

**IMPACT OF INTEREST RATES ON FIRMS' PERFORMANCE OF HEAVY
COMMERCIAL VEHICLE DEALERS IN KENYA**

BY

D61/87963/2016

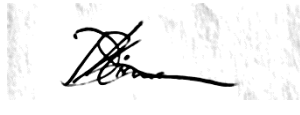
NYAKUNDI DIANA KEMUNTO

**A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER
OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY
OF NAIROBI**

NOVEMBER, 2021

DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

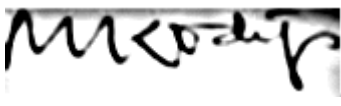
Signature... 

Date...05/11/2021.....

NAME: Diana Kemunto Nyakundi

D61/87963/2016

This research project has been submitted for examinations with my approval as the university supervisor.

Signed... 

Date..... 24/11/2021.....

Martin Khoya Odipo

Lecturer,

School of Business

University of Nairobi

DEDICATION

I'd like to give special thanks to Stanley Kalute, my husband, and my parents, Mr. and Mrs. Nyakundi, for their guidance, encouragement, motivation, and monetary support throughout the study.

ACKNOWLEDGEMENT

I'd want to express my heartfelt gratitude to my spouse, whose support and direction have allowed me to get thus far in my schooling. Furthermore, I would like to thank my colleagues and University of Nairobi instructors whose expertise and motivation have contributed to my academic success throughout my academic career. I would also want to express my heartfelt gratitude to my supervisor, Mr. Martin Odipo, for his guidance and support during the whole project development process, from start to finish.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
ABSTRACT	ix
LIST OF ABBREVIATION AND ACRONYMS	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Interest Rates.....	2
1.1.2 Firm Performance	3
1.1.3 Interest Rates and Firm Performance.....	3
1.2 Research Problem	5
1.3 Research Objective	6
1.3.1 General Objective	6
1.4 Value of Study	6
CHAPTER TWO: LITERATURE REVIEW.....	8
2.1 Introduction.....	8
2.2 Theoretical Literature.....	8
2.2.1 Liquidity Preference Theory	8
2.2.2 Loanable Funds Theory	9
2.2.3 Market Power Theory	10
2.3 Determinants of Firm Performance	11
2.3.1 Economic output	11
2.3.2 Levels of Inflation.....	11
2.3.3 Interest Rates.....	12
2.4 Empirical Literature	13
2.5 Summary of Literature Review.....	16
2.6 Conceptual Framework.....	17
.....	17
CHAPTER THREE: RESEARCH METHODOLOGY	18
3.1 Introduction.....	18

3.2 Research Design.....	18
3.3 Population of the Study.....	18
3.4 Data Collection	18
3.5 Data Analysis	19
3.5.1 Analytical Model	19
3.5.2 Diagnostic Tests.....	20
CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS	21
4.1 Introduction.....	21
4.2 Diagnostic Tests.....	23
4.2.1 Q-Q Plot.....	24
4.2.2 Multi-Collinearity test.....	24
4.2.3 Homoscedasticity	25
4.2.4 Auto Correlation	26
4.3 Paired T-test	26
4.4 Descriptive Statistics.....	21
4.5 Regression Analysis.....	26
4.6 Discussion of the Findings.....	28
CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS	30
5.1 Introduction.....	30
5.2 Summary of the Findings.....	30
5.3 Conclusion	31
5.4 Recommendations.....	31
5.5 Limitations of the Study.....	31
5.6 Suggestion for Further Studies.....	32
REFERENCES.....	33

LIST OF TABLES

Table 4.1 Multi-Collinearity	24
Table 4.2: Autocorrelation	26
Table 4.3 Paired T-test	26
Table 4.4 Descriptive Statistics.....	21
Table 4.5 Model Summary	27
Table 4.6 ANOVA	27
Table 4.7 Coefficients.....	28

LIST OF FIGURES

Figure 2.1: Conceptual Model	17
Figure 4.1 Q-Q Plot.....	24
Figure 4.2 Homoscedasticity	25

ABSTRACT

The objective and aim of this study were to establish the effect of interest rates on the financial performance of heavy commercial vehicle dealers. The study used a descriptive research design. The data was collected from two years before and after the announcement of interest rate capping, i.e., between 2014 and 2018. Data on sales volumes were obtained from the National Transport Safety Authority (NTSA) database by collecting data on the number of annual registrations for heavy commercial vehicles. The use of inferential statistics and descriptive statistics evaluated data. From the regression analysis, it was determined that 56.2% of the variation in sales volume of heavy commercial vehicles in Kenya could be explained by interest rate, inflation rate, and GDP as predictor variables. Findings from the regression analysis further pointed out that a model fit with the interest rate, inflation rate, and GDP as predictor variables was statistically fit to predict the sale volumes of heavy commercial vehicles in Kenya. From the regression coefficients, it was established that inflation level and interest rate had a positive impact on sales volume of heavy commercial vehicles as shown by the beta values of 0.040 and 0.220 respectively. GDP was also established to have a positive influence on sales volume as shown by the beta value of 0.307. The study recommends that various car dealers should appeal to various stakeholders to have policies and programs that would ensure that they come up with interest rate capping that is favorable to their consumers. These dealers should also ensure that they offer financing solutions that are attractive to their customers so that they don't solely rely on financing from financial institutions which could be unattractive at times. The study also recommends that the government through the CBK should come up with measures to ensure continuous growth of the economy and hence an increasing GDP. The CBK should also come up with measures to mitigate the rising levels of inflation and interest rates. This would ensure that the economy does not suffer from the adverse effects of bad interest rates and high levels of inflation.

LIST OF ABBREVIATIONS AND ACRONYMS

IOMVM	International Organization of Motor Vehicle Manufacturers
KPI	Key Performance Indicators
GDP	Gross Domestic Product
CBK	Central Bank of Kenya
ICPAK	Institute of Certified Public Accountants of Kenya
MFI s	Micro Finance Institutions
KCB	Kenya Commercial Bank
SPSS	Statistical Package for Social Sciences
NTSA	National Transport and Safety Authority

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Over time, studies have shown that the sales revenue of a company is directly dependent on the interest that the company accrues, and this is influenced by a myriad of factors. According to Ingram, LaForge, Williams, and Schwepker (2015), the volume and proportion of sales depict the standards of operations in a company. Munguti (2015) argues that interest rate controls appear to distort the economy and thus generate market biases. Caps could also contribute to firms opting to lend to the government, which is perceived to be a low risk that extracts money from the public and renders the situation unprofitable. High-level caps do not tend to impact the market and can help to restrict abusive practices by formal lenders. The usefulness of caps is also undercutting using interest-free fees and commissions. Binding limits set far below market levels will reduce its overall supply of credit (Kimani, 2018).

The theories underpinning this study include liquidity preference theory, loanable fund theory, and market power theory. Liquidity preference theory by Keynes (1936), is relevant to the study since the firm will stipulate the relevance of increasing liquidity through assessing different ways of investing through loans and adaptation of different strategies in ensuring that profit is maximized through liquidity hence the firm performance. The loanable funds theory by Wicksell (the 1930s), illustrates more on the interest rates capping and the roles of the borrower and the lender in ensuring the sales volume of the heavy commercial vehicles sales business. Market power theory propounded by Bain (1951), is relevant to the study since it shows the importance of market power in the introduction of interest capping and hence increases the firm performance. The theory illustrates the role of the firm in ensuring that they maximize profits through interest capping.

The motivation to conduct this study since the motorization rate in Kenya now stands at 28 vehicles per 1000 individuals. This is set to increase as vehicle ownership in Kenya is set to be on the rise and therefore the firms investing in Kenya are likely to make more sales in the motor industry and therefore there is the need to understand how this demand for business fleet purchases will be directly influenced and impacted by the interest rate caps both at the micro and macro level. It is also important to note that interest capping affects

both the buyers of these vehicles as they borrow to buy and the lenders who provide the funds for these investments. The study will in turn set out to study the effect of the interest rate caps on the sale of these heavy commercial vehicles.

1.1.1 Interest Rates

According to Kimani (2018), the interest rate is a charge that refers to current demands on resources in comparison to future claims on resources. It is the cost a borrower pays to be able to utilize resources right now. This indicates that the interest rate is the fee that a creditor pays to create present consumption to profit from future resource use. Price changes are expected in the actual world, and this expectation is a component of the process that decides interest rates (Keynes, 2018). According to Maimbo and Gallagos (2014), the use of interest rate models is majorly motivated by economic and political interests especially in many areas facing different money challenges. Financial power and money control are imperative in maintaining the balance. As a result, the interest rates promote mechanisms of short-term credit among consumers or borrowers in the economy (Miller, 2013).

Other scholars such as Kiseu (2014) suggested that interest rates indicate the borrowing costs of capital over a specific period. Because loans are a substantial form of financing for many firms, current interest rates are of great importance to many firms because of interest rate caching in some financing arrangements; interest rates continue to influence a firm for the entire period that the borrowing structure is exemplary (Keynes, 2018). With effective interest rates, consumers can access credit at various rates, thus promoting competition in the market (Nganga, 2017). This is why it has been argued that the set rates are vital to the stability of financial markets and work towards a severe reduction in the margin between the level of the money borrowed and the money received from different customers, hence the interest rate caps are a form of interest rate derivative in which the purchaser collects payments at the end of any cycle in which the interest rate reaches the negotiated strike price (Miller 2013).

1.1.2 Firm Performance

Performance refers to the actual output from the programs of a firm. There are two types of performance. This includes financial and non-financial performance. Non-financial performance is measured in terms of employee motivation, the morale of the workers as well as terms of the company's reputation and brand image. Financial performance, on the other hand, is a measure of a firm's change in the financial condition or the financial outcomes that follow from management choices and the implementation of those decisions by members of the company. Its consequences are not universal, but rather rely on the organizational environment; hence, the measurements used to describe the performance of a certain organization are chosen depending on the conditions of the company being assessed. Financial success is frequently assessed using ratios such as return on equity, return on assets, return on capital, and return on sales, as well as sales volume. The sales volume is vital in accounting calculations to help investors see if the business is contracting or expanding and later used to alter investments in the target areas. The total output produced and sold at a given time must be considered in calculating the value of sales (Wambari & Mwangi, 2017).

In many organizations, performance is measured in terms of profitability and sales volume. The sales volume may include the number of clients who have requested services from an organization, or the quantity of stock-keeping units (SKUs) sold within a specified period (Anon, 2019). Bragg and Bragg (2018) define sales volume in terms of the units that are sold during a reported period. The number of units is mentioned by the investors to see if the business is making any progress and uses the information to alter different investments. This means that sales volume is the volume of goods sold in the number of units or figures during the standard operating times of a company and it also covers the value of products produced and sold by the firm or an organization within a given time (Irungu, 2013). In this study, the sale volumes will be the unit of measuring performance and it will portray the quantities of products sold in terms of the vehicles.

1.1.3 Interest Rates and Firm Performance

The introduction of interest rates affects both the banks and the customers involved; this is because both are influenced by its adoption (Ferrari, Masetti & Ren, 2018). The financial institutions are majorly affected by the interest rate charged since it influences their

performance through partial payments by the customers. Positive Interest rates (lending over inflation rates) are viewed as a prerequisite for the successful and sustainable financial performance of companies (Irungu, 2013).

Without poor interest rate regulations, market biasness became a major problem in the economy, since the lenders are facing a variety of risks by dealing with the borrowers (Gallegos, 2014). Administering huge loans by the financial institutions ensures the gaining of massive interest which when invested adequately will contribute to the sales volume of the firm. An introduction to interest caps reduces the profits of the financial institution since it gives the borrowers a leeway of paying the interest partially which affects the sales volume since the investments are delayed (Kavwele, Ariemba, & Evusa, 2018).

The various research provided the importance of the interest rate ceiling framework. It applies to the rules regulating interest rate rises for variable-rate credit items. Interest rate levels, inflations, and economic outlook have been instrumental in the performance of companies in the economy. A creative taxonomy classifies the interest rate limit according to the following characteristics: reach, several ceilings, form, methodology, benchmark, binding, and fees (Ferrari, 2018). Generally, it also is the number of products sold by a firm within a specified duration, such as a week, month, or year. The conclusion derived from studies indicates that a high-interest rate reduces the performance of companies since it discourages consumers from borrowing, hence no money circulation in the economy.

According to Okwany (2018), there is a negative impact between interest rates and firm profitability. Ngari (2013) opined linear correlation between bank interest and performance. Kipnegtich (2011) studied the effect of interest rate on bank performance, the study stated that interest rate has negative effects on profitability. Ngari (2011) concluded that high financial achievement by commercial results from interest charges. The previous studies did not provide more insight into this research. This research endeavors to study the impacts of interest capping on the sales volume of the firms. Previous research fails to consider interest rate influence on the performance of heavy commercial vehicles and this study aim to determine this phenomenon.

1.2 Research Problem

The interest rate is the cost a borrower pays for the usage of money borrowed from a lender/financial institution, as well as the charge paid on loaned assets (Irungu, 2013). It is crucial to a capitalistic culture and is generally given as a percentage rate over a year (Sayedi, 2013). The interest rate charged has an effect on the banks as well as the consumers involved; this is because they are all impacted by their adoption (Ferrari, Masetti & Ren, 2018). Financial institutions are mainly affected by the high-interest rate charged, since they influence their performance through partial payments by customers, while customers are advantageous by the low-interest rate charged since it reduces the pressure of credit payments due to accumulated interest (Amuhinda, 2018). This, therefore, causes market bias and therefore destroys the market balance.

According to the CBK (2017) press release, most banks levy high-interest rates and an exorbitant amount of money in interest charges on business leaving most of them overburdened by credit costs and many of them unwilling to do business due to the cost of business being not affordable. The interest rate charged has also been a means of taming predatory practices that give certain economic sectors abnormal profits and undue advantage of their competitors. The interest rate charged also determines the performance of a firm (Ngure, 2014).

The effect of regulatory practices has been noted among firms selling cars in terms of second-owner management. This is evident among many car dealers in Nairobi Kenya. It has been noted that the contribution of the motor industry to economic development in Kenya is high and there are continuing binding constraints that have severely constrained and limited their potential growth in the past (Lithaa, 2014). The findings conclude that policy has a crucial effect on the growth of second-hand car dealers as well as on the promotion and growth of this sector.

Accordingly, there is a gap in the past analysis and literature as regards the research on the interest rate charged and the performance (number of sales) of heavy commercial vehicles in Kenya, provided that previous studies have concentrated on other industries. Also, the use of old data may lead to imprecise findings which are not meant to lead to conclusions. This is due to a change in economics over time due to technological advancement. The preceding research done internationally did not concentrate on the effect of interest rates

on the performance of the firms. Furthermore, the different cultural diversity and economic status of other countries, therefore their research cannot represent Kenya. Thus, the following research question is therefore explored: What is the effect of interest rates on the performance of heavy commercial vehicles in Kenya?

1.3 Research Objective

1.3.1 General Objective

- i. To determine the impact of interest rates on firms' performance of heavy commercial vehicle dealers in Kenya

1.4 Value of Study

For the management of heavy commercial vehicle companies, the analysis will provide useful awareness of the impact of the interest rate controls on the overall performance of the company, which will show the owners of the company how the interest rates affect commercial goods manufactured for sale at convenient market prices without causing losses. In addition, the study will provide meaningful insight to the company on how to maintain profitability while availing the needs of their clients and also maintaining the ultimate sales volume or performance that would increase their visibility across the market divide. The management will also be alerted to the different trends that exist due to the effect on the interest rates and be able to adjust their actions in a bid to obtain meaningful performance.

To the body of knowledge, the study will aim at identifying and highlighting the existing knowledge gaps that might require in-depth research to ascertain the required adjustments that need to be put in place to give scholars an understanding of the prevailing facts at play. The research would also bring fresh information from the sector to the body of knowledge to add new knowledge to the existing information. The study will also boost the level of awareness on the subject matter by exposing the new ideas that may be extremely meaningful to the topic under study.

For policymakers in the industry, the study would help to develop all-inclusive policies that will aim to address the needs of key players in the industry in a detailed manner. In addition, the study would create policies that provide meaningful insight into the modification of the systems in place to make the required adjustments needed to increase

the number of sales of people in the industry. The study will also ensure the policies of the firm cater to the need of the shareholders of the company and other players that engage with the company.

In praxis, the study will enhance the involvement of the public in issues that affect the industry directly. This would give them an understanding of the prevailing market conditions and therefore make them more receptive to the changes that the industry will go through in a bid to maintain its position of influence while also catering to the need of their clients and meaningful stakeholders who have a direct impact to the effective running of the day-to-day activities that the company seeks to fulfil as a way of maintaining market relevance and output or performance thus due advantage.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The following segment illustrates the past writings and reviews on the topics. Firstly, theoretical foundation, secondly the determinants of sales volume, thirdly, empirical review, fourthly, a summary of the research gaps, and finally the conceptual framework. Both local and global research is contained in the following study.

2.2 Theoretical Literature

The following theories are discussed since they give insight into the study topics. The theories include liquid preference theory, loanable fund theory, and the market power theory. The importance of the theory to the subject of the analysis will be explained.

2.2.1 Liquidity Preference Theory

This theory was put founded by a well-known scholar, John Maynard Keynes in 1936, describing the theory as required by investors who need long-term investment and prefer cash and highly liquid holdings. Money is the main term of exchange in comparison to any other commodity in this theory and investors tend to ascribe to long-term investments since they entail a lot of cash put at stake (Keynes, 1936). According to Tobin (2019), decision-making is important in defining sales volume since it depicts the relationship between the demand for cash balances and the interest rate. Increasing the liquidity by the firm, through coming up with a variety of products such as the increase of interest rate and introduction of interest capping by the leaders, will increase the rate at which the borrowers are paying for the loans they are getting hence maximization of profits by the firm, therefore performance. As a result of market demand, companies are increasing the interest rate to borrowers, and most borrowers are taking advantage of interest limits, thus the firm's profitability.

However, the theory has some shortcomings. The theory faces a lot of critics from (Keynes, 1963), firstly, the failure in adjusting the levels of income change and assuming a constant liquidity preference is a critique. Secondly, the theory only focuses on money as the only liquidity preference and ignores other real factors, such as capital and marginal productivity among others. Thirdly, the fact that the theory only focuses on is the investors gaining interest by giving out liquid cash but fails to bring the aspect of saving as a way of gaining

cash. Fourthly, the theory goes contrary to the observed facts, this means that, during inflation, the rate of interest tends to vary, it can go up or down but still the investor will just gain the constant interest they had agreed with the financial institutions.

The theory is suitable for the study since it pinpoints the relevance of money in ensuring that the performance of a firm is increased through the liquidity of money. It explains a variety of ways that a firm might use in ensuring that the firm performance is enhanced through liquidity preference. The importance of adopting interest capping and increasing interest rates is confirmed using the following theory. By using the theory, the firm will stipulate the relevance of increasing liquidity through assessing different ways of investing through loans and adaptation of different strategies in ensuring that profit is maximized through liquidity hence the firm performance

2.2.2 Loanable Funds Theory

This model was put forward by Knut Wicksell in the 1930s. It states that lenders and borrowers are providers of the balance of the funds that can be given as loans as well as the rate of the demand and supply levels in the market. The interest rate, therefore, includes the demands of the borrowers and the supply of loans to the lender, which are expected to be equal. However, some of the clear items of monies that can be given as loans in firms include the provision of bonds, customer savings as well as deposits, and other credit facilities. Turnovsky (1985) at the same time refers to the circulation of money and availability to determine the loans available in the market. This is because the money available and the demand determine the consumption and investment rates of the bank. This is imperative in promoting and improving the firm's efficiency. Interest disagreement between the borrower and the lender is possible in the calculation of the interest rate, because the borrower needs a low-interest rate because of affordability, whereas the lender requires a high-interest rate to maximize the profits generated. The increase in the loanable fund is directly linked to the increase in the interest rate, the market factors being the primary determinant of the interest rate.

The theory faces critics since it depicts that not all the time interest capping can take place; therefore, it illustrates the instances in which the interest capping does not apply. Also, in the case of free-market supply, interest capping is not applicable since the interest rate is reduced, therefore reducing the performance of the firm (De Quidt & Ghatak, 2018). The

free financial market economy promotes the self-adjustment of demand and supply; therefore, the introduction of interest capping rate will be problematic to these forces.

The Loanable Fund Theory is important to the inquiry since it explains more about interest rate caps and the role of the borrower and lender in ensuring the sales volume of the heavy commercial vehicle sales sector. It also illustrates how banks can use rates in determining their ability to provide viable investments and loans. Loanable funds theory is important to them in the determination of sales volume and interest capping since it illustrates the importance of interest rate and firm performance.

2.2.3 Market Power Theory

The theory was propounded by Bain in 1951. It focuses on the market power as a determinant of increasing the monopoly in the market sector through an increase in the market share hence performance. An increase in the market share, makes a firm perform more since it possesses the most loyal customers, hence they are prone to increase their prices for increasing their performance (Bain, 1951). Offering a variety of products by the firm makes them more competitive hence increasing their performance, therefore market power is relevant in assessing the effect of interest capping. Banks' performance is determined by a variety of ways in which they are going to manipulate their resources through investments, market power is a determinant in this case. The financial institution with a high market share is prone to come up with a variety of products in which they are sure that the customers will adopt due to the popularity and trust they have gained over a given period by the customers. In this case, interest capping adoption by the firms with market share is likely to increase their performance (Emmanuelle, 2003).

The criticism on the market is on metrics defining the market power which is traditional and cannot fit the current digitized market. Moreover, the winner takes its approach is problematic since it bases its supposition on the stable market, healthy competition, higher profits than opportunity cost. The firms' approach of mergers and acquisitions can provide economies of scale and chart the longevity development. The relations involving each component are contrary to directional, deductive, and stochastic. The government can interfere by attacking each component

The above theory is suitable to the study since it shows the importance of market power in the introduction of interest rate g and hence increases the firm performance. The theory

illustrates the role of the firm in ensuring that they maximize profits through interest capping. The theory illustrates the importance of increasing market power as the main determinant of the introduction of interest rate, firms should use the theory in enabling them in increasing performance. By using market power as an advantage, the implementation of the usage of the interest cap is important since the firm will increase its sales volume through the exploitation of its competitive advantage. Block and Somers (2014) critiqued the theory since it explains that only market power can increase the performance of financial institutions by the introduction of a variety of products that will maximize their profits, it fails to address the fact that other factors increase the performance of the firm rather than market power only. Factors such as the strategies implemented by the management, board governance, and board diversity are important in improving performance. Also, the theory applies to the firms that are already established, which accrue their performance increase due to the market power but does not apply to the unestablished firms.

2. 3 Determinants of Firm Performance

In this section, the following will be discussed, and the determinants of performance will be illustrated based on the study topic. The following determinants will be discussed, economic output, level of inflation, and interest rates. All the determinants will be related to the study topic.

2.3.1 Economic output

Economic output is the amount of a product that can be produced by a business, industry, or economy over a restricted period ("Output," 2020). Gross Domestic Product is one of the best instruments to measure aggregate financial efficiency. Because of the potential for greater earnings from a good company climate, heavy commercial vehicle sales may increase if there is an upward movement in GDP. On the other side, a sales drop is probable when GDP is on a downward trend. Transporters tread cautiously when GDP contracts and reduce their spending. This, in turn, will negatively affect the company sales volume, thereby exerting greater downward pressure on the sales (Leon et al, 2008).

2.3.2 Levels of Inflation

Inflation is characterized as a rise in commodity prices on the market due to the accumulation of excess money in the economy ('Inflation,' 2020). Inflation affects the

economy since the goods are accrued more value and hence become very expensive, making the money to be inadequate. Chioma and Clementina (2014) conducted a study in Nigeria for determining the effect of inflation on the loan uptake in determining sales volume. The study observed that, during inflation, the financial institutions, are failing in maximizing the profits, since the interest rate that they are supposed to obtain from the loan they gave has reduced its value. Therefore, they end up getting losses due to inflation. Coming up with interest capping will act as a shock absorber during the inflation period, because of ensuring profit maximization hence sales volume.

2.3.3 Interest Rates

The interest rate is the amount charged by a lender to a borrower and is expressed as a percentage of the principle, which is the amount lent (Miller, 2013). The annual percentage rate on a loan is often indicated on an annual basis, and an interest rate always pertains to the amount generated by firms, which defines their total success. This is because when there are low-interest rates, there are many borrowers and more money among consumers to purchase from companies (Mutindi, 2017).

Ng'ang'a (2017) investigated the law on interest rate limits and the impact it has on the sales volume of various banks in Kenya. The findings and results of the inquiry showed that the interest rate of the capped legislation is harmful to the sales volume of commercial banks. This is because of policy set aside by the government which was not efficiently revised for improving the sales volume and firm performance (Kipngetich, 2011).

The interest rate is the cost a borrower pays for the usage of money borrowed from a lender/financial institution, as well as the charge paid on loaned assets. Interest is a fundamental component of a capitalistic society and is typically expressed as a percentage rate over a year (Sayedi, 2013). The interest rate, as a money price, represents market information about the predicted change in the buying power of money or future inflation. Interest rates are determined by macroeconomic variables, which are the study of the overall behavior of the economy, such as total output, income, employment levels, and the interdependence of various economic sectors (Karl, Ray, and Shannon, 2009).

2.4 Empirical Literature

Maibo and Gallegos's (2014) study carried on interest rates management around the world was conducted in London. The research tried to assess the effect of interest cap power limits on the global sales volume of companies. A total of 76 countries were examined out of the total number of countries around the globe. The countries represented were from every continent. The study adopted the secondary data collection technique in assessing the following countries, the data was sourced from the records in which the institutions had from the last ten years. Each country had a representative of one institution. The data were analyzed using different analysis models. The results suggest that the interest rate limits were counterproductive to the institution's sales volume. In conclusion, the study recommends the adoption of other ways of increasing the sales volume rather than the adoption of the interest rate caps.

Poudel (2014) researched the effect of interest caps on the sales volume of banks in Nepal. The study sought to examine whether the uptake of credit was influenced by interest caps, thus increasing the performance of the banks. The study followed both primary and non-field data collection methods, with a total of 31 banks participating in the study. For secondary data, it was taken from the financial reports of the Banks in Nepal, which ranged from 2010 to 2013. The primary data collection method involved the administration of questionnaires to respondents via a drop and select procedure, with the workers of the banks being the key respondents. The results indicate that the interest capping harms the sales volume; this is because it discourages the customers from taking the loans. The study concluded that banks should discourage interest capping which will later encourage credit uptake hence increasing the number of loan uptakes.

Islam, Porporato, and Waweru (2014) studied how cost proportions influence the resource power of small organizations in Bangladesh. The study included interest variables in the analysis. The inquiry adopted different methods of gathering data from 2010 to 2013, especially the analysis of the financial reports of the small firms. The primary data collection method includes the administration of the questionnaire by drop and picks to the employees who served in the bank below. A total of 50 team members were involved in the report. The results suggested that the interest rate capping had a positive impact on the productivity of the banks in Bangladesh, owing to the rising number of customers taking

up the loan. In conclusion, the study proposed that banks around the world should use the results of the study to assess the effect of interest caps on sales volumes.

Adair and Berguiga (2015) researched the adoption of Interest capping by the MFIs in Tunisia and the effects it has on the sales volume. The study sought to determine the effect of the adoption of interest caps by the Tunisian MFIs and the influence of their sales volume. The research included data between 2014 and 2015. Data were analyzed employing inferential and descriptive statistics; the results being displayed as a percentage. The results showed that the introduction of interest caps has a positive effect on the sales volume of the banks. It is therefore advised that management should come up with steps to ensure that interest caps are implemented to improve the output of firms.

A study by Okwany (2017) investigated the effect of interest rate limits on the sales volume of various banks in Kenya. The analysis sought to assess the effect of interest levels on the productivity of banks. The study followed an explorative research design whereby the study population was the employees of the KCB bank only. The descriptive research design was adopted whereby the primary data collection technique was used. Sixty employees who work at the KCB bank headquarters were administered the questionnaires through the drop and pick technique. Data were analyzed via the uses of SPSS and Microsoft Excel whereby the findings were depicted inform of pie charts, graphs, and bars. The findings indicate that the interest capping harms the sales volume of the bank, this is because the interest capping reduces the credit uptake, hence reducing the number of loan borrowers. The study suggests that further research should be carried out to assess the impact of interest caps on informal loans and the number of sales to banks.

Amuhinda (2018) researched the effect of interest rate limits on the performance of banking firms in Kenya. The study sought to develop the connection between the capping of interest rates and the sales volume of commercial banks in Kenya. Descriptive research design has been implemented and both primary and secondary data collection approaches have been used. The study focused on a total of 36 commercial banks in which 6 of the commercial banks are not registered. The survey tools were administered by the drop and pick technique. Primary data was taken from the bank's annual financial reports, which span from 2015 to 2017. Data were later analyzed through inferential and descriptive statistics, whereby SPSS version 16 was used. According to the findings, when the interest rate

capping was introduced, it led to the increase of the credit uptake, this means that the number of loan uptakes by the borrowers also increased. The study recommends that the financial institutions should adopt the interest rate capping which is responsible for improving the sales volume due to the increase of the loan borrowers who are ascribed in paying the loans.

Kavwele and Evusa (2018) investigated the impact of interest limits on the performance of banks in Kenya. The study aimed to assess the effect of interest caps on the sales volume of banks. The research followed a secondary data collection methodology focused on the annual reports of commercial banks from 2015 to 2017, where data was analyzed using descriptive statistics. Multiple regression and paired t-test samples were used to evaluate the relationship between the variables. The results suggested that the interest rate capped harmed commercial firms in Kenya. The study, therefore, recommends that the interest cap rate be made affordable to ensure that the performance of commercial banks is increased. This can be achieved through the implementation of management strategies.

Imbo (2018) examined how interest rates affect the profitability of banks in Kenya. The study aimed to decide whether the law on interest rate caps affects the output of banks in Kenya. The study adopted a secondary data collection method, which has been derived from annual reports from various banks in Kenya over the last three years. The data were evaluated using content and descriptive statistics, where the results were seen in percentage terms. The study's results show that after the implementation of the interest rate capping law, the volume of sales increased due to a rise in the number of rises in borrowers. The following suggestion was proposed by the researcher that the government should introduce policies to ensure that interest rate limits are encouraged, thereby raising the number of loans taken up by the banks.

Ng'ang'a (2017) investigated the effect of interest rate limits on the performance of banks in Kenya. The study sought to decide if interest rate caps affect the sales volume of banks in Kenya. The thesis took a descriptive style of research that included a total of 42 banks in the study population. The secondary data collection technique used was derived from the bank's financial reports, which existed between 2014 and 2016. The following results have shown that the interest cap rate has had a positive effect on the number of transactions as more borrowers tend to use interest rate limits. The study suggested that the

implementation of the interest cap rate is central to enabling the efficiency of the financial institution and that policies be introduced by the management to increase the interest cap rate technique for the achievement of the loan.

Business Daily (2021) illustrated that interest rate capping removal did not entice borrowers. The study concentrated on SMEs in Kenya. Odhiambo (2019) opined that interest rate limits the firm's efficiency. The study utilized descriptive statistics and recommended the need for consideration on the interest adoption caps.

2.5 Summary of Literature Review

Numerous studies have been performed that concentrate on the impact of interest rates on sales volumes and how this has impacted business efficiency. Most of the results have clearly shown that interest caps have a major role to play in affecting company revenue volumes. On the impact of interest rate limits on sales volumes, several recent studies have found contradictory results. Some results indicate a positive association between interest limits and sales volumes, while others show no relationship between the two.

However, there is a gap in the literature as regards the research on interest rate caps and the number of sales of heavy commercial vehicles in Kenya, given that previous studies have concentrated on other industries. Furthermore, the use of old data could lead to imprecise findings that are not intended to lead to conclusions. This is due to a shift in the economy over time due to technological development.

2.6 Conceptual Framework

Interest capping is directly related to the sales volume of the firms, this is because of the increase of the loan uptake among the customers. Which in turn leads to profit maximization, hence increasing the performance.

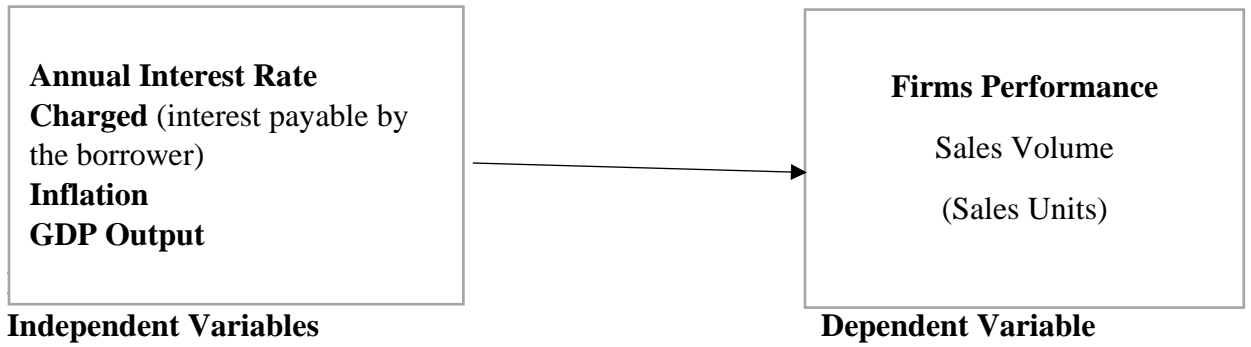


Figure 2.1: Conceptual Model

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this section, the following methodology was followed to conduct the study. The following sections were incorporated in the section, firstly, the research design, secondly, the population of the study, thirdly, data gathering, and finally data analysis.

3.2 Research Design

According to Mugenda & Mugenda (2003), the research design is the strategy utilized by a researcher to solve the research problem. The study design chosen typically allows the researcher to prepare ahead of time how they will tackle the problem. The descriptive research design will be used in the following investigation. According to Kothari (1990), a descriptive research design is a technique that includes descriptive data collection, the use of descriptive research instruments, and descriptive data analysis to answer the research question. The descriptive research design was used in the study for the following reasons: it ensures accurate data collection, depicts the findings clearly, allows in-depth research to be conducted after data collection, and finally using descriptive research design, the study efficiently gathers data from a large population.

3.3 Population of the Study

Creswell (2017) defined a population study as a group of individuals or objects that are selected by the researcher which is related to the study topic. The population of the study will be drawn from secondary information obtained from the National Transport and Safety Authority (NTSA) heavy commercial vehicles registration database (annual figures). The registrations indicate the dealers and the number of vehicles sold between 2014 and 2018.

3.4 Data Collection

The research adopted a document analysis of the data collection process from which the data was extracted from the annual reports of the National Transport and Safety Authority (NTSA) database. This process is clear, simple, and helped to manage the data gathered reasonably. It also strengthened and facilitated the study through the provision of additional research data analysis publications. The data was collected from two years before and after the announcement of interest rate capping, i.e., between 2014 and 2018.

Data on sales volumes were obtained from the National Transport Safety Authority (NTSA) database by collecting data on the number of annual registrations for heavy commercial vehicles.

Economic output data, annual interest rates, and annual inflation rates were obtained from the Central Bank of Kenya database by obtaining annual GDP percentages, annual interest rates, and annual inflation rates.

3.5 Data Analysis

The use of inferential statistics and descriptive statistics evaluated data. Descriptive statistics shall be displayed in the form of graphs and tables. A multiple linear regression model presented inferential statistics.

3.5.1 Analytical Model

The analytical model was adopted in the data analysis since it depicted the findings clearly, the analysis developed enabled the findings to be broken down into small sections for clear definition. Using the multiple linear regression model of analysis, the study used the social science statistical software analytical package (SPSS) version 2.0 to analyze the data collected. Regression analysis provides estimates of the value of the study parameters (Creswell, 2013).

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

Where:

Y = Firms' performance measured by annual unit sales

X₁ = Annual interest rates (data to be obtained from the CBK website).

X₂ = Economic output measured by the percentage of GDP (data to be obtained from the CBK website).

X₃ = Annual inflation level (data to be obtained from the CBK website).

a = constant term

$\beta_1, \beta_2, \beta_3$ = Beta coefficients

ε = Error term

3.5.2 Diagnostic Tests

To determine the presence of any abnormalities, diagnostic tests were performed on raw data. Normality tests were carried out to determine whether the data is well-modeled by the normal distribution and to calculate how probable it is that the random variable underpinning the data was naturally be distributed. Multicollinearity tests were performed to determine if, with a significant degree of precision, the predictor variables can be predicted linearly from the others. Autocorrelation tests checked where error terms are transferred from one time period to another in a time series. Homoscedasticity, on the other hand, checked for homogeneity of variance i.e. if all its random variables have the same finite variance. Linearity tests evaluate whether a change in the independent variables causes the dependent variable to change proportionately. The study also conducted significance tests which include T-tests and F-tests. F-tests of overall significance indicated whether the linear regression model is better suited to data than a model that does not contain any independent variables. T-tests are statistical hypotheses that were used to analyze one or two means of sampling.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This study was carried out to investigate the impact of interest rates on firms' performance of heavy commercial vehicle dealers in Kenya. Specifically, the study looked into the annual interest rate, levels of inflation, and economic output and their influence on the performance of heavy commercial vehicles. This chapter focuses on data analysis, interpretation, and presentation by presenting a discussion of the diagnostics tests, descriptive statistics, regression analysis, and discussion of the findings. The study covered 5 years from 2014-2018.

4.2 Descriptive Statistics

Descriptive statistics is a broad term given to the basic analysis of data that enables data to be summarized in a meaningful way. Through such a summary a researcher can be able to look into patterns that are present in the data to help describe the data in a simpler way. Among the descriptive statistics that the study explored include minimum, maximum, mean, and standard deviation. The minimum statistic showed the lowest value in the data set while the maximum statistic showed the highest value in the data set. The mean was used to show the average value of the data set while the standard deviation was utilized to show how far each data point deviated from the mean in the sample data that was utilized. Findings from the study are presented in the table below.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sales	60	4.754	7.002	6.31275	.547926
GDP %	60	4.400	7.200	5.61000	.718685
Inflation	60	3.730	11.700	6.49533	1.628533
Interest rate	60	12.510	18.300	15.19483	1.839247
Valid N (listwise)	60				

Source: (Secondary Data, 2021)

From the descriptive statistics table, it was revealed that the mean for performance was 6.312 and it had a standard deviation was 0.5479. The inflation rate had a mean of 6.4953 and a standard deviation of 1.62853. The interest rate had a mean of 15.1948 and a standard deviation of 1.83925. GDP had a mean of 5.61 and a standard deviation of 0.718685.

4.3 Correlation Analysis

The researcher conducted Pearson correlation analysis to determine the direction, strength and nature of the relationship between the variables of the study. Pearson's Product Moment Correlation (r) is a measure of the linear dependence (correlation) between two variables and can give a positive or negative value of their relationship. with the correlation coefficient (r) ranging from -1.0 (perfect negative correlation between the variables) and +1.0 (perfect positive correlation between the variables. Therefore, the close r is to zero (0), the weaker the correlation between the two variables.

Table 4.2 Correlation Analysis

		Sales (natural log)	GDP	Inflation	Interest
Sales (natural log)	Pearson Correlation	1	.181	-.031	.669**
	Sig. (2-tailed)		.166	.815	.000
	N	60	60	60	60
GDP	Pearson Correlation	.181	1	-.595**	-.206
	Sig. (2-tailed)	.166		.000	.115
	N	60	60	60	60
Inflation	Pearson Correlation	-.031	-.595**	1	.123
	Sig. (2-tailed)	.815	.000		.349
	N	60	60	60	60
Interest	Pearson Correlation	.669**	-.206	.123	1
	Sig. (2-tailed)	.000	.115	.349	
	N	60	60	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

Source: (Secondary Data, 2021)

The correlation matrix indicates that there is a statistically significant relationship between interest and sales (natural log) ($p < 0.05$, $r = 0.669$). We thus reject the null hypothesis that there is no relationship and conclude that there is a statistically significant relationship

between inflation and sales. However, we accept the null hypothesis that there is no statistically significant relationship between GDP and sales (natural log) ($p > 0.05$, $r = 0.181$). We thus conclude that there is insufficient support to reject the null hypothesis. Finally, we accept the null hypothesis that there is no statistically significant relationship between inflation and sales ($p > 0.05$, $r = -0.031$). Finally, there is a statistically significant negative relationship between GDP and inflation ($p < 0.05$, $r = -0.595$).

4.4 Diagnostic Tests

The data collected for the study underwent various diagnostic tests which included: normality test, multi-collinearity test, autocorrelation, homoscedasticity. Normality tests are important because they assess if a sample is drawn from a normal distribution. The study tested for normality using the Q-Q plot. In a Q-Q plot, data is assumed to be normally distributed if it is clustered around the horizontal curve.

The multicollinearity test is used to check if there is a correlation between the variables. This aids in determining if there is an association between the variables that are strong enough to have the predictor variables predicted linearly from the others. The study utilized the Variance inflation factor (VIF) to check for multicollinearity. VIF values greater than 4.0 act as an indication that multicollinearity exists and could cause a problem for variables that could be predicted from one another. An autocorrelation test will check where error terms are transferred from one-time period to another in a time series. The study utilized the use of the Durbin Watson test to check for autocorrelation. The test takes values of between 0 and 4. The test values that range from 0 and less than 2 indicate positive autocorrelation and values above 2 and less than 4 indicate negative autocorrelation. Test values close to 2 or equal to 2 indicate the absence of autocorrelation in the data. Homoscedasticity on the other hand will check for homogeneity of variance.

4.4.1 Q-Q Plot

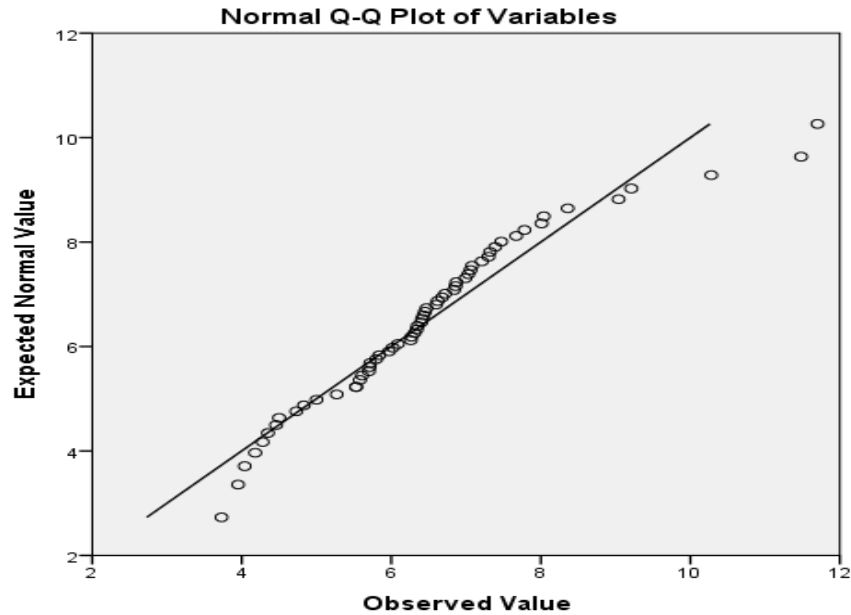


Figure 4.1 Q-Q Plot

Source: (Secondary Data, 2021)

From Figure 4.1 it was evident that the data utilized for the study was drawn from a normal distribution. This was because most of the data points lied on or close to the best line fit for a normal distribution with only a few points having a significant departure from the normal distribution.

4.4.2 Multi-Collinearity test

Table 4.1 Multi-Collinearity

Collinearity Statistics		
	Tolerance	VIF
Interest rate	0.958	1.044
Inflation Rate	0.646	1.547
GDP	0.628	1.591

Source: (Secondary Data, 2021)

From the collinearity statistics, it was established that all variables had a VIF value that is below 2. This was an indication that correlation didn't exist between the variables and thus one variable could not be used to predict another variable.

4.2.3 Homoscedasticity

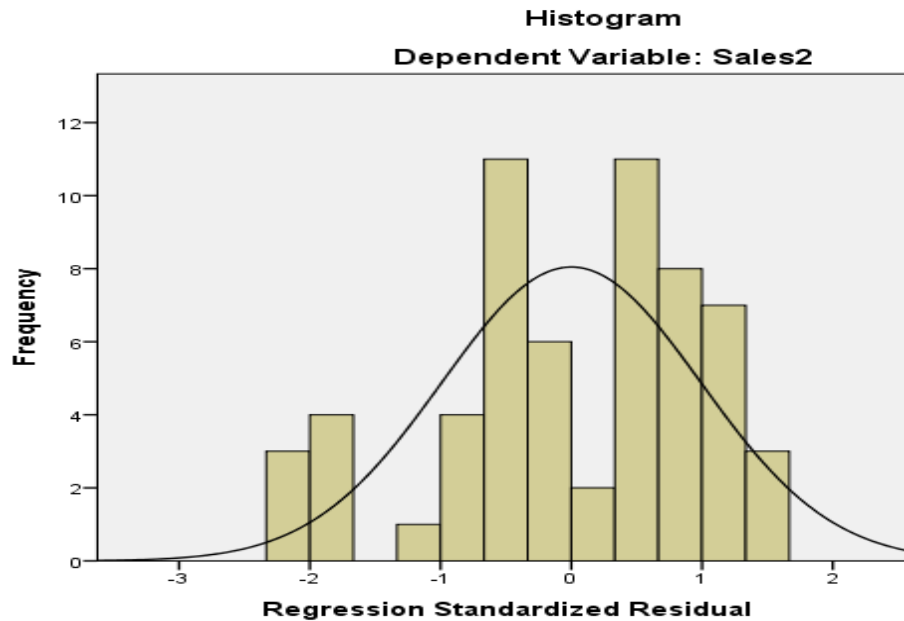


Figure 4.2 Homoscedasticity

Source: (Secondary Data, 2021)

Figure 4.2 shows a plot of regression standardized residual against the frequency of the variables. From the plot, it is evident that there exists a relationship between the interest capping variables and the sales volume variable that can be modeled. Thus, this is an indication that homoscedasticity has not been violated and the data comes from a normally distributed sample.

4.2.4 Auto Correlation

Table 4.2: Autocorrelation

Auto Correlation	
Durbin Watson statistic	1.008

Source: (Secondary Data, 2021)

The study established the Durbin Watson statistic to be at 1.008. Since this value was below 2 it was clear that autocorrelation was absent in the data utilized by the study.

4.3 Paired T-test

Table 4.3 Paired T-test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Sales_Before - Sales_after	0.89422	.501621	.096537	.695787	1.092657	9.263	26	.000

Source: (Secondary Data, 2021)

The P-value is $0.00 < 0.05$ thus the test is statistically significant. This implies that there is a difference between pre-interest rate capping and post-interest rate capping and that the difference between the two means (pre-interest rate capping 0.89422 and Post-interest rate capping, 2) is not 0.

4.5 Regression Analysis

Regression analysis is used to help assess the relationship between the dependent variable and the independent variables. Through the regression analysis, the strength between the independent and dependent variables can be determined and help model a future relationship between them. Findings from the regression analysis were presented through

model summary, Anova table, and the coefficient tables. The model summary explains how much of the variation in the dependent variable is as a result of the independent variables. The Anova table assesses if the model fit with the independent variables is statistically significant to predict the dependent variable. The coefficient table shows the contribution of each independent variable towards explaining the model and thus it shows the impact of each variable on the dependent variable.

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.750 ^a	.562	.539	.372185	.832

a. Predictors: (Constant), Interest rate, Inflation, GDP %

b. Dependent Variable: Sales

Source: (Secondary Data, 2021)

From the summary table, it was determined that the R square was 0.562. This was an indication that 56.2% of the variation in performance of heavy commercial vehicles was explained by interest rate, inflation rate, and GDP.

Table 4.6 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.956	3	3.319	23.957	.000 ^b
	Residual	7.757	56	.139		
	Total	17.713	59			

a. Dependent Variable: Sales

b. Predictors: (Constant), Interest rate, Inflation, GDP %

Source: (Secondary Data,2021)

Results from the Anova table indicated that the F value was 23.957 at a level of significance of 0.000. The 0.000 level of significance was less than the p-value of 0.05. Thus, this was an indication that the model fitted with the interest rate, inflation rate, and GDP was

statistically significant for predicting firms' performance of heavy commercial vehicle dealers in Kenya.

Table 4.7 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.996	.809		1.232	.223
1 GDP %	.307	.085	.403	3.611	.001
Inflation	.040	.037	.118	1.072	.288
Interest rate	.220	.027	.737	8.156	.000

Source: (Secondary Data, 2021)

Findings from the ANOVA table showed that the F value was 23.957 at a level of significance of 0.000. The 0.000 level of significance was less than the p-value of 0.05. Thus, this was an indication that the model fitted with the interest rate, inflation rate, and GDP was statistically significant for predicting firms' performance of heavy commercial vehicle dealers.

From the coefficient table was established that the model fit for predicting performance:

$$Y = 0.996 + 0.307X_1 + 0.040X_2 + 0.220X_3$$

Where:

Y = Performance

X₁ = GDP

X₂ = Annual inflation rates

X₃ = Annual interest rates

4.6 Discussion of the Findings

The descriptive statistics revealed that the mean for sales volumes was 6.313 and it had a standard deviation was 0.5479. The inflation rate had a mean of 6.495 and a standard deviation of 1.6285. The interest rate had a mean of 15.195 and a standard deviation of 1.8393. GDP had a mean of 5.610 and a standard deviation of 0.7187. It shows that all the

standard deviations were well below the means. This indicated that the majority of the data points in the sample were grouped around the mean.

The regression analysis deduced that GDP, annual inflation rate, and the interest rate have a positive effect on performance. To be specific, the constant value was established to be 0.996, which implied that if all other factors were held constant then the performance would be 0.996 units. GDP had a beta value of 0.307 this meant a unit increase in the country's GDP would result in an increase in the performance of the vehicles sales volumes by a value of 0.307. The inflation rate had a beta value of 0.40, which means that an increase in the inflation level would result in an increase in the performance by a value of 0.40. The interest rate had a beta value of 0.220 this implied that an increase in interest rates resulted in an increase in the performance by a value of 0.220.

The results from this research agree with those of Zulfiqar & Din, (2015) who investigated whether inflation and interest rate have a significant and positive impact on Return on Asset (ROA). They found that the interest rate had a positive impact on Return on Equity (ROE) in the textile industry in Pakistan.

The findings of this study also concur with those of Okwany (2017) who investigated the effect of interest rate limits on the sales volume of various banks in Kenya. Results from his study showed that high-interest rates made borrowing expensive and hence discouraged credit uptake.

The findings of the study also agree with those of Ng'ang'a (2017) investigated the effect of interest rate limits on the sales volume of banks in Kenya. In his study, he particularly found out that interest rate had a positive effect on the performance of commercial banks which was measured in terms of return on equity.

CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This segment presented an overview of the study's findings. The study goal, which was to explore the influence of interest rates on firms' performance heavy commercial vehicle dealers in Kenya, was also used to make conclusions. In addition, the chapter includes suggestions based on the study findings, as well as constraints of the study and future research possibilities.

5.2 Summary of the Findings

From the numerous diagnostic tests conducted by the study, it was determined that the sampled data from 2014 to 2018 utilized by the study was drawn from a normally distributed population.

From the descriptive statistics, it was established that the sales volume means for performance was 6.312 with a standard deviation was 0.5479. The inflation rate had a mean of 6.4953 and std. of 1.62853. The interest rate had a mean of 15.1948 and std. of 1.83925. GDP had a mean of 5.62 and std. of 0.56303.

The regression analysis determined that R squared was 0.562. This was an indication that 56.2% of the variation in performance of heavy commercial vehicles was explained by interest rates, inflation rate, and GDP. The analysis further pointed out that a model fit with the interest rate, inflation rate, and GDP as predictor variables was statistically fit to predict the firms' performance of heavy commercial vehicle dealers in Kenya. The regression coefficients established that GDP, interest, and inflation rate have a positive impact on firms' performance. In specific, the constant value was established to be 0.996, which implied that if all other factors were held constant then the sales volume would be 0.996 units. GDP had a beta value of 0.307 this meant a unit increase in the country's GDP would lead to an increase in the sales performance of the vehicles by a value of 0.307. The inflation rate had a beta value of 0.40, this meant that an increase in the inflation level would result in an increase in the performance by a value of 0.4. The interest rate had a beta value of 0.220 this implied that an increase in interest rates resulted in an increase in the performance by a value of 0.220.

5.3 Conclusion

The research revealed that GDP has a positive impact on the firms' performance of commercial vehicle dealers. This implied that as the economy grew there would be more disposable income for people to buy heavy vehicles to utilize for commercial purposes.

The study also concludes that high inflation levels harm firms' performance. This is because as the inflation level increases it makes the cost of acquiring heavy commercial vehicles unfavourable.

The study further concludes that high-interest rates harm firms' performance. This implies that as interest rate increases it makes credit uptake unattractive. This is because it becomes expensive to repay such credit advances.

5.4 Recommendations

The study proposes that various car dealers should appeal to various stakeholders to have policies and programs that would ensure that they come up with interest rate capping that is favourable to their consumers. These dealers should also ensure that they offer financing solutions that are attractive to their customers so that they don't solely rely on financing from financial institutions which could be unattractive at times.

The study also proposes that CBK should create policies and plans to ensure continuous growth of the economy and hence an increasing GDP. The CBK should also come up with measures to mitigate the rising levels of inflation and interest rates. This would ensure that the economy does not suffer from the adverse effects of bad interest rates and high levels of inflation.

5.5 Limitations of the Study

Time constrain was a major drawback for this study. The time set aside to conduct the study was not enough for the researcher to explore all the aspects that can impact firms' performance of heavy commercial vehicle dealers. However, the researcher utilized the time allocated in the best possible way.

The research was furthermore restricted to the use of secondary data from the CBK and NTSA. This meant that the researcher had no way to authenticate and confirm the accuracy

of the information presented. Thus, the data was utilized as it was presented on the institutions' websites.

The research was also restricted to a period between 2014 and 2018. Thus, the results that were concluded from the study describe this period and may not necessarily be accurate if inferred to a different period other than the one studied.

5.6 Suggestion for Further Studies

The paper established that 56.2 % of the firms' performance for heavy commercial vehicle dealers could be explained by interest rate, inflation rate, and GDP. Thus, other studies must investigate what other factors explain the firms' performance of heavy commercial vehicle dealers.

The research was also restricted to the impact of interest rates on firms' performance of heavy commercial vehicle dealers in Kenya. Other studies must investigate the effect of interest rates and sales volumes in other industries as well. This will help to conclusively map out the general effect of interest rates in the economy.

REFERENCES

- Adair, P., & Berguiga, I. (2015). The interest rates and performance of MFIs in the Middle East and North Africa: is there a moral issue?
- Aliona, B. (2016). Sales volumes Measurement Tools. *Annals-Economy Series*, 3, 169-173.
- Amuhinda, R. A. (2018). *The effects of Interest rate capping on the sales volume of commercial Banks in Kenya*. Nairobi: Uon Repository.
- Anon (2019). *Bizfluent.com*. Retrieved 8 September 2019, from <https://bizfluent.com/how-7650370-calculate-sales-volume.html>
- Bain, J.S. (1951) Relation of Profit Rate to Industry Concentration: American Manufacturing, 1936-1940. *Quarterly Journal of Economics*, 65, 293-324.
<http://dx.doi.org/10.2307/1882217>
- Berguiga, P. A. (2016). The interest rates and performance of MFIs in the MENA region: is there a moral issue? . *Ethics in Economic Journal*, 1-19.
- Block, Fred and Somers, Margaret R (2014). HYPERLINK "http://www.hup.harvard.edu/catalog.php?isbn=9780674050716" The *Power of Market Fundamentalism: Karl Polanyi's Critique*. HYPERLINK "https://en.wikipedia.org/wiki/Harvard_University_Press" \o "Harvard University Press" Harvard *University Press*.
- Bragg, S., & Bragg, S. (2018). *Sales volume — AccountingTools*. *AccountingTools*. Retrieved 8 September 2019, from <https://www.accountingtools.com/articles/what-is-sales-volume.html>
- Chioma, D., Adanma, S., & Clementina, N. (2016). Empirical study on the impact of inflation on Bank Performance. Implication of investments, decision making in bank industry in Nigeria. *Humanity and Social Sciences Journal*, 9(2), 61-71
- Creswell, J. W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications

- De Quidt, J., & Ghatak, M. (2018) Is the Credit Worth it? For-Profit Lenders in Microfinance with Rational and Behavioral Borrowers. *Annals of public cooperative economies* 89 (1) 177-195
- Deloitte Africa automotive insights (2015). Navigating the African automotive sector; Ethiopia, Kenya and Tanzania.
- Duncan Thini Kavwele, J. M. (2018). Effect of Interest Rate Capping on the Sales volume of Commercial Banks in Kenya . *International Journal of Business Management and Economic Research(IJBMER)*, Vol 9(1),, 1182-1190.
- Emmanuella, J. (2003) *Monetary and fiscal Policy. Kenya*: University of Nairobi
- Fatihudin, D., & Mochklas, M. (2018). How Measuring Sales volume. *International Journal of Civil Engineering and Technology*, 9(6), 553-557.
- Ferrari, A., Masetti, O., & Ren, J. (2018). *Interest rate caps: the theory and the practice*. The World Bank.
- Gallegos, S. M. (2014). Interest rate caps around the world: Still popular but a blunt Instrument. *E-library Journal*, 228-278.
- ICPAK 2015 The capping interest rates debate; Market failure or necessary intervention?
- Imbo, C. A. (2018). *The effect of Interest rate capping on the performance of Commercial banks in Kenya*. Nairobi: Uon Repository.
- Inflation. (2020, August 23). In *Wikipedia*. Retrieved from <https://en.wikipedia.org/wiki/Inflation>
- Ingram, T. N., LaForge, R. W., Williams, M. R., & Schwepker, C. H. (2015). *Sales management: Analysis and decision making*. Routledge.
- Ipinnaiye, O., Dineen, D., & Lenihan, A., (2017) Drivers of SME performance: a holistic and multivariate approach. *Small Business Economics*, 48(4), 883-911
- Islam, Z., Porporato, M., & Waweru, N., (2014). Cost structure and financial sustainability of microfinance institutions: the potential effects of interest rate cap in Bangladesh. *International Journal of Financial Services Management*, Vol 7, Issue 1

- Kar, A. K., & Swain, R. B. (2014). Interest rates and sales volume of microfinance institutions: Recent global evidence. *The European Journal of Development Research*, 26(1), 87-106.
- Kar, A. K., & Swain, R. B. (2014). Interest rates and sales volume of microfinance institutions: Recent global evidence. *The European Journal of Development Research*, 26(1), 87-106.
- Kavwele, D. T., Ariemba, J. M., & Evusa, Z. (2018). Effect of Interest Rate Capping on the Sales volume of Commercial Banks in Kenya. *International Journal of Business Management and Economic Research*, 9(1), 1182-1190.
- Keynes, J. M. (2018). *The general theory of employment, interest, and money*. Cambridge : Palgrave Macmillan
- Keynes, J.M. (1963). *Essays in Persuasion*, New York: Norton
- Khalid,A.C.,(2012). The Impact of assets quality on the profitability of private banks in India. A case study of JK, ICICI,HDFC and YES banks: *Journal of African microeconomicsReview*2(1),1-22
- Kimani, N. B. (2018). *Effect of interest rate capping on growth of Microfinance Banks in Kenya*. Nairobi: Uon Repository.
- Kiseu, T. K. (2014). *The effect of interest rate capping on the amount of credit issued by commercial banks in Kenya*. Nairobi: Uon Repository.
- Kothari, C.R. (1990) *Research Methodology: Methods and Techniques* Wishwa. Prakashan, New Delhi.
- Lithaa, N. J., Ngugi, K. & Njagi, L. (2014). Influence of Regulation Practices on Growth of Second Hand Motor Vehicle Dealers in Dagoretti District, Nairobi County, Kenya. *European Journal of Business Management*, 2(1), 179-184
- Miller, H. (2013). “Interest rate caps and their impact on financial inclusion” HYPERLINK “<https://www.nathaninc.com/wp-content/uploads/2017/10/Interest-rate-caps-and-their-impact-on-financial-inclusion.pdf>”

- Mugenda, O.M. and Mugenda, A.G. (2003) *Research Methods: Quantitative and Qualitative Approaches. Acts Press, Nairobi.*
- Munguti, S. (2015). *The impact of interest rate capping on the stock returns of commercial banks listed in NSE. Nairobi: Uon Repository*
- Mutindi J M. (2017). *Strategic responses to interest rate capping by Commercial Banks* (Doctoral dissertation, School of Business, University of Nairobi).
- Naz, Farah & Ijaz, Farrukh & Naqvi, Faizan. (2016). Sales volume of Firms: Evidence from Pakistan Cement Industry. *Journal of Teaching and Education*. 5. 81-94.
- Ng'ang'a, A. K. (2017). *The Impact of Interest Rate Capping on the Sales volume Of Commercial Banks in Kenya. Unpublished MBA Project, University of Nairobi.*
- Ng'ang'a, A. K. (2017). *The impact of interest capping on sales volume of the Commercial banks of Kenya. Nairobi: Uon Repository.*
- Okwany, F. O. (2017). *Effects of Interest rate capping on operating performance indicators of Commercial Bank of Kenya. Niarobi: USIU Repository.*
- Oladipupo S., Satirenjit K., Mohd Y., (2014). Holistic Approach to Corporate Governance: A Conceptual Framework, *Global Business and Management Research: An International Journal*, (6)3,
- Output (economics). (2020, May 30). In *Wikipedia*. Retrieved from [https://en.wikipedia.org/wiki/Output_\(economics\)](https://en.wikipedia.org/wiki/Output_(economics))
- Poudel, R. P. (2014). The impact of credit risk management on sales volume of commercial banks in Nepal . *International Journal of Arts and Commerce* , Vol. 1 No. 5 , 9-15.
- Ristolainen, K. (2016). *The relationship between distance-to-default and CDC spreads a measure of default-risk for European Banks. Journal of Banking and financial economics* (1), 121-145
- Robertson, Dennis, H. (1934) Industrial In fluctuation and natural rate of interest. *The Economic Journal*, 44(176)650-656

- Swain, A. K. (2013). Interest Rates and Sales volume of Microfinance Institutions: Recent Global Evidence . *European Journal of Development Research advance online publication*, 1-18.
- Tobin, J. (2019). Liquidity Preference as Behavior Towards Risk . *The Review of Economic Studies*, Vol. 25, No. 2, 65-86
- Turnovsky, S. (1985) Short-term and long-term interest rate in the monetary model of small open economy. *Cambridge, Mass: National Bureau of Economic research*
- Wicksell, K. (1935) Lectures on political economy. *Money*, Vol. 2
- Zahid Islam, M. P. (2014). Cost structure and financial sustainability of microfinance institutions: the potential effects of interest rate cap in Bangladesh. *Int. J. Financial Services Management*, Vol. 7, No. 1, 54-72.
- Zulfiqar, Z., & Din, N. (2015). Inflation, Interest rate and firms' performance: the evidences from textile industry of Pakistan. *International Journal of Arts and Commerce*, 4(2).