DETERMINANTS OF TRADE CREDIT USE BY SMALL AND MEDIUM ENTERPRISES IN NAIROBI

BY
JOHN KARANJA MBURU

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2009
DECLARATION

I declare that this is my original work and has not been presented for a degree in any other university.

JOHN K. MBURU
D61/P/8599/01

Signed: [Signature]  Date: 23/11/09

I confirm that this project report has been submitted for examination with my authority as the university supervisor.

Mohamed Mwachiti

Signed: [Signature]  Date: 24/11/09

Lecturer, Department of Finance and Accounting, School of Business, University of Nairobi.
DEDICATION

This project is dedicated to my wife Catherine, sons Martin and Ephraim and daughter Claire, who patiently endured and cheered me during the long period it took, to complete my studies. No words can express my gratitude for them and the sacrifices they have made.
ACKNOWLEDGEMENT

I would like to express my sincere and utmost appreciation to my supervisor Mr. Mohamed Mwachiti, for all the support in giving valuable guidance, insightful comments and direction to me throughout the course of this project development. His guidance, inspiration and support were not only intelligently but also were emotionally invaluable. In addition I would like to thank the moderator Mr. Peter Ngige for his valuable support and input in this project.

Heartfelt appreciations go to my loving wife Catherine Karanja who tirelessly supported me through out the long and tough process and my children who gave me the impetus to press on and finish. Thanks to all my friends and colleagues who have given me tender support and encouragement during this long journey.

My special thanks go to John Wainaina for his comprehensive and practical advice on data analysis; and to the respondents of my questionnaire for taking their valuable time to discuss with me the role of trade credit in their business operations and growth.

My sincere gratitude go to Rahab Ngechu for typing this work under strict deadlines and sometimes under very inconveniencing work schedules. And to all those I could not mention in this document who either directly or indirectly contributed to this piece of work, “I thank you all”.

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DEFINITION OF KEY TERMS

Small and Medium Enterprises (SMEs)

No single phrase or definition has yet been universally agreed upon in the definition of SMEs (Konosuke and Minoru, 1999). For purposes of this study, small enterprise referred to any business that has less than 50 employees or with a turnover of less than Kenya Shillings 10,000,000 per annum.

Enterprise

Business, enterprise, firm, organization and establishment are used interchangeably to refer to an economic unit producing goods or services.

Credit

Credit is the provision of resources (such as goods or services) by one party (creditor) to another, (debtor) where that second party does not reimburse the first party immediately.

Trade credit

Trade credit is the nature of credit facility extended to the customer by the supplier as a source of working capital whereby payment for the goods supplied can be made at a latter date or in instalment or in accordance with a written agreement.
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CBD</td>
<td>Central Business District</td>
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<td>CBD</td>
<td>Cash Before delivery</td>
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<td>CBK</td>
<td>Central Bank of Kenya</td>
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<td>CBS</td>
<td>Central Bureau of Statistics</td>
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<td>COD</td>
<td>Cash on Delivery</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<tr>
<td>KLIA</td>
<td>Kariobangi Light Industries Jua Kali Association</td>
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<tr>
<td>KIPPRA</td>
<td>Kenya Institute of Public Policy Research and Analysis</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental organization</td>
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<tr>
<td>ROSCA</td>
<td>Rotating Savings and Credit Saving Associations</td>
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<td>SACCO</td>
<td>Savings and Credit Cooperatives</td>
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<td>SME</td>
<td>Small and Medium Scale enterprises</td>
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<td>SPSS</td>
<td>Statistical Program for Social Sciences</td>
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ABSTRACT

This study aimed at investigating the determinants of trade credit use by Small and Medium Enterprises in Nairobi. The SMEs are normally thought of as the breeding ground for entrepreneurs and constitute an essential component of a healthy economic structure. The literature reviewed suggested that the main factors that determine the use of trade credit include; transaction cost motive, firms operating issues, finance cost motive, marketing activities by suppliers, firm business environment and information asymmetry.

A descriptive survey was designed to collect a sample of 180 SMEs in Kariobangi Jua Kali Light Industries. The study was interested in determining the legal structure of the SMEs business, the duration they have been in operation, the volume of trade credit purchases and sales, the credit period granted to both suppliers and users of trade credit and finally determining the factors that influence trade credit use by SMEs.

A questionnaire consisting of three sections was used. The first section sought demographic information of the sampled, while the second section sought information on access of trade credit by SMEs and third section elicited information on determinants of trade credit use. The research question addressed by the researcher was “what are the important factors influencing the use of trade credit by SMEs in Nairobi”

The main findings of the study were that, the main business structure of the SMEs sampled was sole proprietorship, that most sales and purchases by SMEs are on credit, and that SMEs were granted longer credit period by their suppliers than they granted their customers. The study also indicated that the main determinants of trade credit use by SMEs are finance related considerations.

The study also confirmed that trade credit is widely used by SMEs as a source of short term fund to cope with temporary cash flow problems.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Kenya’s economic landscape conspicuously reflects the dominance of Small and Medium scale Enterprises (SMEs). SMEs are formal or informal business enterprises which are characterized by few employees, ranging from 1 to 50, and have limited source of capital and expertise (KIPPRA, 2002). Among other things, SMEs utilize local resources and exert little pressure on limited foreign currency reserves. They also provide 49% of the employment and more than 50% of manufacturing gross domestic product (Mead and Liedholm, 1998). SMEs also contribute to the economy in terms of output of goods and services and creation of jobs (Marwanga, Okomo and Epstein, 2006). Indeed Kenya government considers the SME sector a major source of future employment generation.

1.2 Access to Finance

Access to financial services has been identified as a major problem experienced by many people who attempt to do business in Kenya. In particular, access to credit from formal banking sector by Small and Medium Enterprises has been cited as a major constraint to their development and growth (KIPPRA, 2001). Commercial banks, which were traditionally looked upon as powerful catalyst of economic development through resource mobilization and the provision of credit to profitable ventures, did not offer credit to the rural poor or small businesses. The stringent lending policies, collateral requirements, cumbersome procedures of formal financial institutions and perception of small businesses as risky business often led to the exclusion of SMEs. According to (KIPPRA, 2001), various studies have concluded that, while credit in formal banking institutions has grown steadily over the years, little of this credit has reached the SMEs sector.

Small and medium enterprises sector development in Kenya is faced with a number of problems, including, an inhibiting environment, lack of finance and poor non-financial promotional programmes (Kibera, 1996). Although the financial sector in Kenya is fairly diversified in terms of financial
removal of those factors that have constrained effectiveness of the financial sector's
intermediation role is necessary (GOK, 2003).

The formal financial sector covers a wide range of institutions such as banks and cooperative societies
(Robinson, 2001). These are mostly urban and Peri-urban based and supply financial needs of the
more modern sector. The semi-formal financial organizations are usually unlicensed and generally
unsupervised, but at times operate under specific laws and regulations. Unlike the formal financial
institutions, the semi-formal ones usually provide limited services, as the law in many countries may
not allow them to provide a wide range of financial services. Some institutions such as the non­
governmental organizations (NGOs) provide micro-credit but are usually not permitted to take savings
from the public. The informal sector, on the other hand, is uncontrolled and unregulated. It includes
such credit provider as loan sharks, wholesalers, shopkeepers, employers, rotating and credit and
savings associations (ROSCAs) and landlords (Lengewa, 2003). Therefore there is an insufficient
supply of early-stage business financing; this financing gap prevents many young firms from achieving
their potential. Consequently the Government of Kenya established a Youth Enterprise Development
Fund, with an initial objective of increasing young entrepreneurs access to loans, facilitating linkages
with supply chains and creating commercial infrastructure and markets (trade credit) (GOK, 2006).

1.3 **Trade Credit as a Source of Business Finance**

Suppliers are possible source of financing to business entities through a variety of credit supplies
options. The suppliers finance the purchase by delaying the date at which payment is due or allowing
traders to make instalment payments. This source of working capital financing is very common for
both starting and growing business and is referred to as trade credit. Biggs et al, (1996) used a 1993
survey of Kenya on the enforcement of contracts in an African Credit Market and stated that access to
trade credit in Kenya increased with the size of the business and that it is positively influenced by the
owner being from an Asian origin. The study found that Asian owners had a better access to trade
credit than African counterparts and that only relatively large African owners try to seek trade credit.

Petersen and Rajan (1997) outlined the various reasons on why trade credit is used. They observed
that more trade credit was used where banking institutions do not offer enough credit facilities to
various sectors of the economy. It can be used both for medium and short term financing needs of most
customers and therefore acted as a last resort to reduce transaction costs. Suppliers may lend to firms
that no one else may extend trade credit to. This is because they have comparative advantage in form
of being able to cut supplies, repossess sold goods in cases where collateral exists and they have all the relevant information about the customer to enable them monitor his performance. Cuevas et al (1993) in a study of Ghana’s Enterprise Finance concluded that, most small firms use trade credit as their most important source of external financing. Limited access to bank credit usually affected the growth of businesses and therefore the need for trade credit.

Cook (1999) argued that, trade credit is useful tool for financing since it gave suppliers an advantage in terms of access to customer information relative to banks. He argued that targeting criteria should take into account the market structure of the industry in question, and that any program should focus on sectors where trade credit is extensively used and where trade credit offers extensive growth potential. Biggs et al. (1994) concluded that the use of trade credit increased with the firm size. They found out that small firms were frequently asked to make advance payments. The study confirmed that Asian firms preferred the use of trade credit more than their African counterparts. Their findings indicated that the ratio of various forms of trade credit to sales were below 10% except where trade credit was provided which rose to 17% at most. They concluded that, African owned firms relied less on trade credit while large firms used more of it.

In a study conducted in relation to Zimbabwean firms Fafchamps et al (1995) found that large firms were likely to obtain trade credit while African owned firms that are small in size were less favoured. The firm size and subsidiary status had a positive effect on the proportion of total trade credit extended. African ownership and small sized enterprises had a negative effect. This study also provided evidence that screening before trade credit extension was biased towards ethnicity. African owners were more likely to be screened more stringently than their Asian and European counterparts. The explanation was more cash constrained, while the large firms were more likely to obtain trade credit on their first purchase, suggesting that reputation is used as a screening device.

Fafchamps (1997) concluded that, large firms and non-African owned firms were more likely to obtain trade credit. The study found that African owned firms were discriminated against irrespective of the firm size. The large firm’s purchase more on trade credit terms than small firms and the use of trade credit would help improve the firm’s cash flow. Fafchamps (2000) on a study focused on the importance of ethnicity for trade and bank credit in both Kenya and Zimbabwe, concluded that; African owners were likely to be outside the business network and ethnicity was an obstacle for access to trade credit. The study revealed that African owned firms tended to receive contracts with less trade credit period than their non-African counter parts. In his study on the trade credit in Kenya Manufacturing firms Isaksson (2002) concluded that the determinants of demand for trade credit were
firm size, indebtedness, demand conditions, the firm’s status, promotion and the skill level of the firm staff. He claimed that to some extent the age of the firm may play a role in the use of trade credit.

1.4 Statement of the Problem

The provision of debt to Small and Medium sized Enterprises is recognized as a key factor in enabling (potentially) successful SMEs to start-up and grow, and inter alia in improving the dynamic efficiency of the economy (Bitler, Marianne, Alicia and John, 2001). According to the 2007 economic survey (CBS, 2007), the major challenges that inhibit SMEs growth in Kenya include provision of affordable credit. The survey also indicated that the overall economic services sector in 2007 had a total shortfall of Kshs18.1 billion. Indeed concerns about this “finance gap” have led policy makers in Kenya to launch many initiatives in an attempt to alleviate the perceived problem. In mid 2006 the Government established a Youth Enterprise Fund with an initial capital of Kshs 1 billion. In addition to the above initiative, the government in attempt to reduce poverty, grants loan to traders and small scale industries through Traders Joint Loans Board scheme and small scale industry loans respectively. This is administered by the Ministry of Trade and Industrialization, according to the economic survey (CBS, 2007). During the last three financial years 2003-2006, the government had allocated a total of Ksh. 30 Million and Ksh. 110.4 Million to Joint Loans Board scheme and small scale industry loans respectively.

Studies on enterprise finance in Kenya and elsewhere typically focus on bank credit, and more particularly on bank loans (Fafchamps et.al 1994). As it turns out, banks are not the only principal source of external finance that small scale enterprises have access to. Indeed, trade credit, that is credit offered by suppliers, is an important source of external finance. It dominates the business operations as reflected in the annual balance sheets of registered enterprises and represents more than half of businesses’ short term liabilities.

Although trade credit is an important source of funds for small businesses, relatively little effort has gone into understanding the reasons why SMEs use it.

While many studies have been conducted on sources of finance for SMEs hardly any of them has evaluated trade credit being one of the sources. Kessio (1981) investigated problems facing small businesses and the effect of management training on the performance of the proprietors while Nkuku (2006) studied determinants of credit facility demand by horticultural firms. Gucheha, (2007) surveyed
factors influencing demand for financial services in the informal financial markets. Empirical evidence that identifies the factors determining demand for trade credit and other forms of short-term finance in Kenya is scarce. Therefore, knowledge of factors that influence trade credit use will have a particular bearing on establishment of funds by the Government and source of short-term finance available to potential and existing SMEs. Since trade credit is an important source of short-term liquidity to business enterprises, it is necessary to determine the factors that influence its use by SMEs in Nairobi Province.

1.5 Objectives of the study

To determine factors influencing the use of trade credit by SMEs in Nairobi.

1.6 Research question

The research problem addressed by the researcher is:
What are the important factors influencing the use of trade credit by SMEs in Nairobi?

1.7 Significance of the Study

The findings of this study will establish the extent to which trade credit facility is demanded by SMEs. This will be of value to existing and new entrepreneurs who may wish to use trade credit to finance their business.
The government and institutions involved in formulation of credit policy framework will also find the study results useful.
The study will also extend the frontiers of knowledge by assessing the relative importance of various factors that contribute to demand for trade credit; this is of academic value to scholars and researchers as they research further into this economically important sub-sector.
1.8 Scope

This study aims at determining factors that influence access to and use of trade credit facility by small and medium scale enterprises in Kenya. The researcher will strive to do this in an environment of minimum availability of resources. To achieve this goal the researcher will require targeting respondents who clearly understand or engage in trade credit practices in the country. As such the scope of this project will be SMEs which will be randomly selected within Kariobangi light industries in Nairobi.

1.9 Summary

This chapter introduced the study that will be carried out, giving a background of the problem, statement of the problem, objectives and scope of the study. The next chapter will deal with literature review.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature relevant to this study. This embraces defining and highlighting the characteristics of SMEs, and understanding of the term credit; the nature and role of trade credit; and the factors that influence trade credit use.

2.2 Defining SMEs

Academics (Mead and Morrison, 1996) and policy makers (Visser, 1997) have over time given different definitions to Small and Medium scale Enterprises (SMEs). Nevertheless, three criteria are mainly used to define these micro and small-scale enterprises. The first is the number of employees. This criterion defines SMEs as those formal or informal enterprises whose number of workers is below a specific number (with the range being from less than 10 to less than 50 employees). According to the second criterion, an SME is defined to include those firms that are essentially non-primary businesses. This excludes agricultural production but includes non-farm business trade activities. The third criterion defines SMEs by their limited amounts of capital and expertise per member of staff. The extent of formality and size of employees of these enterprises are the two most readily accepted criteria on which categorization of SMEs is based. For the purposes of this research, the researcher adopts the criterion of number of employees which is also the definition used in the SME National Baseline Survey of 1999 (CBS, 1999). In that Survey, SMEs are defined as those non-primary enterprises (excluding agricultural production, animal husbandry, fishing, hunting, gathering and forestry), whether in the formal or informal sectors which employ 1-50 people.

Small and medium-sized Enterprises (SMEs) are a very heterogeneous group. They include a wide variety of firms e.g. village handicraft makers, small machine shops, wholesalers, restaurants, computer software firms, etc. They possess a wide range of sophistication and skills, and operate in very different markets and social environments, (Hallberg 2000). In this study, SME is defined by its statistical nature; the typical small enterprise has revenues between Kshs. 5 Million and Kshs. 10...
Million per year and fewer than 20 employees. Medium-size enterprises are those that have revenues between Kshs. 10 Million and Kshs. 50 Million per year and 20 to 100 employees.

2.3 Characteristics of SMEs

According to Carson et al (1995), SMEs have different characteristics from those of large companies. In addition to size, there are a number of quantitative characteristics which serve to underline the difference; they include serving predominantly a local or regional market rather than a national or an international market; scale of operations of SMEs tend to have a very limited share of a given market. They are relatively small in a given industry.

The equity of SMEs is generally owned by one person, or at most, a very few people. Small firms tend to be managed directly by their owner or owners. SMEs are independent in the sense that they are not part of a complex enterprise system such as a small division of a large enterprise. Independence also means that the firm’s owner/managers have ultimate authority and effective control over the business, even though their freedom may be constrained by obligations to financial institutions (Kinunda, Rutashobya, and Olomi, 1999). Small firms are generally managed in a personalized fashion. Managers of small firms tend to know all the employees personally, they participate in all aspects of managing the business, and there is no general sharing of the decision-making process.

Other characteristics are pointed out from the perspective of finance, organization and business operation. Compared with large firms, SMEs generally lack financial resources, which suppress their potential growth; similarly, they do not have the benefit of a team of specialist experts. Externally, SMEs have little control of or influence on the environment in which they operate, so they find it difficult to position themselves against a strong competitor. SMEs face problems of weak firm-to-firm relationship, inadequate workspace with basic infrastructure, adequate and appropriate financing, limited business development services and weak entrepreneur development (KIPPRA, 2001).

2.4 Trade Credit

The word “credit” has been used for different purposes. The best way to think is to think of it as meaning ‘trust’. The word ‘credit’ comes from the Latin word credere meaning trust. When a seller transfers wealth to a buyer who agrees to pay later, there is a clear implication of trust that the payment will be made at the agreed date. The credit period and the amount of credit depend upon the degree of trust (Edwards, 2004). According to Edwards (2004), ways have always been and will always
be found to satisfy the demand from “needers” without the means to pay right now. Unlike credit from financial institutions, trade credit does not rely on formal collateral but on trust and reputation.

The explanations of trade credit prevalent in the literature fall into one of two categories. Several authors focus on the “business” motivations for trade credit, seeing it as a way to minimize transactions cost (Ferris 1981), to allow firms to practice price discrimination and or to offer implicit quality guarantees. A second category of explanations focuses on the “financial” aspects of trade credit. Emery (1984) argues that when the borrowing and lending rates faced by firms differ, trade credit can serve to arbitrage the difference.

Smith (1987) and Biais, Bruno and Gollier (1997) argue that in the normal course of business a seller obtains information about the true state of a buyer’s business that is not known to financial intermediaries. The latter may not have detailed knowledge of industry conditions and are forced to rely excessively on accounting information. Since this information is potentially valuable, seller acting on this information extend credit to buyers on terms that they would not be able to receive from financial intermediaries.

External financing is costly because of potential adverse selection in the market for capital. If the buyer faces greater adverse selection risk, it is more efficient for the seller to obtain external financing and advance trade credit. By contrast, if the buyer faces smaller adverse selection risk, it is more efficient for the buyer to Frank and Maksimovic (1998) thus explains why a firm may extend trade credit to some customers, while at the same time it also obtains trade credit from some of its suppliers.

Suppliers are possible source of financing to business entities through a variety of credit supplies options. The suppliers finance the purchase by delaying the date at which payment is due, or allowing instalment payments. This source of working capital financing is very common for both starting and growing business and is referred to as trade credit. The supplier keeps a tight reign on credit terms and receivables. Many new businesses rely heavily upon a single supplier with whom they reach a long term understanding regarding credit purchases.
2.4.1 Benefits of trade credit

The major advantages of trade credit from suppliers are that it is often readily available, it allows you to spread your payment over several months or years at minimal or no down payment or interest charges assessed. Trade credit may be inform of a simple delay in payment for purchases, sales on consignment, equipment loans or a variety of different options to assist dealers in financing stock purchases.

Trade credit is mostly an informal arrangement, and is granted on an open account basis. A supplier sends goods to the buyer on credit which the buyer accepts, and thus, in effect, agrees to pay the amount due as per the sales terms in the invoice. However, the buyer does not formally acknowledge it as a debt; he does not sign any legal instrument. Once the trade links have been established between the buyer and seller and they have each other mutual confidence, trade credit becomes a routine activity which may be periodically reviewed by the supplier.

Open account trade credit appears as sundry creditors or accounts payable on the buyer’s balance sheet. Trade credit may also be in the form of bills payable. When the buyer signs a bill, to obtain trade credit, it appears on buyer’s balance sheet as bills payable. The bill has a specified future date, and is commonly used when the supplier wants cash by discounting the bill from a bank.

2.5 The Nature and Role of Trade Credit

In common speech buying on trade credit often means simply that goods and services are paid for after they are obtained, with payment often being sent in response to an invoice or statement from the supplier that is deferred payment. The time between obtaining the goods or services and making payment will vary depending on the terms offered and some suppliers will offer discounts for early payment. For example, terms of 2/10 net 30 mean a 2% discount is available if invoices are paid in ten days or less with full payment being required in 30 days or less. Although the percentage discount offered may often seem small it is, for regular buyer, equivalent to a very high rate of interest being charged for the additional extension of credit to net terms, in the above case, for example, the equivalent annual interest rate is 37%. Some writers only classify customers as using trade credit if they forego a discount and therefore incur the higher cost for trade credit. In this

10
paper purchasing on credit is used in the common usage sense, with the situation where a discount is foregone being described as such and as one proxy for the price of trade credit.

Figure 2.1: Cost of Cash Discount

Credit Period

<table>
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<th>Credit Begins</th>
<th>Less Due</th>
<th>Amount Due</th>
<th>Full Amount</th>
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<tbody>
<tr>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: developed for this study

Credit terms refer to the written or stated policies given to a customer with regard to the timing of payments; discounts for early settlement; the methods of payment; ownership of goods prior to payment (e.g. retention of title) and (if applicable) interest or penalties for late payment. The term payment on business to business sales can take many forms and a wide variety of possible payment terms can be offered. Cash on or before delivery (COD, CBD) obviously does not involve trade credit. Progress or “stage payment” terms usually involve an upfront deposit or down payment with the outstanding invoice value being spread in payment over a set period. The majority of trade credit sales, however are offered on a net period or net period with cash discount for earlier settlement. In Kenya predominantly, the payment period specified is 30 days (net 30) but can vary from 7 days up to 120 days. Typically credit periods offered on export contract are slightly longer than those for domestic sales but this varies according to both the destination country and the industry sector of the buyer.

Thus in practice, we observe much variation in both credit terms and the extent to which payment terms is or can be enforced Deloof and Jegers (1999). For instance, the net period on offer vary around 30 days or calendar month but quoted payment terms can be as long as 120 days or as short as 7 days. Firms can vary discount periods and or/discount rates on early settlement, they can write provisions for interest penalties. On payments received after the agreed period. Firms may allow certain customers to take unearned discounts or waive interest penalties on late payments. On the other hand firms may not
be able to (cost-effectively) enforce their payment terms in the face of recalcitrant customer behaviour. The effective price of trade credit is somewhat difficult to determine and varies greatly across firms and industries. It may be reflected in the discount rates/periods and/or built into product prices. Generally it is thought that trade credit loans carry a higher interest rate than the going bank rate but it is feasible that some agreements may carry zero rate (a simple net term) and others a very high implicit rate.

### 2.6 Factors that Influence Trade Credit use

Understanding the fundamental reasons why SMEs demand trade credit is the main focus of this research. This is because it may help explain why firms may extend trade credit to businesses that appear to have difficulty raising other forms of (institutional) credit or are adjudged to be uncreditworthy by the financial institutions. Wilson, Watson, Singleton and Summers, (1996), argue that the level of a firm’s trade credit use is found to be significantly influenced by transaction costs, financing, operational issues, marketing activities by suppliers, the firm’s investment in trade debtors and firm size.

The figure below shows the major factors that influence trade credit use.

**Figure 2.2: Determinants of Trade Credit Demand**
2.6.1 Asymmetric Information

The core argument put forward for explaining the existence of trade credit is that product and capital (financial) markets are not perfectly competitive and perfectly informed. If perfectly competitive and informed financial and product markets existed there would be nothing to choose between bank and trade credit. The imperfections referred to revolve around the provision of information or "informational asymmetries". Firms may extend trade credit in an attempt to differentiate their own product/finance offering from competitors and/or long-term presence in the market. Extending trade credit generates information on customers and reduces search costs which may facilitate some price discrimination (Crawford, 1992). Suppliers may use trade credit as a means of competing in markets and generating sales and customer loyalty. Trade credit as a competitive tool is many faceted and can be used to respond to customers' sensitivities to total effective price (goods plus finance); their needs or demand for short-term finance; their focus on product quality and after-sales services; and their requirements for continuity and reliability in the timing and quality of supplies.

There will be certain market situations where suppliers can pass on the full cost of the credit to the customer and others where the firm will wish to trade-off the short-term profitability of individual customers with the increased volume of sales or market share and, of course, the potential for generating repeat purchase behaviour and market or customer information. Some firms will add a premium onto product price in order to cover the cost of extending credit; others may offer credit at loss to illiquid buyers but offset this against a surplus from cash buyers (Lee and Stowe, 1993). Trade credit may be used to discriminate between different classes of risk in the customer base. Moreover, survey evidence suggests that firms often vary credit terms pro-actively as part of the marketing mix or as a means of building stable and long-term relationships with customers i.e. goodwill and a future income stream.

Trade credit extension may be used to smooth the pattern of customer demand. For instance trade creditors may relax credit terms in order to stimulate demand in lean periods and recover costs of this policy in more buoyant times. Thus, whereas the seller may regard the bundling of products and finance from a marketing point of view; the buyer may view it from a credit point of view (Elliehausen and Wolken 1993). In financial markets, banks may have insufficient information, compared to other
lenders, to be able to assess the credit risk of lending to particular organizations engaged in the
manufacture and distribution of goods and services. The asymmetries in information are likely to be
related to a difference in the cost of collecting and managing information facing producer and lenders.
Moreover, trade creditors, who are primarily concerned with selling products may generate more
customer information via the selling process and have more collateral (i.e. recover the product) in the
event of debtor default.

The decision to take credit and the total amount of trade credit loans a company uses will depend on
the availability and relative prices of alternative financing arrangements. The credit rationing
hypothesis posts that firms will take trade credit loans only when they are denied credit by other
providers. If a buyer is given credit terms then they have a period between receiving the goods and
paying for them, during which time they may either earn interest on the money or avoid finance
charges on borrowing (Wilson, et al, 1996). Unless the goods are offered at a sufficient discount for
cash this represents a financial gain to the buyer.

2.6.2 The Transaction Cost Motive

According to the transaction theory of trade credit, firm can economize on the joint costs of exchange
by using trade credit (Ferris, 1981). Trade credit reduces the cost of engaging in trade by reducing the
cost of making money available for transactions. Firms incur costs when converting liquid assets to
cash. Trade credit gives a buyer notice of when payment is required and thus allows them to keep
reduced precautionary balances and to plan movements from liquid assets to cash in the most cost
effective manner. This is the cash management motive for credit use. A further motive arises from the
reduced number of transactions on the buyers’ bank account (the transaction volume motive); the
buyer only writes one cheque per supplier per period and therefore reduces costs. Sellers also benefit
from trade credit. Ferris (1981) argues that it enables them to predict cash receipts more accurately,
allowing them to reduce their precautionary cash balance as well.

2.6.3 The Financing Motive

According to the financing motive, imperfect capital markets enable suppliers to finance buyer firms at
a lower cost than can financial institutions Schwartz (1974), Smith (1987). If credit market
imperfections cause some buyers to have unsatisfied demand for finance i.e. to experience credit
rationing, then they will be willing to use trade credit even at a premium cost. For credit rationed firms,
trade credit can be an attractive way of obtaining finance even if the cost is high due to foregone discounts or late payment penalties.

Trade credit, sellers accepting payment after the delivery of goods and services plays an important role as a component of net working capital and source of short-term finance for business. Indeed, Biais, Bruno and Gollier (1997) in an empirical investigation of trade credit use observed that; the level of a firm’s trade credit use is significantly influenced by transaction costs, financing, operation issues, marketing activities by suppliers, the firm’s investment in trade debtors and firm size.

Meltzer (1960) showed that in periods of monetary tightening, large liquid firms increase the amount of trade credit extended. In the same vein, subsequent empirical work has focused on the financing role of trade credit and the substitution effects between trade credit and bank loans at the aggregate level. The literature generally argues that simultaneous decrease in bank loans and increase in trade credit indicate that firms are unable to obtain financing from banks (Kashyap et al, 1993) and that trade credit works to mitigate the effects of firm’s financial constraints (Calomiris, Himmelberg and Watchel, 1995).

2.6.4 Credit as a Marketing Tool for Suppliers

The credit terms offered affect the effective price of goods or services; the terms offered and the attitude the suppliers take to enforcing them are part of the price and can be used to achieve marketing objectives. Schwartz (1974) sees credit terms as “an integral part of the firm’s pricing policy. The setting of credit terms may be seen as a way for the seller to cope with variable demand, offering better credit terms (i.e. a lower price) when demand is low to increase sales and tightening up credit terms when demand is high. As well as their direct impact on price, preferential terms can also be used to foster customer relationships and customer loyalty.

In an environment where trade credit is pervasive, a buyer would not choose to pay cash unless cash discount of sufficient size is offered. Other factors may also preclude dealing in cash, for example geographic distance between trading partners. Another potential influence on demand is the credit demand of the firm’s own customers as the firm has to finance the credit it offers, and may even wish to use trade credit terms for its own marketing purposes (Pandey, 1993). The internal organization of the firm also has to be considered; larger firms may be in a better position to harness technology to take advantage of potential financial benefits where as smaller enterprises may have insufficient staff time to organize payment around best exploitation of terms. Finally we need to take account of the firms’ position in the value chain and the industry it participates in.
The few authors who have studied on the role and impact of trade credit on business operations all note that it is highly important especially for upcoming enterprises Christopher Nkuku (2006), Mwangangi, (2005) and Kessio (1981). The other important thing, therefore, is to evaluate which issues determine the ease with which small and medium firms access trade credit and make use of it.

2.7 Summary

The chapter has presented a summary of literature related to factors that influence access to and use of trade credit by SMEs. The researcher opened the chapter by defining SMEs and trade credit as well as the role played by trade credit as a source of short term business financing. Later the researcher reviewed literature on factors that influence trade credit use. Chapter three will detail the research methodology that will be used in carrying out this study.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology adopted in this study. The chapter highlights the research design, the target population, the sample size and the sampling techniques, as well as the data collection and analysis techniques.

3.2 Research Design

The research was carried out through descriptive survey method. Sekaran U (2003), notes that a descriptive research attempts to collect data from members of a population in order to ascertain and be able to describe the characteristics of the variables of interest in a situation. This method helped the researcher to ascertain the factors that influence use of trade credit by asking owners or chief executive officers of SMEs about their perceptions, attitudes, behaviour or values towards trade credit use. The researcher was interested in finding out whether, financing, transaction cost, operating issues, asymmetric information, and firms’ trading environment influence trade credit use. A multivariate model was developed to explore the above aspects of trade credit use. The general model postulated here was:

\[
\text{Demand for trade credit} = f(\text{transaction cost, financing consideration, operating issues, firms' trading environment, supplier marketing activities, asymmetric information})
\]

The researcher was able to gather complete and accurate information from informants through a questionnaire. The information was analysed to find out the determinants of trade credit use by SMEs.
3.3 Population and Sampling Design

3.3.1 Target Population

According to Cooper and Schindler (2001), a population is the total collection of elements about which we wish to make some inferences. The study covered two aspects of trade credit: access and use. In this study; the population consisted of all SMEs operating in Kariobangi light industries in Nairobi with 1 to 50 employees and an annual turnover of Ksh. 10,000,000. The total number of firms which made up the population for this survey are 1,350 (Kariobangi Light Industries Jua Kali Association, 2007).

3.3.2 Sampling Frame

Cooper and Schindler (2001), define a sampling frame as a list of all elements from which the sample is actually drawn and is closely related to the population. Equally, Saunders, Lewis and Thornhill (2003), define the sampling frame as a complete list of all the cases in the population from which the sample is drawn. Pervez and Kjell (2002), underscore the importance of a sampling frame in guiding the researcher to come up with a target group of respondents. The sampling frame for this research was the membership registration document of all SMEs registered with the Kariobangi Light Industries Association office. This list was availed by the KLIA administration officer.

3.4 Sample Size

A sample is a finite part of a statistical population whose properties are studied to give information about the whole population (Merriam-Webster, 2003). Thietart et al (2001), defines a sample as the set of elements within a population from which data is collected to represent that population. Gay (1981), asserts that in a descriptive research 10% of the population forms a representative sample. In this study random sampling technique was used to select 10% of the SMEs registered with KLIA. This means that the sample size will be 180 firms.
This study utilized primary data collected through use of a structured questionnaire. The respondents comprised of owners or chief executive officers of Small and Medium Enterprises. Three trained research assistants together with the researcher visited selected Small and Medium enterprises in Kariobangi Light Industries in Nairobi province. Having attained necessary consent, contacted the chief executive officers or owners of the selected SMEs in order to familiarize them with the questionnaires and get an opportunity to probe and ask further questions. The questions asked served to provide complementary information to that given on the questionnaire. Part A of the questionnaire gathered information concerning the general background information of the small and medium enterprises. Part B elicited data on the access to trade credit facilities, and Part C collected information concerning factors influencing trade credit use by SMEs.

The questionnaires were prepared in advance and first tested on a pilot sample of 15 firms. The data gathered was used to conduct a reliability and validity tests. The questionnaires were then revised as appropriate before being used to collect data by the researcher. This enabled the researcher to validate the instrument before the final data collection was done. The questionnaires (together with the letter of introduction) were addressed to the business owner or to the chief executive officer.

The collected data was statistically analyzed using descriptive frequencies and cross tabulation. In order to test the predictive ability of the variables (six determinants of trade credit use) were regressed against the dependent variable (use of trade credit) and a coefficient for each of these variables established. The software used were Statistical Package for Social Sciences (SPSS) and Microsoft Office Excel. The results were then discussed and inferences drawn from the sample and generalized to the population.

This chapter has described the methodology that was followed to collect data for the research. The main areas highlighted in this chapter are research design which identified the research design as descriptive design. The target population as SMEs within Kariobangi, sampling design as random sampling, and sample size as equal to 180 SMEs. The chapter also identified the data collection...
method as use of a questionnaire, and data analysis, where SPSS and Microsoft Excel were identified as the analytical tool.
CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents results and findings of the study on trade credit use by SMEs. After the introduction, the reliability and validity of the instrument of measures is discussed in section 4.2. Frequencies of demographic characteristics are presented in section 4.3. Frequencies and means were used to explore the determinants of trade credit use in sections 4.4 to 4.8. Descriptive statistics are presented in section 4.8. Cross tabulation of receivers and granters of trade credit is presented in section 4.9. Regression analysis was used to determine the predictive ability of the factors of trade credit use. Finally, a summary is presented in section 4.11.

4.2 Instrument (Questionnaire) Reliability Test

A total of 180 respondents were targeted. Out of these, 165 agreed to be interviewed and assisted the researcher and the assistants in completing the questionnaire. A response rate of 91.7% was achieved.

Reliability analysis

The data was tested for both consistency and reliability whereby, inter item consistency reliability, that is, Cronbach’s alpha reliability coefficient, was obtained. The score for the seven independent variables was more than 0.7 indicating that the items are positively correlated to one another. The closer Cronbach’s is to 1, the higher the internal consistency reliability, which confirmed that the questionnaire was satisfactory reliable instrument for data collection.

Item-total Statistics

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4A 15.4515</td>
<td>23.8064</td>
<td>.2724</td>
<td>.1704</td>
<td>.7047</td>
</tr>
<tr>
<td>C4B 16.0194</td>
<td>23.1320</td>
<td>.4919</td>
<td>.5004</td>
<td>.6583</td>
</tr>
<tr>
<td>C4C 15.9078</td>
<td>21.4595</td>
<td>.5728</td>
<td>.4200</td>
<td>.6337</td>
</tr>
<tr>
<td>C4D 15.9320</td>
<td>20.8777</td>
<td>.5153</td>
<td>.3547</td>
<td>.6425</td>
</tr>
<tr>
<td>C4E 15.6699</td>
<td>20.4292</td>
<td>.5620</td>
<td>.3438</td>
<td>.6295</td>
</tr>
<tr>
<td>C4F 15.6165</td>
<td>22.2853</td>
<td>.2795</td>
<td>.2003</td>
<td>.7137</td>
</tr>
<tr>
<td>B4 16.3447</td>
<td>22.9609</td>
<td>.2990</td>
<td>.1741</td>
<td>.7011</td>
</tr>
</tbody>
</table>

Reliability Coefficients 7 items

Alpha = .7035

Standardized item alpha = .7198
4.3 Frequencies of Demographic Characteristics

4.1.1 Legal status of business
The researcher sought to know the legal constitution of all the responding firms and the results were as under.

Table 4.1: the legal status of the SMEs

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Sole proprietor</td>
<td>124</td>
</tr>
<tr>
<td>Partnership</td>
<td>25</td>
</tr>
<tr>
<td>Limited Company</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
</tr>
</tbody>
</table>

Majority of the small and medium scale enterprises 75.2% were run by the owners on the platform of sole proprietorship. Hence for over three quarters of them, the entrepreneur provided the capital and was also the sole decision maker managing the firm. Only less than quarter of the SME’s were either in partnership or limited company.

4.1.2 Duration of operation
Results of the length of time sampled SMEs had been in operation were as presented by the table below.

Table 4.2: the number of years SMEs Had been in operation

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 yrs</td>
<td>102</td>
<td>61.4</td>
<td>61.8</td>
</tr>
<tr>
<td>6-10 yrs</td>
<td>46</td>
<td>27.7</td>
<td>27.9</td>
</tr>
<tr>
<td>11-15 yrs</td>
<td>12</td>
<td>7.2</td>
<td>7.3</td>
</tr>
<tr>
<td>&gt;15 yrs</td>
<td>5</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>99.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Over 61% of the enterprises had operated for between one and five years while almost a third (27.9%) for period ranging between 6 and 10 years. Only about 10% of the total had been running for over 10 years this indicates that the majority of SMEs are in early stage of business development.
4.1.3 Industry of operation

The responding enterprises were asked to indicate the industry within which they operated. Table 4.3 below has the findings.

<table>
<thead>
<tr>
<th>Valid Industry of operation of SMEs</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat and dairy products</td>
<td>11</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Metal products and electronics</td>
<td>28</td>
<td>17.1</td>
<td>23.8</td>
</tr>
<tr>
<td>Grain mill products</td>
<td>10</td>
<td>6.1</td>
<td>29.9</td>
</tr>
<tr>
<td>Chemicals, plastics and petroleum</td>
<td>31</td>
<td>18.9</td>
<td>48.8</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>40</td>
<td>24.4</td>
<td>73.2</td>
</tr>
<tr>
<td>Clothing and textiles</td>
<td>24</td>
<td>14.6</td>
<td>87.8</td>
</tr>
<tr>
<td>Paper and paper products</td>
<td>9</td>
<td>5.5</td>
<td>93.3</td>
</tr>
<tr>
<td>Bakery products</td>
<td>4</td>
<td>2.4</td>
<td>95.7</td>
</tr>
<tr>
<td>Leather and footwear</td>
<td>7</td>
<td>4.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

There was a wide distribution of enterprises across various different industries but the most popular industry in which most of the respondents operated was food and beverages (40%). These enterprises were involved in processing or packaging of the soft drinks and also refreshments and beverages such as coffee or cocoa. Dealers in metal, plastic and chemicals such as paint were also heavily populous (36% of all enterprises) This indicates that most SMEs deal with fast moving goods (FMGs).

4.4 Access to credit facilities

To throw additional light on the use of trade credit, enterprises were asked whether they buy on credit.

<table>
<thead>
<tr>
<th>Do your suppliers grant you credit?</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>103</td>
<td>62.0</td>
<td>62.8</td>
<td>62.8</td>
</tr>
<tr>
<td>No</td>
<td>61</td>
<td>36.7</td>
<td>37.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>98.8</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>2</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Three fifth of the enterprises were offered credit facilities by their suppliers while slightly more than a third (36.7%) were not. This could mean the latter ones used cash for all their purchases or suppliers do not offer credit.
Nearly three quarter, 71%, of the small and medium business said they also provide goods on credit to their clients. This prompted the researcher to find out if those enterprises that allowed credit to their customers in turn sought credit facility from the suppliers. The results were as presented in table -below

### 4.5Percentage of credit purchases and credit sales

The distribution of size of business transacted through use of trade credit was as show by table 4.5.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>&lt;10%</td>
<td>36</td>
<td>21.7</td>
<td>34.6</td>
</tr>
<tr>
<td></td>
<td>10-30%</td>
<td>46</td>
<td>27.7</td>
<td>44.2</td>
</tr>
<tr>
<td></td>
<td>30-50%</td>
<td>11</td>
<td>6.6</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>&gt;50%</td>
<td>11</td>
<td>6.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>62.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>62</td>
<td>37.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>166</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Findings showed that three quarter (78.8%) of SME’s financed up to 30% of their business transaction through the trade credit. An additional 11% of these enterprises depend on the trade credit for more than half of their purchases.
Three quarter of the SME’s said that they made up to 10% of their sales on credit, implying that only a quarter of the enterprises had a ratio higher than 10% of credit sales to total sales.

4.6 Terms of credit transactions

The researcher was interested in establishing the comparison between the credit periods granted to buyers sellers. Table 4.6 and figure 4.3 have the results.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 days</td>
<td>53</td>
<td>31.9</td>
<td>51.0</td>
</tr>
<tr>
<td>60 days</td>
<td>34</td>
<td>20.5</td>
<td>32.7</td>
</tr>
<tr>
<td>90 days</td>
<td>8</td>
<td>4.8</td>
<td>7.7</td>
</tr>
<tr>
<td>120 days</td>
<td>3</td>
<td>1.8</td>
<td>2.9</td>
</tr>
<tr>
<td>5.00</td>
<td>4</td>
<td>2.4</td>
<td>3.8</td>
</tr>
<tr>
<td>&gt; 120 days</td>
<td>2</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>62.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>62</td>
<td>37.3</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Almost all of the respondent, (83.7%), were required to repay their credit purchases within 60 days of buying. In addition, the terms of credit were 30 days for 51% of enterprises.
Most enterprises (109 out of 166 or 65.6%) reported that they allowed their customers to repay their credit purchases within 30 days of buying. It was vital to establish whether terms of credit SME’s gave their customers was influenced by or correlated to the terms they got from suppliers.

4.7 Why small and medium businesses buy on credit

Responding SMEs were asked to state the most important reason why they bought on credit terms as opposed to cash. Findings were as in the table below.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ability to manage cash flow</td>
<td>51</td>
<td>44.0</td>
<td>44.0</td>
</tr>
<tr>
<td>more convenient than cash from an accounting standpoint</td>
<td>37</td>
<td>31.9</td>
<td>75.9</td>
</tr>
<tr>
<td>Safer than cash for transactions because of concern about theft. no cash discount is offered</td>
<td>8</td>
<td>6.9</td>
<td>82.8</td>
</tr>
<tr>
<td>cheaper than other sources of finance</td>
<td>16</td>
<td>13.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The most common response, cited by most enterprises, is that credit improves a firm’s ability to manage its cash flow. Thirty two per cent of the respondents said that buying on credit is more convenient than cash from an accounting standpoint.
4.8 Descriptive Statistics

The researcher needed to know the relative importance of the six factors explained in the theoretical framework (literature review) as predictors of trade credit use. Table 4.8 below has the results of descriptive statistics of the key variables that the researcher used in the regression model.

Table 4.8: descriptive statistics

<table>
<thead>
<tr>
<th>Factors Predicting Credit Use</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transaction related</td>
<td>139</td>
<td>.00</td>
<td>5.00</td>
<td>3.2698</td>
<td>1.30671</td>
<td>1.707</td>
</tr>
<tr>
<td>2. Finance related</td>
<td>141</td>
<td>.00</td>
<td>5.00</td>
<td>2.4752</td>
<td>1.00415</td>
<td>1.008</td>
</tr>
<tr>
<td>3. Operational consideration</td>
<td>141</td>
<td>.00</td>
<td>5.00</td>
<td>2.6418</td>
<td>1.11536</td>
<td>1.244</td>
</tr>
<tr>
<td>4. Supplier marketing related</td>
<td>143</td>
<td>1.00</td>
<td>5.00</td>
<td>2.7552</td>
<td>1.33462</td>
<td>1.781</td>
</tr>
<tr>
<td>5. Firms environmental issues</td>
<td>141</td>
<td>.00</td>
<td>5.00</td>
<td>2.9894</td>
<td>1.42487</td>
<td>2.030</td>
</tr>
<tr>
<td>6. Asymmetric information</td>
<td>135</td>
<td>.00</td>
<td>5.00</td>
<td>2.9926</td>
<td>1.63221</td>
<td>2.664</td>
</tr>
</tbody>
</table>

Valid N (listwise) 103

From the descriptive statistics above the most important determinant of trade credit was finance related factors with a mean of 2.48 and standard deviation of 1.008.

4.9 A cross tabulation of whether firms which received credit also gave credit

In order to better understand results in figure 4.1 and table 4.4, it was vital to establish whether there was any relationship between a firm receiving credit terms from suppliers and granting the same facility to the clients. Results were as below.

Table 4.9: cross tabulation of credit purchases against credit sales

<table>
<thead>
<tr>
<th>Do your suppliers grant you credit?</th>
<th>Do you grant credit to your clients?</th>
<th>Count</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>80</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>49.1%</td>
<td>63.2%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>36</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>22.1%</td>
<td>36.8%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>116</td>
<td>163</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>71.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The research result established that about half (49.1%) of SME’s which purchased goods on trade credit also offered credit facilities to their customers. Almost 15% of them did offer credit terms just like they also did not get credit terms from suppliers.
4.10 Regression

The researcher was interested in finding out whether transaction cost, finance cost, operation considerations, supplier marketing activities, the firm environmental issues and asymmetric information have a significant influence on the level of trade credit use by the SMEs. The regression analysis was used to test the following hypothesis:

$H_0$: The six independent variables will not significantly explain the level of trade credit use by SMEs.

$H_A$: The six independent variables will significantly explain the level of trade credit use by SMEs.

Multiple regression was done and the results of the regressing the six independent variables against the level of trade credit demanded is set below.

4.10.1 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>Entered</th>
<th>Removed</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Transaction related factors, Environmental issues, Supplier marketing</td>
<td>Operational factors, Finance related factors, Asymmetric information</td>
<td>.442(d)</td>
<td>.195</td>
<td>.176</td>
<td>.42156</td>
</tr>
</tbody>
</table>

$d$ Predictors: (Constant), transaction related factors, Firms environmental issues and supplier marketing

Table 4.10.1 above lists the six independent variables which were used in the regression model. Three were retained in the model while three were removed. $R$ (.442) is the total correlation of the three independent variables with the dependent variable. $R$ square (.195) which is actually the square of multiple correlation, $R$ square (.442) is the explained variance. It is the part of the dependent variable (credit use) accounted for by the independent variables (predicting factors). In other words, 19.5% of the variance in the use of credit was explained by the three independent variables used in the model, and the significance of this finding is confirmed by the ANOVA table below. This looked strange since the identified factors had a very low predictive ability.

4.10.2 Analysis of Variance (ANOVA) output

The ANOVA table evaluates whether using the regression model (line-of-best-fit) is an improvement of using the mean as a prediction model. The most important items to check are $F$-value and $Sig.$ value. If the $F$ is bigger than 1, then the regression model is better predictor and should be used in place of the
mean, so long as the value of the column labelled sig. allows. If sig. has a value of 0.05 and below, then this shows that F is statistically significant and the model leads to good prediction.

**Table 4.11: analysis of variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Regression</td>
<td>5.518</td>
<td>3</td>
<td>1.839</td>
<td>10.350</td>
<td>.000(d)</td>
</tr>
<tr>
<td>Residual</td>
<td>22.747</td>
<td>128</td>
<td>.178</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28.265</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

d Predictors: (Constant), transaction related factors, Firms environmental issues and supplier marketing  
e Dependent Variable: Use of Trade Credit

Three predictors were used as shown by the first row of the degrees of freedom or df column. The *F*-value of the model was 10.35, significant at P<0.001 level which means that there was a tiny 1/1000 chance that, F value this large could occur by chance alone. Hence the predictors in the model significantly explained variation in the use of trade credit with a 999.9% confidence level.

These results confirm that, 19.5% of the variance in the use of credit has been significantly explained by the three independent variables. Thus the alternative hypothesis is substantiated.

**4.10.3 Coefficients of the regression model**

The next table called *Coefficients* helps determine which of the three independent variables influences most the variance in credit use. Looking at the column named Beta under Standardized Coefficients, we see that the highest number in the beta is .27 for transaction related factors, which is significant at 0.002 (hence 0.05) level.

**Table 4.12: coefficients of variables used in the model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>4 (Constant)</td>
<td>.670</td>
<td>.121</td>
<td>5.531</td>
<td>.000</td>
</tr>
<tr>
<td>transaction related factors</td>
<td>.096</td>
<td>.030</td>
<td>.270</td>
<td>3.217</td>
</tr>
<tr>
<td>supplier marketing</td>
<td>.056</td>
<td>.032</td>
<td>.162</td>
<td>1.782</td>
</tr>
<tr>
<td>Firms environmental issues</td>
<td>.054</td>
<td>.030</td>
<td>.162</td>
<td>1.834</td>
</tr>
</tbody>
</table>

a Dependent Variable: Use of Trade Credit

Hence the overall results of the model were that:
1. A Constant of 0.67 or 67% regarding use of trade credit was established, significant at $p<0.001$. This constant represents the unaccounted tendency for SMEs to use trade credit irregardless of the predictors.

2. Transaction factors were found to influence trade credit use by 27%, significance level at $p<0.01$.

3. Supplier marketing activities were found to influence trade credit use by 16.2%, with significance level being $p<0.08$.

4. Environmental issues surrounding the SME was found to influence trade credit use by 16.2%, with significance level $p<0.06$.

4.10.4 Determinants of trade credit use: The Model

The actual model derived to illustrate a relationship of determinants of trade credit demanded by SMEs is finally presented and interpreted here below:

$$\text{SME TC use} = 0.67 + 0.27 \, T + 0.16 \, \text{SM} + 0.16 \, \text{E} \pm/\epsilon,$$

where

- $\text{TC} =$ Trade Credit use,
- $T =$ transaction considerations,
- $\text{SM} =$ supplier marketing activities,
- $\text{E} =$ environmental issues

The actual TC Use of trade credit is influenced by a constant to the extent of 67%, 27% by transaction considerations, 16.2% by supplier marketing activities and 16.2% by environmental issues surrounding the SME. The value $\pm/\epsilon$ at the end of the above model represents a combination of any errors that might be included in the process of this estimation which may have a negative effect. Therefore, this model collapses.

4.11 Summary

This chapter has presented data analysis and interpretation of findings from the field. It has established that, SMEs were drawn from diverse backgrounds in terms of the following aspects: legal ownership constitution, industries and duration of operation. Majority of the surveyed enterprises received credit facility from suppliers and extended the same to clients. SMEs were also found to prefer dealing in trade credit for easier cash flow management and convenience. Finally, financing considerations emerged as the most important factors influencing trade credit demand by SMEs.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents a summary of the research, conclusions drawn from the findings of the study and recommendations for policy action and further research.

5.2 Summary and Conclusions

This study aimed to establish determinants of trade credit use by small and medium scale enterprises. To provide complete understanding, the study also investigated reasons for transacting on credit terms, access to credit facility and the volume of trade credit transactions made by SMEs. The researcher sampled 180 firms and visited them; with the assistance of three trained assistants the questionnaires were completed and coded. A total of 165 questionnaires were duly filled and used for analysis. The questionnaire was tested for reliability and gave a good reliability coefficient of 0.72. Data was analyzed using descriptive statistics and a summary of major findings are as follows.

It was established that most of the SMEs were run by the owners, the majority had been operating for less than 5 years and that almost half were engaged in production of food and beverages. This showed that the majority of SMEs are at their development stage. Three out of every five enterprises had access to trade credit and almost three out of every four of them allowed their customers trade credit as well. Trade credit is widely used by SMEs. Likewise, the small and medium scale enterprises could get credit terms of up to 60 days as opposed to only 30 days which they granted to their clients.

It was observed that 78% of the purchases are made on credit while 71% of the sales are made on credit, hence most SMEs are net users of trade credit. Furthermore the SMEs that obtain their supplies through credit are given on average 60 days to pay while, they only grant on average 30 days credit to their customers. The enterprises also reported that they preferred trading on credit for easier management of cash flow and also for convenience purposes. It was further revealed that, about half of the enterprises which accessed and used trade credit extended the same facility to their clients even though a small segment of them neither gave nor received trade credit.
It was found out that majority of the small and medium scale enterprises were operated and managed as sole proprietorship. On average, the percentage of the enterprises that grant credit is higher than the percentage that receives credit from suppliers, although most sales and purchases by SMEs are made on credit. SMEs were granted a longer term of repayment by suppliers than they granted their clients. This may account for the lower credit granted by the suppliers. This was noteworthy to the researcher because it may imply that they were cautious about risking default of repayment. A major conclusion was that, the main determinant of trade credit demand by enterprises is financing considerations.

5.3 Policy Recommendation

Due to prevalent lack of appropriate record keeping practices observed in most SMEs interviewed, the Government needs to offer them technical assistance in record keeping skills. It was found that SMEs were having a challenge keeping even basic books of account.

The government should develop elaborate infrastructure to link and network similar SMEs with a common supply chain. This would provide learning experiences and efficiency in manufacturing and marketing of their products.

5.4 Limitations of the study

There were some limitations to this study that do not make it conclusive on its own. The following are some of the major limitations:

The researcher had a limitation of availability of time and financial resources to study on a wider sample of the population and in different locations.

Some of the respondents did not have elaborate records of their business operations. This meant that no collaborating information was obtained apart from what such a respondent stated.

For some SMEs, the target respondents were unavailable hence the researcher was referred to junior officers who appeared not be conversant with SME operation.
There was apathy with some respondents who said that many similar studies had been carried out without positive results taking place on the ground. Hence they were not serious with their response to the interview.

A section of the SMEs stated that they neither used nor granted trade credit. This reduced the number of actual targeted respondents with appropriate information regarding trade credit use.

5.5 Recommendations for further research

The current research is limited due to the number of respondents involved in the survey. Future researchers should consider a large number of respondents to ensure a more representative sample size. Following areas were recommendations for further research.

1. A study to be conducted to find out the effects of the structure of small business administration and demand for trade credit
2. To carry out a survey with a view to establish why small and medium enterprises were inclined to offer limited or no credit facilities to their clients. This is because there is a possibility that transactions done in trade credit were not honoured, in which case correction needs to be made.
REFERENCES


APPENDIX I

RESEARCH QUESTIONNAIRE

PART A: Background Information

1. Position of the respondent .................................................................

2. Tick (√) the legal status of your business
   a) Sole Proprietor [    ]
   b) Partnership [    ]
   c) Limited Company [    ]
   d) Others (Specify) .........................

3. For how long have you been in business? Tick (√) against the appropriate period
   a) 1 – 5 years [    ]
   b) 6 – 10 years [    ]
   c) 11 – 15 years [    ]
   d) Above 15 years [    ]

4. Please tick (√) the industry you operate in
   i) Meat and Dairy Products [    ]
   ii) Metal Products and Electronics [    ]
   iii) Grain Mill Products [    ]
   iv) Chemicals, Plastics & Petroleum [    ]
   v) Food and Beverages [    ]
   vi) Clothing and Textiles [    ]
   vii) Paper and Paper Products [    ]
   viii) Bakery Products [    ]
   ix) Leather and Foot wear [    ]
PART B: Access to Trade Credit

1. Do your suppliers grant you trade credit? Yes [ ] No [ ]

2. If yes, what percentage of your purchases is financed through trade credit?
   a) Less than 10 percent [ ]
   b) Between 10 – 30 percent [ ]
   c) Between 30 – 50 percent [ ]
   d) Over 50 percent [ ]

3. What are the terms of trade credit? Please tick (✓)
   a) 30 days [ ]
   b) 60 days [ ]
   c) 90 days [ ]
   d) 120 days [ ]
   e) Over 120 days [ ]

4. Kindly prioritize the following statements regarding why you buy on credit.
   (KEY: 1=Very Important, 2=Important, 3= Moderately Important, 4= Of Little Importance, 5= Unimportant)

<table>
<thead>
<tr>
<th>Insert preferred answer</th>
<th>Trade credit improves the ability to manage cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trade credit is more convenient than cash from accounting stand point</td>
</tr>
<tr>
<td></td>
<td>It is safer than using cash for transactions because of concerns about theft</td>
</tr>
<tr>
<td></td>
<td>Because no cash discount is offered</td>
</tr>
<tr>
<td></td>
<td>It is cheaper to finance our purchases through trade credit than to obtain finance elsewhere</td>
</tr>
</tbody>
</table>

PART C: Factors Influencing Trade use by SMEs

1. Do you grant trade credit to your clients? Yes [ ] No [ ]

2. If yes, what percentage of your sales is made through trade credit?
   a. Less than 10 percent [ ]
   b. Between 10 – 30 percent [ ]
   c. Between 30 – 50 percent [ ]
   d. Over 50 percent [ ]

3. What are the terms of trade credit? Please tick (✓)
   a. 30 days [ ]
b. 60 days [ ]
c. 90 days [ ]
d. 120 days [ ]
e. Over 120 days [ ]

4. Please rate the following factors in terms of how you feel they influence your use of trade credit.

*(KEY: 1=Very Important, 2=Important, 3=Moderately Important, 4=Of Little Importance, 5=Unimportant)*

<table>
<thead>
<tr>
<th></th>
<th>Transaction Related</th>
<th>Insert preferred answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Trade credit is preferred because it reduces the number of cash transactions made with suppliers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade credit helps a business to hold a low volume of cash for contingency purposes only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finance Related</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>Use of trade credit is influenced by whether the business is managed by the owner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade credit is seen as a cheaper form of finance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operation Consideration</td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td>Use of trade credit is influenced by seasonality of demand for a firm’s products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firms receive preferential terms from suppliers for whom they are large customers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supplier Marketing Related</td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td>A firm receives preferential treatment from suppliers with which it has a long-term relationship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Firm’s Environmental issues</td>
<td></td>
</tr>
<tr>
<td>v.</td>
<td>A firm’s use of trade credit is usually influenced by whether its customers also buy on credit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asymmetric Information</td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td>We usually consider banks interest rate before deciding to buy on credit</td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU VERY MUCH FOR YOUR COOPERATION
APPENDIX II

INTRODUCTION LETTER

JOHN K. MBURU,
P.O. BOX 54340 – 00200,
NAIROBI.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST FOR RESEARCH DATA

I am an MBA Postgraduate student at the University of Nairobi conducting research on “THE DETERMINANTS OF TRADE CREDIT USE” by Micro, Small and medium business in Nairobi.

Your business has been selected for the study because of the strategic role that it plays in improving the efficiency of the economy. I would therefore highly appreciate your assistance in providing me with the information requested in the attached questionnaire.

I wish to assure you that the information you provide will be treated confidentially and used only for research purposes.

Should you require a summary of the results, please don’t hesitate to contact the researcher on the address above

Thank you very much for your anticipated assistance.

Yours Faithfully,

JOHN K. MBURU

SUPERVISOR:

Signature: .................................

MOHAMED MWACHITI

Lecturer, Department of Finance and Accounting,

School of Business, University of Nairobi.