PART I

INTRODUCTION
Chapter 1

Introduction

1.1. Relevance of working capital

Important theoretical developments in finance during the past decade have provided the potential for improved decisions in business organisations. Unfortunately, developments have not been uniform across all areas of financial decision making within and between business organisations. Working capital appears to have been relatively neglected in spite of the fact that a high proportion of the business failures is due to poor decisions concerning the working capital of the firms (Smith 1980a). Of interest in this book is therefore the area of intra and inter-firm working capital management, which generally encompasses short-term investment and financing decisions of firms.

In a perfect world, working capital assets and liabilities would not be necessary because there would be no uncertainty, no transaction costs, no scheduling costs of production or constraints of technology. The unit costs of producing goods will not change with the amount produced. Firms would borrow and lend at the same interest rate. Capital, labour and product markets would reflect all available information and would be perfectly competitive.

In such an ideal business world there would be little need to hold any form of inventory other than a limited amount of goods in process during production. But such an ideal business assumes that demand is exactly known in advance, that suppliers keep to their due dates, production can be smoothed and orders executed directly without costs and delays. There would be no need of holding cash for working capital other than for the initial costs, because it could be possible to make the payment from every receipt of sales. There would also be no need for receivables and payables if customers pay cash immediately and the firm would also make its payments promptly. However, problems of working capital exist because these ideal assumptions are never realistic and therefore working capital levels make a significant part of a firm’s investment in assets and these assets have to be financed implying that investments may have benefits as well as costs.

Working capital investments and related short-term finances originate from three main business operations - purchasing, producing and selling. They can be considered as consequences of business operations. However, as much as the operations affect the balances of working capital investments and finances, the later also determine the cost and flexibility with which the operations are performed. Efficient management of working capital investments and related short-term debts can be used to make the purchasing, producing and selling operations cheaper and more flexible. In the latter sense they are used as instruments for the management of business operations, which in the mean time create benefits and costs. Therefore, the relevance of working capital investments and short-term debts originate from these benefits and costs. Beyond doubt efficient management of both items can help the success of firms in generating
value. Operations are results of inter-firm transactions. Therefore, managing working capital investments, finances and operations internally within firms and the efficiency with which firms co-operate among themselves determine their end result.

The historical perspective of working capital management

Historically, working capital management has passed through different stages, mainly – the control, optimisation and value measurement. Working capital management originally started as a systematic approach of controlling the incoming, outgoing and remaining balances of cash, receivables and inventories. At this stage the main objective is that working capital is not misappropriated for personal benefits of those who are entrusted with its management. To this end both researchers and practitioners developed various control measures over the receipts and collections of cash, receipts and issuance of inventories as well as the increase of receivables through credit sales and decrease of receivables through cash collection.

Under the optimality management phase, the main focus was not only on the physical safety of working capital items but also on the minimisation of related costs and maximisation of related income. At this stage particular models (see sections 2.2.2 to 2.2.4) were developed to ensure that firms do not get problems due to a lack of liquidity or incur too much costs by holding excesses of working capital levels. Under the control and optimality approaches the amount of accounting profit is taken as a main measure of managerial efficiency.

Under the value measurement approach working capital management concentrated on how to help managers in the creation and measurement of value without disregarding the above two objectives. Particularly, the cash flows approach is used as a main tool to measure the value created by firms.

The control, optimality and value measurement approaches more or less concentrate on the internal management of working capital. In our study, we introduce a new dimension to these approaches – the external management of working capital. We argue that to have a maximum impact on value, firms should manage working capital in co-operation with their backward linkages (suppliers) and forward linkages (customers). By doing so firms can internally minimise the costs of the levels of working capital investment and short-term financing and externally minimise the costs of inter-firm transactional relations and thereby create more value.

Internal working capital management

The benefits of holding working capital Each of the working capital items (i.e. cash, receivables and inventories) helps in the management of firms in its own particular way. Cash is used to keep the firm liquid so that it is able to pay its obligations when they are due for payment and therefore it protects the firm from bankruptcy (Moyer, Macguigan and Kretlow, 1995). Under investment in cash bears the danger of being unable to pay back both short-term and long-term debts when they are due. Every business needs also adequate levels of cash to maintain day-to-day operations. For instance it needs enough to pay wages and salaries as they fall due and enough to pay creditors to ensure its supplies. The different types of inventories are
used to satisfy different purposes (Scherr, 1989, Stevenson 1993). Raw material
inventories are used to make production scheduling easier, to take advantage of price
changes and quantity discounts, and to hedge against supply shortages. If raw material
inventories were not held, purchases would have to be made continuously at the rate
of production. This would not only mean high ordering costs and less quantity
discounts, but also production interruptions when raw materials cannot be procured in
time. Therefore, the firm has an interest in buying enough raw materials to provide an
effective cushion between purchases and production, (Ben-Horim, 1987). Work-in-
process inventories serve to make the production process smoother and more
efficient: they provide a buffer between the various production processes. Inventories
of finished goods have to be held to provide immediate services to customers and to
stabilise production by separating production and sales activities. Most firms cannot
produce immediately when customers demand goods. Failure to supply products to
customers when demanded would mean the loss of sales to competitors. Therefore,
holding finished goods inventory helps to serve customers on a continuous basis and
to meet their fluctuating demands. Finally, receivables are used to attract customers
and increase sales.

Investments in working capital assets can be financed by short-term debts, which
include mainly trade credits and bank loans. Trade credit and short-term bank loans
have usually lower interest charges compared to long-term loan (Moyer and Mcguigan, 1995) and can be useful to maintain a firm’s liquidity position. As Cote
and Latham (1999), argue the management of receivables, inventory and accounts
payable have tremendous impact on cash flows, which in turn affect the profitability
of firms.

The costs of holding working capital The benefits to firms arising from an
increased volume of working capital, however, do not come without their own costs.
Investment in working capital is expensive. The more funds accumulated in working
capital assets the more the costs of the investment. Over investment in cash, receivables and inventories ties-up capital and results in the opportunity costs of lost
profits. Over investment in cash deposited in bank checking account results at paying
service charges while depositing in a saving account does not generate large revenue.
Over investment in receivables can result at debts, which may not be collected. Over
investment in inventories result at loss due to physical deterioration and obsolescence
of the inventory items. Financing working capital investment with short-term debts
(though it is cheaper compared to long-term debts) is also riskier for the firm, because
short-term creditors give less time to pay back the loans. Therefore, the trade-off
between the benefits and costs of holding the working capital investments and short-
term debts must be evaluated and managed.

The trading-off between working capital benefits and costs The management of
working capital has to do with the trading off between the benefits and cost of holding
working capital items. Working capital investments and short-term debts do not only
arise as a by-product of purchasing, producing and selling but also are manageable
variables. Management can manipulate purchasing, production and selling using
working capital investments and short-term debts. The ways in which managers try to
cope with the problems of working capital investments and short-term debts are very
relevant for the evaluation of firms’ performance.
The importance of working capital also originates from its size. It is a large portion of a firm’s investment in assets. It amounts usually to 40% in manufacturing industries and 50% - 60% in retailing and wholesales (Moyer, Mcguigan and Kretlow, 1995). Therefore, firms can save relatively large amounts by economising on working capital investments and short-term debts.

The management time working capital operations take Most business operations affect or are affected by working capital operations (purchase of materials for production, production of finished goods and sales of finished goods to customers). Purchases of materials result in increasing the investment in materials inventory, payment of cash, or increasing payables. Production results in increasing work-in process inventory and finished goods inventory. Sales end-up in decreasing finished goods inventory, and increasing cash or receivables. The management of these activities is very time consuming and may even demand more time if the working capital investments and short-term financing are actively managed. It is therefore normal for managers to spend much of their time in activities directly or indirectly related to working capital investments and short-term debts (Scherr, 1989).

External working capital management

The benefits of managing inter-firm working capital operations Operations that affect working capital balances are mainly transactions of purchases and sales. These transactions have costs. In addition to the costs of carrying the working capital balances that result as a consequence of the operations, there are costs that originate from the inter-firm transactional relationship. The volume and spread of these costs depend on the transaction characteristics that prevail between the transacting parties. If both parties in the transaction try to maximise their own benefits without considering the effect of their actions on the other transaction partner, they may end up at increasing their aggregate costs. However, if the two transacting parties co-ordinate their common operations according to Williamson (1985) avoidable costs will not be incurred (discussed further in chapter 3). If firms can evaluate their transaction and decide on the appropriate inter-firm managerial control pattern, it is possible that their aggregate costs with co-operation can decrease to a level below the sum total of the costs of both firms without co-operation. This reduction of costs through the co-operation of transacting parties results at a concomitant benefit of creating value to both firms.

The inter-firm co-operation in managing firms’ value chains (Porter 1985), both with suppliers and customers become important as a result of specialisation and globalisation. The design of appropriate inter-firm control patterns also becomes a matter of necessity because of the benefit in managing inter-firm transaction costs including those related to working capital. In search of efficiency in scale and scope of operations, firms are increasingly specialising only in few of their operations and leaving the rest to other firms. Inter-firm co-operation will not only decrease the inter-firm transaction costs but also the intra-firm costs of holding working capital balances. As we have mentioned earlier, holding working capital balances have benefits as well as costs. Proper inter-firm co-operation decreases the need to hold extra balances of cash, receivables and inventories. For example trade credit and bank loan agreements decrease the need for cash. Agreement on purchases and sales
shipment on the basis of just in time decreases the need for both materials and finished goods inventory. Cost and market factors are forcing firms to go global, in which case they are forced to depend on the co-operation of other firms, which are accustomed to the new environment in terms of business culture, social culture and regulatory requirements. This inter-firm co-operation creates a value chain (Porter 1985) which is inter-connected with value network (Rappaport 1986). However, firms have to establish a workable inter-firm control patterns (Van Der Meer Kooistra and Vosselman 2000).

**Working capital management in developing economies** the importance of managing working capital is magnified when it refers to firms in developing economies. These firms have many problems (McComick, 1999), such as being small in size (in terms of volume of investment and sales) and lack of resources. The list of problems is long and includes low levels of product and process technology, small product markets, lack of access to capital, lack of physical infrastructure and proper institutional framework. Because of their small size, firms in developing economies may quickly be exposed to problems of production capacity to satisfy the demand they may have for their products and this makes inventory management more relevant. Both human and financial resources of the firms in developing economies are also very limited. The human aspect refers to both skilled labour and knowledgeable, experienced and motivated management. Thus the problems of managing working capital investments and short-term debt may be increased by such lack of managerial knowledge. Financially, firms in developing countries lack the opportunity of getting the benefit of financial markets. Even if financial markets exist the small firms have less opportunity to go public and benefit from the financial markets as sources of finance. Even banks will hesitate to provide them with long-term loans. Small firms are less known and less equipped with appropriate mechanisms that will help them to provide relevant information to potential financiers. Therefore banks consider loans to small firms as risky and expensive because it takes more time for a relatively less benefit. So, because of these reasons short-term debt management is even more important in developing than developed countries (Fishazion, Von Eije and Lutz, 2001). Proper working capital management is particularly important for the firms in developing countries in order to solve these problems. For example in Eritrea, the firms have their major investment in working capital assets and they mostly use short-term debts as a main financing source. In the absence of long-term investment and capital markets, managers are moreover occupied with the short-term decisions affecting working capital. Therefore it is in working capital related activities that they are trying to capitalise in order to create value for the firms.

**Government regulations and cultural factors** Government policy has always an influence on every aspect of a firm’s activity. The government determines the rules of business practices including the type of business operations, which have to be under government ownership or privatised and what firms could enter into any form of agreement in creating linkages. Government can set rules and guidelines on how the firms have to be managed. It is therefore a matter of fact that their activities are affected, directly or indirectly by government regulations. Culture also matters in the management of working capital. Working capital management techniques developed by world-renowned researchers, if replicated elsewhere, may end-up at failure. Because as Williamson (1985) points out cultural practices, believes and norms also
determine practical management approaches. The study of working capital management has to be designed in such away that it takes full consideration of the government regulations and cultural factors.

**Working capital management and transition to privatisation** Working capital management is also very important for firms in transition to privatisation or firms that are recently privatised. These firms have no culture of private business management and they have no experience of business to business co-operation, which mostly affects working capital. There is also a far-reaching effect on the management when firms are strictly regulated and owned by the government. If government owns business firms, the benefits and costs of working capital management might be considered to be of a lesser importance because taxpayer’s money can be used to pay for their losses. When business firms are transformed to the private sector there will be a change of management style because there will be transparency and accountability of managers to owners. This is loose when the firms are government owned. Therefore, the analysis and recommendations on working capital management will enhance the knowledge of management of working capital investment and short-term debts for managers of government, transition and privatised firms in developing economies, which this research concentrates on.

### 1.2. Research problem, purpose and questions

**The research problem** Research begins when a researcher’s curiosity is aroused and motivated to formulate a problem demanding an answer. The idea of this research originated from a field study in summer 1996. The researcher and other colleagues made a survey asking managers in Eritrea on the practical applicability of some conceptual accounting fields of study that the University of Asmara offer. The response was that working capital management is one of the least used concepts for practical managerial decision making. However, preliminary studies showed that many of the firms had inappropriate working capital management. This resulted in a number of problems, both internal and external that this research study uses as main research background. Internally: (a) the firms hold inappropriate levels of working capital – resulting in uncontrolled costs of holding the working capital items or in deficient working capital levels. (b) The firms inappropriately manage their purchases and sales activities and have a defective credit policy. Externally, the firms lack proper policies and practices of co-operation with their suppliers and customers.

**The research purpose** The purpose of this research has its origin from the problems mentioned above. We therefore try to explain the reasons for the problems mentioned and search solutions to them. Our main objective is therefore to investigate and to have a critical analysis at the firms’ internal and external working capital management practices and then to give relevant policy recommendations helpful to enhance firm value to both the firms and the government. In order to realise this objective we reviewed relevant literature in the developed world and formulated a conceptual framework, which we used to determine the relevant issue of our study, collect relevant data and analyse the findings. However, the existing literature in the developed world does not fully address the issues in a developing environment. After collecting the empirical data we found out that some of the issues that we considered relevant in our conceptual framework have been over emphasised while others, which
we considered to be less relevant where found to be of more importance in the Eritrean situation. Hence after collecting our data we had to revise our theoretical framework to make it more relevant to a situation in a developing country. We looked at both the internal and external working capital management because looking only at the internal part in isolation from the external environment, particularly the firms’ supplier and customer linkages, could not give a complete picture and will only be partial solution to our research problem. To our knowledge this issue is new and has not been researched so far.

We have opted to choose the former and existing manufacturing public enterprises, that is government owned firms, firms in transition to privatisation and privatised firms. The main reason is because we believe these are the only firms in Eritrea, which have the relevant size and management system. The historical background of the firms indicate that all manufacturing and service firms where nationalised by the former Ethiopian Government. However, the current Eritrean government is in the process of reversing that and privatising the firms. The government ownership has resulted at a culture of government regulation and government influence on the management of the firms. However, as a result of the privatisation program the influence of the government regulation is having a differing applicability among the firms depending on whether they are government owned, in transition to privatisation or they are privatised and on which basis we therefore decided to categorise our study. We have selected the manufacturing firms because there are very few public enterprises in the service sector (only one commercial bank and one insurance company), while the manufacturing firms are 41 in number.

In order to search adequate answers to the problems we sub-categorise our objectives into three step procedure: First: we study the concepts of internal and external working capital and short-term debt management. Then we develop a conceptual framework (model) that can be used to study government owned firms, firms in transition to privatisation and privatised firms in the context of a developing economy, specifically in Eritrea. Second: we use this conceptual model to describe the internal and external working capital management practices of the firms and by doing this we hope to learn how these firms manage their working capital. Third: we compare the conceptual and empirical findings and try to forward conceptual and practical implications at both firm and government levels, moreover we also try to indicate future research directions.

**Research questions** This research focuses on looking at the internal and external working capital management in the context of a developing economy, specifically taking the case of Eritrea. Therefore, the main research question addressed is: “How do government, transition and privatised firms in the manufacturing sector of Eritrea manage their internal and external working capital in search of enhancing firm value?” This research question entails three main sub-questions: the first is conceptual, the second is empirical and the third relates the conceptual and empirical sub-questions. The conceptual sub-question is used to implement the first step in our research procedure. That is, to study theoretical concepts of internal and external working capital management and then to develop a conceptual model that can empirically be used to study the government owned firms, firms in transition to privatisation and privatised firms in a developing economy context. Because our preliminary investigations indicated inadequate working capital management we had
to use a benchmark. The theoretical benchmark we used is value creation. That is, working capital management should assist in value creation and value creation concepts are therefore introduced in the conceptual framework. The empirical sub-question is used to implement the second step in our research procedure, that is, to use the conceptual model to understand how these firms manage their internal and external working capital. The third sub-question is used to implement the third step in our research procedure. Within this part, we relate the conceptual framework to the empirical findings and try to recommend practical approaches (by taking the conceptual and empirical findings into consideration) that the firms and the government can use to improve the management of internal and external working capital. Specifically, the research questions that each chapter of this thesis deals with are stated as follows.

1. The conceptual research question What are the conceptual approaches of internal and external working capital management that can be used to enhance firm value? This question requires answers to the following four sub-questions:

1a. The first conceptual sub-question that this research addresses is: What are the conceptual approaches of internal working capital management that can be used to enhance firm value? In order to answer this conceptual sub-question we will try to present the financial management models found in the literature, which we believe are of relevance to the working capital management in developing countries like Eritrea. Chapter 2 presents the theoretical background that can be used to answer this conceptual sub-question. Internal working capital management can conceptually be divided into the management of levels of investment and financing as well as the management of operations (i.e. purchasing materials for production and selling finished goods to customers). With this in mind, approaches that can be used for internal working capital management purposes are discussed in chapter 2. First we present the general introduction and background of working capital management in Section 2.1. Then we consider working capital management in terms of its investment (section 2.2) and financing (section 2.3) as well as operations of purchasing (section 2.4) and selling (section 2.5).

1b. The second conceptual sub-question is What are the conceptual approaches of external working capital management that can be used to enhance firm value? Chapter 3 presents the concept of firm value and theoretical approaches of inter-firm co-operation from the context of working capital management. This chapter deals primarily with the theories that are useful for developing our research model. It presents Rappaport’s (1986) value network model (section 3.2), Porter’s (1985) value chain model (section 3.3) and value chain linkages (section 3.4) and lastly we present Williamson’s (1985) transaction costs model (section 3.5).

1c. The third conceptual sub-question is stated as: Is there a comparative advantage of operational efficiency for value creation due to the type of ownership (government, transition or privatised)? Chapter 4 covers this issue. Section 4.2 covers the debate on ownership, market competition and operational efficiency. Section 4.3 is devoted to comparing the efficiency of government versus private ownership. Section 4.4 covers the issue of privatised firms and section 4.5 presents the case of firms in transition to privatisation. Section 4.6 relates firm ownership and value creation to inter-firm
managerial control patterns (market, bureaucracy and trust) in the three transaction phases (contact, contract and execution).

1d. The fourth conceptual sub-question that we addresses is: *What is the appropriate conceptual framework and research methodology that can be used to find answers to our research questions?* Chapter 5 combines the internal and external working capital management approaches as well as issues of firm ownership into a conceptual framework. We also present the research methodology that we have used in designing the data collection and analysis. This chapter covers the issues, which are needed to design the information retrieval and analysis of our study. The objective is to design the conceptual framework and the research methodology. Section 5.2 deals with the development of the conceptual framework. Section 5.3 presents the choice of case study as a method of research. Section 5.4 describes the case research method chosen, which is further sub-divided into the design of the overall case study (section 5.4.1), data collection (section 5.4.2.), data analysis (section 5.4.3) and criteria used to ensure the credibility of the research analysis (section 5.4.3).

2. The empirical research question How do government, transition and privatised firms in the manufacturing sector of Eritrea manage their internal and external working capital? By getting an answer to this empirical sub-question we try to find out whether the working capital management models found in the literature are of relevance to the financial management in developing countries, such as Eritrea. Particularly we address issues that help us understand how the manufacturing firms in Eritrea manage their internal and external working capital levels and operations. With an objective of finding satisfactory answers, this empirical question is divided into four sub-questions.

2a: The first empirical sub-question that this research addresses is: *How do government owned manufacturing firms in Eritrea manage their internal and external working capital?* In order to answer this sub-question, relevant data are collected and analysed in chapter 6. Section 6.1 introduces the chapter and section 6.2 presents a firm’s overall working capital management issues. Section 6.3 covers the internal management of working capital levels and operations. Section 6.4 presents external working capital management: including firm-supplier linkages and firm-customer linkages.

2b: The second empirical sub-question that this research addresses is: *How do manufacturing firms in the process of transition to privatisation in Eritrea manage their internal and external working capital?* Chapter 7 deals with this research question. Section 7.1 introduces the chapter. Section 7.2 presents a firm’s overall working capital management issues. Section 7.3 covers the internal management of working capital levels and operations. Section 7.4 presents external working capital management, including firm-supplier linkage and firm-customer linkage.

2c: The third empirical sub-question that this research addresses is: *How do privatised manufacturing firms in Eritrea manage their internal and external working capital?* In order to answer this sub-question, relevant data are collected and analysed in chapter 8. Section 8.1 introduces the chapter and section 8.2 presents the firm’s overall working capital management issues. Section 8.3 covers the internal management of working capital levels and operations. Section 8.4 is on the external
working capital management, including firm-supplier linkages (8.4.1) and firm-customer linkages (8.4.2).

2d. The fourth empirical sub-question that this research addresses is: *Comparatively, how do the government, transition and privatised firms in the manufacturing sector of Eritrea manage their internal and external working capital?* We specifically study the impact of ownership on the firms’ internal and external working capital policy and their overall value creation potential? Chapter 9 provides the answers for this empirical sub-question. It includes a cross-sectional analysis of the empirical study incorporated in chapters 6, 7 and 8. Section 9-1 introduces the chapter. Section 9-2 covers a comparative description of the firms’ overall working capital management. Section 9-3 deals with the firms’ internal management of working capital levels and operations and section 9-4 covers the external management of working capital levels and operations.

3. **The conclusions and study implications**  *What are the conclusions and future research implications of the study?* The third sub-question assesses the lessons that can be learnt from the theoretical background and practical experience of firms in a developing economy, particularly the firms in Eritrea. It winds-up the thesis by presenting summaries, conclusions, evaluations and implications of the study. It gives insights and recommendations at both the firm and the government level. Finally, the chapter refers to the limitations of the study and proposes possible areas of future research direction. It seeks answers to two sub-questions.

3a. The first concluding sub-question that this research addresses is: *What are the conclusions that we can make from the study of working capital management experiences of the government, transition and privatised manufacturing firms in Eritrea?* Section 10.2 includes a summary of the theoretical background used with reference to internal and external working capital management, issues of ownership and competition for operational efficiency as well as the conceptual framework and research methodology. Section 10.3 presents a summary of the empirical findings of the firms’ internal and external management of working capital operations and levels.

3b. The second concluding sub-question is: “*What are the conceptual and policy implications as well as limitations and future research direction that can be drawn from the study?*” Section 10.5 addresses this sub-question. It deals with the theoretical implications (section 10.5.1) and practical implications (section 10.5.2.) as well as limitations and future research direction (section 10.5.3).

1.3. **The Research methodology**

Research is a process - a series of linked activities moving from a beginning to an end (Bouma and Atkinson, 1995). Bouma and Atkinson propose an outline of three phases in the research process. The first phase is the essential first step requiring a researcher to clarify the issues to be researched and select a research method. In this phase the researcher has to select, to narrow and to formulate the problem to be studied. Here the researcher has also to select the research design, to devise measures for variables, and selects the samples or the units of analysis. This is what this section on research methodology aims to achieve.
In selecting our research methodology, we refer to Yin (1994). He suggests that a case study methodology is a preferred research approach where: the research question to be addressed is a type of how-why, control of the researcher over the research is none or very insignificant and the focus is on a contemporary phenomenon within a real life context. Because of these differentiating characteristics the case research method properly fits to the question and objective of this research. The question of this research is: how do the government, transition and privatised manufacturing firms in Eritrea manage their internal and external working capital operations and levels? It would be difficult to control the working capital management techniques that the firms use. Management behaviour cannot also be manipulated in the same way as experiments are manipulated. The focus of the research is on finding contemporary working capital management, relevant to the Eritrean firms.

Case research studies can be exploratory, descriptive, hypothesis testing or explanatory in nature (Sekaran, 1992). An exploratory case study explores new areas of organisational research by making a complete investigation. It is used when the researcher does not know much about the situation at hand or when s/he has no information on how similar problems or research issues have been solved in the past. Before a model is developed extensive preliminary work is done in order to get familiarity with the phenomena and to understand what is happening. It is useful to get a good grasp of the phenomena of interest and for advancing knowledge through good theory building (Sekaran, 1992). A descriptive case study involves describing certain characteristics of the phenomena that the researcher is interested in. It is undertaken in order to ascertain and to describe the characteristics of the variables in the situation. An explanatory case study is concerned with explaining why the variables under study behave in a certain way. Hypothesis testing is used to explain the nature of certain relationships or to establish the differences among groups.

This research basically focuses both the descriptive and explanatory case study. First, we review literature in order to search for what conceptual internal and external working capital management approaches are available. Second, we search and describe what internal and external working capital approaches the government, transition and privatised firms use. Finally, we compare and explain how our conceptual expectations and empirical findings differ and forward possible recommendations on how the government, transition and privatised firms can use internal and external working capital management approaches in search of creating value. Internally, we study the value creating characteristics of working capital. Externally, we assess business to business co-operation. As a background the research study uses management theories on working capital techniques (Scherr, 1989, Van Horne, 1998), value chain (Porter 1985), value network (Rappaport, 1986) and buyer-supplier linkages management (Shank and Govindarajan 1993) in a business to business co-operation. It is based on the idea that, efficient working capital management of a firm’s intra and inter-firm value chain linkages (Heck and Zuurbier, 1989) can reduce transaction costs (Williamson, 1986), generate more income and create firm value.

Traditionally, it is believed that objectives of managing working capital can be achieved by managing the internal affairs of a business firm. Managerial rewards were based on how firm managers organise their internal affairs. In the contemporary period of
globalisation, managers concentrating only on the efficiency of their internal operations forget an important element: that of managing the external linkages (Shank and Govindarajan 1993), which can make a difference in the race for business success. Management in general and that of working capital in particular, has become a two-edged sword - internal and external. Internally various working capital approaches are used to maximise the benefits and reduce the costs of working capital. Externally, the firm-supplier-customer linkages are managed such that the business to business cooperation results in synergy effects on firm value. This is achieved by reducing inter-firm transaction costs and creates firm value in a win-win condition (Rubin and Alvarez 1998).

Data collection As Yin (1993 p.32) noted one important aspect of a case study is that it enables the use of multiple sources of evidence converging on the same issues. Evidences for case studies may come from a number of sources (Yin, 1994b, p.78): documentary information, direct observation, physical artifacts, interviews, and archival records. Sekaran (1992) also adds the questionnaire as another alternative mechanism of data collection.

Documentary information – includes letters, memoranda and other internal documents, studies of a similar case, articles and information appearing in the mass media. Direct observation – refers to collecting data where the researcher makes a study on the case by direct physical observation of the subjects of the case. Physical artifacts as a data collection mechanism relates to collecting a technological device, a tool or instrument, a work of art, or some other physical evidence. Interviews are personal contact questions put to key respondents. Interviews can be structured or unstructured and can be conducted either face to face or by telephone (Sekaran, 1992). In the case of unstructured interviews the researcher does not approach the respondent with planned sequence of questions that he will be asking to the respondent. Its objective is to formulate a conceptual framework for variables that need further in-depth investigation. Structured interviews are conducted when the researcher has a pre-determined list of questions and refers to this list while conducting the interview. Structured interviews are used when the researcher knows what information is needed. They can take the form of open-ended or focused interviews. Open-ended interview questions refer to respondents’ opinion about events. In a focused interview the researcher follows certain set of questions derived from the conceptual framework of the case study. A questionnaire is a pre-formulated written set of questions to which respondents record their answers, usually from defined alternatives (Sekan, 1992). A questionnaire is suitable when the researcher knows what is required and how to measure the variables of interest and it can be administered personally or mailed to the respondents. Archival records include financial statements, customers’ and suppliers’ service records, organisational records etc. Archival records have the advantage of providing stable data, getting data not collected for the case study, exact information and broad coverage.

Because of their relevance to our research we have used archival records, interviews and questionnaires. Focused and open-ended interviews have been conducted with 45 respondents (managers of firms, their suppliers and customers). Interviews enabled us to target directly at the case study topic and to perceive causal inferences. Questionnaires have also been personally administered and collected from the 45 managers. As archival records, the audited (as much as it is possible) financial
statements of the firms for seven years (1994 to 1998) were collected and are used in this research. Taking audited financial data of five consecutive years has the advantage of retrievability, unbiased selectivity (by both researcher and provider) and accessibility.

1.4. Organisation of the book

This book contains five parts sub-divided into ten chapters. Part I contains chapter 1 and introduces the research work. Part II contains chapters 2-4 where we deal with the literature review on the internal and external working capital management and issues of ownership and value creation. Part III contains chapter 5 where we decide on our research approach and develop a conceptual framework. Part IV incorporates chapters 6 to 9 in which we analysed the empirical data in view of the literature reviewed and conceptual framework developed. Part V includes chapter 10, which concludes the research and forwards future research implications.

Chapter 1: described the relevance of the research, the research problem, the research objective, the research questions and the research approach.

Chapter 2: deals with the literature review of internal working capital management. It divides working capital management into managing levels and operations. It introduces the general view of working capital management and short-term debts and deals with more detailed techniques of managing working capital levels and operations.

Chapter 3: deals with the literature review of external working capital and the concept of value management. Specifically, Rappaport’s (1986) theory of value network, Porter’s (1985) value chain, Shank’s and Govindarajan’s (1993) value chain linkages and Williamson’s (1985) theory of transaction cost economics are discussed. Finally, the chapter ends with a discussion relating working capital management to the theories of value management.

Chapter 4 deals with the issues of firm ownership, efficiency and value creation. Conceptual theory is reviewed with regard to the contemporary argument over government, privatised and private firm’s impact over operational efficiency. A comparison is also made between the effect of ownership and market structure on operational efficiency.

Chapter 5 deals with the issues of empirical data measurement and analysis. It contains the research approach followed, the research framework developed and the design of the information retrieval.

Chapter 6 starts the empirical data analysis. It deals with the working capital management analysis of Keih Bahri Food Products and another government firm - Barka Canneries.

Chapter 7 continues the empirical data analysis by emphasising on the internal and external management of working capital levels and operations of Keih Bahri Tanneries and other transition firms.
Chapter 8 concludes the empirical data analysis. It specifically deals with the case of Asmara Milk Factory and other privatised firms.

Chapter 9 includes a cross-sectional and comparative data analysis of the empirical study incorporated in chapters 6, 7 and 8. It compares working capital management in the government firms (Keih Bahri Food Products and Barka Canners), transition firms (Keih Bahri Tannery and other transition firms) and privatised firms (Asmara Milk Factory and other privatised firms).

Chapter 10 winds-up the thesis by presenting comparison between the expectations of our conceptual research framework and our empirical findings, conclusions and implications of the study. It covers the evaluation of our conceptual background and empirical findings on the management of internal and external working capital as well as general issues taking the Eritrean context. It also highlights the conceptual and practical implications as well as limitations and future research direction of our study.