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EFFECT OF CREDIT POLICIES ON ACCOUNTS RECEIVABLE AMONG MANUFACTURING COMPANIES IN NAIROBI COUNTY, KENYA

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Abstract: *Management of accounts receivable has costs to the business in terms of loss of time value of money where payments are delayed, administrative costs, poor relations with suppliers resulting from delayed payments in times of cash flow constraints and the bad debts losses in the worst case scenarios where the debts become uncollectible. The manufacturing sector in Kenya has suffered stagnated growth over years with foreign and local firms choosing to downsize their operations or even closing their entire operations. The grounds on which companies choose some of these decisions are poor tax regime, inadequate infrastructure, insufficient electric power supply, dumping of close substitutes of products by foreign manufacturers among others. Besides the mentioned factors leading to poor performance in the manufacturing sector, management of working capital cannot be overlooked. Accounts receivable management, particularly trade receivables, is a major contributor to working capital management in manufacturing firms and therefore its management has a direct contribution to the overall performance of an entity in terms of liquidity and profitability.*

Importance*: Excellence in receivables management is a combination of both art and science in that it involves business process, technology tools, staff skills, motivation, company culture, changing behavior of both customers and coworkers, the right organizational structure, incentives and flexibility to deal with changing external influences.*

Methodology: *The study was descriptive and quantitative in nature, targeting manufacturing firms registered with the Kenya Association of Manufacturers and having operations in Nairobi County. The required data was collected via questionnaires administered to credit managers, credit controllers, sales managers and receivables' accountants in the selected companies. The data so collected was presented in tables and charts for purposes of analysis to establish the effect of credit policy elements; discounts, credit period, credit limits and late payment penalties on accounts receivable.*

Keywords: *Accounts Receivable, Credit Limit, Credit Policies, Late Payment Penalty*

INTRODUCTION

According to Pandey (2008), accounts receivable is money owed to a firm when it sells its products or services on credit and it does not receive payment immediately. Hrishikes in his study (as cited in Kimani, 2013) opines that the primary goal of accounts receivables management is to maximize the value of the enterprise by striking a balance between liquidity, risk and profitability. Pandey (2008) also asserts that, a firm grants trade credit to protect its sales from competitors and to attract potential customers to buy its products at favorable terms. The purpose of any commercial enterprise is the earning of profit and offering credit in itself is utilized to enhance

sales but sales must return a profit for an entity to be justified in any decision regarding enhancing sales. Businesses must ensure proper management of trade receivables to avoid finding their liquidity under considerable strain and to remain profitable (Lynch, 2005). The function of accounts receivable management emanates from its goals which are stated simply as setting out credit terms, selecting the customers, installing appropriate collection and monitoring system and financing receivables for maximizing the value of the firm (Hrishikes, as cited in Kimani, 2013) in his study of principles and practice of effective accounts receivable management in Kenya; a case of selected manufacturing firms in Thika municipality.

A significant part of receivables management involves the proper selection of customers because every credit sale involves the risk of delayed payment or non-payment of the value involved; this occurs in cases of default by the buyer in executing the obligations as expected by the seller. This is what constitutes default risk as one of the credit risks faced by a company offering trade credit. The major obsession for most of today's organizations' management is to remain relevant in the market by striving to cope with the ever increasing cut throat competition in the market brought about by production of very close substitutes of the firms' own products by competitors. At the same time, managers are faced with the challenges of achieving optimal profits, improving the company's performance and maximizing the shareholders wealth which can only be achieved through increase in revenue obtained from sales and cost reduction or minimization on expenses. This has seen many firms employ all forms of schemes, offering trade credit being one such scheme, to woo new customers to their products and/or maintain their existing market share. In this kind of competitiveness, there exists a real incentive for managers in the manufacturing industry to adopt product pushing strategies to offload their stocks to the market with the hope that this will convert to a successful sales transaction and as well retain the customer for future sales transactions (Kimani, 2013).

This study aimed at explaining the effect of credit or debtors policies on accounts receivable among manufacturing companies operating in Nairobi County by assessing the approaches used in managing trade receivables and their effects on trade receivables turnover and average collection period (ACP). With reference to the Vision 2030, the manufacturing sector should account for 20 per cent of Kenya's GDP. This therefore calls for efficient management of the operations of manufacturing entities' affairs and sound management of accounts receivable, an integral part of working capital management, cannot be overlooked since it aids firms to avoid falling into liquidity traps. The focus of this research was to determine the influence of credit management policies on accounts receivable management, specifically trade receivables, of manufacturing companies in Nairobi County. Assuming that macroeconomic variables such as inflation, fiscal policies and economic growth play minimal role in the management of trade receivables, the study's analysis considered information in the specific companies' financial reports out of which trade receivables turnover, a measure of accounts receivable, was computed for use as a proxy of the dependent variable as suggested by Pandey (2008). Information on the explanatory variables was gathered through data collection sheets for the estimation of average credit period, average discount offered/allowed, average credit limit and average penalty charged on overdue accounts. These four are the credit policy elements that affect the overall turnover of trade receivables.

Manufacturing Allied Firms in Kenya

The manufacturing and allied sector over the past years has been crucial in supporting economic growth and development in Kenya (Kubai, 2016). According to the 2016-2017 budgets, Kenya set out to enhance the economic growth by double digits by the year 2030 and this is through prioritizing key industries in the manufacturing sector as the vehicles to deliver these goals. The manufacturing sector recorded a growth of 3.5 percent in 2015 compared to 3.2 percent as at 2014. The contribution of the manufacturing sector to the GDP

grew to 10.3 per cent in 2015 from 10.0 per cent in 2014 and maintained the second position in ranking. Also, the sector contributed 11.9 per cent of the formal jobs in the country (Kubai, 2016). Kubai (2016) affirms that the manufacturing sector performance was favorable in 2015 attributable to the good macroeconomic environment except for the cost of borrowing that somewhat curtailed the availability of cheap credit to fund the sector's activities. The Soko Directory team issued a summary of the state of the manufacturing industry in Kenya in December 2015 indicating that, the manufacturing industry in Kenya only accounted for 14 percent of her Gross Domestic Product (GDP) despite the fact that Kenya is the most industrially developed country in East Africa. The report indicated that this 14 percent is just a slight increase since independence as the sector has stagnated since the 1980s as a result of shortages in hydroelectric power, high energy costs, decreased transport infrastructure and dumping of cheap imports from other countries. According to this report, urbanization has made the industry and the manufacturing sector very important to the Kenyan economy which has in turn increased the GDP per capita. Nairobi, Mombasa and Kisumu, which form the three largest urban centers in Kenya, are also areas where industrial activities have been concentrated greatly. These are the areas where food processing industries and the fabrication of consumer goods have dominated.

The report further indicates that the year 2014 saw many manufacturing companies either closing down or relocating from the country. In October 2014, more than 300 people were rendered jobless after Cadbury Kenya closed down. In the same year on October 1st, more than 100 people were left without jobs when Eveready East Africa, a company that had dominated the Kenyan market for 47 years and which was the largest dry-cell battery maker in the region shut down its factory in Nakuru. During the month of September, the same year of 2014, the Hong Kong Shanghai Banking Corporation formally left Nairobi after only operating for three years. In the month of May 30th 2014, Tata Chemicals, Magadi, announced that it was planning to scale down its operations by closing down its main factory and this, in the process, rendered more than 200 permanent workers jobless. Many of these companies that have exited the Kenyan manufacturing market have blamed it on the taxation system in the country which is high hence making the operations unbearable, the high energy cost forcing the companies to increasing their prices and thus lowering the purchasing power, dumping of competing products from outside countries and poor infrastructure. Apart from the reasons stated above, firm performance cannot be left out and the current study will be looking at effects of credit policies on accounts receivables, an integral part of working capital in firms' performance management.

Statement of the problem

There has been poor performance in manufacturing firms in general as evidenced by the stagnated growth of the sector over the last decade (World Bank, 2016), and closure of or relocation of operations by some manufacturers' as reported by Kenya Association of Manufacturers. Mogaka & Jagongo, (2013) using NSE listed manufacturing and construction firms found a significant effect of debtor's management on profitability. Gatuhu (2013) studied the effect of credit management on the financial performance of microfinance institutions in Kenya and established that there was strong relationship between financial performance of microfinance institution and credit risk control & collection policy. Nyawera (2013) studied the effect of credit policy on the financial performance of deposit taking microfinance institutions in Kenya and found that credit policy has an effect on the financial performance of deposit taking micro finance. Kilonzo, Memba & Njeru (2016) studied the Effect of Accounts Receivable on financial performance of firms funded by Government Venture Capital in Kenya and found out that there is more to be done in Kenya on the management of accounts receivables and especially in the review of and adherence to sound credit management policies. Lazaridis & Dimitros (2009), while examining the relationship between accounts receivable management and profitability

of listed companies in the Athens Stock exchange concluded that there were other external factors that largely interfered with the impairment of receivables leading to losses other than the actual management practices.

Other researchers like Nduta (2015), Ngotho (2015) and Nurazleena *et al*., (2015) have looked at accounts receivable management within their studies of effect of working capital management on financial performance, treating it as an integral part of working capital management. Akoto et al., (as cited in Mathenge, 2016) studied thirteen listed manufacturing firms in Ghana for the five years 2005-2009. He investigated for any association between profitability and Working Capital Management practices and concluded that there exists a significant and negative association between profitability and ACP. It is evident that no study has then been done so far on the effects of credit policies on accounts receivable among manufacturing firms in Nairobi County. This study thus sought to close this research gap and it entailed investigating the effect of credit policy elements; credit limits (or capping), credit period offered to credit customers, discounts incentive and late payment penalties, on trade receivables among manufacturing firms within Nairobi County, as measured by trade receivables balance and receivables to assets ratio.

Specific objectives

The study had the following specific objectives;

1. To establish the influence of discounts on accounts receivable of manufacturing firms in Nairobi County.
2. To examine the effect of credit limits on accounts receivables of manufacturing firms in Nairobi County.
3. To determine the influence of credit periods on accounts receivable of manufacturing firms in Nairobi County.
4. To assess the influence of late payment penalties on accounts receivable of manufacturing firms in Nairobi County.

Significance

The findings of this study can help in establishing the relationship between a firm's trade receivables and its credit policy. Managers of corporations and businesses, practicing consultants as well as researchers and scholars will draw considerable benefits from this study regarding formulation of trading policies that can foster firm value maximization without exposing the companies to losses associated with trade receivables management.

RESEARCH DESIGN

This study employed a descriptive design methodology, a design commonly preferred in the description and explanation of conditions as they are for a phenomenon under study. According to Kothari (2008), the rationale of a descriptive research is to examine events occurring at a specific place and time.

RESEARCH FINDINGS AND DISCUSSION

Ownership of the Company

The study sought to find out the type of ownership of the companies that the respondents were working for and it established that 83.5% of the companies that were sampled are private limited companies, 5.5% are

foreign limited companies, and 5.5% are joint ventures while another 5.5% of these companies are semi-autonomous parastatals.

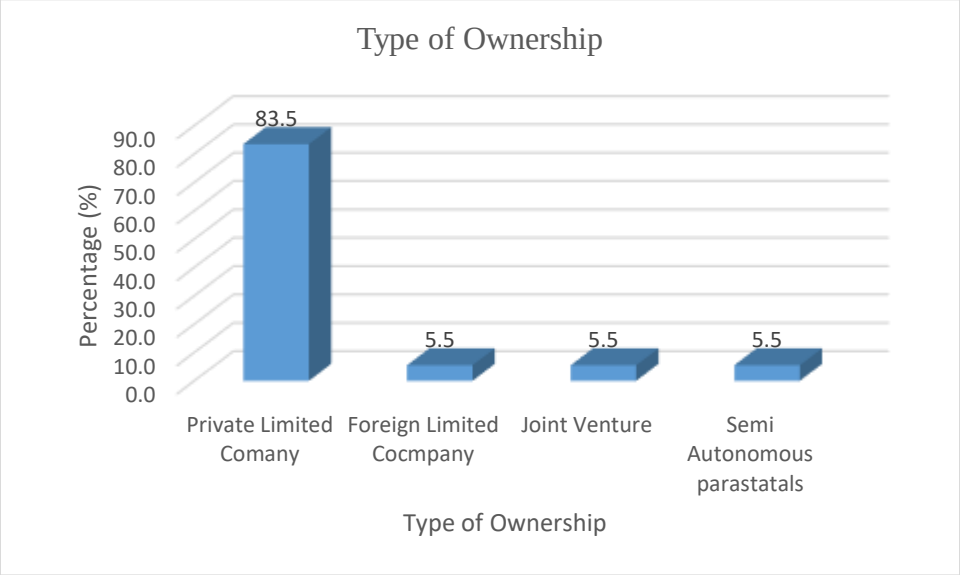


Figure 1: Type of Ownership of the Company

DISCUSSION OF KEY FINDINGS

Credit Policy

The study sought to establish if the respondents companies offer goods on credit. Responses from the field indicated that 89.1% of the companies offered their goods and services on credit while 10.9% of the companies did not offer their goods on credit to customers.

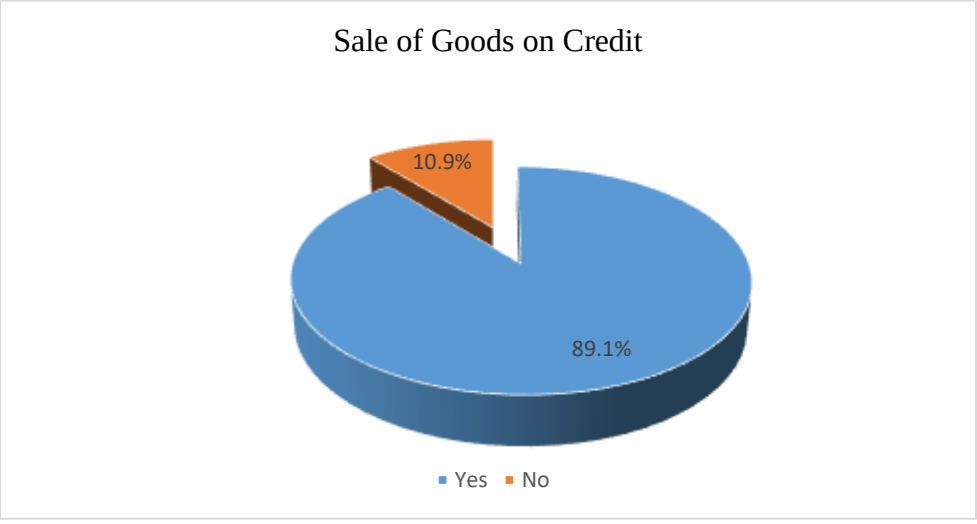


Figure 2: Responses on Credit Sales

The study further sought to establish whether the companies that offered their goods on credit had credit policies. The findings show that 89.1% of these companies have an established credit policy while 10.9% of these companies do not have a credit policy. Additionally, this study prompted the respondents to rate their company's credit management policy. 16.4% of the respondents indicated that their companies had an excellent

credit policy while the rest, 83.6% indicated that their companies had a good credit policy. The study also sought to establish how often the credit policy was used by the management. 65.5% of the respondents indicated that the credit policy is always used while 23.7% of the respondents indicated that the policy is seldom used while 5.5% of the respondents indicated that the credit policy is never used in their organizations while another 5.4% of the respondents stated that this question was not applicable. This study also sought to establish the components contained in the company's credit policy. 51.0% of the respondents indicated that their credit policy covers credit period, 25.3% of the respondents indicated that their company's credit policy covers credit limits while 18.2% of the respondents indicated that their credit policy covers discounts and 5.5% of the respondents indicated that their company's credit policy covers late payments.

Table 1: Components in Credit Policies

Credit Policy	Frequency	Percent (%)
Credit period	28	51.0
Credit limits	14	25.3
Discounts	10	18.2
Late payments policy	3	5.5
Total	**55**	**100.0**

The researcher further sought to establish the personnel responsible for implementing the credit policy. It was found out that in 21.8% of the companies, managing directors are responsible of implementing the credit policy while in 12.7% of the companies, finance managers are the ones who are responsible of implementing the credit policy. It also established that in 38.1% of the companies, credit controllers/managers are the ones responsible for implementing credit policies and that in 27.4% of the companies, marketing managers were the ones responsible for implementing the credit policy.

Table 2: Personnel in charge of Implementing Credit Policy

Position	Frequency	Percent
Managing director	12	21.8
Finance manager	7	12.7
Credit Controller/manager	21	38.1
Marketing manager	15	27.4
Total	**55**	**100.0**

Credit Limits

The study as well sought to establish the criterion used to arrive at credit limits with 27.2% of the respondents indicating that sales turnover records are used to establish the credit limits while 16.4% indicated that it is the length of time the customer has been in business while 51% of the respondents indicated that they use the payment history. 5.4% of the respondents indicated that other factors are used to determine the customers' credit limits which factors are either bank guarantees or reference checks.

Table 3: Criteria Used to Arrive at Credit Limits

Criteria	Frequency	Percent (%)
Sales turnover record	15	27.2
Length of customer in business	9	16.4

Payment history	28	51.0
Other factors	3	5.4
Total	**55**	**100.0**

This study further sought to find out how often the credit limits are reviewed. 5.5% of the respondents indicated that the credit limits are reviewed quarterly, 41.8% indicated that the credit limits are reviewed annually while 52.7% of the respondents indicate that the credit limits are reviewed on need basis.

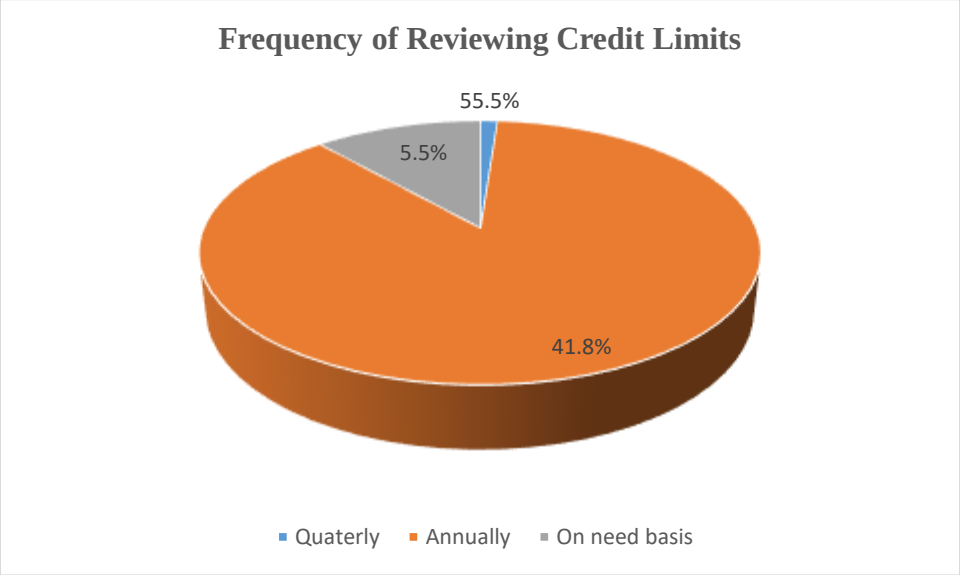


Figure 3: Review of credit limits

On further inquiry, this study established that 66.7% of the respondents concurred that the credit limits are enforced and monitored for adherence and 33.3% of the respondents were of the contrary opinion. On questions about who is authorized to vary the credit limits, when need arises, 11% of the respondents indicated that it is the credit controllers who are responsible to vary the credit limit, 41.8% of the respondents indicated that it is the finance managers who are responsible while 47.2% of the respondents indicated that it is the managing director who is responsible of varying the credit limits when need arose. The findings indicate that most firms set capping on the amount of credit advanced to customers with 66.7% affirming that monitoring of these limits is a practice. This means that firms can control the amount of account receivables at any given time by monitoring and enforcing credit limits. As a result, the amount of closing receivables can be greatly reduced so as to minimize bad debts loses and high provisions for bad and doubtful debts, a situation that occurs when large sums of money are with debtors with limited chances of collection.

Table 4: Authorization to Vary Credit Limits

Position	**Frequency**	**Percent (%)**
Credit Manager/ Controller	6	11.0
Finance Manager	23	41.8
Managing Director	26	47.2
Total	**55**	**81.0**

Credit Period

The study also sought to find out the average period granted to the credit customers. The study established that 33.3% of the companies have a credit period of 30 days while 9.6% of the companies have a credit period of 45 days 38.1% of the companies have a credit period of 60 days while 19% of the companies have a credit period of 120 days.

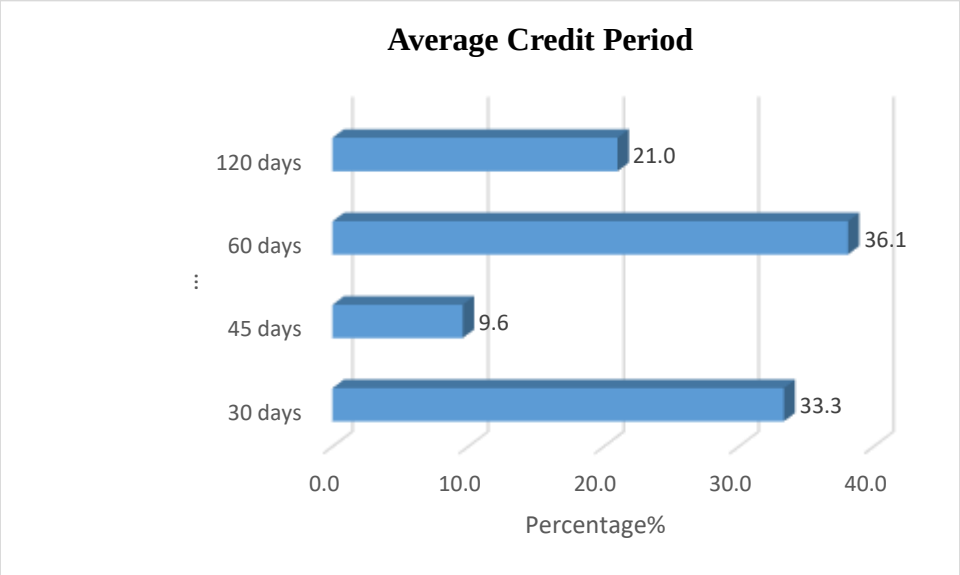


Fig 4: Review of credit Period

The researcher further sought to establish the criteria for setting credit periods and found that, 90% of the respondents indicated that payment history is the factor used for setting credit period, 5% of the respondents use the order value while 5% of the respondents indicated that they use the industry average as depicted in the table below.

Table 5: Criteria used to Determine Credit Periods

Criteria	Frequency	Percent
Payment History	48.0	90.0
Order size (in value)	3.0	5.0
Industry Average	4.0	5.0
Total	55.0	100.0

The study also sought to establish whether the credit period as granted is static or it varies in regard to customers' performance on payment of debts. 41.2% of the respondents indicated that the credit period is static while 58.8% of the respondents indicated that this varies depending on a number of factors. The findings indicate that fairly long credit periods are granted and this lengthens the time within which money is collected from the customers, a practice that could lead to cash flow constraints and reduced profits resulting from bad debts provisions as well as finance charges in the event a cash flow constrained firm borrows money from commercial banks to bridge the cash flow gap.

4.4.4 Penalty on Late Payments

The study sought to establish whether the companies charge penalties on late payments. 52.7% of the respondents indicated that the companies do charge penalties on late payments while 47.3% of the respondents indicated that their companies do not charge penalties on late payments.

Table 6: Penalty on Late Payments

Response	Frequency	Percent (%)
Yes	29	52.7
No	16	47.3
Total	**55**	**100.0**

Further, 53.3% of the respondents indicated that the aforementioned penalty is clearly communicated to the customers while 13.3% were of the contrary opinion and 33.4% stated that this is not applicable for their business. It was also established that for other types of coercion used by companies to make the customers pay as per terms, 13.7% use the review terms to cash with order, 25% of the respondents use reference to debt collectors while 5.4% reduce the respective customer's credit limit. 25% of the respondents indicated that they suspend supplies to customers and 30.9% of the respondents indicated that they use all of the above mentioned strategies.

Table 7: Type of coercion

Type of Coercion	Frequency	Percent
Review of terms to cash	7	13.7
Suspension of suppliers	14	25.0
Reference to debt collectors	14	25.0
Reduction of credit limit period	3	5.4
All of the above	17	30.9
Total	**55**	**100**

The study further sought to establish to what extent have the penalties assisted to manage the risks of default on payments. 21.4% of the respondents indicated that the penalties have managed these risks to a large extent, 57.1% indicated that the penalties had controlled to a moderate extent. 10.75% of the respondents indicated that they had managed to a less extent and another 10.75% indicated that it had no control. The findings therefore indicate that levying late payment penalties assists most companies (78.5% being the percentage of great and moderate extend assistance) in managing default risk that can emanate from nonpayment for goods sold on credit. This translates to quality accounts receivable portfolios minimizing provisions for bad and doubtful debts, thus improving the profitability of firms.

Discounts

The study sought to establish if the companies, offer discounts as incentives for early payments under their credit terms. 35.3% of the respondents indicated that they offer discount as incentives while 58.8% indicated that they don't offer discount as an incentive for early payment while 5.9% stated that this does not apply for their businesses. The study further sought to find out the type of discount the companies offered to their customers. It was established that 54.5% of the respondents allow cash discounts, 18.2% offer trade (quantity)

discounts while 18.2% offer early payment discount. The study further sought to establish if the discount rates vary from customer to customer. 8.3% of the respondents indicated that discount rates vary from customer to customer while 91.7% of the respondents were of the contrary opinion. According to the findings, the time that customers will take to pay can be reduced by offering discounts to encourage them to pay earlier than the set credit period. This is expected to result into improved cash inflow and reduced accounts receivable levels at the close of the accounting period.

Table 8: Type of Discounts Offered

	Frequency	Percent
Cash Discount	30	54.6
Trade (Quantity) discount	10	18.2
Early payment discount	10	18.2
N/A	5	9.0
Total	55	100

Diagnostic Tests

Normality Test

Kolmogorov-Smirnov Test and Shapiro-Wilk test were conducted to assess normality. From table 9 below, the significance value of Kolmogorov-Smirnov Test Shapiro-Wilk test is greater than 0.05 meaning that there is normal distribution of the data.

Linearity Test

Based on the ANOVA[a] table below (table 10), the value sig. is the deviation from the linearity of 0.029> 0.05 it can be concluded that there is a linear relationship between the dependent variable which is accounts receivable and the independent variables; discount, credit limits, credit period, and late payment penalties.

Table 9: Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	sig
Discount Rate	0.49	55	0.97	0.994	55	.80
Credit Limits	1.77	55	0.59	0.969	55	.60
Credit Period	1.66	55	0.76	0.965	55	.70
Penalty	0.208	55	0.90	0.771	55	.90

Lilliefors Significance Correction

*This is a lower bound of the true significance

Table 10: ANOVA[a]

Model		Sum of Squares	df	F	Sig.
1	Regression	4.120	4	7.567	.029[b]
	Residual	50.048	78		
	Total	53.168	82		

Multicollinearity

This study conducted a multicollinearity test to determine the degree of correlation between independent variables. The study established that there was correlation between independent variables but not of sufficient magnitude to have the potential of adversely affecting the regression estimates, refer to table 4.13 below. This means that the coefficients of the multiple regression were reliable to make conclusions.

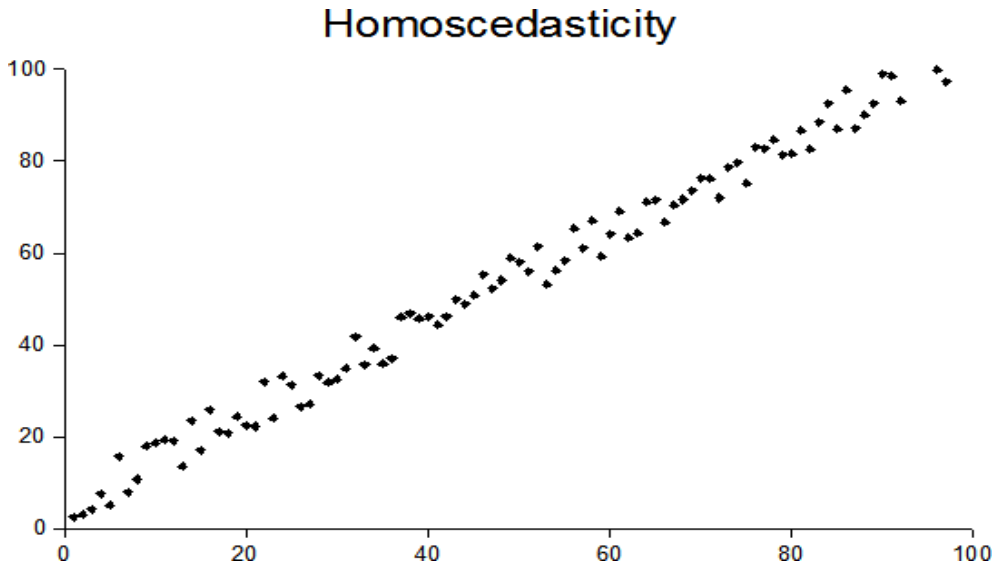
(Ringle *et al.*, 2015) contends that a value of 5.0 is the maximum level of the variance inflation factor (VIF), which assesses how much the variance of an estimated regression coefficient increases if your predictors are correlated. The results show that only one regression coefficient, for the discount rate, has a VIF of 2.0 and above. The others have VIF values below 2.0.

Table 11: Multicollinearity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.109	6.054		.0679	.519		
	Credit Limit	-8.409	6.043	-.487	.0392	.207	.609	1.643
	Credit Period	2.422	1.746	.525	.0387	.208	.520	1.922
	Late payment Penalties	-3.040	1.708	-.627	.0180	.118	.601	1.663
	Discount rate	.432	3.642	.047	.0119	.909	.479	2.089

Homoscedasticity

Test for homoscedasticity was conducted which established that the error term was the same across all values of independent variables. The scatter plot of the means below indicates that there was homoscedasticity in the data. This means that the variables used have a common finite variance.



Regression analysis

Effect of Discount rate on Accounts Receivable

Table 12: Model Summary

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	0.916873	0.945675[a]	0.778945	0.02457

Predictor: Discount Rate

The value of adjusted R square was 0.77895. This means that 77.9% change in accounts receivable is attributed to changes in discount rate. It also means that 22.9% change on accounts receivables can be attributed to other factors beyond this model. A correlation coefficient R of 0.916873 indicates that there is a strong relationship between discount rate and accounts receivable among manufacturing firms in Kenya.

Table 13: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.011	.000		1.0	.001
Discount Rate	0.292	.000	.468	.809	.003

a. Dependent Variable: Accounts Receivable

$Y = \beta o + \beta_1 (Dr) + \varepsilon$…….....i; becomes

$Y=1.011+0.292X_1$

From the above regression model, if discount rate of the manufacturing firms, approaches a constant of zero. The accounts receivable of manufacturing firms would be 1.011. It's established that a unit increase in discount rates would cause an increase in the accounts receivables of the manufacturing firm by a factor of 0.292.

Effect of Credit Period on Accounts Receivable

Table 14: Model Summary

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	0.695678	0.784563[a]	0.778934	0.045671

Predictor: Credit Period

The value of adjusted R square was 0.778934. This means that 77.89% change in accounts receivable is attributed to changes in credit period. It also means that 22.11% change on accounts receivables can be attributed to other factors beyond this model. A correlation coefficient R of 0.695678 indicates that there is a strong relationship between credit period and accounts receivable among manufacturing firms in Kenya.

Table 15: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.139	.000		.	.001
	Credit Period	0.745	.000	.784	.	.000
a. Dependent Variable: accounts receivable						

$Y= \beta o + \beta_2 (Cp) + \varepsilon$…….....i

$Y=1.139+0.745X_2$

From the above regression model, if credit period of the manufacturing firms approaches a constant of zero. The accounts receivable of manufacturing firms would be 1.139. It's established that a unit increase in credit period would cause an increase in the accounts receivables of the manufacturing firm by a factor of 0.745.

Effect of Credit Limits on Accounts Receivable

Table 16: Model Summary

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	0.834567	0.841686[a]	0.947833	0.001289

Predictor: Credit Limits

The value of adjusted R square was 0.947833. This means that 94.79% change in accounts receivable is attributed to changes in credit limits. It also means that 5.21% change on accounts receivables can be attributed to other factors beyond this model. A correlation coefficient R of 0.834567 indicates that there is a strong relationship between credit limits and accounts receivable among manufacturing firms in Kenya.

Table 17: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.884	.000		.	.000
	Credit Limit	0.597	.000	0.231	.	.001
a. Dependent Variable: Accounts receivable						

$Y= \beta o + \beta_3 (Cl) + \varepsilon$…….....i

$Y=1.884+0.597X_3$

From the above regression model, if credit limit of the manufacturing firms, approaches a constant of zero. The accounts receivable of manufacturing firms would be 1.884. It's established that a unit increase in credit limit would cause an increase in the accounts receivables of the manufacturing firm by a factor of 0.597.

Effect of Late Payment Penalty on Accounts Receivable

Table 18: Model Summary

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	0.708845	0.856789[a]	0.712457	0.032786

Predictor: Penalty on Late Payment

The value of adjusted R square was 0.712457. This means that 71.25% change in accounts receivables in manufacturing firms is attributed to changes in penalty on late payment. It also means that 28.75% change on accounts receivables can be attributed to other factors beyond this model. A correlation coefficient R of 0.708845 indicates that there is a strong relationship between penalty on late payment and accounts receivable among manufacturing firms in Kenya.

Table 19: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.839	.000		.	.
	Penalties	0.323	.000	.169	.	.
a. Dependent Variable: Accounts Receivables						

$Y= \beta o + \beta_4 (Lp) + \varepsilon$…….....i

$Y=1.839+0.323X_4$

From the above regression model, if Late payments of the manufacturing firms, approaches a constant of zero. The accounts receivable of manufacturing firms would be 1.839. It's established that a unit increase in late payment would cause an increase in the accounts receivables of the manufacturing firm by a factor of 0.323.

Multiple Regression

A linear multiple regression analysis was used to test the relationship between the independent variables and the dependent variable. The researcher applied the statistical package for social sciences (SPSS) version 23.0 to code, enter and compute the measurements of the multiple regressions for the study. Coefficient of determination explains the extent to which changes in dependent variable; accounts receivable among the manufacturing firms in Nairobi County can be explained by the change in the independent variables (credit limits, credit period, late payment penalties a).

Table 20: Model Summary

Model	R	R Square	Adjusted R Square	Change Statistics	
				F Change	Sig. F Change
1	.897[a]	.805	.8025	7.567	.029

The results of this test are presented in the table of the multiple regression model summary above. A coefficient of determination tending to 1.0 means that a greater percentage of a unit change in the dependent variable can be explained by the independent variables.

According to the findings in table 19 above, the value of adjusted R^2 is 0.8025. This indicates that there is a variation of 80.25 % on accounts receivable turnover among manufacturing firms in Nairobi County resulting from the influence of the four independent variables at a confidence level of 95%. In addition other factors that were not studied in this research contribute to 19.75% of the changes accounts receivable turnover of manufacturing companies in Nairobi County. The significance value of 0.029 is less than 0.05 indication that the model is statistically significant in predicting how the independent variables (credit limits, credit period, late payment penalties and discount) affect the dependent variable (accounts receivable of manufacturing companies in Nairobi County, measured by accounts receivables turnover as the proxy). The F critical at 5% level of significance is 2.789. The F calculated (value =7.567) is greater than the critical value (7.567> 2.789) which indicates that the independent variables (credit limits, credit period, late payment penalties and discount incentives) affect the accounts receivable turnover among manufacturing firms in Nairobi County.

Table 21: Multiple Regressions

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.164	.472		.029
	Credit Limit	.047	.013	.141	.002
	Credit Period	.132	.052	.193	.001
	Late Payment Penalties	.491	.037	.506	.001
	Discount Rate	.279	.110	.168	.003

From table 21, the model, $\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$, becomes;

$Y= 0.164+0.047X_1+0.132X_2+0.491\ X_3 + 0.279X_4$

Where Y is the dependent variable (accounts receivable among manufacturing firms in Nairobi County, using accounts receivable turnover as a proxy), X_1 represents credit limits, X2 represents credit period, X_3 represents

late payment penalties and X_4 represents discount rate. Taking all independent variables constant at zero, the accounts receivable turnover among manufacturing firms in Nairobi County will be will be 0.164. The data findings also showed that taking all other independent variables constant, a unit increase in the late payment penalty will lead to a 0.491 increase in the accounts receivable turnover among manufacturing firms in Nairobi County, a unit increase in the discount rate will lead to a 0.279 increase in the accounts receivable turnover among manufacturing firms in Nairobi County, a unit increase in credit period will lead to a 0.132 increase in the accounts receivable turnover among manufacturing firms in Nairobi County; while a unit increase in credit limits will lead to a 0.047 increase in accounts receivable turnover among manufacturing firms in Nairobi County.

At 5% level of significance and 95% level of confidence, credit limits showed a 0.002 level of significance; credit period showed a 0.001 level of significance; credit period showed a 0.001 level of significance and discount rate showed a 0.001 level of significance. The results indicate that credit policies, as measured by the four elements (discounts, credit period, credit limits and late payment penalties) contribute greatly to accounts receivable among manufacturing firms in Nairobi County. The results are consistent findings by Vijayalakshmi & Sailaja (2016), Salek (2005), Ngotho (2015), Ahmet (2012), Muriuki (2014) and Nduta (2015) who opine that performance accounts receivables, which is a major component of a firm's working capital management, can be attributed to the policies employed in the management of the asset.

Table 22: ANOVA[a]

Model		Sum of Squares	df	F	Sig.
1	Regression	4.120	4	7.567	.029[b]
	Residual	50.048	78		
	Total	53.168	82		

Summary of Research Findings

The findings of the study are that, majority of the manufacturing firms in Nairobi County (89.1%) sale their products on credit and have an established credit policies covering the four components; discounts, credit period, credit limits and late payment penalties. Regression results as discussed have shown that the four independent variables have a positive significant influence on accounts receivable among manufacturing companies in Nairobi County. This is consistent with the findings by Vijayalakshmi & Sailaja (2016), Salek (2005), Ngotho (2015), Ahmet (2012), Muriuki (2014) and Nduta (2015).

SUMMARY OF KEY FINDINGS

Credit Limits

The study established that the sales turnover, length of time the customer has been in business and payment history are used to determine the customer's credit limit. Further, the study established that credit limits are reviewed either on annual basis or on need basis and seldom reviewed quarterly. Further, the study established that the credit limits in manufacturing organizations are monitored for adherence. Also, either the credit controllers, finance managers or managing directors are responsible for adjusting credit limits. From the regression analysis results, credit limits have a positive relationship with accounts receivable and therefore have an effect on accounts receivable of manufacturing companies in Nairobi County.

Credit Period

The study established that the average credit period customers are granted is between 30 days to 120 days. More so, this study established payment history, order size/value and industry average as the criteria used to determine the credit period for customers. This study further established that the credit period in manufacturing companies in Nairobi County are partly static and partly varied. There exists a positive significant relationship between credit period and accounts receivable of manufacturing companies in Nairobi County. The credit period should thus be granted with care so as to minimize and adverse effects.

Penalty on Late Payments

The study found out that the manufacturing companies were torn between charging penalties on late penalties and not charging penalties. The companies that charge penalties on late payments by their customers further indicated that such penalty clauses are clearly communicated to the customers. Further, this research established that review of the terms to cash with order, reference to debt collectors, suspension of supplies and reduction of credit limits are some of the other measures the companies use to coerce the customers to make payments as and when they fall due. The respondents indicated that these coercion strategies had helped the companies manage the risk of default payments to a large and moderate extent. Regression analysis results show that there is a positive significant relationship between late payment penalties and accounts receivable among manufacturing companies in Nairobi County.

Discounts

The study established that the most companies do not offer discounts as an incentive for timely payment in their credit terms. For the selected companies that offer discounts for timely payment, this study established that they offer trade (quantity) discounts, and cash discounts as incentives to credit customers. Respondents indicated that there was a flat rate discounts applied on all credit customers although a few of them indicated that this could vary with customer performance. Further, regression results depict a positive significant relationship between discount rates and accounts receivable of manufacturing companies in Nairobi County.

Conclusions

There exists elaborate credit policies in majority of manufacturing companies in Nairobi County which are reviewed and monitored from time to time. This study further concludes that the manufacturing companies do not have certain fixed credit periods. The companies which do not penalize defaulters lose some profits and the coercion strategies to make credit customers pay their dues are effective in reducing default risk. Credit policies include at minimum the four dependent variables; discounts, credit period, credit limits and late payment penalties. All these variables have positive significant relationships with accounts receivable of manufacturing companies in Nairobi County. In general therefore, credit policies have an effect on accounts receivable of manufacturing companies in Nairobi County and such policies should be formulated with care so as to reap the benefits that accrue by executing the policies and thus have quality debtors' portfolios that can boost performance.

Recommendations

This study established that credit policies affect accounts receivable among manufacturing firms in Nairobi County and that discounts, credit period, credit limits and late payment penalties which were used as proxies for credit policies have significant influence on the performance of accounts receivable. The study thus recommends that manufacturing firms should periodically review their credit policies professionally so as to

ensure that the benefit accrued from trading in credit are not outweighed by the associated risks. Specifically, credit periods, credit limits and discounts should be set within levels that will not impede business while at the same time minimizing the exposure of firms to inherent credit risks. For companies offering credit sales without a well-established policy, the study recommends that written policies should be established with clear cut guidelines on making relevant credit decisions in their ordinary business and purposely in the administration of the credit function. The study also established that late payment penalties assist companies in reducing default risk but it was not the only way used by the respondents to coerce customers to pay as per terms and thus recommends that companies should use penalties together with other ways like suspension of supplies with utmost care not to injure their business relationships with their customers.

Areas for Further Research

This study is not conclusive by any means. Future researchers ought to conduct a study to establish the other factors which contribute to that 19.75% of accounts receivable in manufacturing sector in Kenya. A larger population should also be considered across industries so as to make more comprehensive inferences on the effect of credit policies on accounts receivable. Studies that include both cross-sectional and longitudinal data are recommended to find out the effect of the credit policies on receivables over time and across different economic seasons.

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