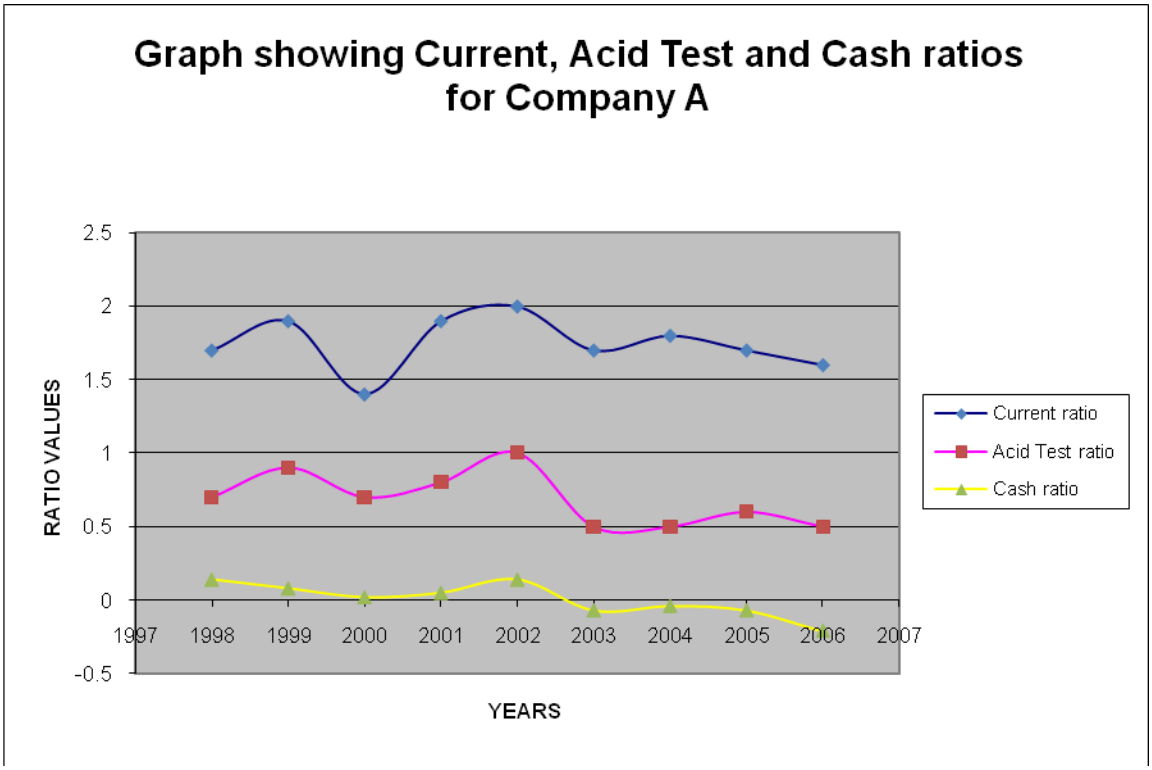

Figure 4.1 Showing Graphs of Current, Acid Test and Cash Ratios for Company A

As in figure 4.1, the current ratio was varying from 1998 to 2004 but after that it kept declining gradually towards the value of 1.5. According to yardstick presented in the literature review, this trend is not good for operations as it is reducing resources that could be converted into cash within short time. For better performance of the WC it is necessary that company A should make sure that this trend is changed and should be moving to words 2.0 which is safer if the company is required to settle all its creditors within specified period.

The graph line of ATR, as from the figure 4.1, has been way above 0.5 from 1998 to 2002 but after that the ATR tends to settle on 0.5. This trend is not good for the company. In this case company A is not safe as creditors can call for liquidation of the company. The company from 2003 to 2006 would manage to pay only half of its creditors. The creditors in other words are suppliers of operating capital in form of raw materials and bankers who supply liquid cash to meet the company's deficiencies in financing

operations. If such a trend continues to go below the 0.5 then suppliers and bankers may not be able to offer credit facilities to company A consequently the company will not be able to meet its daily demands resulting in frustrating customers who in the end may turn to competitors.

The cash ratio graph line from figure 4.1 shows that this company used to keep very little cash for its operations from 1998 to 2002 after which the company was operating on negative cash. This would imply that the company was struggling in its operations.

4.4.2 **Debtors, Creditors and Inventory Analysis of Company A**

This section presents the graph lines of Debtors, creditors and Inventory in days and a discussion relating to the graph lines for company A for the period of 1998 to 2006 as from figure 4.2. The top line as in 2006 represents IHP, the middle line represents DCP while the bottom line represents CPP.

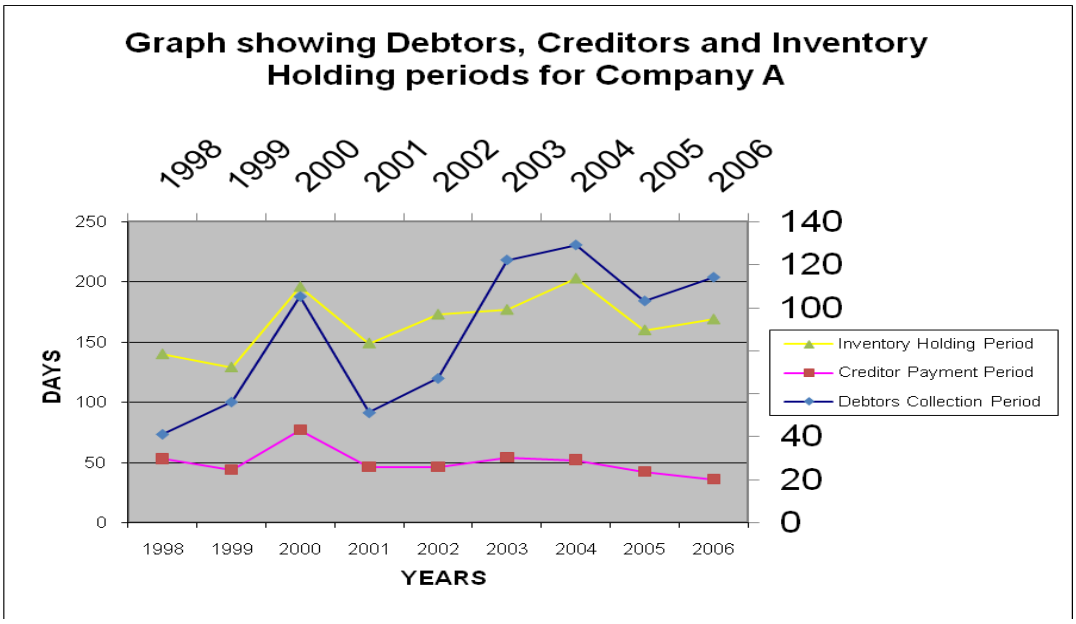

Figure 4.2 Showing Graph Lines of Debtors, Creditors, and Inventory Holding Periods for Company A

Looking at the graph lines in figure 4.2, it is noted that the DCP had a rising tendency from 1998 up to 2006 though it dropped from 2004 to 2005, it started rising again. At the same time the CPP graph-line had a tendency of declining though between 1999 to 2000 it rose but immediately fell down to almost same level as in 1999 and then tended to decline making the gap between DCP and CPP to keep on increasing.

The problem of having DCP higher than CPP is reflected in cash ratio, which turned into negative between 2002 and 2003 when DCP and CPP increased their gap sharply. This portrays that management is failing to control creditors by failing to establish a policy that would ensure that CPP is higher than DCP. DCP is supposed to be collected earlier than CPP. In figure 4.2, it would have been better that graph line of CPP represent DCP and the CPP reduced to 45 days on average rather than the current situation. Though company A has kept higher volume of stock, by properly managing the debtors and creditors would make company A avoid borrowing through bank overdraft and would reduce its costs from borrowing. The higher stocking of inventory could be supported considering the lack of reliable transportation but reducing it would increase profitability through frequent recycling of cash held in the inventory.

Thus if this company would reduce its inventory, it would get rid of the negative cash seen in figure 4.1. If it can reverse the situation, on DCP and CPP such that DCP is collected earlier than CPP is paid, then the CR and ATR will portray good picture. Connecting this with respondents' responses with regard to question four and six, the company is financing debtors and at the same time running an overdraft. The company is not only borrowing for the sake of financing unknowingly its debtors but it is increasing its costs through interest required by the bank which should not have been the case if the company was managed well. Since the company is paying its creditors well, the suppliers are willing to supply more and more as a result there is accumulation of inventory in order to appease suppliers. This demands more cash that is affecting the overdraft account facility, which is on increase. Yet more cash is held in the rising inventory. Thus this company would benefit much by controlling the inventory.

4.4.3 Ratio Analysis of Company B

This section present graph lines of CR, ATR and cash ratio and a discussion relating to the performance of company B for the period of 1998 to 2006 as from graph 4.3. On the graph the top line represents CR, the middle line represents ATR while the bottom line represents cash ratio. From the figure 4.3, Company B has been trying to keep its CR from lower levels than 2.0. Thus it is kept rising from 1999 to 2003 when it rose above 2.5 and then management

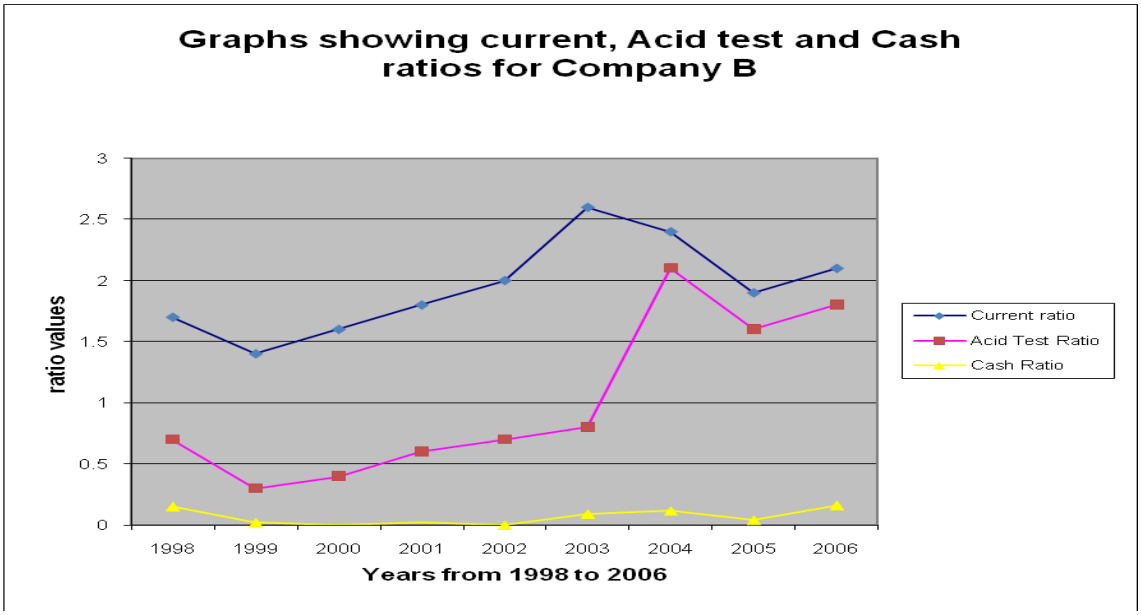

Figure 4.3 Showing Graph Lines of Current, Acid Test, And Cash Ratios for Company B

was trying to manage it back to 2.0 which is reflected by the way the graph line was changed after just going below 2.0. Yet the company was failing to manage the ATR as it is seen that after 2003 the ratio rose sharply which implies that the current assets that could easily be converted into cash had increased sharply from approximately 0.8 to 2.1, which is an increase of 162.5%. This means the company became highly liquid which is also supported by the rising cash ratio curve from 2003 to 2006.

4.4.4 Debtors, Creditors and Inventory Analysis Company B

This section presents graph lines of DCP, CPP and IHP for company B for the period of 1999 to 2006. As in 1999, the top line represents IHP, the middle line represents DCP and the bottom line represents CPP.

Looking at the graph lines on figure 4.4 for company B showing how the company managed its DCP, CPP and IHP it is quite noticeable that the company was operating consciously as it sharply reduced its IHP at the same time maintaining the CPP while steadily reducing DCP to be lower than CPP.

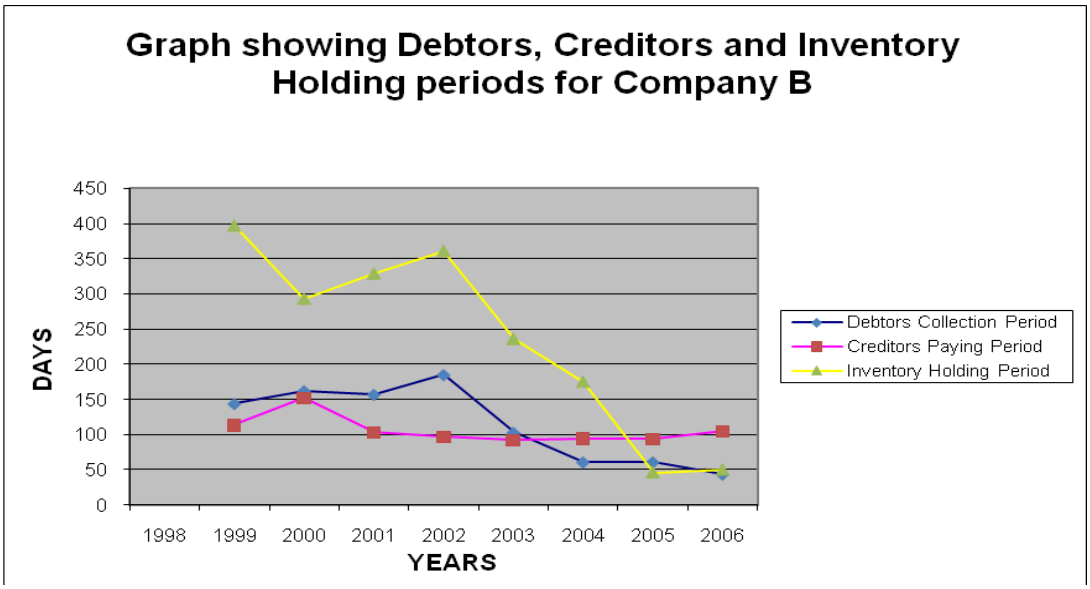

Figure 4.4 Showing Graph Lines of Debtors, Creditors, and Inventory Holding for Company B

This shows that company B is able to control its assets and liabilities to achieve a balance but this is happening towards end of 2003. All along the company was not able to balance the WC elements. Such a company shows that it plans for the future and has management with ability to analyze. By keeping its ATR high enough makes it more stable as it would pay off its creditors and lenders while continuing to operate without overdraft for its daily operations. This is one of good examples of good management of WC that looks for

balancing between debtors and creditors. Though between 1999 and 2003 the DCP was higher than CPP the management was able to reverse this situation so that it has to operate in the recommended way. The money collected from debtors pay off its creditors, in the end the company is unlikely to go for bank overdraft. The company would need to the trend on its cash as it is on increase and problems related to losses of cash through thefts may arise later. Though this company may be taken as a good example, it had problems earlier than 1998, as IHP was very high, creditors were being paid earlier than the debtors were collected. Thus still this company displayed a poor management on WC.

4.4.5 Ratio Analysis for Company C

This section presents graph lines of CR, ATR and cash ratio and a discussion relating to the performance of company C for the period of 1998 to 2006 as from graph 4.5. The top line presents CR, the middle line represents ATR and the bottom line represents cash ratio. As from figure 4.5 of company C, the company had managed to increase its CR from below 1.5 in 1999 to 2.0 in 2001 when it reached the required level. Unfortunately from 2002 to 2006 both CR and ATR became volatile and difficult to manage. At the same time this company displays good cash management, as it is not operating on overdraft.

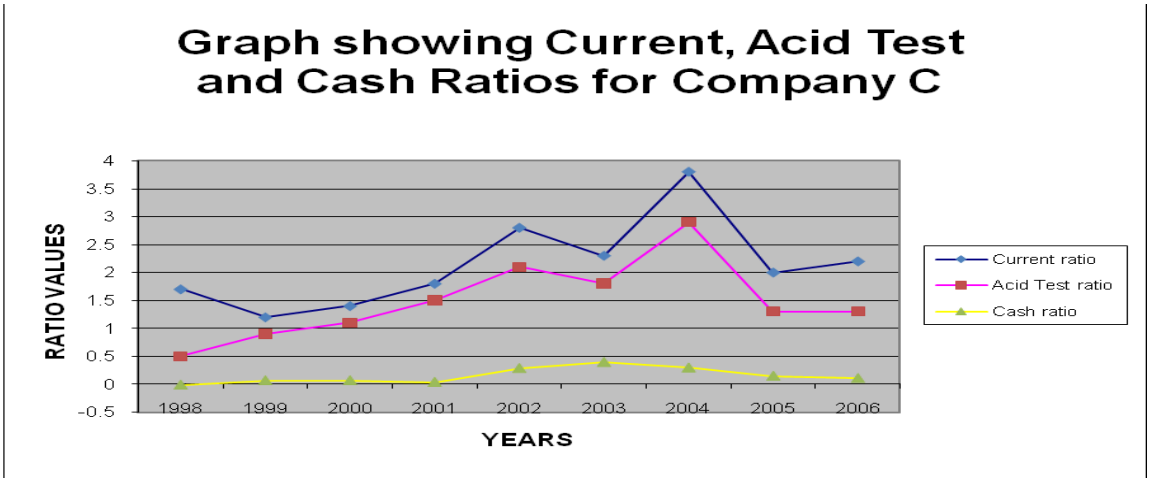

Figure 4.5 Showing Graph Lines of Current, Acid Test, and Cash Ratios for Company C

The company lost control or it is not taking continuous scanning of its operations so as to make corrections before situation worsens. The company was unable to control CR and ATR between 2001 and 2005.

4.4.6 Debtors, Creditors and Inventory Analysis for Company C

This section presents graph lines of DCP,CPP and IHP for company C for the period of 1998 to 2006. As figure 4.6, in 1998, the top line represents IHP, the middle line represents CPP and the bottom line represents DCP. The same loss of control experienced in CR and ATR in figure 4.5 is also coming out clearly in figure 4.6. The company lost control in management of creditors and debtors from 2003 to 2006. DCP rose above CPP meaning that creditors were paid before collecting from debtors. However like cash control this company managed well the IHP by reducing it from above 100 days to way below 40 days, which implied in our environment that the company had to establish better logistics in order to avoid shortages and to deal with transportation problems.

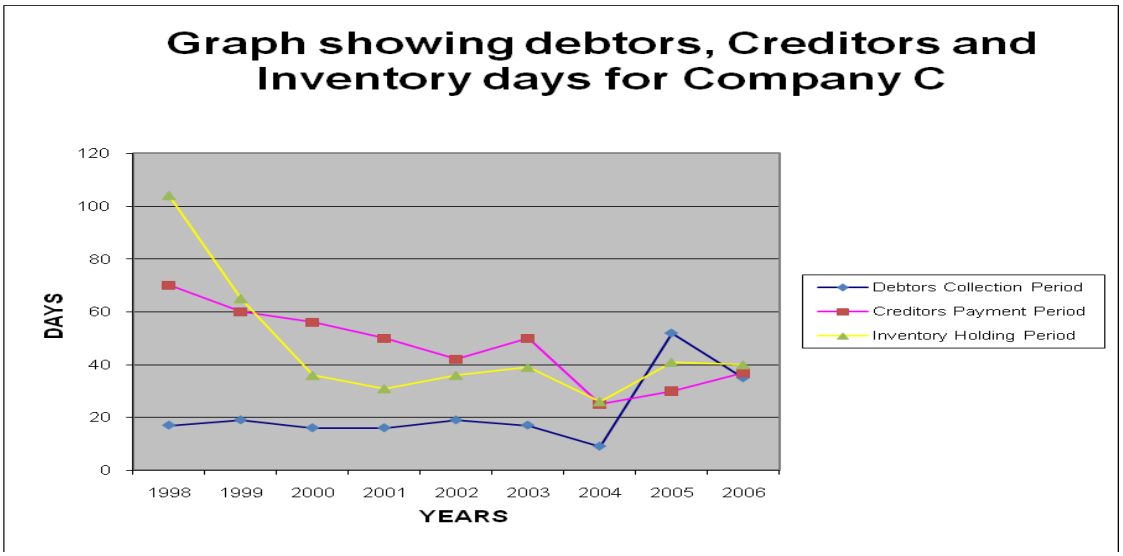

Figure 4.6 Showing Graph Lines of Debtors, Creditor, and Inventory Holding Periods for Company C.

4.4.7 Ratio Analysis for Company D

This section present graph lines of CR, ATR and cash ratio and a discussion relating to the performance of company D for the period of 1998 to 2006 as from figure 4.7. The top line presents CR, the middle line represents ATR and the bottom line represents cash ratio.

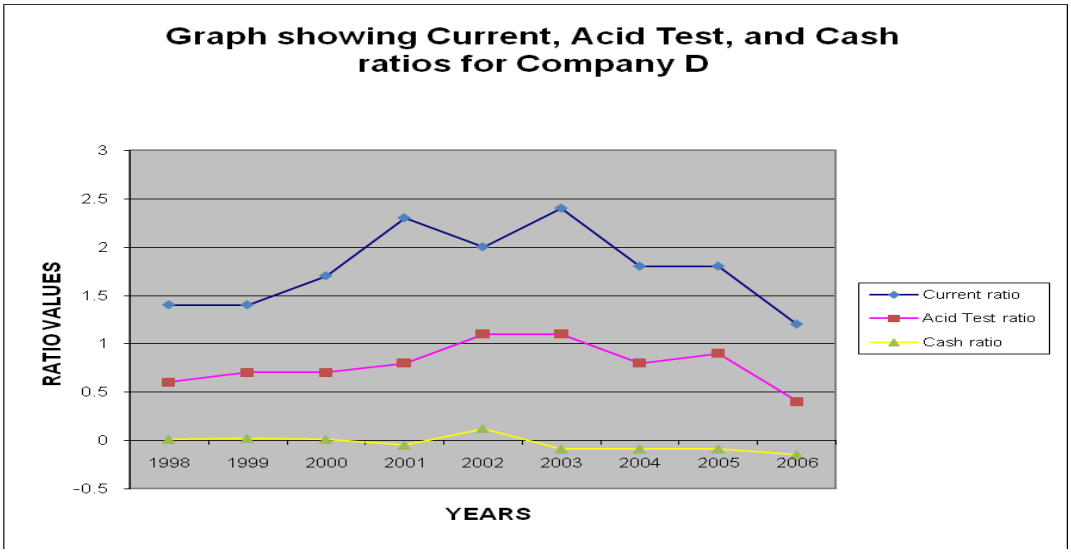

Figure 4.7 Showing Graph Lines of Current, Acid Test, and Cash Ratios for Company D

As from the figure 4.7, company D is another good example of poorly managed company. The company managed to improve its CR and ATR from 2000 to 2003 where they intentionally made it rise to the required level of 2.0 and 1.0 respectively. Perhaps with the economic conditions in this period inflations were undulating, causing similar trends in the company performance. Yet this company lost control thereafter and performance in CR, ATR and Cash Ratio kept on declining such that the company Cash Ratio became negative in between 2002 and 2003 and this negative position continued up to 2006. If such a company were to face stiff competition, then, with this trend of negative Cash ratio plus ATR falling below 0.5 implying that the company has less than half of its current liquid assets that would service its liabilities, it would easily close down its operations.

4.4.8 Debtors, Creditors and Inventory for Company D

This section presents graph lines of DCP, CPP and IHP for company D for the period of 1998 to 2006. As from figure 4.8, in 1998, the top line represents IHP, the middle line represents DCP and the bottom line represents CPP.

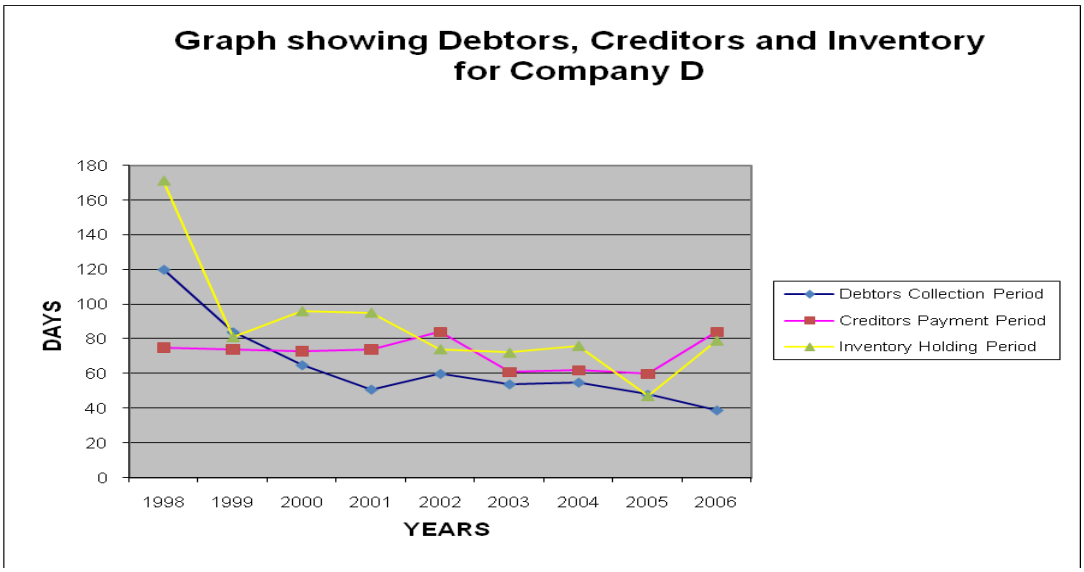

Figure 4.8 Showing Graph Lines of Debtors, Creditors, and Inventory Periods for Company D

To make it worse, the views expressed above when analyzing CR, ATR and Cash Ratios from figure 4.7, it is clear also from figure 4.8 that all graph lines i.e. DCP, CPP and IHP have a declining trend and the effect of this is that the company is trying to maximize on turnover. Despite trying to improve the situation by this strategy the company's CPP is sharply rising while DCP continues to fall. It is interesting that the trend in CR and ATR has not improved. The room for the company to improve is on reduction of inventory as increasing CPP and reducing DCP has proven unproductive to change CR, ATR and cash

ratio. If this company will not use the control of its IHP as a tool soon or later it will close its business for lack of liquidity according to current trends. In this case if competition were to arise the company would easily be liquidated as it has tried most of strategies but not giving recovery remedy. The rising of CPP and falling of DCP would mean that creditors would have to fight to get paid and debtors would be pushed heavily to get pay as soon as possible. Such a situation would not keep both the company creditors and debtors in good books with the company. Hence Creditors would withdraw from supplying raw materials while Debtors who are customers may go for competitor products or substitute products if available. Thus this company would continue declining and at the end forced to close down operations.

4.4.9 **Ratio Analysis for Company E**

This section present graph lines of CR, ATR and cash ratio and a discussion relating to the performance of company E for the period of 1998 to 2006 as from figure 4.9. The top line presents CR, the middle line represents ATR and the bottom line represents cash ratio.

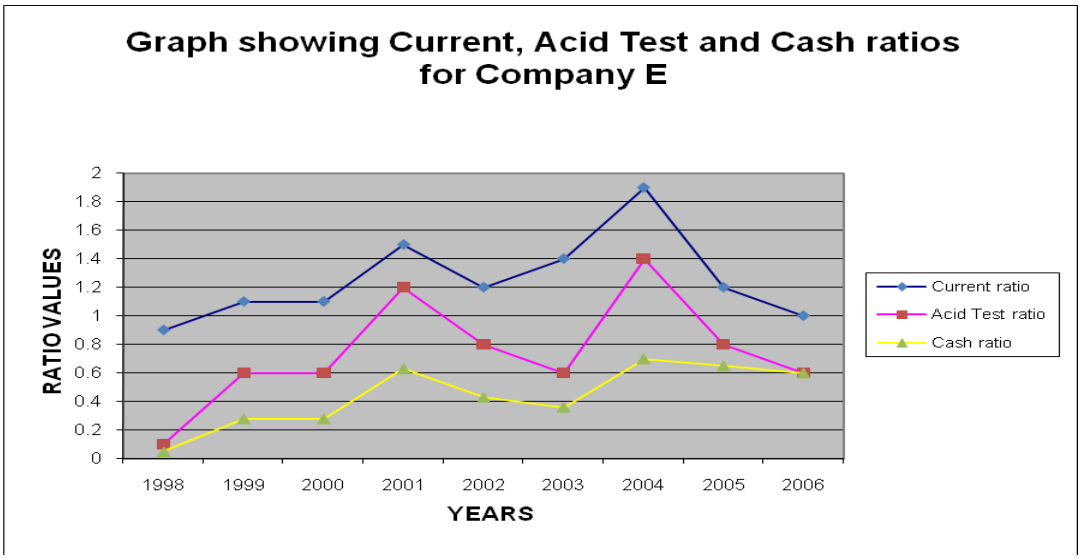

Figure 4.9 Showing Graph Lines of Current, Acid Test, and Cash Ratios for Company E

The performance of company E is quite interesting as seen from figure 4.9 as cash holding has been increasing and has reached a proportion just above half of the assets. Cash is critical in operations of a company but holding too much poses much of a danger, as loss through thefts would not easily be depicted. Thus a company like this, which is holding much cash, would need strong policies on handling of cash. The ATR and CR have been rising since 1998 to 2004 while from 2004 to 2006 these two have been sharply falling taking same shape in their line graphs. This fall is a concern though larger part is cash. For example the ATR in 2006 was same as cash ratio, which implies that ALL liquid assets are real cash.

There is a lot that can be said if this analysis was to be made in combination of presentation of figure 4.10. This company is operating on cash basis and its products are not stored as seen that cash is equal to ATR. There is nothing to be converted into cash on top of cash available. The company is operating at almost 100% no debtors as there was only very little debtors from 1998 to 2000 when debtors were eliminated completely. The company is operating with an added advantage. It is able to buy raw materials and spares for the machines on credit but offers no credit to its customers. Thus with such operations it is very easy to control its creditors as they have readily available cash and a policy for specific period of payment to creditors can be put in place and followed easily unlike when a company is to balance between creditors and debtors. This means that the management of this company is clever as it can capitalize cash basis transaction that eliminates completely the debtors. What a company needs is the cash from its customers not the debtors.

4.4.10 Analysis of Debtors, Creditors and Inventory for Company E

This section presents graph lines of DCP, CPP and IHP for company E for the period of 1999 to 2006. As from figure 4.10, in 1998, the top line represents IHP, the middle line represents CPP and the bottom line represents DCP.

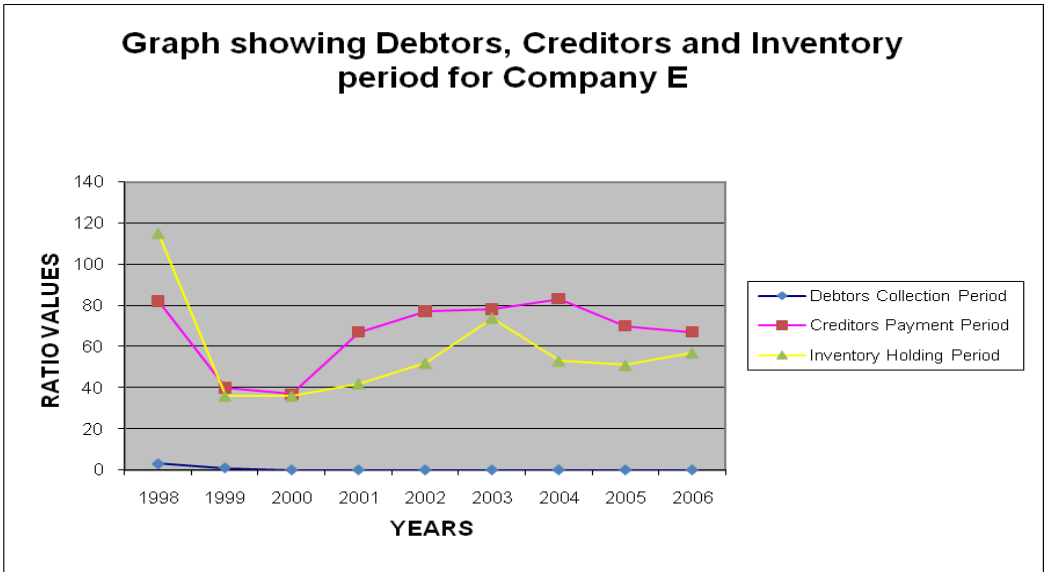

Figure 4.10 Showing Graph Lines of Debtors, Creditors, and Inventory Holding Periods for Company E

This company is taking advantage on their creditor by maintained longer period of payment of its creditors. Particularly that it has no debtors it is benefiting much by extending its creditors which act as a source of extra capital.

4.5 Failure Analysis

With the staple scale, from appendix 6, company A has a score of 1.822. This can be interpreted as company under real distress and if such a performance continues then it is likely to close down its operations. According to the line scale established in the analysis, the starting point of unstable company is 1.0. In this case, any value greater than 1.0 means that the company is under distress and the intensity of the distress increases as the value moves towards the right of the scale. Compared with the failed company, the value 1.8 is close to 2.1. Therefore company A is under heavy distress and needs to pay attention to its working capital as discussed earlier concerning the same company.

Company B scored 0.364. This is within stable zone but it needs to pay attention to its WC so that it is not moving towards the right hand side of the scale otherwise the company is still in manageable condition of distress. On the other hand company C is

one of the stable companies according to its score of –1.29. According to the line scale, such a score means that the company management is managing well the WC as it is above its acceptable zero line. Yet company D with the scale of 0.222 means it is a little bit distressed but within the stable band. Yet company E with a score of –1.07 implies that the company is stable. This agrees with earlier analysis. The staple scale used as a method of carrying out analysis is applicable as it is producing more less the same results as direct analysis.

The failed company scored 2.1 and on the Stapel scale established, this is a failure prone band/zone. Yet this company failed, therefore the scale used is good enough to predict distressed companies. This means that the companies were failing due to poor WCM.

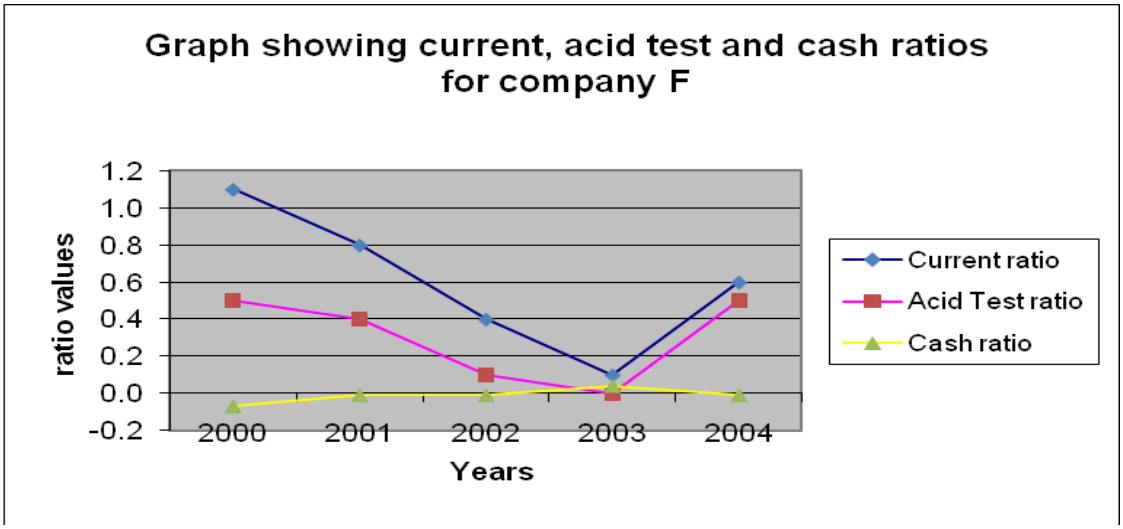

Figure 4.11 Showing Graphs Line of Current, Acid Test and Cash Ratios for Failed Company F

Looking at the figure 4.11 in the year 2000, the top line graph represents the current ratio, the middle line graph represents acid test ratio while the bottom line graph represents cash ratio. Company F was allowed to have its current ratio to go as far as 0.1, which

meant the company could only service 10% of its liabilities. It is quite evident that the company was steadily heading for failure. Besides this the company had been running on negative cash ratio implying that it may have been depending on bank overdrafts all throughout those years except for only one year. In other words the company lacked liquidity and this led to its closure. No company would survive with its current ratio coming to 0.1 and its acid test ratio coming to 0 at the same time unless it is running on bank overdrafts. Thus it is obvious that this company closed due to lack of working capital. This means that management failed to control WC elements to make the company sustainable.

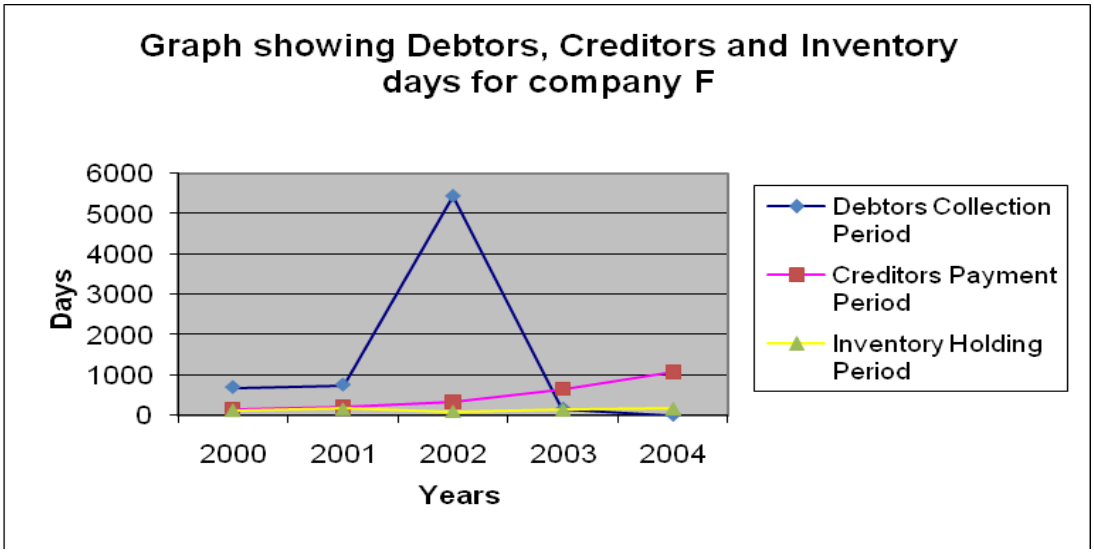

Figure 4.12 Showing Debtors, Creditors and Inventory Periods for Failed Company F.

As from figure 4.12 looking at 2002, the top line represents debtors' collection days, the middle line represents creditors payment period in days and the bottom line represents inventory holding period in days. Coming to the line graphs in figure 4.12, it is evident that the company was paying its creditors more frequent than it was collecting its debts. This causes suffocation of funds as the company has more of cash outflows than inflows. Creditors and debtors is the heart of control for cash flow. This is where valves for cash flow are located in financial systems. If these valves are not kept watched the bath tab or

the main tank reservoir for cash will always be empty. Thus the company will have no liquid for servicing operations.

4.6 Rating of the Companies

According to the tables 4.2 and 3.1 companies C and E are the stable ones while company A is close to company F which is a failed company. Hence company A can fail anytime if precautions are not taken in time. The analysis through scoring is also in agreement with the discussion on company A in the way working capital elements have been managed. From 2003, the company was operating on negative cash and ATR was just about 0.5. This implies that only half of the current liabilities could be serviced by the current assets. Hence there is urgent need for management to pay much attention in the way they are managing the working capital elements. Also Companies B and D are not as safe, as they are heading towards +1 on the staple scale though they seem to be stable. This agrees well with what has been discussed on individual company basis. Hence the staple scale application is proving effective in this research and can be comfortably used in a similar research.

Table 4.2 Showing Ratings of the Companies

	COMPANY		**Scores**	
	Company A		**1.82**	
	Company B		**0.36**	
	Company C		**-1.29**	
	Company D		**0.22**	
	Company E		**-1.07**	
	Company F		**2.1**	

4.7 Discussion Summary

The respondents accredit the company failures in Malawi to lack of credit policies where firms are supposed to collect debtors before paying creditors and loosening credit terms to stimulate demand so that they could make more sales. In the sample of five companies used, the data collected reveal that 40 % are operating under this situation. To make it worse one of the companies is paying the creditors twice before collection of debtors. If firms that look healthier and well respected on the market would manage WC in this way then results from actual failed firms would have been stunning if studied. Thus these companies if exposed to stiff competition would wind up their businesses easily.

The respondents pointed out that continued deficit and lack of cash for managing operations and pay off creditors were some of the reasons for closures of companies in Malawi. This could be true as from the failed company the liquidity ratios show that the company was perpetually in deficit situation. The cash ratio too portrays the same situation and this provides room for one to say that company F failed due to liquidity problems. The liquidity problems arose due to failure to control debtors and creditors.

Company A is indicated to be one of the likely to fail as its rating on failure is high. This company too suffers much from failure to control the debtors and creditors to such an extent that it pays its creditors twice before collecting its debtors. Suffice to say that out the sample of five companies, 40% are operating on negative cash ratios implying they had no cash at the time they were closing their year end books. Yet these companies look quite health viewing them from outside.

The respondents pointed out lack of striking a balance between debtors and creditors as one of the causes of the company failures. In this study it has been noted that 60% of the five companies studied were failing to strike a balance and lost control at one point or another. Focusing on this view, the respondents earlier on asserted that the firms were failing because of lack of control over creditors, debtors and stocking of inventory. Considering the data that was collected from the five sampled companies, the data reveal that, 80% of the companies had an accumulation of stock in 1998 and have had to try to reduce this. Yet the remaining percentage of the companies, the data reveal that though started with lower levels in 1998, later had accumulated stocks, which it was struggling to keep up with. Thus all the companies studied have had some problems with regards to stocking inventory and striking a balance. Though some companies managed to move from higher volumes of stock to lower levels while they were trying to reduce stock, the creditors or debtors increased and affected their operations.

On the point that overtrading, lack of qualified accountant management and financial expertise were one of the major causes of failures of companies in Malawi, this study did not try to tackle this as it would need studying areas like projects that were being undertaken by the companies. It would need to study how much is allocated to each project, how much is needed for the project, how much was budgeted in relation to actual performance? Such a study would be oriented to unearth if companies suffered from overtrading. Despite unavailability of such data and information, the negative cash flows mean that the companies were failing to have reserved cash and had to use overdraft to man the deficiency of cash. Thus the overtrading cannot be ruled out as 40% of the companies were in this situation.

Overcapitalization can also not be ruled out as one of the companies had accumulated cash equal to its CA less stock and is over half of its CA. These funds remain idle in the firm but were supposed to be used in other investments. Despite that the company operates without debtors and is taking advantage to extend the creditors period, the cash should have been invested in other projects to generate profits, therefore overcapitalized.

As to the question of Malawians being aware of applications of WCM, looking at the trends from the graphs and from the comments from the industry captains, one would easily conclude that managers in Malawi are aware of the applications of WCM. What is difficult to them is to strike a balance, most importantly as they take longer time to take corrective measure. It is possible to say that managers face problems in monitoring so that corrective measures are not taken at the right time.

4.8 Key Findings

The following are key findings that have been isolated from the discussion:

- Eighty percent of the companies understudy had an overstocking problem.
- Forty percent of the companies failed to collect the debtors before payment of creditors.
- Forty percent of the companies were operating non-negative cash.
- Sixty percent of the companies failed to strike balance of Inventory, creditors and debtors.
- Seventy percent of managers on survey believe that the closure of the companies in Malawi was due to poor management of WC.
- The failed company suffered much from liquidity problem arising from failure to control debtors and creditors.
- Failure rating above 1 should be give attention if Stapel scaling is used as in this research.
- Managers in Malawi manufacturing industry are aware of WCM.

- Managers in Malawi manufacturing industry take longer time to take corrective measure on WCM elements.

4.9 Chapter Summary

This chapter has discussed the analyzed data from documentary and the survey carried out. Then at the end, the discussion has been summarized and the key findings have been listed down. The next chapter will concentrate on conclusion and recommendations basing the discussion made in the earlier chapter of research results.

CHAPTER 5

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents conclusions and recommendations of the findings basing on the discussions from chapter 4. Basically the chapter will summarize the findings from chapter 4 and give conclusions. Then the chapter will suggest recommendations that companies ought to pursue to avoid future closures in Malawi.

5.2 Conclusions

This study addresses issues of whether working capital management had a role in the closures of the companies in Malawi, which have been ascertained by conducting five case studies of companies that had existed beyond 1990 and by conducting a survey which involved industry key people. The findings reveal that company A is failing to strike a balance in the area of working capital. It is paying creditors twice before collecting debtors. This is in agreement with the findings of Ooghe (1998) in Shanghai in which he asserts that collection of receivables is a big problem for many firms, and many of them do not have a clear credit and debt collection policy.

On failure to strike a balance Aziz et al (2006) assert that if a firm's financial statements reflect significant changes in the composition of assets and liabilities on its balance sheet, it is more likely that it is incapable of maintaining the equilibrium state. Further more Azizi et al (2006) predict that if these changes are likely to become uncontrollable in future, one can foresee financial distress in these firms. At the same time Daraysher et al (2003) assert that when receivables increase with respect to sales, this would be understandable and lead to a higher failure probability. Yet it is quite clear that one the companies that failed had higher receivables than the

payables. Such companies would be associated with failure ratings above zero. It has been noted that all companies, which failed to control the debtors and creditors in this study, had failure rating above zero.

In the same line though, company B has been trying to put hands on working capital and is considered to have demonstrated good WCM, there were problems in management of current assets and liabilities as they had an overstocking at the start of 1998. Refuse (1996) emphasized that reducing stock produces major financial benefits by simultaneously improving cash flow, reducing operating cost levels, lowering the asset base and reducing capital spending. He stressed that no other single management action can generate such a high degree of financial leverage. Company C also had problems in managing the current assets and liabilities as they were failing to strike a balance. This is seen from figures 4.5 and 4.6 where CR was more than 3.5, ATR was above 2.5 and in 1998 they needed to change the stock holding.

Though company D is trying to manage its DCP, IHP and CPP, it still has problems in keeping current assets and liabilities and cash under control. It has reached a level where by ATR is less than 0.5 which is not safe for the company. Though company E has managed to take out debtors and is operating on cash it has problems of keeping current assets and liabilities and cash under control. Empirical evidence is provided by Howorth et al (1998) who assert in conclusion that a large number of firms in UK have late payment problems. This is also evidenced by establishment of the Better Practice Group (BPG), which has been enforced by legislation of statutory right to interest on late payment. Thus company E has adopted the UK strategy in keeping longer CPP. The company's CR and ATR have been varying much proving that management has difficulties in controlling current assets and liabilities. If all five companies that have been studied have some problems in one area or another then it can be concluded that poor working capital management is prevalent in the companies in Malawi though the extent varies from one company to another. Thus signals of poor working capital management exist in manufacturing industries in Malawi.

The findings from combined study of the five companies and the industry key people have revealed that managers in Malawi are aware of the application of working capital management. Despite of being aware of the WCM, they still have problems in managing the companies as they take longer time to respond to changes. Thus the major problem in Malawi industry on WCM and failure of companies is failure to closely monitor movements of elements of working capital so that they can adjust strategies, pricing of products and approaches in time. These findings agree with the findings of Ooghe (2006) who associated failure process as due to failure to restructure and rigidity of management or entrepreneurs to believe in strategies that were successful in the past and are overtaken by global changes in the environment such that they respond too late to take corrective measures. The survey also reveals that 70% of key players in the industry of manufacturing assent to that most of the company closures in Malawi were due to poor management of working capital. This has been proven empirically through one case study of a failed company and the five existing companies, all of which have demonstrated existence of problems related to working capital in one area or another.

Since 60% of the companies studied failed to balance on WC, therefore poor WCM exists in the manufacturing industry in Malawi. In this research 50% in results is taken as determinant value as set in the methodology. At the same time it can be confidently concluded that company failure in manufacturing industry in Malawi was a result of poor WCM as the management of the failed company could not balance between debtors and creditors and consequently the current ratios and acid test ratios kept on decaying. Beside this, executives in companies agree with the claim that poor WCM caused the company failures as 70% of the survey alleges that company failures were are result of WCM. This agrees with the findings of a survey conducted in Europe that assert “The survey has established that an average 74% of all companies consider that working capital management is either important or very important” (KPMG 2005) report. This has also been confirmed from the failed company where the management failed to balance between creditors and debtors

resulting in decay of current and acid test ratios and perpetual negative cash ratio. Therefore the impact of WCM on company failure established is that if WC elements are not monitored after reaching a rating of failure of 1 the company may undergo financial distress that may consequently end up with liquidation due lack of liquidity. Particularly monitoring of debtors, creditors and inventory can produce desired results as these deal with inflow and outflow of cash in a company.

5.3 Recommendations

In view of the problems revealed by the findings the following recommendations are supposed to be given attention by the concerned companies:

- Company A should monitor closely particularly debtors so as to come up with a policy that will see its debtors collected before creditors are paid and inventory reduced to a lower level that will help its cash flow not to be negative.
- Company B should monitor closely all working capital elements in order to be able to strike a balance in WCM.
- Company C should closely monitor particularly debtors' element of working capital as it got out of control.
- Company D need to revisit its strategies in order to change asset base and come out of the overdraft situation.
- Company E should find other projects to invest excess cash at hand and should closely monitor its liquidity, as the trend is downward.
- Finally all companies should do quarterly monitoring rather than using year-end results.

5.4 Areas Of Further Research

In view of the finding and conclusion that working capital is poorly managed due to lack of monitoring, further study should be conducted to empirically validate that this is due to lack of qualified accountant management and financial expertise and find out how often most companies monitor the trend of their working capital.

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7.0 Appendix

7.1 Appendix 1: Questionnaire

UNIVERSITY OF MALAWI

THE POLYTECHNIC

FACULTY OF COMMERCE

Executive Masters of Business Administration (MBA)

Working Capital Research Questionnaire

I am George Kafuwa a Postgraduate student pursuing a Masters of Business Administration Degree course at the Malawi Polytechnic one of the constituents of University of Malawi.

One of the important requirements of this degree program me is that students carry out research on their dissertation. Therefore my research is on The Impact of Working Capital on Manufacturing Industry in Malawi.

For the purpose of confidentiality, please do not put your name, signature, company name or any other identification details that may lead to your identification or your company identification.

Would you please kindly answer all the questions after going through the following background paragraph:

Watson et al (2000) and Meigs et al (1979) assert that most companies' failures are a result of poor management of working capital.

Q1.0 Do you think this assertion accounts for the company closures in Malawi since the liberalization of trade? Tick appropriate.

YES	NO

Q2.0 If your answer to the question above is yes, how would you justify your position?

Q3.0 If your answer to Q1.0 is (No) then what do you think contributed to the closures of the companies?

Q4.0 Some companies still have debtor's days more than creditors days. What is the effect of such a situation?

Q5.0 Some firms have stock for more than 300 days. What is the impact on the performance of manufacturing industry considering Malawi environment?

Q6.0 Some firms have negative cash at the end of the year though their current ratios are within 1.2: 1 to 2: 1.
What is the impact of this situation?

Q7.0 In your opinion what do you think is the impact of working capital management on our firms' prosperity or failure?

End.

7.2 Appendix 2: Summary of Survey Responses

Question	Factors from respondents	Qty
2. Respondents feel that the failures of companies in Malawi were due poor management of working capital.	21. Non existence of credit policies 22. Lack of pro-activity in pricing policy 23. Use of short term funds for long term projects 24. Failure to use WCM to achieve competitiveness 25. Difference in objectives pursued by management and shareholders 26. Lack of cash to manage operations and pay off creditors 27. Loosening of credit terms to make more sales 28. Giving too much credit and not collecting 29. Liquidation 30. Lack of control of cash flow 31. Manufacturing easily copied products 32. Failure to strike balance between debtors and creditor terms. 33. Continued deficit position resulting in failure to secure raw materials 34. Failure to collect debts. 35. Lack of planning of working capital 36. Wrong priotisation of working capital 37. Overtrading that is not timely addressed 38. Lack of qualified accounting management and financial expertise 39. Lack of management control in general 40. Overstocking of raw materials	1 1 1 1 1 1 1 1 1 2 1 1 1 1

Question	Factors from respondents	Qty
3. Respondents feel that failure of companies were not due to working capital.	• Market was flooded with cheap products and substandard raw materials • Lack of managerial personnel • High interest rates • Less source of funds • Failure to compete with foreign cheaper products • High transportation costs on imported raw materials • Lack of creativity • Lack of change management • Less import duty on finished goods than local surtax	

Question	Factors from respondents	Qty
4. The effect of having debtors days more than creditors days.	• It increases working capital requirements while financing debtors • Increases operating costs. • Will not be able to negotiate better prices for raw materials and products become uncompetitive. • This finances debtors and reduces working capital available. • In the long run there will be no enough cash to pay for creditors • Firm loses free interest finance • Reducing liquidity of company • Suffocates the company operations • Will not be able pay to creditors in longer term. • Like blood, if cash flow dries, business dies. • Increases chance of bad debts • Reduces cash necessary for operations and production • Cash squeeze; inadequate cash flow and eventually liquidation	

Question	Factors from respondents	Qty
5. Effect of over stocking in Malawi environment for example over 300 days.	• Favored because of transportation problems to avoid delays. • Reduces profits as money is tied up in stock. • Cash locked up in obsolete stocks hence it will render difficulties to service creditors and other liabilities. • Same as debtors days more than creditors days – WC tied up. • Closure of company is inevitable. • Favored -Most suppliers are unreliable- local • The longer the stock takes to turn into cash the higher the negative on the cash flow. • Favored- Helps to avoid shortages and buffer stocks are necessary in our unstable business environment. • Favored- To overcome forex fluctuations. • Loss of alternative investment opportunities. • May cause cash flow problems as bulk of WC is tied up in non-productive assets. • Loss of profits • Increases costs and impacts on profitability.	

Question	Comments from respondents	Qty
6. Impact of having negative cash ratios when current ratios and acid test ratios seem to be normal.	• The firm has relatively higher holding of stock and debtors which results in higher costs. • Means that the company is using overdraft facility which is costly capital • May not be able to give dividend resulting in some shareholders withdrawing their capital. • Cost of production will be high as the firm is using borrowed funds due to interest charged. • Can lead to excessive borrowing. • Impact varies from firm to firm • This may mean over-investment in stock • Profitability will be affected • Pricing of products will be affected • The firm will be making money for banks • Prevents the firm from investing in new projects – ie lost profitable opportunities. • No impact in some situations where firm is using borrowed capital. • Liquidation will result.	

Question	Views from respondents	Qty
7. Personal views of the impact of working capital management on Malawi firms prosperity and failure.	• For growth and survival • Tying up WC is dangerous as high borrowing and stock holding costs can result in company closures or deterioration of performance and loss of franchises • Good management reduces logistical costs where well planned • Good management reduces interest cost in the long run • Good management enables good relationships with creditors, bankers and also customers as the company will have no problems in paying creditors hence ensuring a constant supply of raw materials and machinery spares. • A complete prudent balancing of stock, debtors and expenses translates into prosperity of a company. Failure to manage any one of these leads to company failure. • Poor working capital management lead companies to collapse as they either have no cash to pay debts or have no adequate stocks to meet customers demand and generate cash. • Working capital is critical to any business success or failure. • Tremendous success or failure depends on how stock, cash, creditors and debtors are managed. The way WC is managed will mean either success or failure. • WC is a big factor for deciding efficiency. Company must have enough liquidity to fulfill its debts plus to run their business at any bad time. As it has an experience that after all having good asset base, big market, due to lack of good decision making companies lead to closure. • The success of any manufacturing company will mainly rest on the working capital management of the firm. Effective and efficient use of resources in the firm is mainly/ largely attributed by the management of WC.	

Question	Views from respondents continued	Qty
7. Personal views of the impact of working capital management on Malawi firms prosperity and failure.	• With a sound working capital management and economic environment firms will prosper but without these firms will fail. • The economic situation requires constant repositioning of WC resources to be able to remain in profitable existence. WCM determines the future of all companies. • Those firms that manage WC well will prosper. Those that do not will struggle and in certain cases fall by the wayside. • WCM is very paramount to the prosperity of our business in many ways than one. If the company passes the acid test on its liquidity, then it can avoid interest charges, in fact it can invest excess cash in acquiring new businesses, opening new branches, or lend banks at a positive interest which can rake in real interest above the company's margins on the core business. The company can also use its sound supplier payment history to get off shore lines of credit in addition to local credit and can thus buy on account convert, sell and then pay suppliers at a later date. This reputation can finance the business while excess cash is used for expansion and mergers and acquisitions. • The opposite is also true to the above bullet. An illiquid company can fold up/ close owing to insolvency. A perennially negative WC puts the company at the risk of creditors calling on the company's assets resulting compulsory liquidation or voluntary sequestration.	

7.3 Appendix 3a: Data Collected for Current and Acid Test Ratios Calculation

Table 1a
Current Ratios and Acid Test Ratios **Company A**

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
1997	112106	62166	49649		1.8	1.0
1998	168633	99903	97462		1.7	0.7
1999	186891	101171	92159		1.9	0.9
2000	318421	230690	163504		1.4	0.7
2001	298260	161215	168714		1.9	0.8
2002	336697	172128	167427		2.0	1.0
2003	430291	260375	293419		1.7	0.5
2004	530106	301944	370745		1.8	0.5
2005	701908	424315	438904		1.7	0.6
2006	810167	511182	542476		1.6	0.5

Table 1b
Current Ratios and Acid Test Ratios **Company B**

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
1998	1279809	744966	781839		1.7	0.7
1999	1766881	1298377	1351071		1.4	0.3
2000	2862779	1759309	2199849		1.6	0.4
2001	4229680	2395087	2896588		1.8	0.6
2002	4875989	2421325	3272731		2.0	0.7
2003	6256585	2397045	4369794		2.6	0.8
2004	5461187	2266337	758396		2.4	2.1
2005	5769000	3037000	960000		1.9	1.6
2006	7845000	3794000	1024000		2.1	1.8

Table 1c
Current Ratios and Acid Test Ratios Company C

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
1998	309217	213606	212276		1.7	0.5
1999	429372	345643	107250		1.2	0.9
2000	575385	407773	117551		1.4	1.1
2001	710538	400580	128554		1.8	1.5
2002	756586	270965	193330		2.8	2.1
2003	1150772	509189	241762		2.3	1.8
2004	1194571	313798	296158		3.8	2.9
2005	1722225	853221	579701		2.0	1.3
2006	1573260	720487	622536		2.2	1.3

Table 1d

Current Ratios and Acid Test Ratios Company D

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
1997	30906	18419	12427		1.7	1.0
1998	56086	40232	32645		1.4	0.6
1999	50505	36538	24058		1.4	0.7
2000	65506	39224	38289		1.7	0.7
2001	63974	28099	40343		2.3	0.8
2002	74666	36846	34436		2.0	1.1
2003	84251	35245	46292		2.4	1.1
2004	120736	66332	67150		1.8	0.8
2005	119543	66771	57560		1.8	0.9
2006	167006	140104	110280		1.2	0.4

Table 1e

Current Ratios and Acid Test Ratios **Company E**

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
1997	40500	50251	16800		0.8	0.5
1998	50243	56888	44530		0.9	0.1
1999	87690	79857	43033		1.1	0.6
2000	87690	79857	43033		1.1	0.6
2001	194384	126662	38599		1.5	1.2
2002	204174	163353	67952		1.2	0.8
2003	207115	143064	118862		1.4	0.6
2004	284762	151973	79031		1.9	1.4
2005	295256	243232	90259		1.2	0.8
2006	326213	325845	117762		1.0	0.6

Table 1f

Current Ratios and Acid Test Ratios **Company F**

Year	Current assets	Current liabilities	stock/inventory		Current ratio	Quick ratio
	MK' 000	MK' 000	MK' 000			
2000	54562	49716	28039		1.1	0.5
2001	35461	46226	18356		0.8	0.4
2002	32763	83475	14373		0.4	0.1
2003	21303	164766	20351		0.1	0.0
2004	91439	147321	12500		0.6	0.5

7.4 Appendix 3b: Data Collected for Debtors Days Calculation

Table 2a
Debtors' Period **Company A**

YEAR	Trade debtors	credit sales		Debtors period
	MK' 000	MK' 000		DAYS
1997	35094	237662		54
1998	47645	420240		41
1999	78721	514453		56
2000	148081	516279		105
2001	114348	824331		51
2002	120634	653916		67
2003	293419	880572		122
2004	370745	1045812		129
2005	438904	1558508		103
2006	542476	1731023		114

Table 2b

Debtors' Period **Company B**

YEAR	Trade debtors	cost of sales		Debtors period
	MK' 000	MK' 000		DAYS
1998	306573			
1999	387162	979771		144
2000	647326	1454196		162
2001	1216838	2823694		157
2002	1583299	3117053		185
2003	1123109	3968997		103
2004	893685	5360130		61
2005	1140000	6808000		61
2006	875000	7220000		44

Table 2c

Debtors' Period **Company C**

YEAR	Trade debtors	cost of sales		Debtors period
	MK' 000	MK' 000		DAYS
1998	28182	589158		17
1999	46022	890454		19
2000	48194	1128098		16
2001	63825	1444655		16
2002	84809	1614307		19
2003	91694	2027720		17
2004	94561	3848054		9
2005	552539	3892590		52
2006	487112	5066888		35

Table 2d

Debtors' Period **Company D**

YEAR	Trade debtors	cost of sales		Debtors period
	MK' 000	MK' 000		DAYS
1997	11622	53413		79
1998	22920	69654		120
1999	25050	108902		84
2000	25885	145887		65
2001	21607	154421		51
2002	27869	168788		60
2003	34874	234305		54
2004	49193	324068		55
2005	58890	446708		48
2006	54466	506850		39

Table 2e

Debtors' Period **Company E**

YEAR	Trade debtors	credit sales		Debtors period
	MK' 000	MK' 000		DAYS
1997	3167	161033		7
1998	1220	141018		3
1999	1484	431954		1
2000	232	339806		0
2001	232	339806		0
2002	0	452051		0
2003	0	533378		0
2004	0	580580		0
2005	0	636173		0
2006	0	721201		0

Table 2f

Debtors' Period **Company F**

YEAR	Trade debtors	credit sales		Debtors period
	MK' 000	MK' 000		DAYS
2000	24981	13176		692
2001	16867	8167		754
2002	18218	1222		5442
2003	162	381		155
2004	0	633		0

7.5 Appendix 3c: Data Collected for Creditors Days Calculation

Table 3a

Creditors' Period **Company** A

YEAR	Trade creditors at start	Trade creditors at the end	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	MK' 000	MK' 000	MK' 000	MK' 000	DAYS
1998	46621	43309	44965	309561	53
1999	43309	57709	50509	417189	44
2000	57709	112728	85218.5	405371	77
2001	112728	53585	83156.5	660012	46
2002	53585	75084	64334.5	509515	46
2003	75084	136264	105674	715697	54
2004	136264	155347	145805.5	852481	62
2005	155347	138377	146862	1291260	42
2006	138377	138282	138329.5	1411403	36

Table 3b

Creditors' period **Company** B

YEAR	Trade creditors at start	Trade creditors at the end	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	MK' 000	MK' 000	MK' 000	MK' 000	DAYS
1998	171590	74398	122994		
1999	440230	171590	305910	979771	114
2000	767866	440230	604048	1454196	152
2001	842796	767866	805331	2823694	104
2002	813962	842796	828379	3117053	97
2003	1208996	813962	1011496	3968997	93
2004	1573347	1208996	1391171	5360130	95
2005	1918000	1573347	1745673	6808000	94
2006	2225000	1918000	2071500	7220000	105

Table 3c

Creditors' Period **Company** C

YEAR	Trade creditors at start	Trade creditors at the end	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	MK' 000	MK' 000	MK' 000	MK' 000	DAYS
1998	61811	162938	112375	589158	70
1999	162938	130961	146950	890454	60
2000	130961	217137	174049	1128098	56
2001	217137	177130	197134	1444655	50
2002	177130	189935	183833	1614307	42
2003	189935	370879	280407	2027720	50
2004	370879	154575	262727	3848054	25
2005	52737	586056	319396.5	3892590	30
2006	522489	503257	512873	5066888	37

Table 3d

Creditors' Period **Company** D

YEAR	Trade creditors at start	Trade creditors at the end	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	MK' 000	MK' 000		MK' 000	DAYS
1997	4942	4195	9137	53413	62
1998	4195	10159	14354	69654	75
1999	10159	11985	22144	108902	74
2000	11985	17175	29160	145887	73
2001	17175	14101	31276	154421	74
2002	14101	24760	38861	168788	84
2003	24760	14346	39106	234305	61
2004	14346	40984	55330	324068	62
2005	40984	33002	73986	446708	60
2006	33002	83105	116107	506850	84

Table 3e

Creditors' Period **Company** E

YEAR	Trade creditors	Trade creditors	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	at start	at the end			
	MK' 000	MK' 000		MK' 000	DAYS
1997	11867	11867	23734	164318	53
1998	25861	11867	37728	168748	82
1999	21672	25861	47533	430457	40
2000	21672	21672	43344	430457	37
2001	39707	21672	61379	335372	67
2002	61944	39707	101651	481404	77
2003	62668	61944	124612	584288	78
2004	60642	62668	123310	540749	83
2005	63896	60642	124538	647401	70
2006	73764	63896	137660	748704	67

Table 3f

Creditors' Period **Company** F

YEAR	Trade creditors	Trade creditors	Ave. Trade creditors	Cost of sales/purchases	Credit payment period
	at start	at the end			
	MK' 000	MK' 000		MK' 000	DAYS
2000			34120	82819	150
2001			25833	44334	213
2002			53231	56895	341
2003			100857	56356	653
2004			82487	28171	1069

7.6 Appendix 3d: Data Collected for Inventory Period Calculation

Table 4a

Inventory Period **Company A**

YEAR	STOCK AT YEAR END	STOCK AT YEAR START	COST OF SALES		STOCK PERIOD
	MK' 000	MK' 000	MK' 000		
1998	97462	49649	309561		87
1999	92159	97462	405387		85
2000	163504	92159	391283		119
2001	168714	163504	595711		103
2002	167427	168714	482369		127
2003	293419	167427	681546		123
2004	370745	293419	803328		151
2005	438904	370745	1253983		118
2006	542476	438904	1347012		133

Table 4b

Inventory Period **Company B**

YEAR	STOCK AT YEAR END	STOCK AT YEAR START	COST OF SALES		STOCK PERIOD
	MK' 000	MK' 000	MK' 000		
1998	781839	394492			
1999	1351071	781839	979771		397
2000	2199849	1351071	1454196		293
2001	2896588	2199849	2823694		329
2002	3272731	2896588	3117053		361
2003	4369794	3272731	3968997		236
2004	758396	4369794	5360130		175
2005	960000	758396	6808000		46
2006	1024000	960000	7220000		50

Table 4c

Inventory Period **Company C**

YEAR	STOCK AT YEAR END	STOCK AT YEAR START	COST OF SALES		STOCK PERIOD
	MK' 000	MK' 000	MK' 000		
1998	122172	212276	589158		104
1999	212276	107250	890454		65
2000	107250	117551	1128098		36
2001	117551	128554	1444655		31
2002	128554	193330	1614307		36
2003	193330	241762	2027720		39
2004	241762	296158	3848054		26
2005	304220	579701	3892590		41
2006	579701	522536	5066888		40

Table 4d

Inventory Period **Company D**

YEAR	STOCK AT YEAR END	COST OF SALES		STOCK PERIOD	
	MK' 000	MK' 000		DAYS	
1997	12427	53413		85	
1998	32645	69654		171	
1999	24058	108902		81	
2000	38289	145887		96	
2001	40343	154421		95	
2002	34436	168788		74	
2003	46292	234305		72	
2004	67150	324068		76	
2005	57560	446708		47	
2006	110280	506850		79	

Table 4e

Inventory Period **Company E**

YEAR	STOCK AT YEAR END	COST OF SALES		STOCK PERIOD
	MK' 000	MK' 000		DAYS
1997	16800	161033		38
1998	44530	141018		115
1999	43033	430457		36
2000	43033	430457		36
2001	38599	335372		42
2002	67952	481404		52
2003	118862	584288		74
2004	79031	540749		53
2005	90259	647401		51
2006	117762	748704		57

Table 4f

Inventory Period **Company F**

YEAR	STOCK AT YEAR END	COST OF SALES		STOCK PERIOD
	MK' 000	MK' 000		DAYS
2000	28039	82819		124
2001	18356	44334		151
2002	14373	56895		92
2003	20351	56356		132
2004	12500	28171		162

7.7 Appendix 3e: Data Collected for Cash Ratios Calculation

Table 5a

Cash Holding Ratio **Company A**

YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
1998	23161	168633		0.14	
1999	14941	186891		0.08	
2000	6573	318421		0.02	
2001	14245	298260		0.05	
2002	48636	336697		0.14	
2003	-32233	430291		-0.07	
2004	-20051	530106		-0.04	
2005	-48445	701908		-0.07	
2006	-169092	810167		-0.21	

TABLE 5b

Cash Holding Ratio			Company B		
YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
1998	191397	1279809		0.15	
1999	28648	1766881		0.02	
2000	0	2862779		0.00	
2001	96428	4229680		0.02	
2002	0	4875989		0.00	
2003	576305	6256585		0.09	
2004	635000	5461187		0.116	
2005	219000	5769000		0.04	
2006	1225000	7845000		0.16	

Table 5c

Cash Holding Ratio **Company C**

YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
1998	-3641	309217		-0.01	
1999	29462	429372		0.07	
2000	38739	575385		0.07	
2001	27506	710538		0.04	
2002	215630	756586		0.29	
2003	455321	1150772		0.40	
2004	364062	1194571		0.30	
2005	253691.5	1722225		0.15	
2006	170184	1573260		0.11	

Table 5d

Cash Holding Ratio **Company D**

YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
1997	1965	30906		0.06	
1998	521	56086		0.01	
1999	1123	50505		0.02	
2000	515	65506		0.01	
2001	-3306	63974		-0.05	
2002	9287	74666		0.12	
2003	-7237	84251		-0.09	
2004	-11444	120736		-0.09	
2005	-10285	119543		-0.09	
2006	-25157	167006		-0.15	

Table 5e
Cash Holding Ratio **Company E**

YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
1997	6097	40500		0.15	
1998	2535	50243		0.05	
1999	24573	87690		0.28	
2000	24573	87690		0.28	
2001	123387	194384		0.63	
2002	86853	204174		0.43	
2003	73912	207115		0.36	
2004	200374	284762		0.70	
2005	191195	295256		0.65	
2006	195742	326213		0.60	

Table 5f

Cash Holding Ratio **Company E**

YEAR	CASH	CURRENT ASSETS		CASH HOLDING RATIO	
	YEAR END				
	MK' 000	**MK' 000**			
2000	-5702	87690		-0.07	
2001	-2450	194384		-0.01	
2002	-2841	204174		-0.01	
2003	8053	207115		0.04	
2004	-2477	284762		-0.01	

7.8 Appendix 4a: Company A Processed Data

Table Aa

A Summary of Company A Computed Ratios

		CR	ATR	DCP	CPP	IHP	Cash ratio
1998		**1.7**	0.7	41	53	87	0.14
1999		1.9	0.9	56	44	85	0.08
2000		1.4	0.7	105	77	119	0.02
2001		1.9	0.8	51	46	103	0.05
2002		2.0	1.0	67	46	127	0.14
2003		1.7	0.5	122	54	123	-0.07
2004		1.8	0.5	129	52	151	-0.04
2005		1.7	0.6	103	42	118	-0.07
2006		1.6	0.5	114	36	133	-0.21

Where the following represent

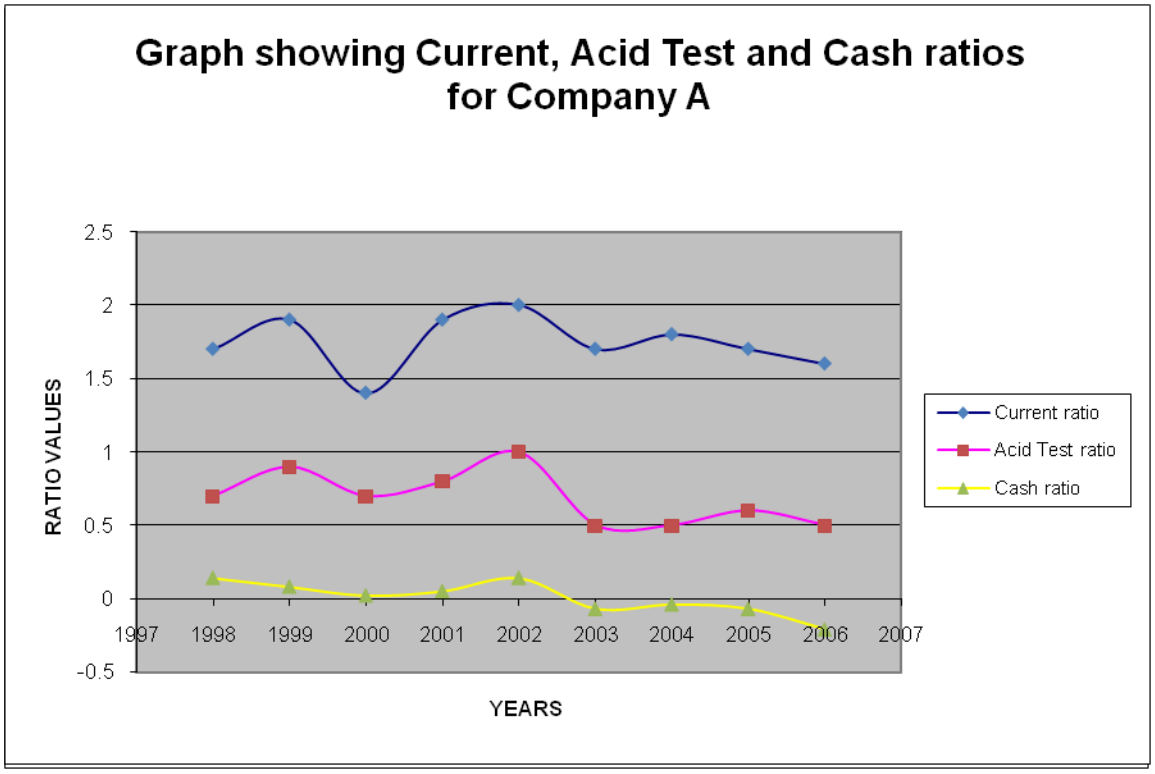
CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

Table Ab

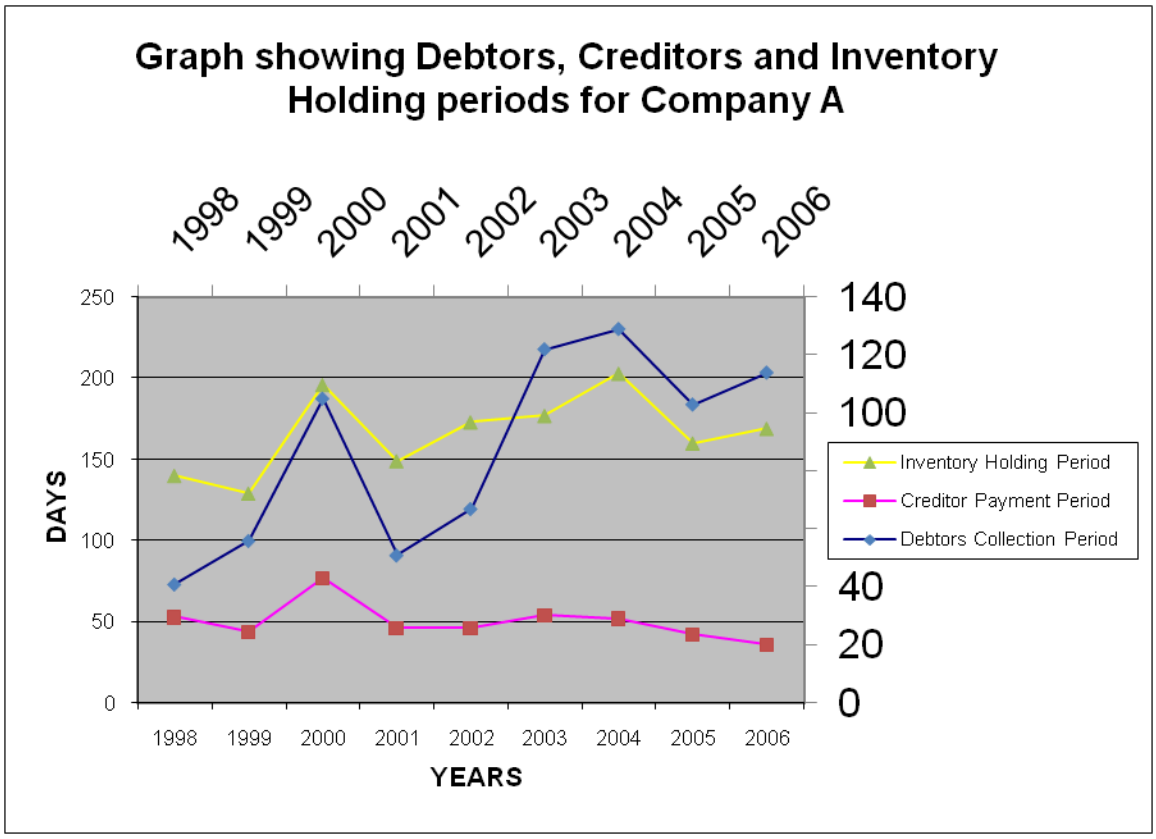
Data Used in Plotting the Graphs

	Current ratio	Acid Test ratio	Cash ratio		Debtors Collection Period	Creditor Payment Period	Inventory Holding Period
1998	**1.7**	0.7	0.14	1998	41	53	87
1999	1.9	0.9	0.08	1999	56	44	85
2000	1.4	0.7	0.02	2000	105	77	119
2001	1.9	0.8	0.05	2001	51	46	103
2002	2.0	1.0	0.14	2002	67	46	127
2003	1.7	0.5	-0.07	2003	122	54	123
2004	1.8	0.5	-0.04	2004	129	52	151
2005	1.7	0.6	-0.07	2005	103	42	118
2006	1.6	0.5	-0.21	2006	114	36	133

Graph 4.4.1 Showing Ratios for Company A



Graph 4.4.2 Showing Number of Days in Debtors, Creditors and Inventory



7.9 Appendix 4b: Company B Processed Data

Table Ba

A Summary of Company B Computed Ratios

		CR	ATR	DCP	CPP	IHP	Cash ratio
1998		**1.7**	0.7				0.02
1999		1.4	0.3	144	114	397	0.01
2000		1.6	0.4	162	152	293	0
2001		1.8	0.6	157	104	329	0
2002		2.0	0.7	185	97	361	0.01
2003		2.6	0.8	103	93	236	-0.01
2004		2.4	2.1	61	95	175	-0.004
2005		1.9	1.6	61	94	46	-0.01
2006		2.1	1.8	44	105	50	-0.02

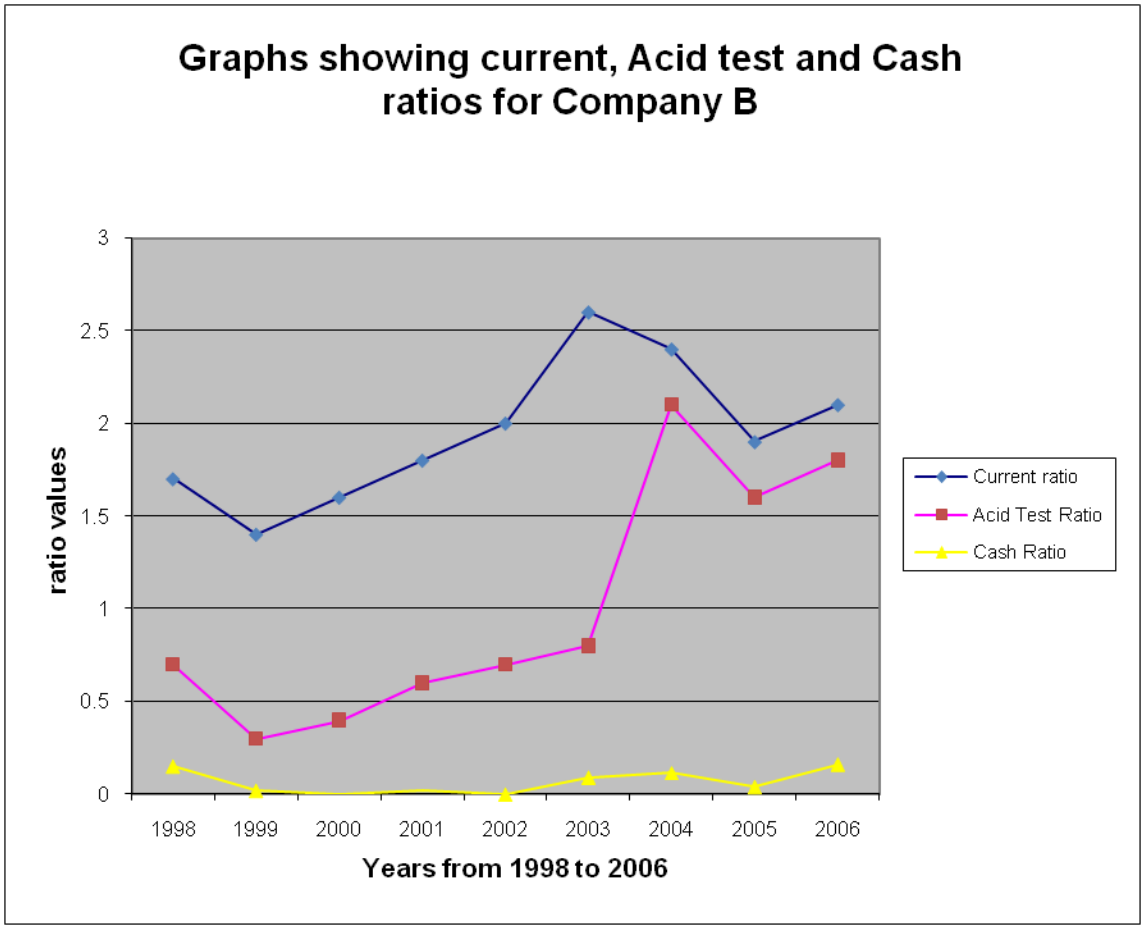
Where the following represent

CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

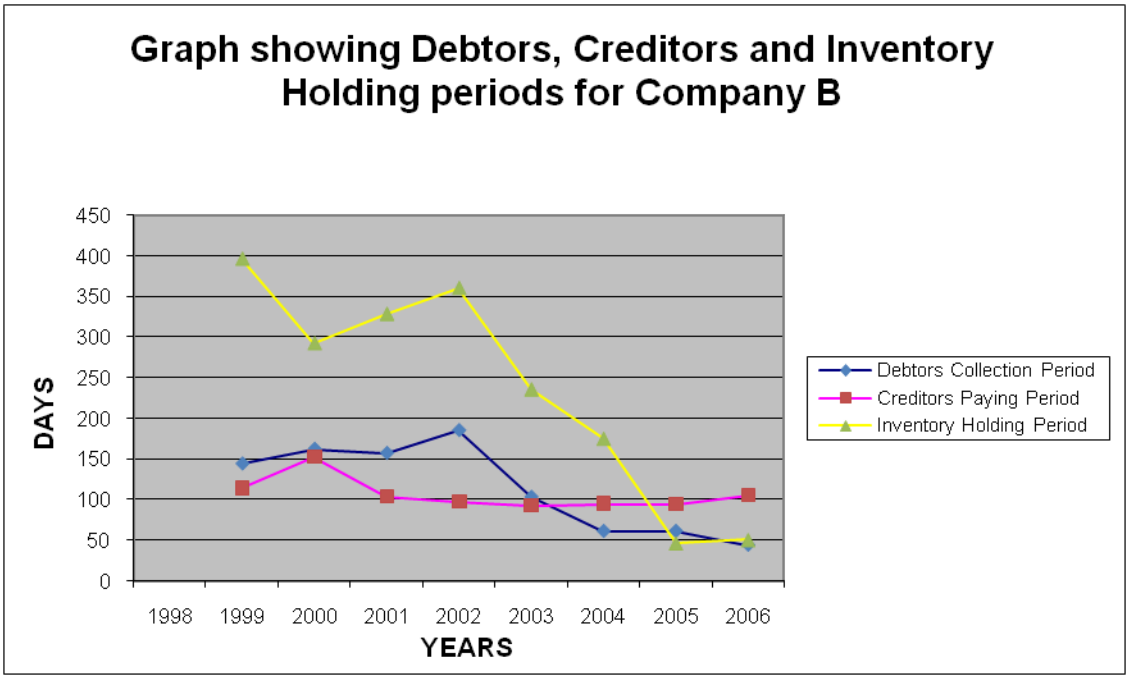
Table Bb
Data Used in Plotting the Graphs

	Current ratio	Acid Test Ratio	Cash Ratio		Debtors Collection Period	Creditors Paying Period	Inventory Holding Period
1998	**1.7**	0.7	0.15	1998			
1999	1.4	0.3	0.02	1999	144	114	397
2000	1.6	0.4	0	2000	162	152	293
2001	1.8	0.6	0.02	2001	157	104	329
2002	2.0	0.7	0	2002	185	97	361
2003	2.6	0.8	0.09	2003	103	93	236
2004	2.4	2.1	0.116	2004	61	95	175
2005	1.9	1.6	0.04	2005	61	94	46
2006	2.1	1.8	0.16	2006	44	105	50

Graph 4.4.3 Showing Ratios for Company B



Graph 4.4.4: Showing Debtors, Creditors and Inventory Days for Company B



7.10 Appendix 4c: Company C Processed Data

Table Ca

A Summary of Company C Computed Ratios

		CR	ATR	DCP	CPP	IHP	Cash ratio
1998		**1.7**	0.5	17	70	104	-0.01
1999		1.2	0.9	19	60	65	0.07
2000		1.4	1.1	16	56	36	0.07
2001		1.8	1.5	16	50	31	0.04
2002		2.8	2.1	19	42	36	0.29
2003		2.3	1.8	17	50	39	0.4
2004		3.8	2.9	9	25	26	0.3
2005		2.0	1.3	52	30	41	0.15
2006		2.2	1.3	35	37	40	0.11

Where the following represent

CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

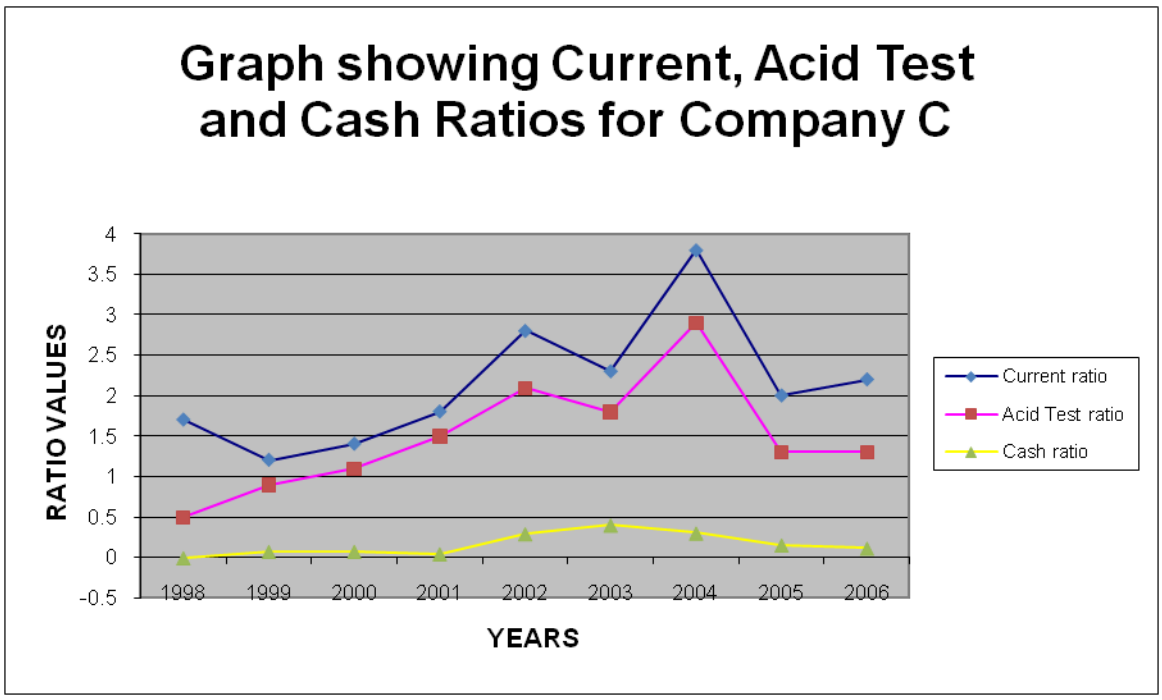
Table Cb

Data Used in Plotting Graphs

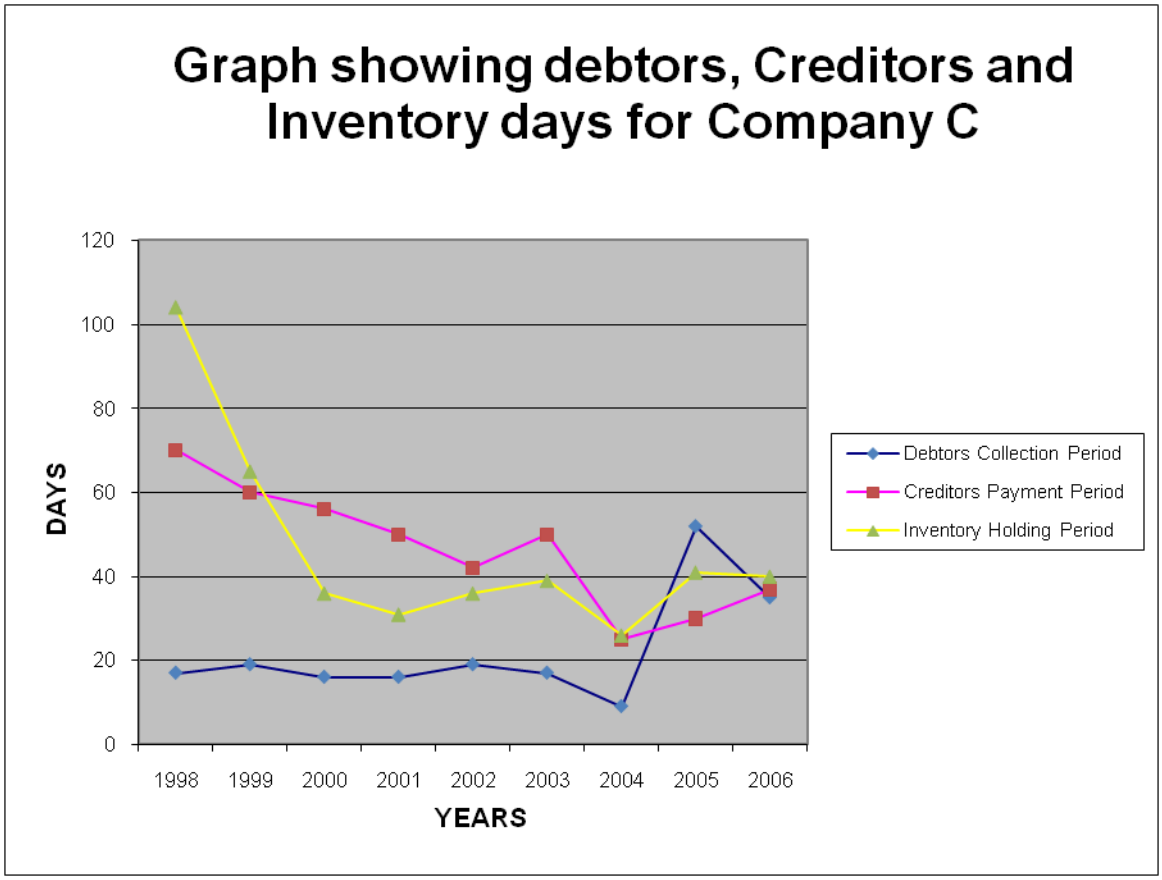
	Current ratio	Acid Test ratio	Cash ratio
1998	**1.7**	0.5	-0.01
1999	1.2	0.9	0.07
2000	1.4	1.1	0.07
2001	1.8	1.5	0.04
2002	2.8	2.1	0.29
2003	2.3	1.8	0.4
2004	3.8	2.9	0.3
2005	2.0	1.3	0.15
2006	2.2	1.3	0.11

	Debtors Collection Period	Creditors Payment Period	Inventory Holding Period
1998	17	70	104
1999	19	60	65
2000	16	56	36
2001	16	50	31
2002	19	42	36
2003	17	50	39
2004	9	25	26
2005	52	30	41
2006	35	37	40

Graph 4.4.5 Showing Ratios for Company C



Graph 4.4.6: Showing Debtors, Creditors and Inventory Days for Company C



7.11 Appendix 4d: Company D Processed Data

Table Da

A Summary of Company D Computed Ratios

		CR	ATR	DCP	CPP	IHP	Cash ratio
1998		**1.4**	0.6	120	75	171	0.01
1999		1.4	0.7	84	74	81	0.02
2000		1.7	0.7	65	73	96	0.01
2001		2.3	0.8	51	74	95	-0.05
2002		2.0	1.1	60	84	74	0.12
2003		2.4	1.1	54	61	72	-0.09
2004		1.8	0.8	55	62	76	-0.09
2005		1.8	0.9	48	60	47	-0.09
2006		1.2	0.4	39	84	79	-0.15

Where the following represent

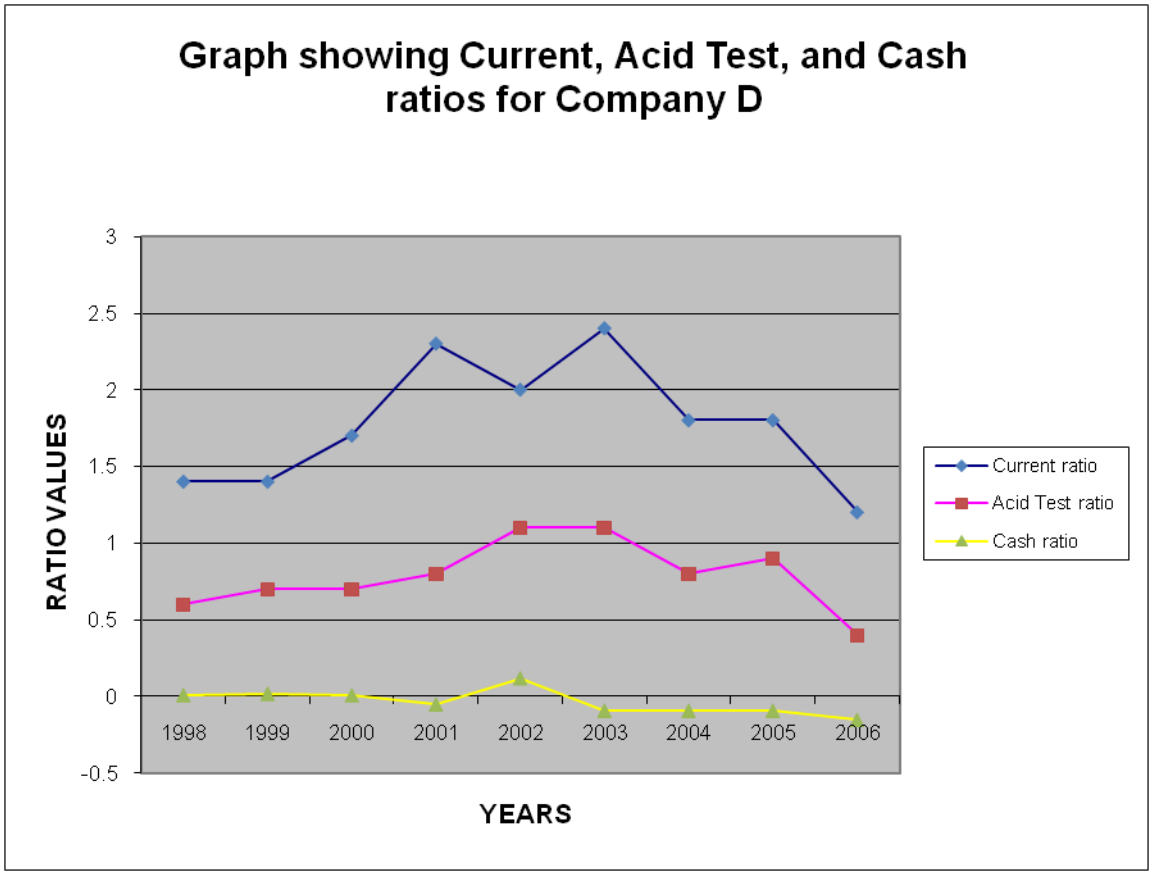
CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

Table Db
Data Used in Plotting Graphs

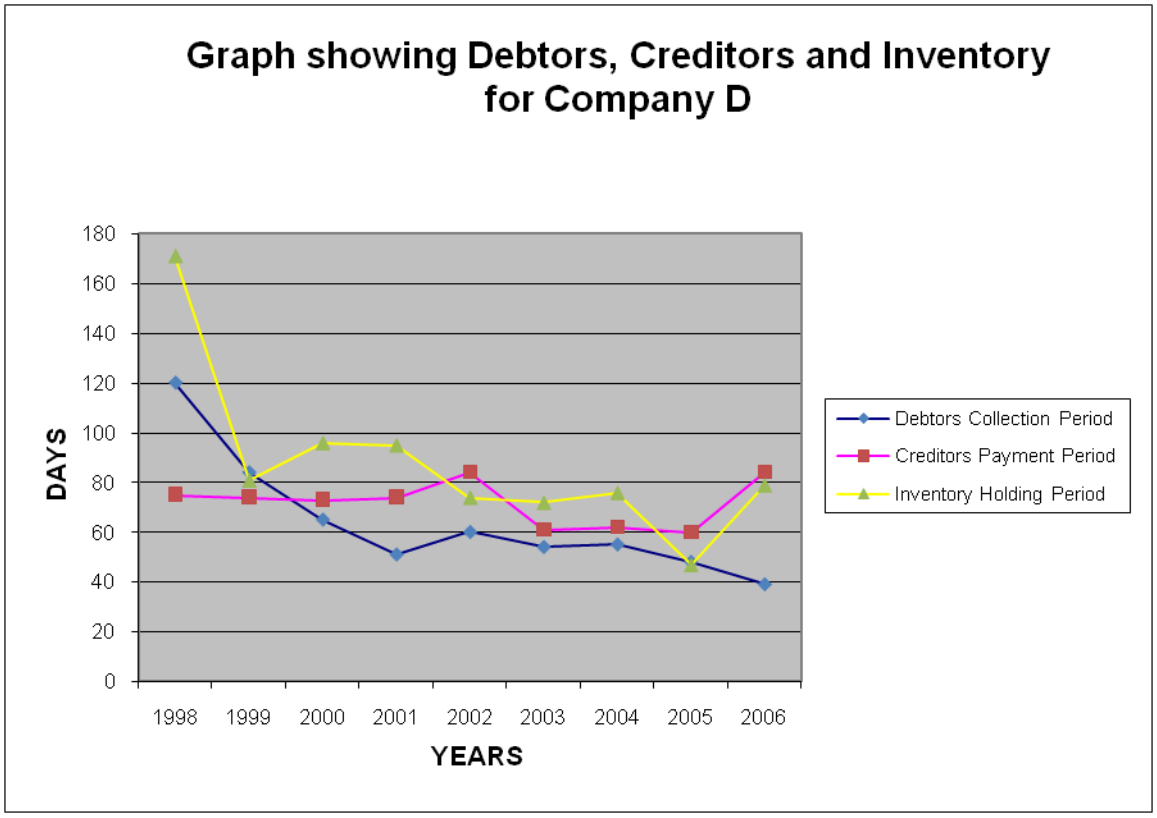
	Current ratio	Acid Test ratio	Cash ratio
1998	**1.4**	0.6	0.01
1999	1.4	0.7	0.02
2000	1.7	0.7	0.01
2001	2.3	0.8	-0.05
2002	2.0	1.1	0.12
2003	2.4	1.1	-0.09
2004	1.8	0.8	-0.09
2005	1.8	0.9	-0.09
2006	1.2	0.4	-0.15

	Debtors Collection Period	Creditors Payment Period	Inventory Holding Period
1998	120	75	171
1999	84	74	81
2000	65	73	96
2001	51	74	95
2002	60	84	74
2003	54	61	72
2004	55	62	76
2005	48	60	47
2006	39	84	79

Graph 4.4.7: Showing Ratios for Company D



Graph 4.4.8: Showing Debtors, Creditors and Inventory for Company D



7.12 Appendix 4e: Company E Processed Data

Table E a

A Summary of Company E Computed Ratios

		CR	ATR	DCP	CPP	IHP	Cash ratio
1998		**0.9**	0.1	3	82	115	0.05
1999		1.1	0.6	1	40	36	0.28
2000		1.1	0.6	0	37	36	0.28
2001		1.5	1.2	0	67	42	0.63
2002		1.2	0.8	0	77	52	0.43
2003		1.4	0.6	0	78	74	0.36
2004		1.9	1.4	0	83	53	0.7
2005		1.2	0.8	0	70	51	0.65
2006		1.0	0.6	0	67	57	0.6

Where the following represent

CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

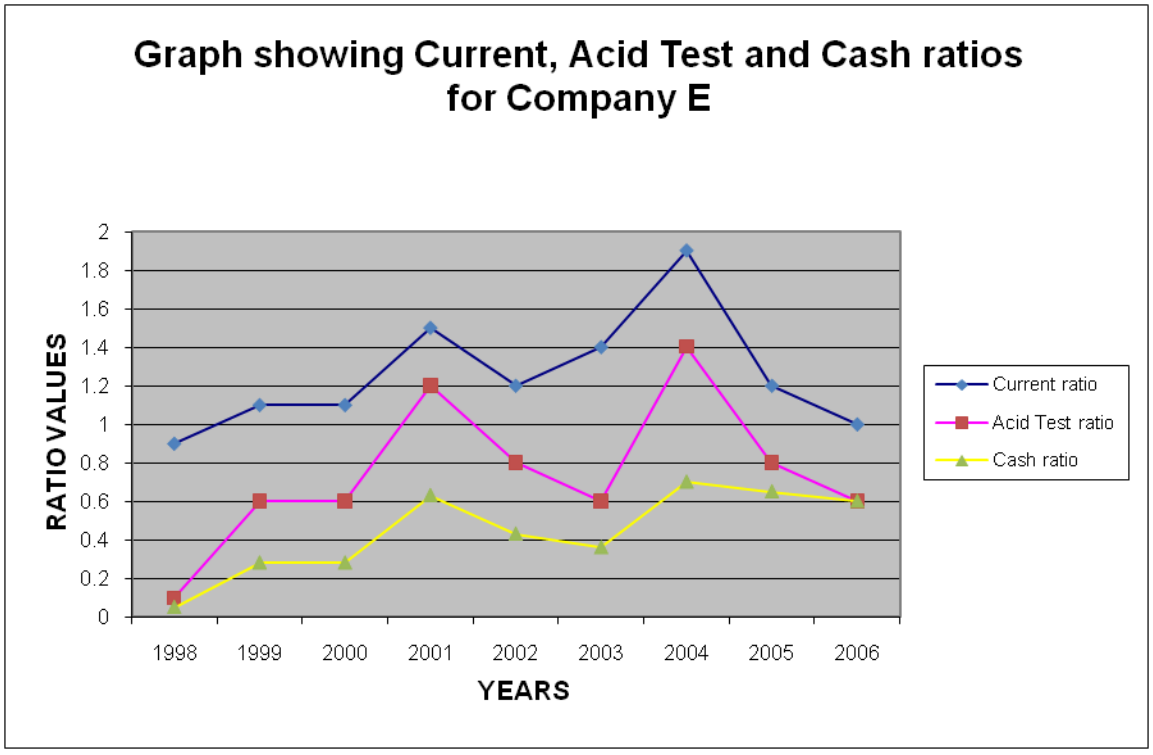
Table E b

Data Used for Plotting Graphs

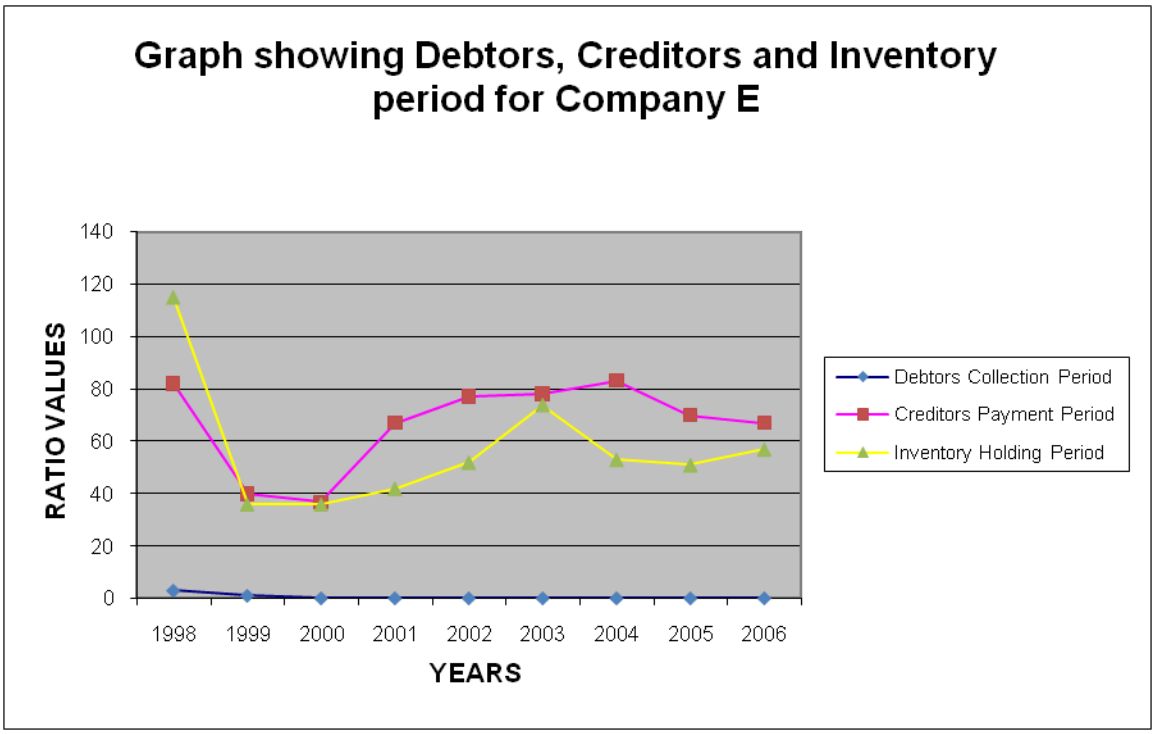
	Current ratio	Acid Test ratio	Cash ratio
1998	**0.9**	0.1	0.05
1999	1.1	0.6	0.28
2000	1.1	0.6	0.28
2001	1.5	1.2	0.63
2002	1.2	0.8	0.43
2003	1.4	0.6	0.36
2004	1.9	1.4	0.7
2005	1.2	0.8	0.65
2006	1.0	0.6	0.6

	Debtors Collection Period	Creditors Payment Period	Inventory Holding Period
1998	3	82	115
1999	1	40	36
2000	0	37	36
2001	0	67	42
2002	0	77	52
2003	0	78	74
2004	0	83	53
2005	0	70	51
2006	0	67	57

Graph 4.4.10: Showing Ratios for Company E



Graph 4.4.9: Showing Debtors, Creditors and Inventory Days for Company E



7.13 Appendix 4f: Company F Processed Data

Appendix 7
Table F a

A summary of Company F computed ratios: one of the closed

		CR	ATR	DCP	CPP	IHP	Cash ratio
2000		1.1	0.5	692	150	124	-0.07
2001		0.8	0.4	754	213	151	-0.01
2002		0.4	0.1	5442	341	92	-0.01
2003		0.1	0.0	155	653	132	0.04
2004		0.6	0.5	0	1069	162	-0.01

Where the following represent

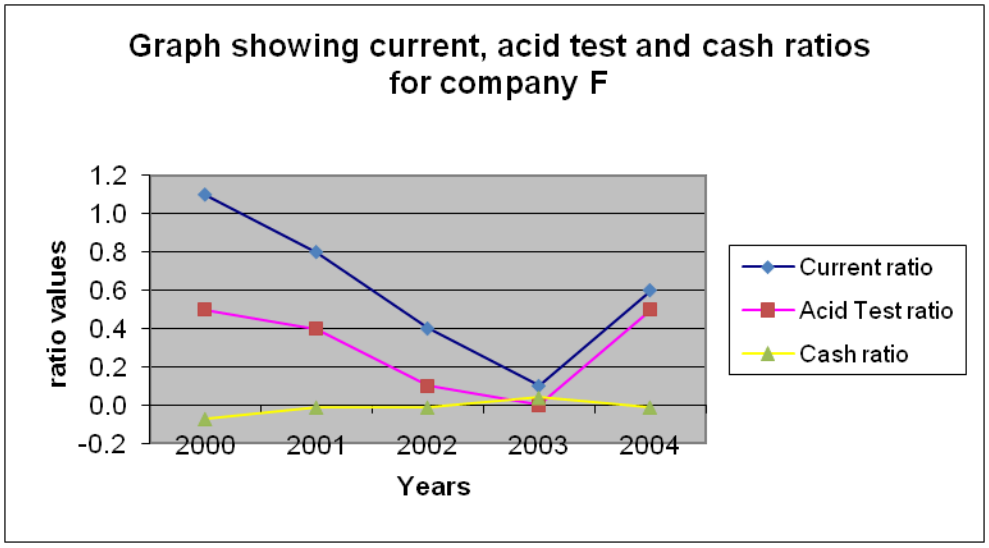
CR denotes Current Ratio
ATR denotes Acid Test Ratio
DCP denotes Debtor Collection Period
CPP denotes Creditors payment Period
IHP denotes Inventory Holding Period

Table F b
Data Used for Plotting Graphs

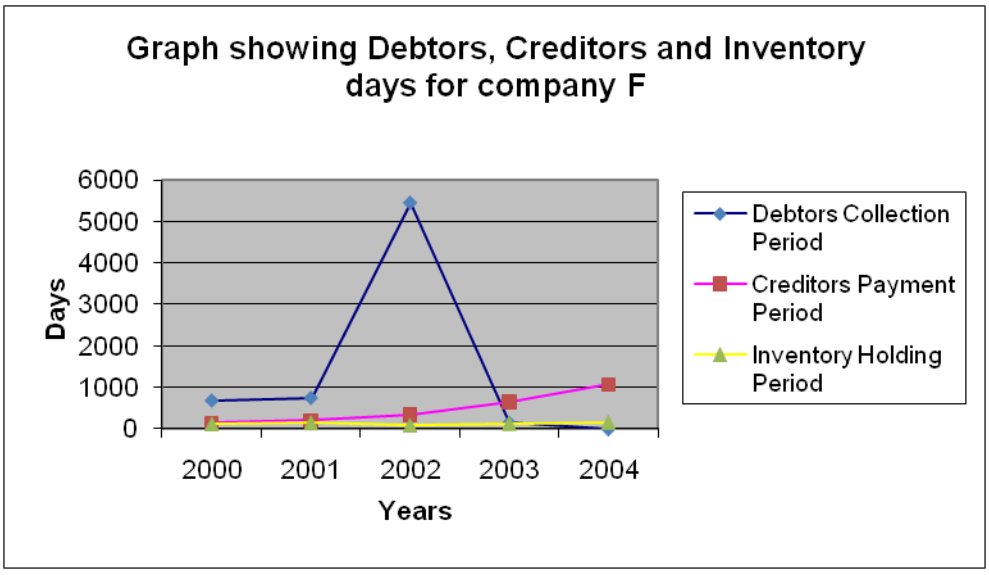
	Current ratio	Acid Test ratio	Cash ratio
2000	1.1	0.5	-0.07
2001	0.8	0.4	-0.01
2002	0.4	0.1	-0.01
2003	0.1	0.0	0.04
2004	0.6	0.5	-0.01

	Debtors Collection Period	Creditors Payment Period	Inventory Holding Period
2000	692	150	124
2001	754	213	151
2002	5442	341	92
2003	155	653	132
2004	0	1069	162

Graph 4.4.10: Showing Ratios for Company F



Graph 4.4.9: Showing Debtors, Creditors and Inventory Days for Company F



7.14 Appendix 5a: Table of Failed Companies in Malawi

Table 1.1 Showing Some Companies in Malawi and when they failed.

Company Name	Year Liquidated
GEP Shoe Limited	1991
Press Shire Clothing	1993
Press Foods	1994
Advanx	1998
BROWN & Clapperton and Press Transport	1999
Central Poultry, Press Bakeries, Hardware & General Dealers	2000
Portland Cement – Changalume factory	2001
Tyresoles	2002
Import & Export	2006

7.15 Appendix 5b: Table of Summary of Responses

Table 4.1

A Summary of Responses on Questionnaire

Administered Questionnaire	Total Respondents	CEO/GM/MD	FD/FC	YES	NO	YES & NO
25	17	5	12	11	3	3

7.16 Appendix 6a: Standards Setting for Failure Analysis

Appendix 6a

Failure Analysis

Setting Standards

Current ratios		**Acid test ratios**	
Current ratio >3.0	F= -5	Acid test ratio >2.0	F= -5
Current ratio >2.8 but <3.0	F= -4	Acid test ratio >1.7 but <2.0	F= -4
Current ratio >2.5 but <2.8	F= -3	Acid test ratio >1.5 but <1.7	F= -3
Current ratio >2.2 but <2.5	F= -2	Acid test ratio >1.2 but <1.5	F= -2
current ratio >2 but < 2.2	F= -1	Acid test ratio >1.0 but <1.2	F= -1
current ratio =2 then	F= 0	Acid test ratio =1	F= 0
Current ratio <2.0 but >1.8	F= 1	Acid test ratio <1.0 but >0.8	F= 1
current ratio <1.8 but >1.5	F= 2	Acid test ratio<0.8 but >0.75	F= 2
Current ratio <1.5 but >1.2	F= 3	Acid test ratio <0.75 but >0.65	F= 3
Current ratio <1.2 but >1.0	F= 4	Acid test ratio <0.65 but >0.5	F= 4
Current ratio <1.0	F=5	Acid test ratio<0.5	F= 5

Debtors days		**Creditors days**	
Debtors days <5	F= -5	Creditors days >120	F= -5
Debtors days <10 but >5	F= -4	Creditors days>100 but >120	F= -4
Debtors days <15 but >10	F= -3	Creditors days >80 but < 100	F= -3
Debtors days <20 but >15	F= -2	Creditors days >60 but < 80	F= -2

Debtors days <30 but >20	F= -1	Creditors days>45 but <60	F= -1
Debtors days = 30 day	F=0	Creditors days =45	F= 0
Debtors days >30 but <60	F= 1	Creditors days <45 but >30	F= 1
Debtors days >60 but <90	F= 2	Creditors days <30 but >20	F=2
Debtors days >90 but >120	F= 3	Creditors days <20 but >15	F= 3
Debtors days >120 but <150	F= 4	Creditors days <15 but >10	F= 4
Debtors days >150	F= 5	Creditors days <10	F= 5

Creditors and debtors days

Creditors days >45 and >debtors by over 40	F= -5
Creditors days>45 and >debtors by 40	F= -4
Creditors days >45 and > debtors by 30	F= -3
Creditors days >45 and >debtors by 20	F= -2
Creditors days>45 and >debtors by 10	F= -1
Creditors days =45 and debtors days =30	F= 0
Creditors days = Debtors days	F= 1
Debtors days > Creditors by 10 and <20 days	F= 2
Debtors days > creditors by 20and <30 days	F= 3
Debtors days > Creditors by 30 and <60	F= 4
Debtors days > creditors by over 60	F= 5

7.17 Appendix 6b: Rating Scores on Boards

Company A Failure Analysis

YEAR	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVE
FACTOR										
CR	2	1	3	1	0	2	1	2	2	**1.56**
ATR	3	1	3	1	0	4	4	4	4	**2.67**
CPP	-1	1	-2	-1	-1	-1	-1	1	1	**-0.44**
DCP	-1	1	3	1	2	4	4	3	3	**2.22**
DCP/CPP	-2	2	3	2	3	5	5	5	5	**3.11**
SCORE										**1.82**

Company B Failure Analysis

YEAR	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVE
FACTOR										
CR	2	3	2	1	0	-3	-2	1	-1	**0.33**
ATR	3	5	5	4	3	2	-5	-3	-4	**1.11**
CPP		-4	-5	-4	-3	-3	-3	-3	-4	**-3.63**
DCP		4	5	5	5	3	2	2	1	**3.38**
DCP/CPP		3	2	4	5	2	-3	-3	-5	**0.63**
SCORE										**0.36**

Company C Failure Analysis

YEAR	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVE
FACTOR										
CR	2	3	3	1	-4	-2	-5	0	-1	**-0.33**
ATR	4	1	-1	-3	-5	-4	-5	-2	-2	**-1.89**
CPP	-2	-2	-1	-1	1	-1	2	1	1	**-0.22**
DCP	-2	-2	-2	-2	-2	-2	-4	1	1	**-1.56**
DCP/CPP	-5	-5	-5	-3	-2	-3	-1	3	-1	**-2.44**
SCORE										-1.29

Company D Failure Analysis

YEAR	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVE
FACTOR										
CR	3	3	2	-2	-3	-3	1	1	3	**0.56**
ATR	4	3	3	1	-1	-1	1	1	5	**1.78**
CPP	-2	-2	-2	-2	-3	-2	-2	-2	-3	**-2.22**
DCP	4	3	2	1	2	1	1	1	1	**1.78**
DCP/CPP	4	2	-1	-2	-2	-1	-1	-1	-5	**-0.78**
SCORE										**0.22**

Company E Failure Analysis

YEAR	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVE
FACTOR										
CR	5	4	4	2	4	3	1	4	5	**3.56**
ATR	5	4	4	-1	1	4	-2	1	4	**2.22**
CPP	-3	1	1	-2	-2	-2	-3	-2	-2	**-1.56**
DCP	-5	-5	-5	-5	-5	-5	-5	-5	-5	**-5**
DCP/CPP	-5	-3	-3	-5	-5	-5	-5	-5	-5	**-4.56**
SCORE										**-1.07**

Closed Company F Failure Analysis

YEAR	2000	2001	2002	2003	2004	Average				
FACTOR										
CR	4	5	5	5	5	**4.8**				
ATR	4	5	5	5	4	**4.6**				
CPP	-5	-5	-5	-5	-5	**-5**				
DCP	5	5	5	5	-5	**4**				
SCORE						**2.1**				

7.18 Appendix 6c: Summary of Company Failure Ratings

Summary Company Failure Raring

			Scores	
	Company A		**1.82**	
	Company B		**0.36**	
	Company C		**-1.29**	
	Company D		**0.22**	
	Company E		**-1.07**	
	Company F		**2.1**	

7.19 Appendix 6d: Devised Stapel Scale

Devised Stapel Scale

VERY STABLE				STABLE			UNSTABLE TO FAILURE			PRONE
-5	-4	-3	-2	-1	0	1	2	3	4	5