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ABSTRACT

The general objective of this study was to establish to establish the relationship between trade credit and financial performance of supermarkets in Kenya. Secondary data was used in the study. A descriptive approach was used. A regression of the variables was undertaken using Statistical Package for Social Sciences (SPSS), version 23. This elaborated on the possible relationship between the two variables. Conclusions were then made from the correlations and recommendations given for improvement. The study determined that trade credit constructs namely: trade receivables and trade payables were jointly significantly related to financial performance of the supermarkets in Machakos County. The study determined that trade payables and a trade credit construct, significantly influenced return on assets (ROA) of the supermarkets in Machakos County. According to the study, trade receivables significantly influenced ROA of the supermarkets in Machakos County. It was concluded form the study findings that trade credit generally is a critical antecedent of ROA of supermarkets in Machakos County. The study further concluded that trade credit constructs, including the trade payables and trade receivables were significantly related to ROA. This means that policy making institutions ought to pay keen attention to the dynamics of the variables. The study further recommended that in order to have a proper policy-practice nexus, various stakeholders in the retail industry including regulatory bodies, retail owners and suppliers ought to develop systems and processes that would trigger retail sector development. This could be through robust collaboration between the policy makers and the practitioners. Specifically, the study recommended that the academics should develop models that can be used by management practitioners to enhance the growth of their firms.

Key Words: *Trade Receivables, Trade Payables, Return on Assets, Supermarket Performance*

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INTRODUCTION

Supermarkets are rapidly growing, mostly, in urban areas at an annual rate of 18.3% (Neven & Reardon, 2004). According to State Department of Trade in Kenya, 2017 Report, the significance of the retail trade as an engine for Kenya's economic growth is underscored in Vision 2030 where the government targets to raise the share of products sold through the formal retail channels, such as supermarkets, from 5% in 2007 to 30% by 2017. This was envisaged to trigger an increase in GDP by 50 Billion Shillings.

Trade credit is an understanding between seller and buyer where the former allows delayed payment of goods instead of cash payment. In countries where there is financial markets breakdown and information asymmetric, contract enforcement is insecure thus making trade credit more important (Ojenike & Olowoniyi, 2012). Broadly trade credit can be categorised into two parts; account receivables and account payables.

On one side, trade credit is measured as an asset in terms of accounts receivable. On the other side, trade credit is measured as short-term arrears, liability, in terms of accounts payable. Several attempts have been made to explain why companies sell on credit irrespective of the risk of bad debts that come with selling on credit, investment in receivables and the costs of debt collection (Dong & Su, 2010). Generally, trade credit to customers and gaining from suppliers can enhance the growth and financial performance in supermarkets. Supermarkets, through provision of credit to their customers, increase the dependability of the debtors on the business. Likewise, the account payables provide more relaxation to the company by granting trade credit in the shape of credit purchases.

According to Mian and Smith (1992), trade credit is an arrangement between a buyer and seller by which the seller allows delayed payment for its products instead of cash payment. Ferris (1981) terms trade credit as "a loan that is tied in both timing and value to the exchange of goods". According to Lee and Stowe (1993), trade credit is part of a joint commodity and financial transaction in which a firm sells goods or services and simultaneously extends credit for the purchase to the customer. From these definitions, trade credit can refer to the undertaking of acquiring goods on credit, stocking them for sale or use then paying later.

Trade credit is a major vital item in business life cycle for many businesses (Choi& Kim, 2005). Trade credit arises from delayed payments between businesses. As noted by Babalola (2014), trade credit is a more flexible way for short term financing for many businesses. In some of the developed countries such as the US, some sellers do not require spot payment of goods upon delivery but give their customers a short grace period to verify the product before payment is due. During this period, the buyer enjoys the credit.

Financial performance (FP) as an objective measure assesses how best revenue can be generated from the business primary undertaking (Waddock & Graves, 2011). Bulle (2012) defines FP as a general measure of a business's overall financial wellbeing over a given period of time. FP measure can be used to make comparison of similar business in the same industry and also across different industries and sectors of the economy. According to Pandey (2010), FP is a common measure of business overall financial wellbeing over a given period of time, expressed in terms of profits or losses.

Financial performance is the extent to which financial goals have been accomplished. It is the process of measuring businesses policies and operational results in monetary terms (Ojiuko, 2001). Thus, financial performance refers to any company's ability to generate new resources, from day to day operations, over a given period of time. One key importance of financial performance is that it helps in judging the development of a company position in the market.

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Supermarkets in Kenya not only target the middle class but also the working urban poor. This trend of first targeting upper, middle- and lower-income classes and further urban market and then moving to rural-town markets shows that there will be a steady and rapid growth of supermarkets in Kenya and the East Africa (Weatherspoon & Reardon, 2002). Supermarkets in Kenya have also expanded to other countries within the East African region. Currently, Tuskys operates five branches in Uganda.

Machakos County has had an influx in Supermarkets in the last few years. This has been occasioned by devolution system of the Kenyan government, upgrade of the road network, growth of real estate and growth of towns around Nairobi, (GAIN,2017). In Machakos, most supermarkets are family owned majority of which have collapsed due to losses and as a result of the battle for control of the retail market from established supermarkets. This continues to cause anxiety and lost confidence amongst lenders and suppliers in the industry given the loss of revenue, job opportunities and market for suppliers occasioned by the prevailing challenges (Mwasiaji & Mutinda, 2018).

Given the foregoing understanding of trade credit and financial performance, it is imperative to link the two. The main reason to trade in credit from the supermarkets side is informed by the need to satisfy customer demands even in the shortage of resources.

Studies have studied on to a great extend looked into the issue of trade credit. Kipkiyai (2015) researched on its effects of the small scale trade. Katiwa (2016) researched on the impacts of trade credit on the value of commercial and services firms listed at Nairobi stock exchange. This among other studies have hinted to the centrality of trade credit and financial performance in business.

Research Problem

Trade credit helps supermarkets in increasing their sales and reducing costs, thus financial performance. Businesses use credit policy to market and expand sales, also to retain old customers (Panday, 1978). Dina (2007) found that customer payment pattern affects financial performance especially unpaid debts. Ability for a firm to increase cash flow and liquidity and to be profitable is influenced by effective credit management. Competition Authority of Kenya regulates the market operations in order to ensure efficient trading.

The retail market has been the subject of some profound changes over the recent past. The subsistence retail market has been changing drastically, particularly on the financial performance front. This has not only been true in the developed countries but also in the emerging markets. There has been expansion in the sector and almost an equal shrink among some. Indeed, some have gone through turmoil and closure. There have been many studies around trade credit impact on financial performance. 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.

A study by Cristine and Pedro (2007) focused on trade credit relationship with the business value in Spain by looking at the Spanish manufacturing SMEs between the period 2000 – 2007: the study found that a firm's profitability can improve by increasing investment in trade receivables. Isaksson (2002), in a study on trade credit in manufacturing firms in Kenya, noted that trade credit was part of loan portfolio the firms. A study by Mwololo (2011) investigated the relationship between existing between credit policy and liquidity of oil firms in Kenya and found 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 value of the firm on banks, manufacturing firms, microfinance firms and SMEs. Few studies were carried internationally to investigate the relationship between trade credit and financial

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performance of supermarkets. In Kenya, much has not been done to research on the effects of trade credit on the financial performance of supermarkets; therefore, this study proposes to fill the gap. The research question of this study was: What is the relationship of trade credit on financial performance of supermarkets in Machakos County?

Research Objectives

The general objective of the study was to determine the relationship between trade credit and financial performance among retail supermarkets in Machakos County. The specific objectives were to:

- Determine the relationship between trade receivables and financial performance among of supermarkets in Machakos County.
- Establish the relationship between trade payables and financial performance of supermarkets in Machakos County.

LITERATURE REVIEW

Theoretical Framework

Transaction Cost Theory

This theory was developed by Coase (1937). The transaction motive rests on the simplification of payment induced by trade credit. Dagdeviren and Robertson (2016) postulate that trade credit brings down exchange costs. It holds that when transactions between sellers and buyers are frequent both parties may reduce transaction costs.

This is premised on not majorly financing but reducing transaction costs. This work so long as saving in transaction costs remains more than the cost of holding receivables. According to Tsang (2010) when supply of goods and credit are made from one point there is an overall reduction in costs and increase in efficiency as both the monitoring of supplies and the credit could be done from the same point. Sellers in general, but more particularly those having large inventory, can save on warehousing and related costs by effecting sales with attractive credit terms. This is possible when marginal cost of holding inventory is greater than the cost of holding receivables. Firms whose product suffers from high demand fluctuations may resort to trade credit, which is found to be the least cost solution, the others being adjustment of production schedule or effecting price reduction.

Pricing Theory

When the supplier uses credit terms in order to discriminate among clients, the pricing motive pricing motive is a relevant explanation for trade credit. Generally, trade credit can be viewed as part of the firm's pricing policy designed to stimulate demand. Firms may extend the credit period or increase the cash discount, thus reducing the price of stimulating sales (Pike et al., 2005), so allowing firms to practice price discrimination.

Similarly, Smith (2009) pointed out that vendor financing enables price discrimination between cash and credit customers. The authors also argue that vendor financing can be used to reduce competition since some firms can concentrate on the credit market while other firms maintain a larger market share in the cash market This theory is based on the assumption that when market is highly competitive sellers have to resort to non-price competition strategy to increase sales (Soufani, 2002). As buyers are heterogeneous, it calls for charging different prices to different customers. But there are both market and regulatory restrictions to practice such price discrimination.

Liquidity Theory

This theory was developed by Keynes (1936). If the supplier of goods has better access to finance than the client has, or when the client hesitates to use the limited finance it can access in order to finance inventories, trade credit can be financially motivated (also called the liquidity motive). This is oldest view of trade credit in that it is type of financing made available by the seller to the buyer (Bibow, 2005). Thus, trade credit can be viewed as a substitute for institutional financing.

According this theory, suppliers have several advantages over financing institutions in offering trade credit to buyers. One such advantage is that

the suppliers being in close contact with the buyer is in a superior position not only to evaluate credit worthiness of their customers but also to monitor them almost on a day-today basis. The second advantage is that supplies have more effective and quicker ways of liquidating assets of defaulting buyer-firms than institutional financiers.

Sales Promotion Theory

Sales promotion includes all the relevant "activities, materials, and media used by a marketer to inform and remind prospective customers about a particular product offering (Connett, 2004). Sommers and Keenan (1967) introduced the "promotional theory. They opined that, promotion in all its ramifications is discussed. Such discussion involve promotion as a case of communication, the behavioral structures and process, the nature and function.The goal of promotion is to persuade the target consumer to buy or consume the product offering.

The sales promotion motive rests on two arguments; first, a supplier may want to offload some of his excess inventories onto clients. To be able to persuade the clients of the idea to transfer costs of inventory onto the clients) the supplier may allow for later payment. Furthermore, suppliers may allow for trade credit to gain a competitive edge over competitors (Cuellar-Healy, 2013). The basis of this theory is that trade credit is similar to other sales promotion tools like advertising, to differentiate a product from competition. Trade credit is considered here as long-term investment like advertising, to help maintain long-term linkages with customers, and again like advertising, it generates income over time. According to Cuellar-Healy (2013), like advertising, trade credit is a non-price variable that influences product demand through differentiation. The author found out that optimal ratio of trade credit to sales is directly proportional to the elasticity of demand for the product with respect to trade credit and inversely proportional to price elasticity of the product.

Verification theory

Verification theory is also termed as quality guarantee theory. The prediction of this theory rests on the verification motive, which simply means that the client needs time to verify the quality and quantity of the goods delivered before paying for the goods. Hays (2006) noted that trade credit reduces the information asymmetry between buyer and seller alleviating moral hazard problems between the firm and their customer, since it allows the customer to verify product quality before paying. This is especially relevant for products or services that take longer to verify (Smith, 1987). Trade credit is employed by the vendor firm to signal for product quality (Horen, 2007).

Trade credit can also be interpreted as an implicit quality guarantee (Desveaux, 2017). In this sense, trade credit is used by firms' customers as a device to manage and control the quality of the items purchased (Schich, 2008). This theory is based on asymmetry of information between buyer and seller. The buyer does not know the quality of the product he/she is buying.

Empirical Literature Review

A study was carried by Tang (2014) for a period between 2009 and 2013 to investigate how trade credit from both supplier side and demand side effects 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. An investigation by Ferrando and Mulier (2012) sought to determine if firms utilize trade credit in managing growth, the study used descriptive research design using 2.5 million observations from 600.000 firms in 8-euro countries in the period from 1993 to 2009. 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.

A study by Melita Charitou, Petros Lois and Halim Budi Santoso (2012) examined the relationship between the impact of credit policy on firm Profitability. They used a multivariate regression analysis on cross-sectional data based on information from Indonesian firms. Working capital was measured as the cash conversion cycle and the net trade cycle and profitability was measured as ROA. The regression model was linear and their main conclusions were that lower levels of working capital increases firm profitability and that higher risk (measured as the debt- and current ratio) decrease firm profitability. An investigation by Hermes (2006) focused 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.

Others such as Falope and Ajilore (2009) used a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005. Their study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the average collection period, and inventory turnover in days.

They further found no significant variations in the effects of working capital management between large and small firms. In Kenya, 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 found a positive relationship between trade credit and firm's liquidity, profit margin and return on assets. A survey by Kungu, Wanjau, Waititu and Gekara (2014) investigated the effects of credit policy on profitability of Manufacturing Firms in Kenya using a descriptive research design. This study sampled 81 manufacturing businesses and found a positive association between the profitability and credit policy utilized by manufacturing companies in Kenya.

Others such as 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 indicate 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 financial performance of supermarkets, 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.

A study carried out on Saudi Stock exchange listed companies where the focus was on the effect of credit on firm performance from 2012-2014, with 171 listed companies sampled, Zureigat et al., (2017) determined that there was insignificant between the two variables with regards to operational and financial performance. Nevertheless, the period of study was too short and probably a wider time horizon would have different outcomes.

In their study by Ayumardani and Kusuma (2016) focused on the effect of credit governance of firm efficiency, the population was drawn from Islamic banks in Indonesia. The objective being to study and establish what effect credit has on firm performance. The data used by the study was from 2000 to 2014 analysed using panel data regression analysis. The findings concluded that there was improved performance by the banks that employed credit policy variables. However, the concept of efficiency is much broad and there may be need to investigate the same phenomenon with a focus on financial dimension.

A study by Ali Shah et al., (2016) focused on the relationship between credit finance capping and firm performance in the United Kingdom (UK), using a sample drawn from 435 non-listed firms, and covering the period ten years (1999-2009). The research findings contrasted other previous research done in the UK, with conclusions demonstrating that there was no effect on performance by implementation of credit capping. It however was conducted in a developed economy; hence the results may not apply to the developing economy context such as Kenya.

Investigating the linkages between financial performance and capital structure the context being that of Pakistan listed company using data for a period of 3 years (2002-2005) and analysing it by multivariate regression system, Butt and Hassan (2009) concluded that in determining the financial performance, capital structure variables under study played a crucial role. This study focused capital structure hence its findings may not apply as regards to trade credit.

A study by Kyereboah-Coleman (2007) whereby they studied the determinants of shareholder value maximization in Africa through credit policy implementation. The population was from South Africa, Ghana, Kenya and Nigeria, the study period being from 1997 - 2001. Panel regression method was used to analyze and the results demonstrated that corporate governance positively correlated with value maximization. However, the study ought to have considered the fact that trade credit at that period was still at it infancy thus the results not conclusive.

Koech (2018) conducted a research on determinants of effective financial management in state corporations –Kenya. Target population was the managers from 187 state corporations and the data was analyzed using regression method. The results showed that financial management was

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positively correlated with financial performance in state corporations in Kenya. This study is reliable however it does not consider trade credit aspect.

A study by Ndikwe and Owino (2016) focused on schools that are funded by the government how their financial performance is influenced by embracing credit principles. The studies found out that the major influence on financial performance were skills of the board and board size. To arrive at this conclusion, they used a sample of 49 government funded schools in Kenya, with data being analysed using multivariate regression analysis. The research is less reliable as the study population was small to represent the whole population thus the need to increase the sample of the study population to achieve more reliable results.

A study by Gitari (2008) focused on the outcomes of implementing working capital management on financial performance of government owned corporations. The study focused particularly on the New Kenya Cooperative Creameries (KCC), and the period of the study was January 2003 to December 2005. Data was analyzed using weighting of the scorecard and the results showed that as the company employed working capital policies and financial performance improved. Nevertheless, there was a need for the study to incorporate a longer period bearing in mind there were a lot of restructuring going on during this period, a factor that may have confounded the study findings.

The studies indicate that working capital management impacts on the profitability of the firm but there still is ambiguity regarding the appropriate variables that might serve as proxies for working capital management. The studies provide no clear-cut direction of the relationship between any of the variables of trade credit and supermarkets financial performance. The studies have also not focused on the impact trade credit has on the performance of supermarkets. They have also not 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 were in existence in Kenya. This study will focus to solve these gaps in the previous studies.

Conceptual Model

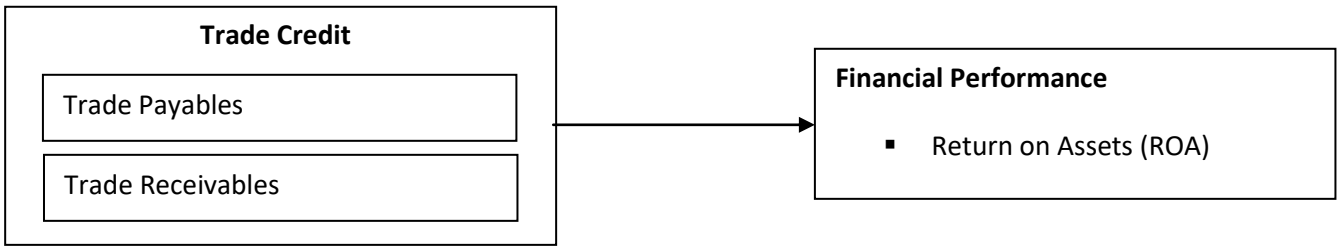

Figure 1: Conceptual Model

METHODOLOGY

The study was inclined to the positivist philosophical paradigm. This study used descriptive cross-sectional design. The study design was envisaged to offer the researcher an opportunity to collect data across different supermarkets in Machakos County and empirically test the relationship of the constructs along its conceptualization. The target population of this study was all the five large supermarkets in Machakos County. The supermarkets in Machakos County were specifically targeted for the study as they represented key sectors of the retail sector and because of conformity to regulatory requirements and other legal requirements, there was availability of reliable and objective financial

and economic performance data on these companies. Literature review also shown that the variables were examinable in the supermarkets in Machakos County. The study used secondary data only. The data was collected from past financial statements of the supermarkets, obtained from the individual supermarkets. The relevant data extracted from the statements included trade credit variables; trade receivables and trade payables and financial performance as measured by ROA.

Data collected was examined and checked for completeness and comprehensibility after which it was summarized, and tabulated. In this regard, the following violations of regression assumptions were tested: skewness; multicollinearity; and heteroscedasticity. Since regression analyses assume that variables have normal distribution, the assumption will be tested by use of both graphical and numerical diagnostics. Graphical tests will use both histograms and probability-probability (p-p) plots. On the other hand, numerical tests will use Shapiro Wilk's diagnostic which is normally used on samples n=3 to 2000.

Multicollinearity occurs whenever more than one of the predictors in a regression model are temperately or highly correlated. One of the methods of testing for multicollinearity is through the examination of the variance inflation factors (VIF); an indicator of the impact of collinearity among the variables in a regression model. It is always greater than 1, and values greater than 10 are normally considered as indicators of significant multicollinearity and unstable beta coefficients. The proposed study will therefore use VIF to undertake multicollinearity diagnostics. The outcome of the VIF tests will also be counter-checked with the examination of correlation matrix where any correlation coefficient greater than 0.5 will be an indicator of significant multicollinearity between the variables concerned.

A multiple regression model was used to determine the relationship between the tested variables. Statistical package for social sciences (SPSS), version 23 was used for the analysis. The regression model is as shown below, and test of significance was done at 5% threshold:

$FP = B_o + B_1TP + B_2TR + \varepsilon$

Where:

FP = Financial Performance (measured by ROA)

TP = Trade Payables

TR = Trade Receivables

B_o = Regression constant

B_1, B_2 = Beta coefficients

ε = Error Term

RESULTS

Descriptive Analysis

The central tendency and dispersion statistics were used. The central tendency measured the extent to which the data on each variable were concentrated at a central point while dispersion measured the degree to which the data were spread out from the convergent point. The central tendency was measured by the mean while dispersion was measured by the standard deviation. Table 1 presents the findings of the study with respect to the descriptive analytics.

Table 1: Descriptive Statistics

Variable	N	Mean	Std. Deviation
Return on Assets	60	0.1774	0.1959
Trade payables	60	0.1241	0.0209
Trade receivables	60	0.0955	0.0119

From Table 1 financial performance had a minimum of nil, implying that at least one firm had recorded zero profit change over the period. The ROA was 60%, implying that at least one firm did a ROA of 60% over a similar period. This represented a ROA range of 0.662. The mean of ROA was 0.1774,

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representing 17.74%. This implies that the ROA among the firms tended towards 17.74%. The standard deviation was 0.1959, representing 19.59% deviation about the mean.

From the data collected, trade payables had a minimum of 0.1057, meaning that the lowest trade payables over the period under review was 10.57%. The highest trade payables stood at 0.1812 representing 18.12% trade payables over the period 2013-2017. This represented a range of 0.0755, representing 7.55%. The mean for trade payables was 0.1241 representing 12.41% as indicated on table 1 above. This implies that the trade payables, although volatile, tended towards 12.41% mark over the period under examination. The trade payables variance was negligible, while the standard deviation was 0.0209, representing 2.09%.

Trade receivables had a minimum of 0.0850, meaning that the lowest trade receivables was 8.5% during the five year period. The highest trade receivables was 0.1150 over a similar period, representing 11.5%. The trade receivables range was therefore 0.0300, representing 3.0% difference between the highest and lowest trade receivables. The trade receivables had a negligible variance, and a standard deviation of 0.0119 representing 1.19%. This standard deviation was about the mean of 0.0956, representing 9.56%.

Regression Analysis

The study sought to determine the relationship of trade credit on financial performance of supermarkets in Machakos County. The coefficients of determination were used to bring out the extent to which each of the two independent variables explained the dependent variable. The model summary was used to determine the degree to which the two independent variables jointly explained financial performance among the firms.

The study sought to determine the joint influence of trade receivables, and trade payables on financial performance of the supermarkets in Machakos County. The objective was met by regressing financial performance on trade receivables, and trade payables.

Regression of Trade Payables and Financial Performance

The study sought to determine the influence of trade payables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The results are presented in Tables 2 and 3 below.

Table 2: Model Summary for Trade Payables and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.275[a]	0.076	0.070	0.26647

a. Predictors: (Constant), Trade payables

From Table 2 above, R=0.275, and R^2 = 0.076. The degree and nature of relationship between the two variables was measured using "R". The correlation between the two variables was 0.275. This implies that a unit increase in trade payables would lead to 27.5% increase in financial performance. The extent to which trade payables explained financial performance was measured by the adjusted "R^{2}". In this regard, trade payables explained only 7.0% of financial performance.

Table 3: Model Coefficients for Trade Payables and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.571	0.252		10.193	0.000
	Trade Payable	0.225	0.064	0.275	3.520	0.001

a. Dependent Variable: Financial Performance

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The results in Table 3 revealed that trade payable had statistically significant relationship with financial performance (β=0.225, t=3.520, p=0.001<0.05). Based on the findings, it can be concluded that trade payable influences financial performance.

Using the statistical findings, the regression model can be substituted as follows:

FP = 2.571 + 0.225TP

Where:

FP – Financial Performance

TP- Trade Payable

Regression of Trade Receivables and Financial Performance

The study sought to determine the influence of trade receivables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The results are presented in Tables 4 and 5 below.

Table 4: Model Summary for Trade Receivables and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.223[a]	0.050	0.043	0.27023

a. Predictors: (Constant), Trade receivable

From Table 4, the degree and nature of correlation between trade receivable and financial performance was determined by the "R". This demonstrates that a unit increase in trade receivables would lead to an increase in financial performance by 22.3%. Adjusted R^2 = 0.043 shows the extent to which trade receivables explained financial performance.

Table 5: Model Coefficients for Trade Receivable and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.681	0.277		9.680	0.000
	Trade receivable	0.194	0.069	0.223	2.806	0.006

a. Dependent Variable: Financial Performance

From table 5, the results indicate that trade receivable had statistically significant influence on financial performance (β=0.194, t=2.806, p=0.006<0.05). Based on the research findings, we conclude that trade receivable influences financial performance. Using the statistical findings, the regression model can be substituted as follows:

FP = 2.681+ 0.194TR

Where:

FP- Financial Performance

TR – Trade Receivables

Regression of Trade Payables, Trade Receivables and Financial Performance

The study sought to determine the joint influence of trade payables, and trade receivables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The results were presented in Tables 6, 7 and 8 below.

Table 6: Model Coefficients for Regression of TP, TR and FP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.796[a]	0.634	0.477	0.0297882

a. Predictors: (Constant), trade receivables and trade payables

b. Dependent Variable: ROA

Table 6 demonstrates that the coefficient of determination, represented by the adjusted 'R square' was 0.477 representing 47.7%. This implies that the trade credit dimensions jointly explained up to 47.7% of financial performance. This would mean that 52.3% of financial performance was explained by variables outside the model.

Table 7: Analysis of Variance for regression of TP, TR and FP

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.011	2	0.004	4.045	0.058[b]
	Residual	0.006	57	0.001		
	Total	0.017	59			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), trade receivables, and trade payables

From the ANOVA statistics in Table 7 the regression model had a fit with the data (F=4.045, P < 0.01). This is an indication that trade credit dimensions: trade receivables; and trade payables) had a significant influence on financial performance.

Table 8: Regression Model Coefficients for regression of TP, TR and FP

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.081	0.117		0.687	0.049
Trade payables	-0.100	0.569	-0.049	-0.175	0.037
Trade receivables	-0.380	0.778	-0.114	-0.489	0.045

a. Dependent Variable: Financial Performance

From Table 8 the established regression equation was

FP = 0.081 - 0.049TP - 0.114TR

From the above regression equation, it was revealed that if trade payables and trade receivables were each held constant, the financial performance would increase by 0.081 representing 8.1%. However, a unit change in each of the two trade credit dimensions: trade receivables, and trade payables, would lead to change in financial performance by factors of -0.114, and 0.049 respectively. At 5% level of significance, trade payables, and trade receivables.

Discussion of Research Findings

The findings of the study were compared with prior theoretical and empirical evidence. Areas of consensus and those of lack of consensus were identified.

Relationship with Theory

Transaction cost theory postulates that trade credit use brings down exchange costs. This theory holds that when transactions between sellers and buyers are frequent both parties may reduce transaction costs by agreeing to a periodical payment schedule. This is premised on not majorly financing but reducing transaction costs. The findings of the current study are in support of this theoretical argument.

According to pricing theory, existence of higher price-cost margin as an incentive to provide trade credit for price discrimination has not been found to have any effect on firms with credible principal customers. The logic behind this is that as firms direct a significant portion of their supplies to large principal customers, quality of the remaining pool also improves. As a result, the incentive to price discrimination wanes away. The focus is shifted to matching of short-term liabilities with short term

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assets for both the suppliers and buyers (Banerjee, Dasgupta, and Kim, 2004).

Liquidity theory postulates that if the supplier of goods has better access to finance than the client has, or when the client hesitates to use the limited finance it can access in order to finance inventories, trade credit can be financially motivated (also called the liquidity motive). The study found no empirical evidence in support of this theoretical argument.

Sales promotion theory argues that a supplier may want to offload some of his excess inventories onto clients. To be able to persuade the clients of the idea to transfer costs of inventory onto the clients) the supplier may allow for later payment.

Furthermore, suppliers may allow for trade credit to gain a competitive edge over competitors (Nadiri, 1969). The prediction of verification theory rests on the verification motive, which simply means that the client needs time to verify the quality and quantity of the goods delivered before paying for the goods. Smith (1987) noted that trade credit reduces the information asymmetry between buyer and seller alleviating moral hazard problems between the firm and their customer, since it allows the customer to verify product quality before paying. The study adduced empirical evidence in support of this theoretical postulation.

The study set out to determine the influence of trade credit on financial performance of supermarkets in Machakos County. Descriptive and relationship analyses were done to achieve this objective. Descriptive statistics used include the mean, representing a measure of central tendency, and standard deviation, representing a measure of dispersion. This argument is consistent with the empirical evidence in this study.

The study determined that at least one organization had recorded zero profit change over the period under review, represented by nil financial performance change. This finding is consistent with that of Tang (2014) on how trade credit from both supplier side and demand side effects financial performance of the SMEs in Netherlands. The study found that trade credits (accounts payable) is positively associated to financial performance 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. This theoretical argument is inconsistent with the findings of this study.

Relationship with Prior Empirical Evidence

The coefficient of determination of the current study, represented by the adjusted 'R square' was 0.477 representing 47.7%. This implies that the trade credit dimensions: trade receivables, and trade payables) jointly explained up to 47.7% of ROA. This finding is consistent with that of Ferrando and Mulier (2012) sought to determine if firms utilize trade credit in managing growth, the study used descriptive research design.

Two and half million observations from 600.000 companies in 8-euro countries in the period between 1993 and 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 current study also revealed that if trade payables and trade receivables were each held constant, the financial performance would increase by 0.081 representing 8.1%. However, a unit change in each of the two trade credit dimensions: trade receivables, and trade payables, would lead to change in financial performance by factors of 0.772, -0.114, and 0.049 respectively. At 5% level of significance, trade payables, and trade receivables.

This finding compares with that of 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

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descriptive research design. The study found a positive relationship between trade credit and firm's liquidity, and return on assets.

CONCLUSION AND RECOMMENDATIONS

The first specific objective of the study was to determine the influence of trade payables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The findings revealed that trade payable had statistically significant relationship with financial performance. Based on the findings, we conclude that trade payable influences financial performance. This could be attributed to the increased sales volumes coupled with efficient collection strategies.

The second specific objective of the study was to determine the influence of trade receivables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The results indicate that trade receivable had statistically significant influence on financial performance. Based on the research findings, we conclude that trade receivable influences financial performance. This could be attributed to the increased sales volumes coupled with efficient collection strategies.

The third objective of the study was to determine the joint influence of trade payables, and trade receivables on financial performance of supermarkets in Machakos County. Data was obtained from secondary sources and analysis was done using linear regression method. The findings revealed that trade payables and receivables jointly influenced financial performance. This is attributable to the enhanced sales volumes due to the trade credit facilities.

The recommendations were in light of policy and practice. The supermarkets, suppliers, and all other players in the trade credit management should organize their value chains and production plans to ensure sound trade credit management through integrating their supply chains to ensure seamless management of the same.

The recommendations for policy were as follows: The study has established that trade payables significantly influences financial performance. This implies that more Policies governing the implementation of the trade credit facilities and trade credit management ought to be enhanced by the government agencies such as Ministry of Trade and industrialization, Competition Authority of Kenya and consumer protection agencies in order to achieve better performance results in the retail sector. This includes but not limited to defaulters information sharing and blacklisting and controlling and encouraging of levels of credit through tax incentives

The study demonstrated that trade credit generally influenced financial performance. This implies that trade credit management should be given policy attention as a strategy to enhance their success, more so in Machakos County that was the context of the current study.

The supermarkets, suppliers, and all other players in the trade credit management should organize their value chains and production plans to ensure sound trade credit management. They should more so integrate their supply chains to ensure seamless management of the same. The study revealed that trade credit significantly influences financial performance. This means that the relevant regulatory bodies and other institutions charged with oversight responsibilities such as the Central Bank of Kenya, Competition Authority, and all consumer protection agencies should commit significant time and resources to streamline the trade credit practices.

Suggestions for Further Research

The study recommends further investigation focusing on various moderating and intervening factors such as firms' attributes since this was not within the scope of the current investigation. Some

of the attributes that the study suggests for examination include size, age, and corporate governance. This is because some prior studies have reported mixed findings, with a few inconsistencies with the findings of the current investigation. In this regard, a few scholars have tentatively attributed the inconsistencies to possible moderating and intervening influences.

The study also suggests further research focusing on other micro and macroeconomic factors not modelled in the current investigation. This is because of the multiplicity of these factors, and hence the impracticality of exhausting them in one study. A study is also suggested focusing on supermarkets in other parts of the country, since they comprise a significant portion of the GDP, and yet little is known about their financial performance dynamics. The study also recommends that the academics and researchers in the field of Finance and Economics should work in collaboration with policy makers and practitioners in an effort to steer growth of organizations through consumption of the research findings.

Further research is also recommended focusing on non-economic macro factors such as legal, political, and cultural to determine their influences on the financial performance of various firms, listed or otherwise. This is because literature stream has been quite emphatic on their influences in the performance of various organizations, yet research in the field of Finance has not given them significant attention.

REFERENCES

Altheide, D. L., & Johnson, J. M. (1994). Criteria for Assessing Interpretive Validity in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.). Handbook of Qualitative Research, pp. 485-499. Thousand Oaks, CA: SAGE.

Biais, B., & Gollier, C. (1997). Trade credit and credit rationing. *Review of Financial Studies,* 10, (1) 903–937.

Bougheas S., Mateut, S. & Mizen. P. (2009). Corporate trade credit and inventories: evidence of a trade-off from accounts payable and receivable. *Journal of Banking and Finance,* 33, 2:300-307.

Brennan, M.J., Maksimovic, V., & Zechner, J. (1988). Vendor financing. *Journal of Finance*, *43*(5), 1127-1141.

Burkart, M., Ellingsen, T. (2004), In-kind finance: A theory of trade credit. *American Economic Review*, 94, 569-590.

Chant, E M; Walker, D.A (1988), Small business demand for trade credit, *Applied Economics, Volume* 20, 861-876.

Choi WG, Kim Y (2005). Trade credit and the effect of macro financial shocks: Evidence from US panel data. *Journal of Financial and Quantitative Analysis,* 40: 897–925

Collins K. and Robert M. (2015). Effect of trade credit on financial performance of small-scale enterprises: Evidence of Eldoret town, Kenya. *International Journal of Economics, Commerce and Management,* 7 (2), 40-49.

Cristina, M., Pedro J., & Pedro, M. (2007). Trade credit policy and firm value: the case of Spanish listed firms, *Journal of economics* 4 (3), 18-30.

Cristina, M., Pedro J., & Pedro, M. (2010). *Trade credit and SME profitability: the case of Spanish manufacturing SMEs*. (Unpublished MBA thesis, university of murcia -Spain)

Dogan, M. (2013). Does firm size affect the firm profitability? Evidence from Turkey. *Research Journal of Finance and Accounting*, 4(4), 53–59.

Dunn, M. (2009). Why you need a credit policy. *Journal of economics, 3(1)-75-84.*

Emery, G. W. (1984). A pure financial explanation for trade credit. *Journal of Financial and Quantitative Analysis*19, 271-285.

Fiegenbaum, A., & Karnani, A. (1991). Output flexibility–A competitive advantage for small firms. *Strategic management journal, 12*, 101–114.

Finlay (2009) Credit management and profitability. *Journal of Social Sciences, 2, 90-101.*

Finley (2009), Peter D (2005), Dina A (2007). Credit management and profitability. Ferris, J. S. (1981). A transactions theory of trade credit use, *Quarterly Journal of Economics* 96, 243-270.

Fisman, R.J., & Raturi, M. (2004). Does competition encourage credit provision? evidence from african trade credit relationship. *Review of economics and statistics*, *86*(1), 345-352.

Guangchen S., (2012). How does capital structure affect firm performance? Recent evidence from Europe countries. *Journal of Economics and Management, 7(2),16-24.*

Hill, M-D., Kelly, G.W., Lockhart, G.B., & Washam, J.O. (2010). Trade credit, market value, and product market dynamics. *Journal of Marketing, 5(3), 33-45.*

James N. K., Kenneth L. W., Anthony G. W., Geoffrey M. G. (2014). Effects of credit policy on profitability of manufacturing firms in Kenya, *Journal of Business, 3(2), 477-481.*

Krueger, T. M. (2005). An Analysis of working capital management results across industries. *Mid-American journal of business* 20, 11-18.

Lee, Y.W., & Stowe, J.D. (1993). Product risk, asymmetric information, and trade credit. *Journal of financial and quantitative analysis*, *28*(2), 285-300.

larke, S. P., & Cossette, S. (2000). Secondary analysis: Theoretical, methodological and practical considerations. Canadian Journal of Nursing Research, 32(3), 109-129.

Meltzer A (1960). Mercantile credit, monetary policy, and the size of firms. *Review of Economics and Statistics* 4: 429–436

Mubeen A. R. and Muhammad K. K. (2016). A review of impact of trade credit on firm's profitability: A study of non-financial firms in Pakistan. *Journal of Economics, 6(22), 17-23.*

Mugenda, O., & Mugenda, A. (2003). *Research methods*: *quantitative and qualitative approaches.* Nairobi: Acts Press.

Myers, C.S. and Brealey, R.A. (2003). *Principles of corporate finance*. New York: McGraw-Hill.

Myers, S.C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13* (2), 187-221.

Mian, S.L., Smith, C.W. (1992). Accounts receivable management policy: Theory and

evidence. *The journal of finance*, 47(1), 169-200.

Mwangangi J. N. (2013). *Relationship between trade credit and value of firms listed at the Nairobi securities exchange.* (Unpublished master thesis, University of Nairobi).

Mwololo, B.N. (2011). *The Relationship between Credit policy and liquidity for oil manufacturing firms in Kenya* (Unpublished master's thesis University of Nairobi, Kenya).

Mykhailo I. (2013). *The impact of capital structure on firm's performance. Evidence from Ukraine. (*Unpublished Master Thesis in financial economics, Kyiv School of Economics).

Nadiri, N. I. (1969). The determinants of trade credit terms in the US total manufacturing sector. *Econometrica* 37, 408–423.

Nzotta, S.M. (2004). *Money, banking and finance: Theory and practice*. Owerri: International educational books and publishers.

Peng, M. W. (2000). *Business strategies in transition economies.* Thousand Oaks, CA: Sage.

Petersen, M. A., & Rajan, R. G. (1997). Trade credit: theories and evidence. *Review of financial studies,* 10, 661–691.

Pike, R., Cheng, N.S., Cravens, K., & Lamminmaki, D. (2005). Trade credit terms, asymmetric information and price discrimination: Evidence from three Continents. *Journal of business finance & accounting*, 32(5/6), 1197-1236.

Rachmawati & Hanung Triatmoko. (2007). *Analysis of factors influencing earnings quality and value*. Papers presented in the national symposium of accounting 10. Makasar, 26-28 July.

Robson, C. (2011). Real World Research: A Resource for Users of Social Research Methods in Applied Settings, (2nd Ed.). Sussex, A. John Wiley and Sons Ltd.

Ruth W. K. & Aquilars M. K. (2012). The determinants of trade credit in small and medium sized firms in Kenya. *International journal of science and research (IJSR) ISSN (Online):* 2319-7064.

Salima Y. P. & Cherif G. (2009). Trade credit as short-term finance, *Working Paper Series* (ISSN 2041-1596). Paper Number: 10/09

Singh, A. S. (2014). Conducting Case Study Research in Non-Profit Organisations. Qualitative Market Research: An International Journal, 17, 77–84.

Scheufler, B. (2002). Five risks you can target with best practices. [On-line].

Schwartz, Robert, A. (1974). An economic model of trade credit. *Journal of financial and quantitative analysis*, *9*(4), 643–657.

Stierwald, A. (2009). Determinants of firm profitability–The effect of productivity and its persistence. *Melbourne institute of applied economic and social research, 22,17-24.*

Stiglitz, J.E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *American economic review*, *71*(3), 393-410.

Summers, B., & Wilson, N. (2002). An empirical investigation of trade credit demand. *International journal of the economics of business*, *9*(2), 257-270.

UNCTAD (2008). World investment report, New York and Geneva: United Nations

Van Horen, N. (2005). Do firms use trade credit as a competitiveness tool? Evidence from developing Countries. *World Bank Working Paper*.

Wilner, B. S. (2000). The exploitation of relationship in financial distress: the case of trade credit. *Journal of Finance* 55, 153–178.

Xiuli, L. (2011). *Determinants of trade credit. A study of listed firms in the Netherlands*. master thesis in business administration. University of Twente, The Netherlands (unpublished)

Yujie T. (2014). *Trade credit and profitability in small and medium enterprises*. 3rd IBA bachelor thesis conference, University of Twente, faculty of management and governance. Enschede, the Netherlands.