IMPACT OF TRADE CREDIT ON THE VALUE OF COMMERCIAL AND SERVICES FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This project is dedicated to my parents for the resources they have used to support me in achieving my academic goals.

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LIST OF ABBREVIATIONS

ADSS	Atlas Development and Support services
ANOVA	Analysis of Variance
AP	Accounts Payable
AR	Accounts Receivable
CEO	Chief Executive Officer
CMA	Capital Market Authority
HB	Hutchings Biemer
LP	Longhorn Publishers
NMG	Nation Media Group
NPV	Net Present Value
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROE	Return on Equity
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
US	United States

ABSTRACT

Business entities have a financial purpose of maximizing the value of the firm together with the shareholder's wealth (Berle & Means, 1932). Trade credit (receivables) supports firms to advance this objective or purpose by enhancing the level of accounts receivables, hence affecting the revenue, profitability together with the liquidity of the firm. In turn, this affects the market value of the firm's equity and assets. Nadiri (1969) stated that trade credit is costly with an opportunity cost and also bears credit risk, because of the payment default exposure. Therefore, giving trade credit may lead to a negative effect on the profitability and the liquidity as a result of debt defaults. This study sought to determine the effect of trade credit on value of commercial and services firms listed at the NSE. The independent variables were trade credit as measured by account receivable turnover ratio, assets of the firm as measured by total asset turnover ratio and capital structure as measured by debt to equity ratio. Firm value was the dependent variable which the study sought to explain and it was measured by enterprise multiplier and Tobin Q. Secondary data was collected for a period of 5 years (2012 to 2016) on an annual basis. The study employed a descriptive cross-sectional research design and a multiple linear regression model was used to analyze the relationship between the variables. Statistical package for social sciences version 21 was used for data analysis purposes. The results of the study produced adjusted R-square value of 0.210 which means that about 21 percent of the variation in value of commercial and services firms listed at the NSE as measured by Tobin Q can be explained by the three selected independent variables while 79 percent in the variation was associated with other factors not covered in this research. The study also found that the independent variables had a strong correlation with value of commercial and services firms listed at the NSE (R=0.521). The results further revealed that individually, trade credit and assets of the firm are statistically significant determinants of value of commercial and services firms listed at the NSE while capital structure is an insignificant determinant. The overall model was found to be not significant when firm value was measured using enterprise multiplier. This study recommends that policy makers should establish measures that will ensure an increase in trade credit that will improve firm value without exposing the firm to risks associated with trade credit. These measures could include establishing efficient trade credit policies, trade credit departments, credit management policies and procedures and also taking trade credit insurance policies. The researcher proposes that further studies be conducted on all commercial and service firms in Kenya or on all listed firms in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Business firms are nowadays utilizing trade credit as an important strategy in the field of marketing and financial management. Trade credit exists when the seller allows buyer to delay payment for products or services provided (Miam & Smith, 1992). It involves contractual agreement between the buyer and supplier (seller) in which, the buyer and the seller agree that the buyer to defer payment until preset future date after the real delivery of either goods or the services. Trade credit is considered as a loan that supplier offers to his customers in combination with product sales and performs a major role in corporate finance policy (Ferris, 1981). Trade credit has commercial significance, working as a substitute to bank credit (Nilsen 2002, Garriga, 2013). Firms can use trade credit in guiding demand of its product or services. According to Wilner (2000) trade credit helps firms in establishing relationships with the customers and therefore growing their sales capacities and profitability, however, trade credit can bring liquidity crisis unless competently managed. Investment in trade credit could influence the selection of credit management practices which have significant impact on the value of the firm (Pike & cheng, 2001).

Various theories contribute to the use of trade credit, these theories are financial motive theory, transaction cost theory, inventory management theory, Marketing theory, price discrimination theory and information asymmetry theory. Financial motive theory states that trade credit is used as a means of financial intermediation of the suppliers and customers, supplier firms play as financial intermediaries to customers dealing with them by differing payment of debt balances (Schwartz, 1974).

Transaction cost theory states separating time of exchanging of goods and time of paying, trade credit lowers transaction costs because customers can bring together multiple payments into one (Bahillo, 2000). Inventory management theory states trade credit can be instrumental to better inventory management. Marketing theory explains that, with trade credit sellers build long term period relationship with their customers, helping them to realize their marketing objectives (Wilner, 2000).

Financial disintermediation in Kenya has not been fully achieved despite the regulatory policy as a driver for growth in capital markets (institute of economic affairs, 2002). This explains increased use of trade credit in Kenya as banks continue to play a central role in institutional financing. Kadet (2005) Noted that Kenya has a relatively well developed Banking and formal financial sector. Maksimovic (2002) suggest, business firms operating in countries where there are more established banking systems give more trade credit to their customers, a case in Kenya. Due to pressure of globalization and competition among the firms, trade credit has become part of strategy in growing their market share and sales revenue. Business firms extend trade credits to other firms in order to help them regulate their cash flows, extending trade credit results to trade credit receivables (Pike & Cheng, 2001).

1.1.1 Trade Credit

Myers and Brealey (2003) explain trade credit as the selling where the possession of the goods or services is permitted without making spot payment. Burkart and Ellinsen (2004) claim that trade credit can be expended in order to finance buyers when they are facing resistances in getting credit from external capital markets. Ferris (1981) defines trade credit as a loan tied in value and timing to exchange of the goods. The sources of capital are categorized into two; long-term financing and short-term

financing, trade credit is classified as one of the short-term financing (Brealey et al., 2008). The trade credit (receivables) are one of the major assets of a firm covering about 15% to 20% of the total assets of many firms (Dunn, 2009). Lee and stowe (1993) indicated that trade credit is a strong selling tool helping firms in building customer firm's relationship and protecting firm's sales from being affected by competition.

Trade credit policy is the instrument of managing and controlling trade receivables in order to ensure optimal investment in trade credits (receivables), and therefore business firm is required to prepare a suitable credit policy. Trade credit policy helps in minimizing costs related with trade credit whereas maximizing the values from it. The credit policy guides how to determine which customers are to be sold goods or services on an open account, the thresholds set on outstanding balances, the precise payment terms (Krueger, 2005). Trade credit policy is explained as the combination of credit standards, credit period, collection period, cash terms and cash discounts (Atkinson, Kaplan & Young 2007, Pandey, 2007). Trade credit policy helps in preventing occurrence of bad debts and also in improving cash flow. Credit policy produces a collective set of purposes or goals for the firm hence recognizing the credit and collection section of the firm as a valuable contributor to the firm's strategies (Scheufler, 2002).

Credit management is a part of the financial management which include credit rating, analysis, classification then finally reporting. According to Nelson (2002), credit management plays as the measures by which firms administers their credit sales. Credit management is one of the significant pursuits in any firm thus it cannot be overlooked by any firm involved in credit regardless of its business type. It's the

practice to warrant that the clients will make payment for the goods supplied or if services are provided. According to Myers and Brealey (2003), credit management is the processes together with the strategies implemented by firms in warranting maintenance of an optimal level of trade credit together with its effective administration. Credit management is a significant indicator of the quality of trade credit portfolio and it greatly impacts on the success or failure of the firm. Trade credit levels are commonly measured using accounts receivable (AR) and the accounts payable (AP). Accounts receivable are used in measuring the outstanding debts firms claim from their customers at a specified period, therefore demonstrating the firm offers trade credit. Accounts payables are used as a measure of the firms use of trade credit (Nzotta, 2004).

1.1.2 Value of Firms

According to Micheal (2006), value of the firm is noted to be the present and the future profit of the firm. This value of the firm is associated to the profit maximization. Value of the firm is determined by sales growth and profitability margin (Rappaport, 1998). Value of the firm is the discounted cash flows from assets and future growth, discounted using the cost of capital (Damadoran, 2002). The strategic purpose of any firm is to maximize the value of the firm or shareholder's wealth (Berle & Means, 1932). Dalborg (1999) explained that the value of a firm is generated when earnings of shareholders, in dividend together with share price grows and surpasses the risk-adjusted rate of return which is needed in the stock market. He explained further saying that total shareholder return should be greater than the cost of equity in order to build value. Copeland et al., (2000) indicated that value is created by earning a return (yield) on investment more compared to opportunity cost of

capital. This indicates that growth will generate more value when the return (yield) on capital surpasses the cost of capital.

Value of firm explains past, present and also the future performance of firm together with the long-term expectations of investors (shareholders and stakeholders). All the investors, financial institutions appraise the value of firm before investing their money in the firm business. There will be no creation of value for investors when the firm is not capable to make profit for investors. Earlier stock price was used in explaining the firm value but in the present world of finance, the focus by researchers and financial experts has been shifted towards studying the firm (Enterprise) value to explain the firms value

Value of the firm is measured using Tobin's Q, market capitalization, return on assets (ROA), return on equity (ROE). Tobin's Q is measured as the ratio of market value of firm's assets i.e. equity and debt, to replacement value of the assets of the firm. Market capitalization, determined through multiplying the outstanding shares of the firm by the prevailing current market price of one share. ROA is calculated by dividing the annual net income of a firm by its average total assets. Return on Assets (ROA) describes the firm's capacity to make use of its assets. Return on equity (ROE), is computed by dividing the Net Income of the firm to the Shareholder's Equity.

1.1.3 Trade Credit and Value of the Firm

Business entities have a financial purpose of maximizing the value of the firm together with the shareholder's wealth (Berle & Means, 1932). Trade credit (receivables) supports firms to advance this objective or purpose by enhancing the level of accounts receivables, hence affecting the revenue, profitability together with

the liquidity of the firm. In turn, this affects the market value of the firm's equity and assets. Nadiri (1969) stated that trade credit is costly with an opportunity cost and also bears credit risk, because of the payment default exposure. Therefore, giving trade credit may lead to a negative effect on the profitability and the liquidity as a result of debt defaults. Trade credit exposes the trader to extra administrative costs due to credit management events (Mian & Smith, 1992). Companies try to balance the value of trade credit given to the costs they incur in holding very big accounts receivables. This helps to reduce the costs and increase revenue, profitability and liquidity.

Nadiri (1969) came up with a model of choosing the optimum trade credit with a purpose of maximizing net income. Later, Emery (1984) found that there was an optimum level of accounts receivables once the marginal income associated with trade credit loaning matches the marginal cost. Financial, operational together with commercial benefits from trade credit come when trade receivables are at lower level due to well-structured trade credit policy and trade credit management.

Managing of trade credit is a significant component that affects the shareholder value**.** Finlay (2009) explained that efficient credit management lowers the capital tied to trade credit and also minimizes bad debts whereas Peter (2005) elaborated that, there is a positive correlation between the credit management and profitability. Dina (2007) indicated that good credit management is essential to firm's cash flow and guarantees business operations. Reliable credit management entails optimizing cash flow to warrant stability and maximize the growth potential of the firm's profitability, hence increasing the market value of firm's equity and assets.

1.1.4 Commercial and Services Firms Listed at the Nairobi Securities Exchange

Commercial and service sector refers to a category of enterprises that provide services to commercial and retail customers. Some of the businesses listed under this category include expressly limited, Nation Media Group (NMG), Kenya Airways (KQ); Standard Group (SG), TPS Eastern Africa, Scan Group (SG), Uchumi Supermarket (US), Hutchings Biemer (HB), Longhorn Publishers (LP) and Atlas Development and Support services (ADSS). Despite the assertion by Peng (2000) that the financial system plays a substantial function in the growth process, particularly in the financial intermediation process, it is of great importance for firms to redefine their strategies to achieve efficiency and thus ultimately a financial system of their firms.

Commercial and service industry is a major player in growth and development of the Kenyan economy through creation of employment opportunities, increasing the gross domestic product (GDP) and earnings from foreign exchange for the largest part of the post-independence period (UNCTAD, 2008). The contribution of these two sectors to the country's economy has been even larger, with a rise of 10 percent from 55 percent in 1980 to 65 per cent by 2006 in its share of total wage employment (CBK, 2014). The key contribution of the services segment to the Kenyan economy is very important to the trade balance. According to UNCTAD (2008), the annual export of services account for around 50% for period since 1980.

To increase their profitability, commercial and services firms should efficiently manage their trade credit components in order to minimize costs and maximize profits in their operations. Trade credit decisions play a key role in the overall firm strategy in order to enhance shareholder firm value in both commercial and services firms (Siddiquee, Khan, Shaem & Mahmud, 2009). Determining the optimal composition

and level of trade credit and specific trade credit relative to trade payables can enable a commercial and service firm to gain competitive advantages over its rivals (Haq & Zaheer, 2011).

1.2 Research Problem

Trade credit helps business firms in increasing their sales and profitability, hence influencing the value of the firm. Firms' use credit policy to market and expand sales, also to retain old customers (Panday, 1978). Dina (2007) found that customer payment pattern affects profitability especially unpaid debts. Ability for a firm to increase cash flow and liquidity and to be profitable is influenced by effective credit management. Profitability leads to growth in the value of the firm together with the shareholder's wealth maximization.

The Nairobi securities Exchange has an obligation to develop and regulate the market operations in order to ensure efficient trading. As a market where quoted companies trade in shares, the public has got interest in knowing the market value of the firms in which they have invested. The companies listed in NSE are expected to be financially health so as to ensure economic growth of a country. This study is motivated following many corporate failures in the Kenya capital market and those that have gone in to receivership, only a handful of companies have managed to come of it in financial health.

There have been many studies around trade credit. Hill et al., (2010) studied the relationship between shareholder's wealth from selling on trade credit and accounts receivables in New York and founded that a positive relationship existed. Cristine and Pedro (2007) studied trade credit relationship with the firm value in Spain by looking at the Spanish manufacturing SMEs between the period 2000-2007, the study found

that firm's profitability can improve by increasing investment in trade receivables. Isaksson (2002) when carrying study on trade credit in manufacturing firms in Kenya, noted that trade credit marks part of loan portfolio of Kenya firms. Mwololo (2011) studied the relationship existing between credit policy and liquidity of oil firms in Kenya which he founded a linear relationship.

Many of the studies on trade credit were focused to investigating the relationship between trade credit management and profitability, credit policy and firm profitability. Few studies were carried internationally to investigate the relationship between trade credit and value of the firm. In Kenya, much has not been done to research on the effects of trade credit on the value of the firms, therefore this study explains that gap. The research question of this study is: What is the effect of trade credit on the value of commercial and services firms listed at the NSE?

1.3. Objective of the Study

The objective of this study was to determine the effect of trade credit on the value of commercial and services firms listed at the Nairobi Securities Exchange.

The specific objectives of the study were to:

i. Establish the trade credit levels

ii. Establish the value of commercial and services firms listed at the Nairobi Securities Exchange

iii. Determine the effect of trade credit levels on the value of commercial and services firms listed at the Nairobi Securities Exchange

1.4 Value of the Study

Since the area of trade credit has not been significantly researched, this study motivates researchers to do more research to enable government and other stakeholders see the potential of trade credit to the establishment and growth of many businesses which are detrimental towards economic growth.

The study can motivate firms toward giving more trade credits to their customers to enhance their sales. Firms using this study can be able to enhance trade receivable management which provides cash flow for business activities and investment, this will include effective credit controls departments and credit control standards in order to improve value of the firm and shareholder's wealth.

The study can motivate the government in reviewing the trade credit regulation and mechanism laws to ensure payment of trade credit balances on time, hence motivating firms to enhance more trade credit even to small businesses which contribute a lot to the country economy and who cannot afford to get bank finances. Trade credit is a source of finance for each party in the trade credit contract i.e. debtor and the seller, delay in payment can help debtors in their cash flow regulation which is good for their survival and success while the seller can sell more and collect more with well managed credit management policy.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the theoretical framework of trade credit, determinants of value of the firm, empirical studies, which are studies carried earlier relating to this study, conceptual framework and summary of literature review.

2.2 Theoretical Framework

Many theories explain the use of trade credit, these theories are Financial Theory, transaction cost theory, inventory management theory, Marketing theory, price discrimination theory and information Asymmetry theory.

2.2.1 Financial Theory

Financial theory was introduced by Schwartz in 1974. This theory describes trade credit as a means of financial intermediation of the supplier and its customers, supplier firms play as financial intermediaries to customers, by deferring payment of debts balances. Biais and Gollier (1997) indicated that sellers have bigger capacity than banks do, to investigate the client's solvency because they possess knowledge about the industry where both operate. The seller has an advantage than banks, in information pertaining their customers, which they find at lower cost. Sellers are able to monitor customer's capacity and may act in a way that sellers can tell customers no supply if they are not paying and therefore customers have few incentives to be able to default on their suppliers than they can on their banks, where else suppliers have greater incentives to offer credit to financially troubled buyers (Cuñat, 2007).

Previous studies display that trade credit can be alternative for bank credit during times of harsh credit or financial crises (Nilssen, 2002; Choi & Kim, 2005). The major projection of the financing theory is that big, creditworthy suppliers resolve to extend credit to customers that portray positive NPV projects but are limited from direct credit markets. According to Meltzer (1960), firms with more access to banking system will obtain large amount of loans and will then transfer them to their customers who do not have open access to the financial markets.

Theoretically, firms having much credit finances access from financial institutions deal as a financial intermediaries for customers who have financial constraints by giving them short-term trade credits. Small firms are likely that they are more credit-constrained, hence they require much of trade credit which is a source of short-term finance (Chant and Walker, 1988). This theory is relevant to this study as it indicates the considerations that firms take into consideration before extending trade credit which is hypothesized to affect the firm value.

2.2.2 Inventory Management Theory

Bougheas et al., (2009) indicated that trade credit can be an instrument of trade policy for the supplier, which directs him to better inventories management, and this can be very helpful, for businesses with seasonal activities requiring maintaining smooth production cycles and smaller quantity of stocks. According to Bahillo (2000), suppliers must have ways of balancing deviations in demand. This provides options of changing temporarily prices of their products, also increasing their stocks or giving commercial credit, on which they prefer giving trade credit.

According to the theory suppliers can cut inventory carrying costs if buyers cost of keeping the inventory is lower. With trade credit, suppliers are competent to move

goods to customers more regularly and therefore the question of having insufficient storage and incurring storage costs are reduced (Petersen & Rajan, 1997). When a trader dispatches the ordered goods to the buyer on trade credit basis, he really moves the storage responsibility and costs to the buyer. This theory is relevant to the current study as it gives some of the reasons why firms decide to offer trade credit. The current study will investigate whether the trade credit influences firm value of the issuing company.

2.2.3 Marketing Theory

Suppliers offering trade credit targets to realize their marketing objectives. With trade credit, the suppliers build a long period relations with their clients, this is according to Wilner (2000), therefore ensuring long period value based on future sales to their customers. Firms in need of establishing their reputation together with their customer base use trade credit as a marketing tool. Firms use trade credit for the purpose of building a high status among their potential clients, and therefore growing their market portion (Summers & Wilson, 2002).

Marketing theory explains that the reason of offering trade credit is because of competitiveness in the market (Pike & Cheng, 2003). Suppliers will offer much trade credit when the market is more competitive because customers can shift easily to competitor if no incentives to make the customer to remain royal to a certain supplier. Offering trade credit can be used as a tool to keep customers (Fisman & Raturi, 2004, Van Horen, 2005). This theory is relevant to the current study as it gives some of the reasons why firms decide to offer trade credit. The current study will investigate whether the trade credit influences firm value of the issuing company.

2.3 Determinants of Firm Value

In discussing a company's financial strength, the most important aspect is firm's value. The larger the firm value the better is the firm financially and better attractive to prospective investors. Apart from trade credit, the other determinants of value of the firm includes Assets of the firm, Capital structure of the firm, Corporate Governance, Company Size and Management efficiency.

2.3.1 Assets of the Firm

Operating income comes from the operating assets, while the cost of capital determines the cost used in funding these assets. When the operating cash flows are discounted to the present value, this results to valuing of the operating assets of the firm. Firms, though, they regularly have big amounts of cash together with marketable securities on their records, they also hold in additional other firms plus non-operating assets which the value of these assets must be added to value of the operating assets in order to come up with the firm value

Return on Assets (ROA) is found within the field of performance measures and explains the firm's ability in producing income based on the assets. ROA offers a wider view compared to other measures as it traces income from operating activities, investment, and also evaluates profitability regardless of the firms financing structure. ROA is anticipated to be positive as an indication of profit margin of the firms, else it indicates loss

2.3.2 Capital Structure of the Firm

Capital structure explains the method a firm finances its assets through combining equity and debt. According to Myers and Majluf (1984) "pecking order" theory of capital structure, firms firstly use internal finances, then uses debt, and, if more

finances are required to finance a project, then the firm turns to equity financing. Thus, firms appearing very profitable and which are generating adequate cash flows uses less debt. Firms' puts effort to obtain an appropriate mixture of different finances that will maximize firm's total value and performance.

The Modigliani and Miller (1958), explained in their capital structure irrelevance theory, that when there is an efficient market with no tax, no information asymmetry and no transaction cost, the method of financing does not affect the value of a firm. Modigliani and Miller theory forecasts that relationship between a firm's capital structure and its performance does not exist. As per Modigliani and Miller (1963), looking at the impact of corporate tax and tax deduction, firm's value will grow after the firm takes on additional debt and this growth value will be the amount of tax shield, therefore meaning that firms will gain from having more leverage. Therefore, if there is tax, the alteration of capital structure then becomes relevant.

2.3.3 Corporate Governance

Corporate governance is defined as a set of an organized processes, practices, Polices, rules, and the institutions that influence the way companies are administered, guided and coordinated. The corporate governance systems include the size of the board, the independent of board director, the duality of the chief executive officer and the board audit committee. Corporate governance is the process used in disciplining the organizations (Cadbury, 1992). Corporate governance is a significant aspect in wealthy value of the firm. The correlation between corporate governance and value of the firm is essential in preparing effective corporate management policies. According to Beiner and Schmid (2005), corporate governance works a significant part in improving the value of the firm.

Board size impacts on the value of the firm, small size of the board is usually said to advance the value of the firm since the benefits by bigger boards of improved supervising are outweighed by poor communication and decision making of bigger groups. According to Lipton and Lorsch (1992), between seven and nine directors is the optimal board size. small boards size is positively associated with higher firm value (Mak & Kusnadi 2005). The role of the independent director to the board of directors is to successfully supervise and regulate firm's activities to lower opportunistic managerial conducts together with expropriation of company's assets. Expanding the proportion of independent directors concurrently enhance the company performance because they will be more effective supervisors of managers (Mehran, 1995).

2.3.4 Company Size

Company size is very significant for investors together with creditors since it will be linked with risk of investment to be made. According to Rachmawati and Triatmoko (2007), large firm's total assets displays that the firm has a positive cash flow, then considered to portray good prospects in long run. It also suggests that the company is quite more stable to make profits more than firms having few total assets.

Large firms get profit because of economies of scale i.e. average unit cost falls over a certain scope of output and also benefit because of economies of scope i.e extra cost savings due to the process of production where separate products share making facilities. Large firms benefit from the excellent management and excellent competencies in commercialization, marketing, specialization, bargaining power, and competitive capacity as a result they have larger market share and the opportunity to be able to work in profitable areas. Large firms have more capability for

diversification in many areas of business opportunities which produces more return (Dogan, 2013; Bayyurt, 2007; Jonsson, 2007; Fiegenbaum & Karnani, 1991). Company size positively affects the company profitability (Stierwald, 2009).

2.3.5 Management Efficiency

The firm's total performance is the greatest indication of manager's effort, the decisions at the senior level have the most effect on the firm's profitability. The way managers set the standards, manage and incorporate work group, make choices and design organization impacts on profitability. According to Rappaport (1998), sales growth and profitability margin determine value of the firm.

2.4 Empirical Review

Tang (2014) in a study carried for a period between 2009 and 2013 to investigate how the trade credit, from both supplier side and demand side, affects profitability of the SMEs in Netherlands. The study used descriptive statistic and covered 71 SMEs in Netherlands. The study found that trade credits (accounts payable) is positively associated to profitability and that there is the need for SMEs to develop a long-term relationship with suppliers for them to access trade credit in an easier and a fast way.

Ferrando and Mulier (2012) carried a study to investigate if firms utilize trade credit in managing growth, the study used descriptive research design. 2.5 million observations from 600.000 companies in 8-euro countries in the period between 1993-2009 were used. The study found that firms utilizes trade credit in managing growth.

Martínez-Sola, García-Teruel and Martínez-Solano (2010) study carried for period between 2000-2007 to investigate the implications on profitability as a result of providing trade credit financing to customers, 11,337 Spanish manufacturing SMEs were sampled. The study used descriptive statistics. This study found that, managers

can increase firm's profitability by investing more in trade receivables, this is experienced greatly in bigger and liquid firms which experience volatile demand, and also businesses with big market segment. The study therefore concluded that there exists positive linear association between trade credit and the firm's profitability coming from the view that values of trade credit exceed vendor financing costs.

Hill et al., (2010) study carried to investigate the Returns of shareholder from Supplying Trade Credit using all non-financial, non-ADR, non-utility and SIC for period 1971-2006 in New York. The study used valuation approach according to Faulkender and Wang (2006) in estimating the correlation between equity values and the trade receivables. They founded strongly a significant and positive correlation between shareholder wealth and receivables.

Salima and Guermat (2009) carried out a study to investigate if trade credit is form of Short-Term Finance. The study was caried in the United Kingdom using data from a survey questionnaire mailed to 2500 firms in UK. The sample frame was chosen from a wide scope of sizes and the industry divisions in the manufacturing, construction and services. The final sample was 355 completely finalized questionnaires. The study found evidence supporting financing theory. The study also found that the level and extent of trade credit requested is affected by the demand for the short-term finance, implying that trade credit is used to substitute the other sources of finance.

Hermes (2006) Credit Management Research Centre carried a study on Credit Management Practice in ten European Economies, the study focused on determining the importance of trade credit, credit policies variations, credit management practices and the credit insurance impact on corporate performance. Survey was done for 2,000 companies in the following 10 economies: Netherlands, United Kingdom, France,

Portugal, Germany, Hungary, Poland, Spain, Italy, and Belgium. The study founded that there are ways companies can review the credit management process elements which make it easy in preventing unforeseen difficulties in operational, hence ensuring steady cash flow while reducing financial difficulty risk among credit insured companies.

Locally, Kapkiyai and Mugo (2015) carried a study to investigate the impact of trade credit on the financial performance of small scale businesses in Eldoret town, Kenya. This study looked at a sample of 50 audited Small and Medium Enterprise companies using a descriptive research design. The study founded a positive relationship between trade credit and firm's liquidity, profit margin and return on assets.

Kungu, Wanjau, Waititu and Gekara (2014) carried a study to investigate the effects of credit policy on profitability of Manufacturing Firms in Kenya using a descriptive research design. This study sampled 81 manufacturing businesses and founded that there is positive association between the profitability and credit policy utilized by manufacturing companies in Kenya.

Mwangangi (2013) conducted a research to ascertain the correlation existing between trade credit and the value of firms listed at the Nairobi Securities exchange. This research utilized Panel secondary data from published financial statements at the Nairobi Securities Exchange (NSE) and the Capital Markets Authority (CMA) for the period 2009 to 2012. Descriptive correlation research design was used and 39 Non-Financial Companies listed at Nairobi Securities Exchange were sampled. Regression Analysis was utilized to ascertain the correlation existing between trade credit and the value of firms. This research founded an inverse, insignificant correlation between trade credit and the Value of Firm. The study reviewed that an increase in profits as a

result of trade credit is negatively affected by trade Credit risks and the associated costs, therefore having a negative effect to the value of Firm.

Kang'ethe and Kalio (2012) carried a research to ascertain the determinants of trade credit in small and medium sized firms in Nakuru sub county, Kenya. This study used a descriptive survey. The population of study used was the 6624 registered Small and Medium Enterprises (SMEs) in Nakuru town. A sample of 197 SMEs was selected by applying simple random sampling. The study used descriptive statistics in checking for normality of the collected data. The Inferential statistics was utilized in outlining the implications from collected data with concern to the regression model. The study found that profitability, liquidity, collateral and inventory indicates a positive, significant effect on Small and Medium Enterprises (SME) trade credit.

The empirical review suggests that most of the researchers in this area have concentrated on investigating the relationship or impact of trade credit, trade credit management and trade credit policy to firm's profitability, performance and growth and also a few on determinants of trade credit. Other studies investigating whether trade credit is a form of short term finance. Looking at the empirical review only one study locally focused on investigating the effect of trade credit on value of firms and no other study internationally or locally to have been conducted on investigating the effect of trade credit on value of firms, noting that more than 80% daily business firm's transactions are done on credit terms (Rehman & Khurshid, 2016). Trade credit is most significant form of short-term financing for the corporate sector businesses, thus they always appear as the main assets on most firm's balance sheets.

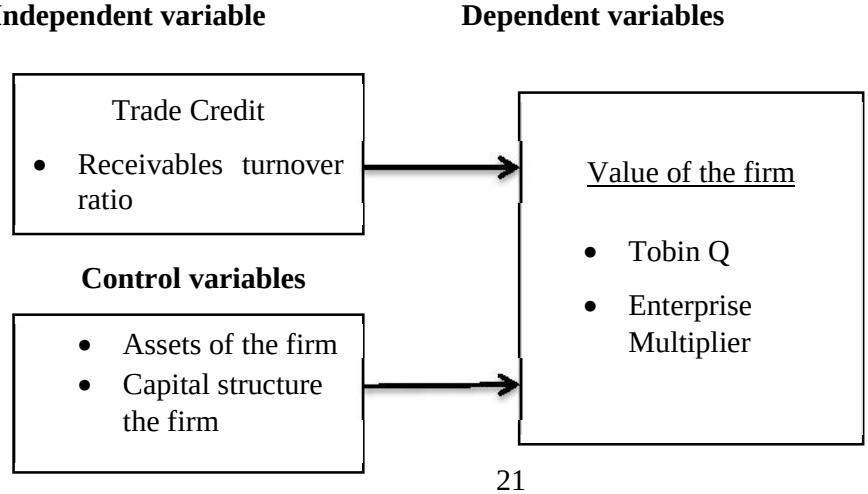
The studies have also not focused on the emerging areas on trade credit like trade credit insurance and the impact it has on the performance of business firms. They

have not also discussed whether trade credit should be regulated like the banks credits since this is an era of innovations. The studies have also not reviewed whether efficient and effective trade credit regulation laws are in existence especially in Kenya, if not they recommend further research to enlighten the government to see the importance of regulating trade credit for the purpose of supporting growth of small scale businesses and hence economic growth. This study will focus to solve these gaps in the previous studies.

2.5 Conceptual Framework

This conceptual framework provides the understanding of the relationship between trade credit and value of the firm. The framework also provides insights into the other factors effecting value of the firm. From the below diagram of conceptual framework, we can gather that the study investigates the impact of trade credit to Value of the commercial and service firms. Trade Credit is the independent variable and Value of the firm is the dependent variable which is measured by Tobin Q and enterprise multiplier. Also, the diagram shows the intervening variables which also influences the value of the firm, these intervening variables included assets of the firm and capital structure of the firm.

Figure 2.1: Conceptual Model



2.6 Summary of the Literature Review

The international and local studies on trade credit have their focus on the relationship between trade credit, trade credit management, trade credit policy and profitability and also firm growth. These research studies found that trade credit, trade credit management and trade credit policy has a positive relationship with profitability, performance and also growth of firms. Looking at the empirical review none of the research has studied the effect of trade credit on value of firms internationally or locally, noting that more than 80% of daily business firm's transactions are done on credit terms (Rehman & Khurshid, 2016). Trade credit is the most significant form of short-term financing for the corporate sector businesses, thus they always appear as the main assets on most firm's balance sheets.

The studies have also not focused on the emerging areas on trade credit like trade credit insurance and the impact it has on the performance of firms. They have not also discussed whether trade credit should be regulated like the banks credits since this is an era of innovations. The studies have also not reviewed whether efficient and effective trade credit regulation laws are in existence especially in Kenya, if not they recommend further research to enlighten the government to see the importance of regulating trade credit for the purpose of supporting growth of small scale businesses and hence economic growth. This study will focus to solve this gap in the previous studies.

Table 2.1: Table of Literature Review Summary

Author of study	Focus of Study	Methodology	Findings	Knowledge Gaps	Focus of current study
Kapkiyai and Mugo (2015)	impact of trade credit on financial performance of small scale businesses in Eldoret town, Kenya	descriptive research design	The study founded a positive relationship between trade credit and firm's liquidity, profit margin and return on assets	The study did not explain the effect of trade credit on the value of the firm	The current study will focus to fill the gap by researching on the impact of trade credit on the value of the firm
Kungu, Wanjau, Waititu and Gekara (2014)	effects of credit policy on profitability of Manufacturing Firms in Kenya	descriptive research design	The study founded that there is a positive association between profitability and credit	The study did not explain the effect of trade credit on the value of the firm	The current study will focus to fill the gap by researching on the impact of trade credit

			policy utilized by manufacturing firms in Kenya.		on the value of the firm
Mwangangi (2013)	relationship existing between trade credit and the value of firms listed at the Nairobi Securities exchange	Descriptive research design	The study found an inverse, insignificant relationship between trade credit and the Value of Firm	This study did not specifically look to the impact of trade credit on value of commercial and service firms listed in NSE	The current study will focus to fill the gap by researching specifically on the impact of trade credit on the value of commercial and service firms listed in NSE
Kang'ethe and Kalio (2012)	ascertain the determinants of trade credit	descriptive survey	The study found that profitability,	The study did not explain the	The current study will focus to fill

	in small and medium sized firms in Nakuru sub county, Kenya		liquidity, collateral and inventory indicates a positive, significant effect on SMEs trade credit	effect of trade credit on the value of the firm	the gap by researching on the impact of trade credit on the value of the firm

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology chapter explains the research methodology used in the research study. This chapter covers the research design, population of study, data collection methods used and data analysis technique applied in the study.

3.2 Research Design

Research design is defined as a blue print of procedures, adopted by a researcher when testing the relationship between dependent variables and independent variables (Khan, 2008). Descriptive cross sectional design was adopted for the study. A descriptive study involves a description of all the elements of the population. It allows estimates of a part of a population that has these attributes. Identifying relationships among various variables is possible, to establish whether the variables are independent or dependent. Cross-sectional study methods are done once and they represent summary at a given timeframe (Cooper & Schindler, 2008). The study pursued to establish the impact of trade credit on the value of commercial and service firms listed at the NSE.

3.3 Target population

The target population is the whole set of elements with shared visible attributes, which the researcher is interested in studying in order to make some inferences (Cooper & schindler, 2008). This study focused on the ten commercial and services sector firms listed on the NSE (Appendix 1). There was no sampling since the population is not too large and thus can be covered wholly.

3.4 Data Collection

Secondary data was collected from the 10 commercial and service firms listed at the NSE between 2012 and 2016. The data was obtained from the published financial statements available from capital markets authority. The data collected in the template attached as appendix 2 included; Accounts receivables balances, Total assets, Total liabilities, Total Equity, Net Income, Return on Assets (ROA) and Return on Equity.

3.5 Diagnostic Tests

Linearity show that two variables X and Y are related by a mathematical equation Y=bX where c is a constant number. The linearity test was obtained through the F-statistic in ANOVA. Normality is a test for the assumption that, the residual of the response variable is normally distributed around the mean. This was determined by Shapiro-walk test and Kolmogorov-Smirnov test. Autocorrelation is the measurement of the similarity between a certain time series and a lagged value of the same time series over successive time intervals. It was tested using Durbin-Watson statistic.

Multicollinearity is said to occur when there is a nearly exact or exact linear relation among two or more of the independent variables. This was tested by the determinant of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero if there is a complete linear dependence between them and as it approaches to one then the multicollinearity becomes more intense (Mugenda & Mugenda, 2003).

3.6 Data Analysis

Data analysis is the process of using analytical to evaluate data and logically examine each provided data component. Data is gathered from various sources, reviewed, and analyzed to come up with research findings. In this research study, statistical package

for social sciences (SPSS) version 21 was used. In data analysis, regression analysis was used to determine the relationship between trade credit and value of the firm, in this case commercial and services firms listed at the NSE.

3.6.1 Analytical Model

Using the collected data, the researcher conducted a regression analysis to establish the extent of the relationship between trade credit and firm value of commercial and services firms listed at the NSE. The study applied the following regression model:

$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon.$

Where;

Y= Value of the firm as measured by Tobin Q (Market value of equity/ Book value of equity) and Enterprise Multiplier (Enterprise Value/ EBITDA)

β_0 = Estimated value of Y when all the other variables are zero

β_i = Beta Coefficient of variable i which measures the change Y to change in i

X_1 = Trade credit (measured by account receivable turnover ratio)

X_2= Assets of the firm (measured by total asset turnover ratio)

X_3= Capital structure (measured by debt to equity ratio)

ε =Error term

3.6.2 Tests of Significance

To test the statistical significance, the F- test and the t – test was used at 95% confidence level. The F statistic was utilized to establish a statistical significance of

regression equation while the t statistic was used to test statistical significance of study coefficients.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter focused on the analysis of the collected data from published financial statements available from capital markets authority to establish the effect of trade credit on value of commercial and services firms listed at the NSE. Using descriptive statistics, correlation analysis and regression analysis, the results of the study were presented in table forms as shown in the following sections.

4.2 Diagnostic Tests

The study looked for data that would be able to meet the objectives of the study. The data collected from CMA was cross checked for errors to test the validity of the data sources. The research assumed a 95 percent confidence interval or 5 percent significance level (both leading to identical conclusions) for the data used. These values helped to verify the truth or the falsity of the data. Thus, the closer to 100 percent the confidence interval (and thus, the closer to 0 percent the significance level), the higher the accuracy of the data used and analyzed is assumed to be.

The researcher carried out diagnostic tests on the collected data. The null hypothesis for the test was that the secondary data was not normal. If the p-value recorded was more than 0.05, the researcher would reject it. The results of the test are as shown in Table 4.1.

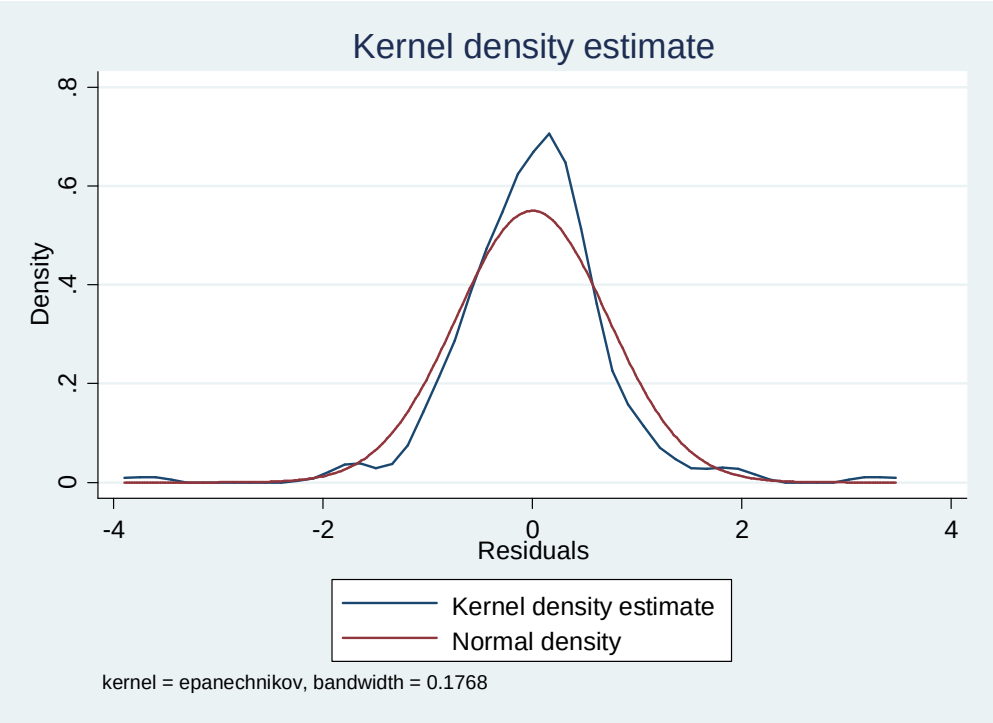
Table 4.1: Normality Test

Firm Value	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Trade Credit	.168	40	.300	.884	40	.787
Assets of the firm	.172	40	.300	.869	40	.723
Capital Structure	.165	40	.300	.880	40	.784
a. Lilliefors Significance Correction						

Source: Research Findings (2017)

Both Kolmogorov-Smirnova and Shapiro-Wilk tests recorded o-values greater than 0.05 which implies that the research data was normally distributed and therefore the null hypothesis was rejected. Kernel density was also used to test for normality. Figure 4.1 shows that the data is normally distributed. The data was therefore appropriate for use to conduct parametric tests such as Pearson's correlation, regression analysis and analysis of variance.

Figure 4.1: Normality test



4.3 Descriptive Analysis

This study targeted the ten commercial and services firms listed at the NSE for a period of five years from 2012 to 2016. Data was obtained from eight of the sampled companies representing a response rate of 80%. From the respondents, the researcher was able to obtain secondary data on market value of equity, book value of equity, earnings, capital structure, assets of the firm and trade credit.

Descriptive statistics gives a presentation of the mean, maximum and minimum values of variables applied together with their standard deviations in this study. Table 4.2 below shows the descriptive statistics for the variables applied in the study. An analysis of all the variables was obtained using SPSS software for the period of five years (2012 to 2016). Tobin Q which was one of the measures of the dependent variable in this study had a mean of 6.438735 and a standard deviation of 9.4987863. Enterprise value was the other measure of firm value and it had a mean of 20.180915

and a standard deviation of 124.8245670. Trade credit had a mean of 37.883670 with a standard deviation of 110.0195174. Assets of the firm resulted to a mean of 1.429615 with a standard deviation of 0.9261866. Capital structure recorded a mean of 0.003297 with a standard deviation of 3.1870148.

Table 4.2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Enterprise Multiplier	40	-20.2055	788.9771	20.180915	124.8245670
Tobin Q	40	1.0000	25.1125	6.438735	9.4987863
Trade Credit	40	2.6454	676.2005	37.883670	110.0195174
Assets of the firm	40	.3809	3.7549	1.429615	.9261866
Capital Structure	40	-17.3365	8.6043	.003297	3.1870148
Valid N (listwise)	40				

Source: Research Findings (2017)

4.4 Correlation Analysis

Correlation analysis is used to establish if there exists a relationship between two variables which lies between (-) strong negative correlation and (+) perfect positive correlation. Pearson correlation was employed to analyze the level of association between the value of commercial and services firms listed at the NSE and the independent variables for this study (trade credit, assets of the firm and capital structure).

Table 4.3: Correlation Analysis

		Tobin Q	Enterprise Multiplier	Trade Credit	Assets of the firm	Capital Structure
Tobin Q	Correlation	1				
	Sig. (2-tailed)					
Enterprise Multiplier	Correlation	-.066	1			
	Sig. (2-tailed)	.686				
Trade Credit	Correlation	.309	-.042	1		
	Sig. (2-tailed)	.052	.799			
Assets of the firm	Correlation	-.411**	.405**	.011	1	
	Sig. (2-tailed)	.009	.010	.945		
Capital Structure	Correlation	.028	.018	-.004	.086	1
	Sig. (2-tailed)	.866	.914	.980	.596	
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Research Findings (2017).

The study found out that there was a weak positive correlation (r = .309, p = .052) between trade credit and firm value as measured by Tobin Q and a weak negative relationship when firm value is measured by enterprise multiplier (r = -.042, p =

.799). The study also found out that there was a weak negative correlation between assets of the firm and firm value as measured by Tobin Q as evidenced by (r = -.411, p = .009) and a weak positive relationship between the two variables when enterprise multiplier is used to measure firm value (r = .405, p = .010). Capital structure had a weak positive relationship with firm value as measured by Tobin Q and enterprise multiplier as evidenced by (r = .028, p = .866) and (r = .018, p = .914) respectively. Although the independent variables had an association to each other, the association was not strong to cause Multicollinearity as all the r values were less than 0.70. This implies that there was no Multicollinearity among the independent variables and therefore they can be used as determinants of firm value for commercial and services firms listed at the NSE in regression analysis.

4.5 Regression Analysis

Value of commercial and services firms listed at the NSE as measured by Tobin Q and enterprise multiplier was regressed against three predictor variables; trade credit, assets of the firm and capital structure. The regression analysis was undertaken at 5% significance level. The study obtained the model summary statistics as shown in table 4.4 and 4.5 below.

Table 4.4: Model Summary for Tobin Q

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.521[a]	.271	.210	8.4405561	1.868

a. Predictors: (Constant), Capital Structure, Trade Credit, Assets of the firm

b. Dependent Variable: Tobin Q

Source: Research Findings (2017)

Adjusted R square, being the coefficient of determination indicates the deviations in the response variable that is as a result of changes in the predictor variables. From the outcome in table 4.4 above, the value of Adjusted R square was 0.210, a discovery that 21 percent of the deviations in firm value of commercial and services firms listed at the NSE as measured by Tobin Q are caused by changes in trade credit, assets of the firm and capital structure of the firms. Other variables not included in the model justify for 79 percent of the variations in value of commercial and services firms listed at the NSE. Also, the results revealed that there exists a weak relationship among the selected independent variables and firm value as shown by the correlation coefficient (R) equal to 0.408. A durbin-watson statistic of 1.868 indicated that the variable residuals were not serially correlated since the value was more than 1.5.

Table 4.5: Analysis of Variance for Tobin Q

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	954.103	3	318.034	4.464	.009[b]
	Residual	2564.748	36	71.243		
	Total	3518.851	39			

a. Dependent Variable: Tobin Q

b. Predictors: (Constant), Capital Structure, Trade Credit, Assets of the firm

When firm value is measured using Tobin Q, the significance value is 0.009 which is less than p=0.05. This implies that the model is statistically significant in predicting how trade credit, assets of the firm and capital structure affect value of commercial and services firms listed at the NSE.

The researcher used t-test to determine the significance of each individual variable used in this study as a predictor of value of commercial and services firms listed at the NSE. The p-value under sig. column was used as an indicator of the significance of the relationship between the dependent and the independent variables. At 95% confidence level, a p-value of less than 0.05 was interpreted as a measure of statistical significance. As such, a p-value above 0.05 indicates a statistically insignificant relationship between the dependent and the independent variables. The results are as shown in table 4.6 below.

Table 4.6: Model Coefficients for Tobin Q

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.564	2.522		4.586	.000
	Trade Credit	.027	.012	.314	2.207	.034
	Assets of the firm	-4.304	1.465	-.420	-2.938	.006
	Capital Structure	.194	.426	.065	.455	.652

a. Dependent Variable: Tobin Q

From the above results, when firm value is measured using Tobin Q, it is evident that trade credit and assets of the firm produced statistically significant values for this study (high t-values (2.207 and -2.938), $p < 0.05$). Capital structure produced positive and not statistically significant values for this study (t= .455, p= .652).

The following regression equation was estimated:

$Y = 11.564 + 0.027X_1 - 4.304X_2 + 0.194X_3$

Where,

Y = Value of commercial and services firms as measured by Tobin Q

X_1= Trade Credit

X_2 = Assets of the firm

X_3 = Capital Structure

On the estimated regression model above, the constant = 11.564 shows that if selected dependent variables (trade credit, assets of the firm and capital structure) were rated zero, value of commercial and services firms would be 11.564. A unit increase in trade credit would lead to increase in value by 0.027. A unit increase in assets of the firm would lead to a decrease in value by 4.304 while a unit increase in capital structure would lead to an increase in value of commercial and services firms listed at the NSE by 0.194.

Table 4.7: Model Summary for Enterprise Multiplier

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.408[a]	.167	.097	118.6118920	1.921

a. Predictors: (Constant), Capital Structure, Trade Credit, Assets of the firm

b. Dependent Variable: Enterprise Multiplier

From the outcome in table 4.7 above, the value of adjusted R square was 0.097, a discovery that 9.7 percent of the deviations in firm value of commercial and services firms listed at the NSE as measured by enterprise multiplier are caused by changes in

trade credit, assets of the firm and capital structure of the firms. Other variables not included in the model justify for 90.3 percent of the variations in value of commercial and services firms listed at the NSE. Also, the results revealed that there exists a strong relationship among the selected independent variables and firm value as shown by the correlation coefficient (R) equal to 0.521. A durbin-watson statistic of 1.921 indicated that the variable residuals were not serially correlated since the value was more than 1.5.

Table 4.8: Analysis of Variance for Enterprise Multiplier

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101189.615	3	33729.872	2.397	.084[b]
	Residual	506476.113	36	14068.781		
	Total	607665.729	39			

a. Dependent Variable: Enterprise Multiplier

b. Predictors: (Constant), Capital Structure, Trade Credit, Assets of the firm

Source: Research findings (2017)

When firm value is measured using enterprise multiplier, the significance value is 0.084 which is more than p=0.05. This implies that the model is not statistically significant in predicting how trade credit, assets of the firm and capital structure affect value of commercial and services firms listed at the NSE.

Table 4.9: Model Coefficients for Enterprise Multiplier

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-56.272	35.439		-1.588	.121
	Trade Credit	-.052	.173	-.046	-.304	.763
	Assets of the firm	54.869	20.585	.407	2.665	.011
	Capital Structure	-.690	5.982	-.018	-.115	.909

a. Dependent Variable: Enterprise Multiplier

Source: Research Findings (2017)

When firm value is measured using enterprise value, it is only assets of the firm that produce statistically significant values for the study ($t = 2.665$ and $p= 0.011$), $p < 0.05$). Trade credit and capital structure produced not statistically significant values for this study ($t= -.304$, $p= .763$) and ($t= -.115$, $p= .909$) respectively.

The following regression equation was estimated:

$Y = -56.272 - 0.052X_1 + 54.879X_2 - 0.690X_3$

Where,

Y = Value of commercial and services firms as measured by Enterprise Multiplier

X_1= Trade Credit

X_2 = Assets of the firm

X_3 = Capital Structure

On the estimated regression model above, the constant = -56.272 shows that if selected dependent variables (trade credit, assets of the firm and capital structure) were rated zero, value of commercial and services firms would be -56.272. A unit increase in trade credit would lead to decrease in value by 0.052. A unit increase in assets of the firm would lead to an increase in value by 54.879 while a unit increase in capital structure would lead to a decrease in value of commercial and services firms listed at the NSE by 0.690.

4.6 Discussion of Research Findings

The research sought to determine the effect of trade credit on value of commercial and service firms listed at the NSE. Trade credit as measured by account receivable turnover ratio, assets of the firm as measured by total asset turnover ratio and capital structure as measured by debt to equity ratio were the independent variables while value of commercial and services firms listed at the NSE as measured by Tobin Q and enterprise value was the dependent variable. The effect of each of the independent variable on the dependent variable was analyzed in terms of strength and direction.

The Pearson correlation coefficients between the variables revealed that a weak positive and statistically insignificant correlation between capital structure and firm value as measured by Tobin Q and a weak negative and insignificant relationship when firm value is measured by enterprise multiplier. The study also found out that there was a weak negative but significant correlation between assets of the firm and firm value as measured by Tobin Q and a weak positive and significant relationship between the two variables when enterprise multiplier is used to measure firm value. Capital structure had a weak positive and insignificant relationship with firm value as measured by Tobin Q and enterprise multiplier.

The model summary revealed that the independent variables: trade credit, assets of the firm and capital structure explains 21% of changes in firm value when measured using Tobin Q as indicated by the value of Adjusted R^2 which implies that the are other factors not included in this model that account for 79% of changes in value of commercial and service firms listed at the NSE. The model is fit at 95% level of confidence since the p-value of 0.009 is less than 0.05. This confirms that overall the multiple regression model is statistically significant, and it is a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE.

The model summary also revealed that the independent variables: trade credit, assets of the firm and capital structure explains 9.7% of changes in firm value when measured using enterprise multiplier as indicated by the value of Adjusted R^2 which implies that the are other factors not included in this model that account for 90.3% of changes in value of commercial and service firms listed at the NSE. The model is not fit at 95% level of confidence since the p-value of 0.084 is more than 0.05. This confirms that overall the multiple regression model is not statistically significant, and therefore it is not a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE.

The findings of this study are in line with Mwangangi (2013) who conducted a study to ascertain the relationship existing between trade credit and the value of firms listed at the Nairobi Securities exchange. This study utilized Panel secondary data from published financial statements at the Nairobi Securities Exchange (NSE) and the Capital Markets Authority (CMA) for the period 2009 to 2012. Descriptive correlation

research design was used and 39 Non-Financial Companies listed at Nairobi Securities Exchange were sampled. Regression Analysis was utilized to ascertain the correlation existing between trade credit and the value of firms. This research founded an inverse, insignificant correlation between trade credit and the Value of Firm. The research reviewed that an increase in profits as a result of trade credit is negatively affected by trade Credit risks and the associated costs, therefore having a negative effect to the value of Firm.

This study is also in agreement with Hill et al., (2010) who carried out a study to investigate the Returns of shareholder from Supplying Trade Credit using all non-financial, non-ADR, non-utility and SIC for period 1971-2006 in New York. The study used valuation approach according to Faulkender and Wang (2006) in estimating the correlation between equity values and the trade receivables. They founded strongly a significant and positive correlation between shareholder wealth and receivables.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the previous chapter, conclusions, limitations encountered during the study. This chapter also elucidates the policy recommendations that policy makers can implement to achieve the expected value of commercial and services firms listed at the NSE. Lastly, the chapter presents suggestions for further research which can be useful by future researchers.

5.2 Summary of Findings

The study sought to investigate the effect of trade credit on value of commercial and services firms listed at the NSE. The independent variables for the study were trade credit, assets of the firm and capital structure. The study adopted a descriptive cross-sectional research design. Secondary data was obtained from capital markets authority and was analyzed using SPSS software version 21. The study used annual data for eight commercial and services firms listed at the NSE covering a period of five years from 2012 to 2016.

From the results of correlation analysis, a weak positive and non-statistically significant correlation between capital structure and firm value as measured by Tobin Q and a weak negative and insignificant relationship when firm value is measured by enterprise multiplier was observed. The study also found out that there was a weak negative but significant correlation between assets of the firm and firm value as measured by Tobin Q and a weak positive and significant relationship between the two variables when enterprise multiplier is used to measure firm value. Capital

structure had a weak positive and not statistically significant relationship with firm value as measured by Tobin Q and enterprise multiplier.

The co-efficient of determination, adjusted R-square value when firm value is measured by Tobin Q was 0.210 implying that the predictor variables selected for this study explains 21% of changes in the dependent variable. This means that there are other factors not included in this model that account for 79% of changes in value of commercial and service firms listed at the NSE. The model was found to be fit at 95% level of confidence since the F-value was more than the critical value obtained from the table. This confirms that overall, the multiple regression model was statistically significant, and it is a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE.

The co-efficient of determination, Adjusted R-square value when firm value is measured by enterprise multiplier was 0.097 implying that the predictor variables selected for this study explains 9.7% of changes in the dependent variable. This means that there are other factors not included in this model that account for 90.3% of changes in value of commercial and service firms listed at the NSE. The model was found not fit at 95% level of confidence since the F-value was less than the critical value obtained from the table. This confirms that overall, the multiple regression model was not statistically significant, and therefore it is not a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE.

The regression results further show that when all the independent variables selected for the study are rated zero, value of commercial and services firms would be 11.564.

A unit increase in trade credit would lead to increase in value by 0.027. A unit increase in assets of the firm would lead to a decrease in value by 4.304 while a unit increase in capital structure would lead to an increase in value of commercial and services firms listed at the NSE by 0.194.

The findings of this study are in agreement with the theory advanced by Berle and Means (1932) when they argued that business entities have a financial purpose of maximizing the value of the firm together with the shareholder's wealth. Trade credit (receivables) supports firms to advance this objective or purpose by enhancing the level of accounts receivables, hence affecting the revenue, profitability together with the liquidity of the firm. In turn, this affects the market value of the firm's equity and assets. The findings are against the theory advanced by Nadiri (1969) who stated that trade credit is costly with an opportunity cost and also bears credit risk, because of the payment default exposure. Therefore, giving trade credit may lead to a negative effect on the profitability and the liquidity as a result of debt defaults. Trade credit exposes the trader to extra administrative costs due to credit management events (Mian & Smith, 1992). Companies try to balance the value of trade credit given to the costs they incur in holding very big accounts receivables. This helps to reduce the costs and increase revenue, profitability and liquidity.

5.3 Conclusion

From the study findings, the study concludes that value of commercial and services firms listed at the NSE is significantly affected by trade credit and assets of the firm. The study found that trade credit had a positive and significant effect on value of commercial and service firms listed at the NSE as measured by Tobin Q. The study therefore concludes that an increase in trade credit by commercial and service firms

leads to an increase in the value of the firms in a significant manner. The study found that assets of the firm had a negative and significant effect on value of firms and therefore it is concluded that higher levels of assets of the firm leads to a significant decrease in value of a firm. Capital structure was found to have a positive but not statistically significant effect on value of commercial and service firms listed at the NSE and therefore this study concludes that higher levels of debt financing positively affects value of commercial and service firms though not significantly.

This study concludes that independent variables selected for this study, namely trade credit, assets of the firm and capital structure influence firm value when it is measured by Tobin Q as they explain 21% of the changes. This means that there are other factors not included in this model that account for 79% of changes in value of commercial and service firms listed at the NSE. The model was found to be fit at 95% level of confidence since the F-value was more than the critical value obtained from the table. This confirms that overall, the multiple regression model was statistically significant, and it is a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE. However, when enterprise value is used to measure value, the overall multiple regression model was not statistically significant, and therefore it is not a suitable prediction model for explaining how the selected independent variables affects value of commercial and services firms listed at the NSE.

This finding concurs with Mwangangi (2013) who conducted a study to ascertain the relationship existing between trade credit and the value of firms listed at the Nairobi Securities exchange. This study utilized Panel secondary data from published financial statements at the Nairobi Securities Exchange (NSE) and the Capital

Markets Authority (CMA) for the period 2009 to 2012. Descriptive correlation research design was used and 39 Non-Financial Companies listed at Nairobi Securities Exchange were sampled. Regression Analysis was used to ascertain the relationship existing between trade credit and the value of firms. This study founded an inverse, insignificant relationship between trade credit and the value of the firm. The study reviewed that an increase in profits as a result of trade credit is negatively affected by trade Credit risks and the associated costs, therefore having a negative effect to the value of the firm.

5.4 Recommendations

The study established that there was a positive and statistically significant influence of trade credit on value of commercial and services firms listed at the NSE. This implies that an increase in trade credit leads to a significant increase in value of firms. This study recommends that policy makers should establish measures that will ensure an increase in trade credit that will improve firm value without exposing the firm to risks associated with trade credit. These measures could include establishing efficient trade credit policies, trade credit departments, credit management policies and procedures and also taking trade credit insurance policies.

The study found out that a positive relationship exists between firm value and assets of the firm. This study recommends that commercial and services firms' management and directors should aim at increasing their asset base by coming up with measures and policies aimed at enlarging the firms' assets as this will eventually have a direct impact on value of the firms. From the findings of this study, big firms in terms of asset base are expected to perform better than small firms and therefore firms should strive to grow their asset base.

The study established that there was a positive influence of capital structure on value of commercial and services firms listed at the NSE. The study recommends that when firms are setting their capital structure they should strike a balance between the tax savings benefit of debt and bankruptcy costs associated with borrowing. High levels of debt has been found to impact positively on value of firms from the findings of this study and so firm managers should maintain debt in levels that impacts positively on profitability to ensure the goal of maximizing shareholders' wealth is attained.

5.5 Limitations of the Study

The scope of this research was for five years 2012-2016. It has not been determined if the results would hold for a longer study period. Furthermore, it is uncertain whether similar findings would result beyond 2016. A longer study period is more reliable as it will take into account major happenings not accounted for in this study.

One of the limitations of the study is the quality of the data. It is difficult to conclude from this research whether the findings present the true facts about the situation. The data that has been used is only assumed to be accurate. The measures used may keep on varying from one year to another subject to prevailing condition. In this study secondary data was used, which was already available and was in the public domain, unlike the primary data which is first-hand information. The study also considered selected determinants and not all the factors affecting value of commercial and service firms listed at the NSE mainly due to limitation of data availability.

For data analysis purposes, the researcher applied a multiple linear regression model. Due to the shortcomings involved when using regression models such as erroneous and misleading results when the variable values change, the researcher cannot be able to generalize the findings with certainty. If more and more data is added to the

functional regression model, the hypothesized relationship between two or more variables may not hold.

5.6 Suggestions for Further Research

This study focused on trade credit and value of commercial and services firms listed at the NSE and relied on secondary data. A research study where data collection depends on the primary data i.e. in-depth questionnaires and interviews covering all commercial and service companies in Kenya is recommended so as to complement this research.

The study was not exhaustive of the independent variables affecting value of commercial and services firms listed at the NSE and this study recommends that further studies be conducted to incorporate other variables like management efficiency, growth opportunities, corporate governance, industry practices, age of the firm, political stability and other macro-economic variables. Establishing the effect of each variable on value of commercial and services firms will enable policy makers know what tool to use when maximizing shareholder's wealth.

The study concentrated on the last five years since it was the most recent data available. Future studies may use a range of many years e.g. from 2000 to date and this can be helpful to confirm or disapprove the findings of this study. The study limited itself by focusing on commercial and services firms listed at the NSE only. The recommendations of this study are that further studies be conducted on all commercial and service firms in Kenya or on all listed firms in Kenya. Finally, due to the shortcomings of regression models, other models such as the Vector Error Correction Model (VECM) can be used to explain the various relationships between the variables.

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APPENDICES

Appendix 1: Listed Commercial and Service Firms at the **NSE**

	Name of Company
1	Atlas Development and Support Services
2	Express Ltd
3	Hutchings Biemer Ltd
4	Kenya Airways Ltd
5	Longhorn Kenya Ltd
6	Nation Media Group
7	Scangroup Ltd
8	Standard Group Ltd
9	TPS Eastern, Africa (Serena) Ltd
10	Uchumi Supermarket Ltd

Source: NSE (2017)