THE IMPACT OF FINANCIAL FACTORS ON PROFITABILITY OF MANUFACTURING FIRMS LISTED ON THE NAIROBI SECURITIES EXCHANGE

BY

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UNITED STATES INTERNATIONAL UNIVERSITY AFRICA

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A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY AFRICA

SPRING 2017
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution, or university other than the United States International University in Nairobi for academic credit.

Signed: ____________________ Date: ____________________

MISORE EMMANUEL ODEKU (630068)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ____________________ Date: ____________________

Kepha Oyaro

Signed: ____________________ Date: ____________________

Dean, Chandaria School of Business
ACKNOWLEDGEMENT
I would like to thank the USIU faculty for the knowledge, and the institution for the conducive environment that has facilitated my MBA completion. I would also like to give thanks to my supervisor, Kepha Oyaro for the continued support and advice. I also thank the participants from the various manufacturing firms who took part in this study,
DEDICATION
This project is dedicated to my family and friend who have supported me all through the study period.
ABSTRACT
The study was aimed at determining the extent to which financial factors affecting profitability of manufacturing firms listed in the NSE in Kenya. The study was guided by the following questions; to what extent does interest rate affect profitability of manufacturing firms listed in NSE in Kenya? To what extent does exchange rates affect profitability of manufacturing firms listed in NSE in Kenya? To what extent does cost of production affect profitability of manufacturing firms listed in NSE in Kenya?

The target population consisted of 50 employees from manufacturing firms in Kenya, where a sample of 44 respondents was drawn out of which 40 questionnaires were filled and returned. The data was then scrutinized using descriptive and inferential statistics by using SPSS software. The results were offered by use of figures and tables.

With regard to the first objective, majority agreed that the economic environment in Kenya is risky and that interest rates affects investment on a technology, there was uncertainty on high volatility of stock markets as shown. The study also sought to establish strategic options to manage interest rate risk exposure and a majority of the respondents agreed that interest rate fluctuations have an impact on the company’s competitive position. However, there was uncertainty on the cost of hedging by financial means being too high or the change in the interest having minimal effect on cash flow.

The study also sought to establish effects of Forex rate on Profitability. Majority of the respondents agreed that Foreign exchange volatility affects the profitability and performance. A regression done between variables of Forex rate and earning on profitability revealed that variation in profitability was because of the variation in forex rate.

The third objective of the study sought to establish relationship between production cost and profitability. The respondents agreed that they have been able to attainable low costs through automation, outsourcing technique has been applied to reduce remuneration, the firm maximizes profit by reducing operation costs, there was uncertainty on the firm adopting price leadership strategy and matching low price with quality and technological advancement. Regression analysis revealed that the variables: company maximizes profit by reducing operation costs, attainable low costs through automation, and the firm has adopted price leadership strategy were significant with p-value <0.05.
It is established that the economic environment and interest rate fluctuations have an impact on the company's competitive position and operations in the industry. However, there is a lack of knowledge on the cost of hedging and the impact of interest rate on cash flow.

The study concluded that foreign exchange volatility affects the profitability as well the performance. There is a need for the involved bodies to have the necessary knowledge about foreign exchange volatility and its impact on the competitiveness. The study also concluded that the firms need to have adequate internal regulations for foreign exchange volatility and this should be fostered by setting up of clear policies regarding foreign exchange volatility. Manufacturing firms have had low costs through the implementation of automation and outsourcing technique. The firms should continue reducing operation costs so as to maximize profit.

It was recommended that it is necessary for these firms to adopt measures to assist them mitigate the uncertainty on high volatility of stock markets. This could include getting into contracts with suppliers to minimize these risks. Foreign exchange volatility affects the profitability, performance in able to sort this the firms need to utilize financial tools such as foreign exchange contracts, forwards and swaps, Options and interest rate contracts to managing exchange rate fluctuations. Manufacturing firms need to adopt automation, outsourcing technique and reduce operation costs to be able to enjoy profit maximization. Despite many not being aware of the firms adopting price leadership strategy and matching low price with quality and technological advancement. There is a need to adopt the techniques, as they would help the firms increase profitability. Further studies need to be done on agricultural and automobile industry to be able to generalize the findings of the study.
### TABLE OF CONTENTS

**STUDENT'S DECLARATION** .......................................................................................................................... ii  
**ACKNOWLEDGEMENT** ................................................................................................................................. iii  
**DEDICATION** ................................................................................................................................................. iv  
**ABSTRACT** ..................................................................................................................................................... v  
**LIST OF TABLES** ............................................................................................................................................. ix  
**LIST OF FIGURES** ............................................................................................................................................. x  
**ACRONYMNS AND ABBREVIATIONS** ............................................................................................................. xi  

**CHAPTER ONE** ............................................................................................................................................... 1  
1.0 INTRODUCTION ........................................................................................................................................... 1  
1.1 Background of the Study ................................................................................................................................. 1  
1.2 Problem Statement ......................................................................................................................................... 3  
1.3 Purpose of the Study ....................................................................................................................................... 4  
1.4 Research Questions ....................................................................................................................................... 5  
1.5 Significance of the Study ................................................................................................................................. 5  
1.6 Scope of the Study ......................................................................................................................................... 6  
1.7 Definitions of Terms ....................................................................................................................................... 6  
1.8 Chapter Summary ......................................................................................................................................... 7  

**CHAPTER TWO** ........................................................................................................................................... 8  
2.0 LITERATURE REVIEW ................................................................................................................................. 8  
2.1 Introduction ...................................................................................................................................................... 8  
2.2 Interest Rates and Profitability of Manufacturing Firms .................................................................................. 8  
2.3 Exchange Rates and Profitability of Manufacturing Firms ............................................................................ 13  
2.4 Effects of Cost of Production on Profitability ............................................................................................... 18  
2.5 Chapter Summary ......................................................................................................................................... 23  

**CHAPTER THREE** ......................................................................................................................................... 24  
3.0 RESEARCH METHODOLOGY ...................................................................................................................... 24  
3.1 Introduction ...................................................................................................................................................... 24  
3.2 Research Design ........................................................................................................................................... 24  
3.3 Population and Sampling Design .................................................................................................................. 24
3.4 Data Collection Methods .................................................................26
3.5 Research Procedure .........................................................................26
3.6 Data Analysis Methods ......................................................................27
3.7 Chapter Summary ..............................................................................27

CHAPTER FOUR ....................................................................................28
4.0 RESULTS AND FINDINGS .................................................................28
4.1 Introduction .......................................................................................28
4.2 Demographic Information ..................................................................28
4.3 Effects of Interest Rate on Profitability of Manufacturing Firms Listed ....31
4.4 Effects of Exchange Rate on Profitability ........................................34
4.5: Relationship between Production cost and Profitability ..................38
4.6 Correlation Analysis between Profitability and Other Variables ..........40
4.7 Chapter Summary ..............................................................................41

CHAPTER FIVE ....................................................................................42
5.0 DISCUSSION, CONCLUSION AND RECOMMENDATION ..................42
5.1 Introduction .......................................................................................42
5.2 Summary ..........................................................................................42
5.3 Discussion ..........................................................................................43
5.4 Conclusion .........................................................................................48
5.5 Recommendations ............................................................................48

REFERENCES ......................................................................................50
APPENDIX I: QUESTIONNAIRE ...............................................................61
APPENDIX II: MANUFACTURING FIRMS LISTED AT THE NSE ..........64
LIST OF TABLES

Table 4.1: Response Rate........................................................................................................................................28
Table 4.2: Descriptive of Exchange Rate of Foreign Currencies ...............................................................31
Table 4.3: Strategic Options to Manage Interest Rate Risk Exposure.........................................................32
Table 4.4: Model Summary on Exchange Rate and Profitability .................................................................32
Table 4.5: ANOVA on Exchange Rate of Exchange Rate and Profitability .................................................33
Table 4.6: Coefficients of Exchange Rate on Profitability ..............................................................................34
Table 4.7: Effects of Forex rate on Profitability ...............................................................................................35
Table 4.8: Regression between Forex rate and Profitability ............................................................................35
Table 4.9: ANOVA between Forex rate and earnings from Profitability in Kenya ........................................36
Table 4.10: Coefficient of Forex rate and Earnings from Profitability in Kenya ..............................................37
Table 4.11: Tools for Managing Exchange Rate Fluctuations .........................................................................37
Table 4.12: Relationship between Production cost and Profitability ..........................................................38
Table 4.13: Model Summary on Production cost and Profitability ............................................................39
Table 4.14: ANOVA of Production cost and Profitability .................................................................................39
Table 4.15: Coefficients of Production cost and Profitability .........................................................................40
Table 4.16: Correlation Analysis between Profitability and Other Variables .............................................41
LIST OF FIGURES

Figure 4.1: Gender ..........................................................29
Figure 4.2: Education Level.............................................29
Figure 4.3: Work Experience.............................................30
Figure 4.4: Position..........................................................30
Figure 4.5: Duration of existence......................................31
ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variances</td>
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<tr>
<td>COMESA</td>
<td>Common Market for East and Southern Africa</td>
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<td>COP</td>
<td>Cost of Production</td>
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<td>EAC</td>
<td>East African Community</td>
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<td>EU</td>
<td>European Union</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>KAM</td>
<td>Kenya Association of Manufacturers</td>
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<td>MNCS</td>
<td>Multi National Corporation</td>
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<td>NSE</td>
<td>Nairobi Security Exchange</td>
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<tr>
<td>ROE</td>
<td>Return on Equity</td>
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<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Increased globalization, rising markets and high competition has resulted in the business arena to become turbulent and unpredictable. Macro-economic variables uncertainty, volatility, and risk on manufacturing corporations are having a bearing on their profits and particularly in developing countries. Monetary factors like hyperinflation/deflation, high interest rates, and increasing exchange rates are among the factors within the current business setting that are affecting the profit such corporations.

Globalization and specifically the increasing role of rising market economies in international trade have typically been claimed to possess numerous impacts, e.g. on labour market outcomes, inflation and markups in advanced economies. as an example, some sees the declining monopoly pricing power, that materializes in reduction of markups, as one of the foremost vital factors driving economic disinflation worldwide (Rogoff, 2013). The determinants of firm-level profit variation, based on the character of product market competition, economies of scale, external competitive forces, have long been a vigorous topic of analysis (Olson, 2012).

Regarding volatility in international markets, there are significant changes with major ramifications for firm profit in developing countries. Specifically, for a range of reasons that are open for discussion (including the role of products and capital market openness, institutions, money development, macro-economic factors etc.), macroeconomic volatility has been a lot higher in developing countries than developed ones. Within the case of growth volatility, whereas it declined in developed countries throughout the 1990s Serven (2014) report a rise in one third of seventy-seven developing countries, with an overall volatility above the developed ones. Likewise, terms of trade volatility are found to be over 3 times higher in developing countries (except in East Asia) over the past decade since 1960 (Loayza et al., 2012). Moreover, there's proof that volatility has been on the increase throughout the Eighties and Nineties. Kose (2013) show a rise in consumption volatility in rising markets throughout the Nineties. The volatility of capital flows to developing countries is additionally found to be high, rising and unpredictable” throughout the Nineties compared to 70s and 80s (Gabriele, Boratav & Parikh, 2012). The empirical proof
conjointly shows a rise within the volatility of the earnings of corporations in developed and developing countries for the last three decades (Grabel & Mulani, 2016). Increasing exchange rate and capital flow volatility are found to increase inflation uncertainty and encourage financial investments whereas discouraging fixed investments by producing corporations (UNCTAD, 2014). Furthermore, World Bank (2011) estimates that reducing consumption volatility might produce welfare gains within the order of 4%-10% of consumption in 20 Latin American countries (with an overall mean of 2% and median of 7.7%) although such gains would be 1.2% on the average in developed countries. Additionally, despite comprehensive reform programs persistent capital market imperfections and high real interest rates in developing countries continue to hurt firms” profitability. Moreover, despite massive capital inflows, producing corporations still face strict credit rationing and are forced to finance their investments principally from internal sources or short borrowing.

Manufacturing corporations is defined as companies that obtain certain product as inputs and processes (transforms) these inputs to a value additional final product for sale. Supported information from 2007 Kenya Association of manufacturers (KAM), the sector plays a key role within the overall economic performance within the country contributing an average 100% to the country’s GDP and contributes to over 60% of state revenue through taxes with an output estimated at over Kshs. 502 billion in 2005. The sector just like the remainder of the economy stagnated in the 90s had a low growth of 1.6% in 2001 however has had a recovery within the previous few years registering a growth of 4.9% in 2004, 5.8% in 2005 and 6.9% in 2006.

This spectacular growth within the sector is closed aligned to the economic performance of 4.9% in 2004, 5.8% in 2005 and above 6% in 2006 therefore making some linkage on the impact of producing to the economic performance. KAM acknowledges that the expansion within the sector has been driven by a rise in volumes equipped to the rising markets of Southern Sudan, COMESA, EAC, and USA than efficiency and productivity enhancements. In terms of external trade, the sector accounts for thirty fourth of exports /foreign exchange earnings before horticulture, tea, coffee, and tourism. Despite recording important presence within the early years of independence several MNCs moved out of Kenya as government policy wasn't favorable to doing business here compared to other friendly rising markets particularly the Asian blocks. For fact, solely all the present
corporations within the sector go back to 1960 and before, 45% were established between 1980 and 2000 and therefore the rest after 2000.

Most of the corporations within the sector are very tiny in size, capital, and turnover having an employee base of below fifty. In terms of possession, 48% are in private owned by Kenyan citizens, 46% privately owned through partnerships between Kenyans and non-Kenyans. The balance includes the few remaining foreign owned subsidiaries of MNCs that are large with Kenya being their regional base to serve the east African region. Native corporations are owned by indigenous Kenyans, Kenyans originating from other countries and majority being Kenyans of Indian origin (Aosa, 2012). Despite the tiny range of corporations, MNCs contribution within the producing business is important, using 88% of total labour force within the business, with value addition and output of 74% and 88 percent in 2015(Central Bureau of statistics 2016). This paper seeks to work out the monetary factors affecting gain in manufacturing company in Republic of Kenya, and specifically viewing NSE listed manufacturing corporations in Kenya.

1.2 Problem Statement
The aim of most corporations is to form a sustainable business with profitable growth both now and in future. Economic and monetary conditions will materially influence the Company’s monetary position and results of operations. A study investigation the impact of trade on costs, productivity and markups, using sectorial data for EU manufacturing sectors, found that domestic openness acts to scale back profit margins, whereas the opposing is true of foreign openness (Chen et al., 2014, 2016). Moreover, a study examined the determinants of price-cost margins for OECD countries, finding an overall tiny and negative impact of trade on price-cost margins (Boulhol, 2015).

Producing corporations are viewed as a necessary part of a healthy and vivacious economy. They’re seen as very important to the promotion of an enterprise culture and to the creation of jobs within the economy (Oondo, 2004). Producing corporations are believed to supply an impetus to the economic progress of developing countries and its importance is gaining widespread recognition. Equally in the country they occupy a principal place within the economy, accounting for 90% of business stock and employing roughly 25% of private sector staff (Wignaraja & O’Neil, 2013); thus, their existence is important and this will solely be maintained through raised profits. Profitability perpetually comes first within the minds of investors once they do contemplate investment decision. There are documented
determinants of a firm’s gain and these embrace value of capital, sources of funds, management style, availability of resources and the macro environment (Oondo, 2004).

Most producing firms in Kenya and East Africa at rely on the importation of their inputs that’s importation of raw materials, machinery, spare components, and typically specialized labor. This suggests that these firms rely heavily on the fluctuation of exchange rate, interest rates, and inflation within the country. These companies cannot avoid the impact of unsteady exchange rates as most of their inputs are imported at the end of the day, the value of production is affected that is the cost of raw material may go up once the exchange rates goes up which results in prohibitive cost of sales resulting in low profits. Additional so when the corporate imports they must borrow in order that for them acquire their imports and in conditions of unsteady interest rates the profitability of the businesses is affected.

Productivity growth in Kenyan manufacturers has been zero or negative over the last twelve years. Productivity declined by 0.5 per cent between 1991 and 1998. Multivariate analysis of recent firm information suggests that, between 1999/2000 and 2002/03, virtually no productivity improvement is visible within the average firm. There has been just about no amendment in labour productivity. Capital looks moderately additional productive; however, the rise isn't statistically distinguishable from zero. Total issue productivity increased by 7% between 1999 and 2002, however once more this estimate is not statistically different from zero; manufacturing accounts for less than 14 percent of gross domestic product (GDP). On the other hand, the report disclosed that inflation has been high and volatile, whereas the rate of exchange has been equally variable, and though it's been stable against the United States dollar in the past years, has recently been in decline. The present account has additional often than not been in deficit, however the magnitude has rarely been dire (World Bank et al; 2014). It’s against the mentioned background that the study sought to work out the financial factors touching profitability in NSE listed manufacturing company in Kenya.

1.3 Purpose of the Study
The purpose of the study was to determine the extent to which financial factors affecting profitability of manufacturing firms listed in the NSE in Kenya.
1.4 Research Questions
The study was guided by the following questions;

1.4.1 To what extent does interest rate affect profitability of manufacturing firms listed in NSE in Kenya?

1.4.2 To what extent does exchange rates affect profitability of manufacturing firms listed in NSE in Kenya?

1.4.3 To what extent does cost of production affect profitability of manufacturing firms listed in NSE in Kenya?

1.5 Significance of the Study
The literature reviewed provides empirical evidence of the existence of the link between financial factors and firm profitability. The study findings are beneficial to various stakeholders as follows:

1.5.1. Managers
The study may facilitate managers to spot the financials issues that influence profitability and more knowledge for factor threatens profitability. This may facilitate managers establish correct methods of managing or evading these threats to their capability and allow the firm to maximize on their profits. Managers have a crucial role to play in reconciling the shareholder’s objective of maximizing wealth so reducing agency conflict between them and the shareholders.

1.5.2 Policy-Makers
Manufacturing corporations are viewed as a vital part of a spirited economy therefore this could offer policy-makers with info which will be used as inputs for policy development that are centered on producing sector development. The sector performance is additionally of national interest since it contributes to the nation’s economic growth, job creation, generate foreign exchange, and attract foreign direct investment.

1.5.3 Potential Investors
The study would be of importance to prospective shareholders/ capitalists since; correct management of those profit threatening financial factors is a sign to the investor that a firm is expeditiously managed, therefore gaining attraction from investors. This study may conjointly guide prospective and current investors on the most effective corporations to
speculate, since they might have info on properly managed corporations that could be a pointer to sensible returns. A bit like the management, the present investors may have an understanding why the profit keeps on being dynamic year by year.

1.5.4 Academician and Researchers

To academician and researchers this study will add knowledge as well as offer reference from which other studies could be based on.

1.6 Scope of the Study

The study focused of 10 manufacturing firms listed in the Nairobi Securities exchange. Since the population was small and variable, no sampling was conducted. From a population of 10 manufacturing firms, a sample size of 50 respondents was chosen. Both primary and secondary data was used in this research. The study took a duration of 19 weeks with the use of both secondary and primary data.

1.7 Definitions of Terms

1.7.1 Emerging Market Economies

Agtmael (2012) defines it as an economy with low to middle per capita income. Such countries constitute approximately 80% of the global population, and represent about 20% of the world's economies.

1.7.2 Globalization

Is a process where an increased proportion of economic, social and cultural activity is carried out across national borders; and which has significant economic, business and social implications (Roemer, 2016).

1.7.3 Trade Liberalization

The removal of or reduction in the trade practices that thwart free flow of goods and services from one nation to another. It includes dismantling of tariff (such as duties, surcharges, and export subsidies) as well as nontariff barriers (such as licensing regulations, quotas, and arbitrary standards). Macro-economic - these are the factors which affect the wider economy; they summarize the picture of economy (Nguyen, 2016).
1.7.4 Volatility

Describes the speed and amount of price changes; it is the relative rate at which the price of a security moves up and down (Shapiro, 2012)

1.8 Chapter Summary

This chapter was divided into seven sections. The first section presented the background information on financial factors and profitability as well as how the two relate to manufacturing firms. The background also gave a brief of how financial factors will be measured using different financial tools. The second section covered the statement of the problem. Section three defined the purpose of the objectives. Section four stated the research questions that need to be addressed. The fifth section provided a justification of the study. The sixth section provides the scope of the study. Finally, the seventh section of this chapter provides definitions of key terms used in the study. In the following chapter, the study looks at the literature review of the concepts underlined in chapter one. Chapter three provides a description of the research methodology. Chapter four will cover the result and findings from the analysis done while chapter five will discuss the findings and make appropriate recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter presents a review of literature on the varied variables used. Literature review is an analysis of the prevailing data on a line of study. It focuses on studies done by different scholars and researchers and provides some basic data of the research topic. The first section looks at the interest rates followed by a section on how exchange rate affects profitability and finally a section based on cost of production.

2.2 Interest Rates and Profitability of Manufacturing Firms
Manufacturing corporations within the developing countries have in recent past undergone lots of depression, this includes: increasing costs of oil and raw materials, high interest rates, high advancement in innovation and technology also as high client expectation on the standard of product and services. The empirical proof additionally shows a rise within the volatility of stock markets and the earnings of corporations in developed and developing countries for the last three decades (Mulani, 2012). Increasing rate and capital flow volatility are found to increase inflation uncertainty and encourage investments whereas discouraging fixed investments by real sector corporations (UNCTAD, 2016). what is more, world bank (2012) estimates that reducing consumption volatility could produce welfare gains within the order of 4%-10% of consumption in 20 Latin American countries (with an overall mean of 20% and median of 7.7%) although such gains would be 1.2% on the average in developed countries. additionally, despite comprehensive reform programs persistent capital market imperfections and high real interest rates in developing countries still hurt firm profit.

2.2.1 Increasing Effect
When rate of interest increase, businesses need to pay extra for borrowing. In other words, their cost of taking loan will increase thus decreases their profit and hence, decrease in profit and market value of their share decline. Moreover, an increase in rate of interest conjointly decreases the value of corporate bond. The rate of interest that a bond pays to its holder isn’t much enticing because of high rate of interest. For borrowing and saving there are varied forms of interest rates that bank offers. to set a rate of interest that influence the rejuvenation of monetary system, financial organization plays a crucial role. The financial
organization executes that job by having control of the loan rate for borrowers. Consequently, it significantly influences the interest rates for loan and savings.

Rising rate of interest and over disbursement cause stress on inflation. whereas on the other hand, once rate of interest goes up it makes borrowing costlier resulting into fall in growth and investment on a brand-new technology. rate of interest not simply charged to loans, but it's conjointly charged to unpaid bills, mortgages and credit cards and it's solely applicable on the unpaid portion of bills or loans (Baulier, 2011).

Many students draw distinctive conclusions about the relationship among interest fee and investment in line with a huge quantity of empirical analyses. If investment became added as an endogenous variable into an economic utility feature version, the result became out that investment indeed has a certain impact on interest quotes (Qing and Chong, 2004). If discount charge became replaced through stochastic interest rate in a real alternative model, the result grew to become out that the uncertainty of interest rate had obvious consequences on investment (Ingersoll and Ross, 1992). The analysis of irreversible investment under the changing rates confirmed that the trade in fee had high-quality or poor effect at the call for of investment (Alvareand & Koskef, 2004).

The diffusion model of short-term fees showed that the uncertainty of rate may additionally restriction the satisfactory funding and organization scale (Luis, 2010). one-of-a-kind from the conventional concept, a few students concluded that there was a fine correlation among interest charge and funding. based at the evidence of 21 growing nations, 1971 to 1980, the analysis approximately the actual economic assets showed that there has been a nice dating among the boom of actual hobby charges and economic assets. (Lanyi & saracoglu, 1983). If the cut price issue became selected to represent the variable of investment and the GMM estimation technique was used to investigate the connection among investment and interest rate in an unsure environment, the result grew to become out that there has been a wonderful correlation between them. And the higher volatility the hobby rate had, the greater fine the correlation would be (Andrea Beccarini, 2007).

There also are some pupils who believe that the charges may haven't any effect on the investment. VAR model was used to test the causal courting between interest rates and funding, and located that funding trusted the extent of call for in the macroeconomic, in preference to interest costs (Mohammed, 2013). in step with the analysis of 3 fee hikes from 1960 to 1978 in West Germany, it grew to become out that the effect of interest price
on funding is exclusive in intervals because of the distinctive coverage (Baillie & McMahon, 1981).

Inside the field of microeconomics, impulse response turned into used to investigate the effect of fee coverage on investors. based on the statistics of hobby quotes and ISE country wide a hundred index, 2002-2010, the result confirmed that buyers can’t deal with the effect of hobby costs in the brief time (Mustafa & Ayhan, 2012). when it got here to the top-rated funding selection-making under the fee chance in the long term, it's miles proved that interest rate had an incredible influence at the funding profits. (Hiroaki & Jun, 2006). Empirical evaluation was applied in line with the long-time period interest charges, short-time period alternate fee and investment. at the evaluation of brief-term investment at the long-time period bonds, it grew to become out that there was a weak relationship among interest fee changes and investment in Switzerland. And inside the U.S. the relationship curve corresponded higher to the interest rate parity idea (Christoph, 2006).

2.2.2 Decreasing Effect

The decline in the interest rate as a common rule is most excellent for the economic atmosphere because firms can easily pay for taking loan as they don’t have to pay higher interest rate for taking the loans. To regulate the economic development, interest rate is used as a device. As economy developed rapidly it will cause inflation in the economy (Amadeo, 2012). In other words, prices go up to higher point which reduce the buying power of people which affect the demand of people for goods and services because of the shifting accessibility of bank loans. But on the other hand, when interest rates are low the cost of borrowing decline which increase the buying power of public and as result they tend to make investments and spend in different forms. Lower interest rate also gives opportunity to businesses to take capital investment loan. By making huge investment in rising sectors and making significant profit, it also enhances the firm’s confidence. As result the economy become stable and employment opportunities in the country increases (Revel, 2011).

2.2.3 Operationalization of the Variables of Interest Rate

Just like any other price, interest rates are set by market forces based on the relative supply and demand of funds. This supply and demand is in turn determined by the willingness of firms to borrow. Changes in interest rates affect consumer decisions such as how much to borrow. Because they change the present value of future cash flows, changes in interest
rates also have a broad impact on capital budgeting decisions within the firm (Harford, 2012). When supply and demand interact, they determine a price (the equilibrium price) that tends to be relatively stable. If the supply of credit from lenders rises relative to the demand from borrowers, the price (interest rate) will tend to fall as lenders compete to find use for their funds. If demand rises relative to supply, the interest rate will tend to rise as borrowers compete for increasingly scarce funds (Musa, 2011). Market forces work to establish equilibrium interest rate. If interest rate is lower than the equilibrium, then the quantity demanded would exceed the quantity supplied. Demand would exceed supply so there would be a shortage of loanable funds. This shortage would encourage more households to save money as the interest rate rises. Households would continue to save until the supply equaled the demand.

Inflation affects how we evaluate interest rates being quoted by banks and other financial institutions. If prices in the economy are also increasing due to inflation, the nominal interest rate does not represent the true increase in purchasing power that will result from investing. When inflation rate is high, a higher nominal rate is needed to induce firms to save (Berk, 2010). Expected inflation affects both the demand and supply of loanable funds.

In early literature, the interest rate was generally used to show the bank’s financial role. The net hobby margin price of the banks is very sensitive to fluctuate. according to Shiller and McCulloch (1987) and Samuelson (1945) the general market scenario, the bank’s income boom rapidly with growth in hobby charge of banks. Samuelson (1945) stated “The banking machine as a whole is immensely assisted as opposed to hindered through an increase inside the interest price and business banks might earnings extra than savings banks”. inside the identical way, Hancock (1985) originated a completely relevant proof for the have a look at after they observed that with the enhancement of hobby price, the output and employment lessen even at the level of collective.

Ben and Goaied (2008) located the impact of precise variables related to business banks of Tunisia similarly to macroeconomic indicators in conjunction with impact of monetary shape on banks profitability in Tunisia from 1980-2000. They concluded that Capital ratio has superb and size has negative impact on Profitability. There exists little or 0 impact of macro-financial additives at the profitability of banks in Tunisia. development in cash markets has published high-quality effect since banks in middle East and North Africa nations have developed their income via the income generated from the intermediation and
the management of association of stock that compensates the decreased margin to compare the possession shape (Naceur & Omran, 2011). inside the same way, Sufian and Habibullah (2009) posit that privately-owned banks carry out superior as contrasted with publicly owned banks.

Athanasoglou et al. (2008) tested the effect of bank's interior additives, enterprise associated factors recognized with macro financial system at the productiveness of banks in Greek amid 1985-2001. The evaluated results confirmed that capital, credit hazard, working, inflation and manufacturing development, commercial enterprise cycle (cyclical yield) have the positive and additionally significant impact, in which as there may be a terrible impact of size at the banks' profitability (Delis and Kouretas, 2011). The financial institution’s sensitivity with internet hobby margin, profitability and term structure set throughout product specializations. Hanweck and Ryu (2005) examined that the modifications of interest rate are maximum touchy with bank's portfolios which are associated with the net hobby margin.

In line with locating of Basel Committee on Banking Supervision (2004), the modifications in net interest margin are negatively associated with the interest charge volatility however it's going to show nice result due to the increase in yield curve. the dimensions of the effect rely upon the assets and liabilities composition. Dietrich and Wanzenried (2011) examined the impact of profitability components (enterprise specific, macroeconomic &banks specific) earlier than and after emergency in Switzerland amid 1999-2009 for 372 enterprise banks. It was considered as that from 1999-2006 changed into pre-disaster time and 2007-2009 turned into well idea-out to be as emergency time, averages of ROA, ROE and net hobby margin have been used as profitability indicators as average values are utilized to seize the progressions amid the time. by means of using GMM estimator method, it became reasoned that banks which can be prepared show lofty profitability as contrasted with much less successful banks, development in credit volume that is over the normal, impacts decidedly on profitability (Ramadan et al., 2011).

There's adverse impact of superior financing charges and advantageous impact of diversification on banks profitability. Sufian (2011) said the impact of banks interior components and macroeconomic additives on the banks’ profitability for the duration of 1992-2003 in Korea. Liquidity has damaging effect on banks profitability with minor liquidity level, to set up advanced profitability. Banks who targeted more in the direction
of diversification has high-quality impact on profitability. length depicted high quality wherein as there's a poor impact of economic crisis at the profitability of Korean banks. Banks in Korea confirmed greater profitability during the duration of before-disaster compared to after crisis.

As well-known shows in the research by English (2002) and Hanweck and Ryu (2005), the fluctuations of the interest price have giant effect on financial institution’s internet income incurred with the aid of hobby. furthermore, slope of the yield curve have a fantastic effect and it's far a most well-known over view in the monetary market observation which includes. the quick-term hobby charge is closely associated with the go back at the financial institution’s liabilities with a purpose to quick alter with the changes by way of hobby charge in economic marketplace. With that a part of the discussion, returns on property of the bank are much more likely to be closed with long term interest charge and slowly get adjusted with the adjustments in the marketplace rate. within the sustaining period, when the yield curve is steeper, it is easy to assume the net interest margin to be higher.

2.3 Exchange Rates and Profitability of Manufacturing Firms
A comparative study of corporations across four African countries, however over a brief period, found restricted proof that corporations were affected by real exchange rate changes (Bigsten et al.1999). alternative proof, supported by macro knowledge, suggests that changes within the real rate of exchange may have a serious impact on producing exports from Africa, Sekkat and Varoudakis (2000).

2.3.1 Relating Foreign Exchange Trading and Profitability
Macro policy that changes rate can profit those companies that export; it'll scale back the gain of companies that area unit intensive users of foreign inputs. therefore, the effects of real rate changes on commerce rely pretty much on the orientation of the world. The restricted response that has been determined within the micro information might mirror the brief period that we've got information. it should mirror the very fact that companies stay destined to the domestic market and import of a lot of their raw materials which mean that real devaluation will adversely influence their profitableness.

On policy failure, one has been economics policy. Overvalued exchange rates and constraints on imports will lead to exportation being unprofitable for nearly all producers not solely, or mainly, for producing ones. an outsized real overvaluation could be a common measure within the dramatic decline in exports volumes throughout the Seventies and early
Eighties in Republic of Ghana, Uganda, Republic of Kenya and Tanzania. it had been the reversal of those policies that was the key policy that enabled export volume growth to occur. The proof appears clear that policies that avoid an overvaluation of the real rate are a pre-condition for the expansion of exports. In terms of macro fluctuations, Calvo et al. (1993) established that foreign factors accounted for 30-60 per cent of the variance in real exchange rates and reserves in 10 Spanish American countries, which can facilitate justification of why Montiel and Serven (2004) found that developing countries faced a lot of higher real exchange rate volatility than developed countries throughout the Nineties. Similarly, within the case of resource flows, Arias (2014) showed that external factors explained over half portfolio inflows to thirteen developing countries throughout the Nineties.

2.3.2 Foreign Exchange Rate Volatility

On a worldwide level, the behavior of volatility of exchange rate has been extensively studied. Adjasi and Biekpe (2015) investigated the connection between stock costs and rate movement in Gold Coast, South Africa, Egypt, Kenya, Mauritius and Nigeria. The study created use of a VAR model to look at the connection between exchange rates and stock costs. Their study found no long-term stable relationship between the exchange costs and exchange rates for these countries.

How do currencies influence worldwide change flows? This has been a recurrent question inside the buying and selling community. because the WTO Director general Pascal Lamy currently put it: "trade rates are, and feature usually been, a surprisingly sensitive concern within the WTO." (Lamy, 2012). The sensitivity of this dating probable has a couple of supply. First, exchange fees are endogenous variables that result from the complex interplay of macroeconomic, economic, and change determinants. however, from the angle of person buyers, foreign money movements are exogenous. The uncertainty and charges related to change rate fluctuations may, therefore, be a cause of frustration for producers. 2nd, alternate fee volatility and prolonged deviations of currencies from their equilibrium tiers frequently impose fees at the real financial system which might be asymmetric, between one-of-a-kind styles of manufacturers and between one-of-a-kind economies.

These asymmetries might also distort worldwide opposition and negatively impact the green allocation of resources among one of a kind activities. 1/3, as highlighted by using Irwin (2011), worldwide alternate and economic family members have in reality passed
through more than one duration of anxiety in the path of records, a mirrored image in their intertwined nature. After the latest monetary crisis, as in previous periods of misery for the arena economic system, alternate fees gave the impression to be a transmission belt of financial shocks to the real financial system and a vector of "monetary dumping". Lamy (2012) adds that the issue of revisiting the query of the change effect of exchange costs is, therefore, a useful exercising to help policymakers distinguish perceptions or prejudices from extra systematic results embed within the concept and the empirical proof. with the intention to separate the "is" from the "ought". That is mainly vital to avoid unwell-designed policy responses by using annoyed countries - including trade protectionism - based on (greater or less justified) accusations of beggar-thy-neighbour behavior of buying and selling partners (Irwin, 2011).

In the remaining many years, the financial literature on the relationship between trade charges and change has accompanied the evolution of the coverage debate. From the angle of the trade policy network, key problems stand out: exchange price volatility and forex misalignments (i.e. an exchange price this is above or beneath the equilibrium trade fee). a primary batch of literature has emerged after the cease of the gold change trendy, all through the 1970's via the 1990's, focusing on the effect of exchange fees volatility on the incentives to trade - a logical outcome of the elevated levels of foreign money volatility caused by the end of the constant (however adjustable) machine of exchange prices (Adjasi & Biekpe, 2015). Secondly, the results of forex misalignments won extra prominence in the 2000s and onwards, whilst sustained deviations of exchange charges have been suspected, rightly or wrongly, to be at the origin of worldwide present day account imbalances. still, for the duration of this era, the discussion on volatility endured and fairly expanded, in parallel (Lamy, 2012).

An ordinary inventory-taking of the economic literature is needed in this domain because of the rapidly evolving nature of the arena financial system in trendy, and of the trading surroundings specially (e.g. the emergence of new trading powers, the increasing importance of local monetary areas, new production techniques such as supply chains). moreover, exchange idea (e.g. New trade principle), estimation techniques and information (especially company-level customs statistics) are making regular progress, most currently in analyzing the exchange effect of exchange rates on heterogeneous corporations. therefore, this paper ambitions at taking inventory of the maximum recent work, roughly
one decade because the closing major evaluate become carried out (the traditional survey via the IMF turned into posted in early 2004).

In a swiftly evolving field such as global economics, a decade can arguably be appeared as a long time. evidence is the fact that the overview by means of the IMF focused at the alternate impact of trade charge volatility and gave little space to the consequences of forex misalignments, absolutely the fundamental difficulty in cutting-edge coverage debate. The view that a growth in exchange price volatility can have unfavorable outcomes on the quantity of worldwide alternate is fantastically big in research carried out throughout the Seventies and Eighties. However, these conclusions relaxation on exceptionally stringent assumptions, which have been scrutinized and at ease through other authors - considerably the belief of best opposition, the large position of the invoicing forex, the absence of imported inputs, the high aversion to danger, and the absence of trade fee hedging economic gadgets. This leads the manner to greater sophisticated models, wherein the connection between change quotes, the delivery of products, and the choice to alternate have become more ambiguous.

2.3.3 Exchange Rate Variability

Another study was conducted by Todani & Munyama (2010) who used the ARDL bounds testing procedure on quarterly information. This disclosed that there was a committed relationship between rate of exchange variability on South African exports to other parts of the globe. Obadan (2009), whereas completing a study in Nigeria by the moving average variance as a measure of variability established that the rate of exchange plays a task in connecting the price system in numerous countries so ensure traders match costs directly. He finalized that changes in rate of exchange have a robust impact on imports and exports of the countries involved through its impact on the relative costs of products. He thought of the rate of exchange to be a very important acquisition variable for counter- inflationary policy. This stems from the essential make-up model of evaluation and therefore the view that nominal wages tend to regulate according to price changes. rate of exchange below this condition conveys data concerning the basics within the economy and the way a fast-depreciating local currency might fuel inflationary expectations.

Exchange rates can leave from their equilibrium degree for two motives. First, it may be a result of government intervention directly aimed at altering the real exchange rate (forex manipulation). on this respect, governments and/or significant banks own several policy
instruments which can affect the actual price of the trade rate, together with the introduction of capital controls or targeted intervention in foreign exchange markets. Misalignments may be the unintended side impact of macroeconomic regulations aimed at reaching domestic targets, or can be a result of distortions inside the worldwide economic architecture or in domestic structural situations (Obadan, 2009).

The academic and coverage debate on forex misalignments revolves round principal factors. the primary is whether the real change rate is a variable that authorities can influence (see, for instance, Eichengreen, 2007, and Rodrik, 2008). The consensus is that the actual trade rate, being the relative price of non-traded items, is not below the direct control of policy-makers. however, its level can be stimulated by means of policy inside the brief or medium term. Eichengreen (2007) illustrates this point with the historic enjoy of Korea in the 1960s, wherein a nominal devaluation was related to a fiscal consolidation which will hold an undervalued degree of the real exchange charge.

The second one factor worries the size of the equilibrium real alternate price. to ascertain the equilibrium exchange rate and, hence, the basic purpose of a forex misalignment is often a tough rely in practice. that is because the change rate is an endogenous variable, which is decided by a complicated set of macroeconomic, economic and exchange elements. Now not incredibly, assessment of misalignments may additionally vary via a big degree. the following discussion will abstract from the purpose (policy or no longer) and the right size of misalignments and could, rather, consciousness on their change consequences inside the long- versus the short-run.

Standard financial concept defines the lengthy-run as the duration wherein all expenses are bendy. placed in an unusual way, in the long-run prices have the time to modify to any coverage change (or other shock). on this context, money is sort of a veil to the real economy, an instinct that dates back. Specifically, while markets don't have any distortions, an exchange price misalignment, which includes the undervaluation of the foreign money, has no lengthy-run effect on alternate flows or on actual economic hobby because does no longer alternate relative charges. the fast-run, on the other hand, may be one of a kind. The purpose is that, if some fees within the financial system take time to alter (i.e. are "sticky"), actions in nominal exchange charges can adjust relative fees and influence both the allocation of sources among non-tradable and tradable sectors and international trade flows.
Textbook open-economy macroeconomic fashions embed those quick-time period outcomes of trade price misalignments (e.g. Krugman & Obstfeld, 2003; Feenstra & Taylor, 2008). Specifically, whilst prices are sticky a nominal depreciation of the home foreign money reasons a real depreciation of the trade rate which signifies that overseas items become pricier than home items. The result of this brief-run trade in relative costs is expenditure switching: the house economic system will import less, as home clients transfer to shopping for home merchandise, and export more, as overseas clients transfer to less highly-priced home goods. This means that during general macroeconomic models, the trade balance (i.e. exports minus imports) is expected to be an growing function of the exchange charge inside the brief-run (Feenstra & Taylor, 2008).

This implication assumes that mechanisms are at play. First, nominal change price depreciation reasons a real depreciation, for that reason elevating the rate of overseas imports relative to home exports. the second one mechanism at play is that any such trade in relative expenses has an immediate effect on imports and exports, and consequently at the trade balance. The short run trade effects of change price misalignments, however, are extra complicated as each of these mechanisms can be problem to questions, depending at the occasions (Rodrik, 2008).

2.4 Effects of Cost of Production on Profitability

McGlashren (2013) cites that production prices are expenses, like materials and labor that an organization incurs within the course of manufacturing the merchandise to sell to customers. In general, the lower the assembly price, the more the profit, or the number left over when subtracting expenses from sales revenue. However, low production prices don't essentially guarantee a high profit. A business might have unsustainably high fastened prices, like rent, or might cut production prices of manufacturing an inferior product that no-one desires.

2.4.1 Cost of Production

A firm maximizes profit by in operation wherever marginal revenue equal marginal prices. A modification in mounted prices has no result on the profit maximizing output or value. The firm just treats short term mounted prices as ruined prices and continues to control as before. this may be confirmed diagrammatically. using the diagram illustrating the overall cost–total revenue perspective, the firm maximizes profit at the point wherever the slopes of the overall cost line and total revenue line are equal. a rise in fixed value would cause
the overall cost curve to shift up by the quantity of the modification. There would be no result on the overall revenue curve or the form of the overall value curve. Consequently, the profit increasing point would stay constant. This time can even be illustrated using the diagram for the marginal revenue–marginal value perspective. A modification in fixed charge would have no result on the position or form of those curves (Tajika & Yui, 2000).

Cost of production (CoP) is a monetary indicator assessing the economic overall performance of manufacturing. Cost is described because the value of an issue of production (input) employed inside the manufacturing of final outputs. The classification of production prices may be made along numerous dimensions (Cesaro et al. 2008). For the present study, a likely class of CoP that might be relevant from methodological point of view is based on whether expenses are traceable to specific farm hobby (i.e. direct as opposed to indirect prices) (Shadbolt, 2011). A direct cost is a fee which can without difficulty and without problems be traced to the precise farm interest (e.g. commodity). For instance, in most instances the use of fertilizer is a right away value of a specific crop as far because the flow of software it produces advantages to that crop (Teixeira, 2011). Vice versa an indirect value is a cost that can't be without problems and without problems traced to the company activity. As an example, if a company produces several commodities, the price item consisting of equipment renovation is an oblique cost of all items for which the machinery changed into utilized (Slaston, 2011).

Here, the motive is that equipment maintenance expenses are not caused by any specific crop but are commonplace to all. Indirect expenses are incurred to aid more than one sports (e.g. a couple of crop commodities) and can't be traced to each individually. 1 oblique prices are normally steady for a huge range of outputs and are grouped beneath fixed factors. It's miles feasible to categorizes almost any kind of cost as either direct or indirect. Labour expenses, as an instance, can be indirect, as within the case of protection employees and managerial labour; or can be direct, as within the case of employed labour for specialized work finished on a selected commodity (Slaston, 2011). In addition, different prices along with machinery and gadget upkeep costs, consisting of for tractor depreciation, are typically categorized as indirect costs, even as machinery and gadget used for a selected commodity (e.g. corn sowing gadget), are protected in direct prices.

A second viable distinction is made among coins’ expenses and noncash charges. For coins’ fees, monetary payments and the consumption of input are realized in the same period. For
noncash costs, both the charge is not realized (opportunity fee of own inputs) or there's a
time lag between the time whilst fee turned into made and whilst the enter became used
(e.g. capital depreciation) (Shadbolt, 2011). Depreciation charges account for the declining
cost of farm assets such as equipment and buildings. opportunity prices (also known as
implicit value and/or imputed price) constitute the fee of own inputs (e.g. very own land,
labour and capital) (Teixeira, 2011).

Because own inputs are used at farm degree, they forgo profits which will be earned if they
have been hired in opportunity activities. The opportunity price represents the cost of own
inputs within the next best alternative use (e.g. the opportunity value of own family labour
is off-company wage; the opportunity charges of personal land is market rental rate). The
attention of possibility costs is one of the key differences between the concepts of financial
value and accounting fee. The latter generally does not consider the possibility fees due to
the fact the real fee transactions are not realized. financial fees don't forget all express and
implicit charges incurred via farms together with opportunity costs. (Shadbolt,2011).

2.4.2 Cost Leadership

Cost leadership strategy refers to gaining competitive advantage through charging
sustainably lower costs than alternative competitors (Porter, 2001). this can be achieved by
reducing prices incurred in production and distribution so as to lower the price of
commodities. In markets wherever there's control, this can be still attainable through
automation, flexibility and improved production thereby eliminating giant share of
inefficiencies within the production function. once a corporation keeps lowering costs
while not a reduction in operative prices, it runs the danger of depletion of resources and
consequently being insolvent particularly during a ferociously competitive market
(Woodruff, 2007).

This strategy faces several challenges in numerous sectors and is barely applicable in
particular environments like within the producing wherever the amount of output is higher
as compared to the market size thereby having the ability to realize economies of scale.
Marrison (2012) advanced the read that, for producing companies to be competitive, they
have to adopt price leadership, characterized by tight management of overhead and variable
prices, optimum use of production capacities and rating below competitive worth levels.
this can be geared toward achieving superior results. Zahra (2000) posits that, outsourcing
may be a widespread technique of reducing remuneration costs whereas maintaining manpower size and productivity.

Cost leadership strategy seeks to boost potency and management prices throughout the organization offer chain (El-Kelety, 2006). The strategy additional needs management to focus its attention on competing on price (Cheah et al., 2007). A low-priced position provides a firm a defense against contention from competitors, as a result of its lower prices means it will still earn returns when its competitors have exhausted their profits through contention (Porter 1980). companies adopting price leadership strategy attempt to be the low-priced producers within the markets. Sources of price benefits depend upon industrial structure. price benefits might come back from economies of scale, economies of scope, demeanor technology, discriminatory access to materials and distinct factors. With price advantages, companies are able to have above-average profits or will command value.

Grant (2015) argues that common to the success of Japanese firms in trade goods industries like cars, motorcycles, electronics, and musical instruments has been the power to reconcile low price with prime quality and technological advancement. This position is additional supplemented by Barney and Hesterley (2006) who affirm that few layers within the structure; easy reportage relationships, little company employees, and specialize in slim range of business functions are parts of organizational structure that permit companies to appreciate the complete potential of price leadership methods.

Li and Li (2008) posit that price leadership strives to provide a customary, high-volume product at the foremost competitive worth to customers. it's necessary to notice that a corporation could be a cost to leader however that doesn't essentially imply that the corporate product would have an occasional price. In sure instances, the corporate will as an example, charge a mean worth whereas following the low-priced leadership strategy and reinvest the additional profits into the business lynch (2003). the danger of following the value leadership strategy, however, is that the corporates specialize in reducing prices even typically at the expense of different principal factors might become therefore dominant that the company loses vision.

Most companies are seeking a property competitive advantage; the porter’s generic methods simply are often guide for companies to outline the strategy direction. it's as easy as that--“the most profitable rival in any trade sector tends to be the lowest-cost producer
or the provider providing a product with the best perceived differentiated values (Christopher, 2011).

The purpose of this strategy is that the company's low-priced product offers in an industry. price leadership strategy takes place through expertise, investment in production facilities, conservation and careful watching overall operative prices (through programs like reducing the scale and quality management) and also the reason for applying the strategy of price leadership is to get the advantage by reducing the economic prices among its competitors (Barney, 2002). the present literature contains some discussions of why the link between leverage and performance depends on a firm’s selection of strategy. companies following a method of price leadership can profit a lot of from the utilization of leverage in terms of the accumulated social control potency that corresponds to be monitored by lenders.

2.4.3 Competitive Pricing

Pricing defines a firm’s competitive position within the market. it's derived from the reciprocity of equalization of fastened and variable value on one aspect and also the demand and profit on the opposite (Taher & El basha, 2006), in line with Fratto, Jones & Cassill (2006), once companies vie for some similar customers with unvaried product offerings, the price defines the competitive position and become a strong competitive tool. However, if a firm isn't familiar with having to compete on worth, it usually becomes exhausting to regulate to that notion.

Price image impacts both customer ideals and customer conduct (Hamilton & Chernev, 2013). It will influence how consumers understand the store’s price stage and how honest costs are. it'll additionally affect shop choice, whether or not the customer makes a purchase in the shop or makes a decision to postpone it in order to test on charges and deals at other stores, in addition to the scale of the basket on each go to to the store. rate image may additionally affect store strategies which includes decisions whether or not to spend money on price sports compared to different components of the customer presenting which might also have a massive effect on fee notion. As a bad charge image is difficult to exchange, it's far a doubtlessly large hassle when new competitors enter the marketplace – no longer the least e-tailers and discounters.

Nowadays’ international of multichannel retailing, understanding how to manipulate rate image each on- and off-line is becoming increasingly essential. Rating image is likewise very a big problem that influences real-global selections through clients in addition to
institutional oversight and policies vis-à-vis retailing. If purchasers become extra aware about our very human failings and inertia in sure regions of choice-making, they might invest greater cognitive assets and make slightly one-of-a-kind selections. For policymakers it can be useful to remember the fact that image-based selection-making may purpose humans to keep based on cues and most effective partially based on real price information, as a consequence rendering legislative efforts on price transparency and shelf-primarily based comparative pricing useless (Puccinelli, Goodstein, Grewal, Price, Raghubir & Stewart, 2009).

In retailing, rate has saved its pivotal function inside the minds of managers. regularly, however, the point of interest has been on the scale of pricing and promotion that managers understand can definitely be influenced via themselves in the short term, that is, manipulation of actual costs in the shop in addition to in advertising and advertising conversation (Nordfält, 2011). This circulation of studies is intuitively attractive due to the fact it could be based totally on real purchaser statistics and is quite easily extracted with nowadays’s databases and analytical gear. it may produce easily understandable analyses of rate elasticities, effects on sales within a product institution, cannibalization and profitability. And, of course, within the short run, in maximum instances the stimuli of rate variation and promoting do in truth produce a trade in customer demand (Nordfält, 2011).

2.5 Chapter Summary
This chapter given a review of literature associated with the aim of the study. The section addressed the background info. The chapter principally centered on reviewing literature associated with the 3 research queries of the study. Successive chapter deals with the research methodology applied to the present explicit study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter outlines the general methodology to be used to conduct the study. It specifies the research design, target population, sampling design, data collection method and instruments, and data analysis and interpretation.

3.2 Research Design
The study used descriptive research design. Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. The plan is the overall scheme or program of the research (Creswel, 2006). In this study, the research problem was best studied with a descriptive survey. Descriptive research portrays an accurate profile of persons, events, or situations (Saunders, Lewis & Thornhill, 2003). Descriptive research design is deemed fit for this study since it allows the collection of data from a sizable population in a highly economical way. Therefore, the descriptive survey was deemed the best strategy to fulfill the objectives of this study. Generally, this design dealt with incidences of, distribution and relationships of variables.

3.3 Population and Sampling Design

3.3.1 Population

A population is defined as the total collection of elements about which we wish to make some inferences. A population element is the subject such as a person, an organization, customer database, or the amount of quantitative data on which the measurement is being taken (Cooper & Schindler, 2003). The target population consisted of finance director, finance officer, production manager and senior accountant and risk management officer in listed manufacturing firms at the NSE. There were 10 manufacturing firms listed at the NSE and therefore resulting in 40 respondents.

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

The sample frame consisted of the 10 manufacturing companies listed in the NSE. This implied that the census was conducted on the target population. Kothari (2011) describes a census as a systematic process where all the members of a population was studied through a research process are involved in the data collection process. This was Finance directors,
finance Officer, Senior Accountant and Risk management Officer in each of the 10 companies.

3.3.2.2 Sampling Technique

Cooper and Schindler (2003), state that the size of a sample should be a function of the variation in the population parameters under study and the estimating precision needed by the researcher. Sampling is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Mugenda & Mugenda 1999). The target population was staff of all the 10 manufacturing firms listed at the NSE. Due to the nature of the study, the study considered the managers in specific departments and the actual targets was Finance directors, Finance Officer, Senior Accountant, production manager, and Risk management Officer in each of the 10 companies.

Since the population was small and variable, no sampling was conducted. According to Cooper & Schindler (2007) when the population is small and variable, any sample we draw may not be representative of the population from which it is drawn; hence, the whole population was considered for the study. From a population of 10 manufacturing firms, a sample size of 50 respondents was selected. This study used a census of the larger population and therefore did not employ any sampling technique but instead examined the study’s target population of all the 10 manufacturing companies that are listed at the NSE.

3.3.2.3 Sample Size

The target population was staff of all the 10 manufacturing firms listed at the NSE. Due to the nature of the study, the study considers the managers in specific departments and the actual targets was Finance directors, finance Officer, Senior Accountant production manager and Risk management Officer in each of the 10 companies and using the sample formula 44 respondents was considered as shown.

Where: \( n = \) sample size

\[ N = \text{Population} \]

\[ e = \text{error} \]

At 95% confidence interval and a population of 50 the sample size was calculated as:
\[
\frac{n}{1 + 50 (0.5)^2} = \frac{50}{1+ 0.125} = \frac{50}{1.125} = 44.44
\]

From the population the researcher randomly picked finance Officer, Senior Accountant production manager and Risk management Officer making the total 40 and since it was very difficult to reach the Finance directors four (4) of them were chosen randomly by rule of thumb from the 10 firms.

### 3.4 Data Collection Methods

Primary data was used in this study. The data was collected using a questionnaire, which has both open ended or closed questions. The questionnaires was divided into two parts. Part one of the questionnaire gathered bio-data of the respondents while second part obtained information on the employees’ opinions and perceptions about the study. The questionnaires were administered to the researcher through direct interaction with the respondents to explain the motive of the study and for purposes of creating rapport that facilitated the carrying out of interviews with these respondents. However, incase collection of data through face to face proves difficult due to tight work schedules on the side of the respondents, the researcher used the drop and pick method. The researcher also sought help of research assistance to administer the questionnaires.

### 3.5 Research Procedure

The research used in this study was developed based on the research objectives. In terms of data collection, the research will enlisted the services of research assistants who were trained on various aspects of research instruments.

Thereafter a pilot study was carried out on survey instruments before they were fine tuned for research. After fine-tuning, the survey instruments were distributed by hand delivery to the respondents in the respective firms and this was done via the respective managers who
acted as the contact persons. Thereafter follow up visits were made to ensure the respondents filled up the instruments and return them back.

3.6 Data Analysis Methods
The data collected, was cleaned, sorted and coded using numerical numbers. Then, it was entered in the SPSS software, after which analysis was done. Descriptive statistics was done using mean and standard deviation and the data presented in the form of pie charts, contingency tables, and bar graphs. Inferential statistics was measured via regression and correlation coefficients between the independent variables (interest rates, exchange rate, cost of production) and dependent variables (profitability).

3.7 Chapter Summary
This chapter highlighted the steps in which the researcher followed during the data collection activity. This chapter is divided into the sub sections that covers introduction, research design, population, and the arrival to the sample size, data collection, data analysis, and the ethical considerations of the study. The next chapter gives the findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents findings, which have been established from the data analysis in line with the questionnaire and research questions. The section will analyse the demographic variables, the second part presents results on what extent does interest rate affect profitability of manufacturing firms listed in NSE in Kenya. The third part presents the findings on the extent exchange rates affect profitability of manufacturing firms listed in NSE in Kenya. The last part analyses the findings on what extent does cost of production affect profitability of manufacturing firms listed in NSE in Kenya.

4.1.1 Response Rate

The researcher distributed 44 questionnaires and only 40 were filled and returned therefore representing a response rate of 90% as shown in table 4.1

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filled and collected</td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td>Non Responded</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2 Demographic Information

4.2.1 Gender

The research sought to establish the response rate of gender. From the study majority of the respondents were male with a response rate of 62.5% while female had a response rate of 37.5 % as shown below in figure 4.1

28
Figure 4.1: Gender

4.2.2 Education Level

The researcher wanted to establish education levels of respondents. Based on this findings Bachelors had majority with a response of 19 representing 47.5 of the population whereas master’s degree had 12 respondents hence representing 30 % of the population, Doctorate holders were 2 representing 5%, and diploma holders were 7 representing 17.5% as shown figure 4.2 below

Figure 4.2: Education Level

4.2.3 Work Experience

From the findings it was revealed that majority of the respondents have worked in the organization for 3-5 years represented 40% of the population, followed by 30% of respondents who have been in the organization for 6-9 years, 17.5 % who have worked for less than 2 years and 12.5% of respondents who have worked over 10 years. This is illustrated in figure 4.3
4.2.4 Designation

From the findings 15 respondents were risk managers representing 37.5% of the population, senior accountants were 13 respondents representing 32.5%, finance officers were 12 representing 30%. Results are illustrated in figure 4.4

Figure 4.4: Position
4.2.5 Duration of existence
It was established that 62.5% of the firms have been in operation for between 6-10%, while 37.5 have been in existence for over 11 years. Results are illustrated in figure 4.6

![Duration of existence](image)

**Figure 4.5: Duration of existence**

4.3 Effects of Interest Rate on Profitability of Manufacturing Firms Listed
4.3.1 Descriptive Of Interest Rate on Profitability

The first objective of the study sought to establish effects of interest rate on profitability of manufacturing firms listed at the NSE. Respondents were given the opportunity to respond on a five point likert scale. Based on finding the economic environment in Kenya is risky. Majority agreed that the economic environment in Kenya is risky (4.16) and that interest rates affects investment on a technology (4.21), there was uncertainty on high volatility of stock markets (3.74) as shown in table 4.2

**Table 4.2: Descriptive of Exchange Rate of Foreign Currencies**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The economic environment in Kenya is risky</td>
<td>4.16</td>
<td>1.019</td>
</tr>
<tr>
<td>There is a high volatility of stock markets</td>
<td>3.74</td>
<td>.668</td>
</tr>
<tr>
<td>Interest rates affects investment on a technology</td>
<td>4.21</td>
<td>.737</td>
</tr>
</tbody>
</table>
4.3.2 Descriptive On Strategic Options to Manage Interest Rate Risk Exposure

The study also sought to establish strategic options to manage interest rate risk exposure respondents were asked to respond to a set of questions on a five point likert scale. Majority of the respondents agreed that Interest rate fluctuations have an impact on the company’s competitive position (4.12). However, there was uncertainty on the cost of hedging by financial means being too high (3.48) or the change in the interest having minimal effect on cashflow (3.95) as shown in Table 4.3.

**Table 4.3: Strategic Options to Manage Interest Rate Risk Exposure**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate fluctuations have an impact on the company’s competitive position</td>
<td>4.12</td>
<td>.651</td>
</tr>
<tr>
<td>The cost of hedging by financial means is too high</td>
<td>3.48</td>
<td>0.650</td>
</tr>
<tr>
<td>The change in the interest has minimal effect on cashflow</td>
<td>3.95</td>
<td>0.214</td>
</tr>
</tbody>
</table>

4.3.3 Regression between Exchange Rate and Profitability

A regression analysis was done between variables Exchange Rate and profitability. On analysis, the R square value was 0.159 and a p-value of (0.000) was significant. This means that 86.9% of the variation in profitability was caused by the variation in exchange rate of as highlighted in table 4.4

**Table 4.4: Model Summary on Exchange Rate and Profitability**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.398a</td>
<td>.159</td>
<td>.152</td>
<td>.11265</td>
<td>.159</td>
<td>40.382</td>
<td>4a</td>
<td>35</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Interest rate fluctuations , cost of hedging by financial means is too high, change in the interest on cashflow.
An ANOVA analysis was done between effects of exchange rate of foreign currencies on profitability at 95% confidence level, the F critical was 40.382 and the P value was (0.000) therefore showing a significant difference in the mean between exchange rate of foreign currencies on profitability. Results is illustrated below in table 4.5

**Table 4.5: ANOVA on Exchange Rate of Exchange Rate and Profitability**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6.542</td>
<td>5</td>
<td>1.3084</td>
<td>40.382</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>1.135</td>
<td>35</td>
<td>.0324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7.677</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: profitability

b. Predictors: (Constant), Interest rate fluctuations, cost of hedging by financial means is too high, change in the interest on cashflow.

### 4.3.3 Coefficient of Exchange Rate of Exchange Rate and Profitability

A Pearson correlation was done between Profitability (dependent variable) against other factors of exchange rate. When profitability was predicted on exchange rate of foreign currencies constant (p value=0.680). Interest rate fluctuations (Beta=.435, p-value=.762), Cost of hedging by financial means is too high (Beta=.003, p-value=.972), Change in the interest on cashflow (Beta=-.069, p-value =.316). No variable was significant (p value<0.05). Table 4.5 below shows results of the regression coefficients, t-statistics, standard errors of the estimates and p values are shown in table 4.6
Table 4.6: Coefficients of Exchange Rate on Profitability

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) Profitability</td>
<td>2.852</td>
<td>.470</td>
<td>5.817</td>
</tr>
<tr>
<td></td>
<td>Interest rate fluctuations</td>
<td>.435</td>
<td>.029</td>
<td>1.005</td>
</tr>
<tr>
<td></td>
<td>Cost of hedging by financial means is too high</td>
<td>-.003</td>
<td>.092</td>
<td>-.014</td>
</tr>
<tr>
<td></td>
<td>Change in the interest on cashflow</td>
<td>-.069</td>
<td>.088</td>
<td>-.164</td>
</tr>
</tbody>
</table>

4.4 Effects of Exchange Rate on Profitability
The second objective of the study sought to establish effects of forex rate on profitability of manufacturing firms. Respondents were asked to respond to a set of questions on a five point likert scale.

4.4.1 Descriptive on Effects of Forex Rate on Profitability
The study also sought to establish effects of Forex rate on Profitability. Majority of the respondents agreed that Foreign exchange volatility affects the profitability (4.45), Foreign exchange volatility affects the performance (4.12). There was however uncertainty on whether Foreign exchange volatility affects the competitiveness (3.95), or whether the firms have adequate internal regulations for foreign exchange volatility (3.45) as well as if clear policies regarding foreign exchange volatility are in lace (3.42) as indicated in table 4.7.
Table 4.7: Effects of Forex Rate on Profitability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign exchange volatility affects the performance of my company</td>
<td>4.12</td>
<td>0.327</td>
</tr>
<tr>
<td>Foreign exchange volatility affects the profitability of my company</td>
<td>4.45</td>
<td>0.457</td>
</tr>
<tr>
<td>Foreign exchange volatility affects the competitiveness of my company</td>
<td>3.95</td>
<td>0.498</td>
</tr>
<tr>
<td>My company has clear policies regarding foreign exchange volatility</td>
<td>3.42</td>
<td>0.388</td>
</tr>
<tr>
<td>My company has adequate internal regulations for foreign exchange volatility</td>
<td>3.45</td>
<td>0.684</td>
</tr>
</tbody>
</table>

4.4.2 Regression between Forex on Profitability

A regression analysis was done between variables of Forex rate and Earning on profitability. On analysis, the R square value was (.139) and a p-value of (.000) was significant this means that 13.9% of the variation in profitability was because of the variation in forex rate. Results are illustrated in below in table 4.8

Table 4.8: Regression between Forex rate and Profitability

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.372(^a)</td>
<td>.139</td>
<td>.128</td>
<td>.21067</td>
<td>.139</td>
<td>27.579</td>
<td>6</td>
<td>35</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant),

b. Forex volatility affects the performance, Forex volatility affects the profitability, Forex volatility affects the competitiveness, clear policies regarding forex volatility, adequate internal regulations

35
An ANOVA analysis was done between forex rate on Profitability at 95% confidence level, the F critical was 14.899 and the P value was (0.000) therefore showing a significant difference in the mean between forex rate and earnings on profitability. Results is illustrated below in table 4.9

**Table 4.9: ANOVA between Forex Rate and Earnings from Profitability in Kenya**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>3.148</td>
<td>6</td>
<td>0.524</td>
<td>27.579</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>0.654</td>
<td>35</td>
<td>.019</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.440</td>
<td>41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable Profitability  

b. Forex volatility affects the performance, Forex volatility affects the profitability, Forex volatility affects the competitiveness, clear policies regarding forex volatility, adequate internal regulations

### 4.4.3 Coefficient of Forex Rate on Profitability

A Pearson correlation was done between profitability (dependent variable) and forex rate. When profitability was predicted on forex rate Constant (p value=0.000). Finding revealed that Forex volatility affects the performance (Beta=.456, p-value =.005), forex volatility affects the profitability (Beta=.259, p-value=.022), forex volatility affects the competitiveness (Beta=.374, p-value =.112), company has clear policies regarding foreign exchange volatility (Beta=.657, p-value=.210), company has adequate internal regulations for foreign exchange volatility (Beta=.425, p-value=.182).

From the findings the variables Forex volatility affects the performance and forex volatility affects the profitability were significant (p value < 0.05). The results of the regression coefficients, t-statistics, standard errors of the estimates and p values are shown in table 4.10.
Table 4.10: Coefficient of Forex rate and Earnings from Profitability in Kenya

<table>
<thead>
<tr>
<th>Model</th>
<th>(Constant) Profitability</th>
<th>Forex volatility affects the performance</th>
<th>Forex volatility affects the profitability</th>
<th>Forex volatility affects the competitiveness</th>
<th>My company has clear policies regarding foreign exchange volatility</th>
<th>My company has adequate internal regulations for foreign exchange volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
<td>Sig.</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>4.234</td>
<td>.189</td>
<td></td>
<td>14.325</td>
<td>.000</td>
<td>4.56</td>
</tr>
</tbody>
</table>

4.4.4 Descriptive On Tools for Mitigating

The study also sought to establish the important of financial tools in managing exchange rate fluctuations. Majority of the respondents agreed that foreign exchange contracts (4.12), forwards and swaps (4.15), Options (4.95) and interest rate contracts (4.02) are important in managing exchange rate fluctuations. On the other, hand there was uncertainty on use of total contracts as a tools in managing exchange rate fluctuations. The results are in table 4.11

Table 4.11: Tools for Managing Exchange Rate Fluctuations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total contracts</td>
<td>3.95</td>
<td>1.042</td>
</tr>
<tr>
<td>Foreign exchange contracts</td>
<td>4.12</td>
<td>0.152</td>
</tr>
<tr>
<td>Forwards and swaps</td>
<td>4.15</td>
<td>0.428</td>
</tr>
<tr>
<td>Options</td>
<td>4.95</td>
<td>1.145</td>
</tr>
<tr>
<td>Interest rate contracts</td>
<td>4.02</td>
<td>0.899</td>
</tr>
</tbody>
</table>
4.5: Relationship between Production cost and Profitability

The third objective of the study sought to establish relationship between production cost and profitability. Respondents were asked to respond to a set of questions on a five point likert scale.

4.5.1 Descriptive on Relationship between Production Cost and Profitability

The respondents agreed that they have been able to attainable low costs through automation (4.56), outsourcing technique has been applied to reduce remuneration (4.36), the firm maximizes profit by reducing operation costs (4.15), there is uncertainty on the firm adopting price leadership strategy (3.95) and matching low price with quality and technological advancement.

Table 4.12: Relationship between Production cost and Profitability

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>My company maximizes profit by reducing operation costs</td>
<td>4.15</td>
<td>.617</td>
</tr>
<tr>
<td>We have attainable low costs through automation</td>
<td>4.56</td>
<td>1.214</td>
</tr>
<tr>
<td>The firm has adopted price leadership strategy</td>
<td>3.95</td>
<td>.423</td>
</tr>
<tr>
<td>Outsourcing technique has been applied to reduce remuneration</td>
<td>4.36</td>
<td>.890</td>
</tr>
<tr>
<td>We match low price with quality and technological advancement.</td>
<td>3.92</td>
<td>0.453</td>
</tr>
</tbody>
</table>

4.5.2 Regression between Production cost and Profitability

A regression analysis was done between variables between production cost and profitability. On analysis, the R square value was 0.129 and a p-value of (0.000) was significant. This means that 12.9% of the variation in profitability was caused by the variation in government, politics, and foreign exchange and profitability. Results are illustrate in table below
Table 4.13: Model Summary on Production Cost and Profitability

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1, df2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
</tr>
<tr>
<td>1</td>
<td>.359a</td>
<td>.129</td>
<td>.124</td>
<td>.124</td>
<td>8.6607</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40, .000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Profitability
b. Predictors: (Constant), maximizes profit by reducing operation costs, attainable low costs through automation, adopted price leadership strategy, Outsourcing technique to reduce remuneration, low price with quality and technological advancement.

An ANOVA analysis between effects of Production cost and Profitability at 95% confidence level revealed that the F critical was 8.660 and the P value was (0.000) therefore significant. This result therefore shows that there was a statistically significant difference in the mean between the various variables of Government, Politics, Foreign Exchange that influence profitability.

Table 4.14: ANOVA of Production cost and Profitability

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1.456</td>
<td>3</td>
<td>0.485</td>
<td>8.660</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.278</td>
<td>40</td>
<td>.056</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.754</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Profitability
b. Predictors: (Constant), maximizes profit by reducing operation costs, attainable low costs through automation, adopted price leadership strategy, Outsourcing technique to reduce remuneration, low price with quality and technological advancement.

4.5.3 Coefficient of Production cost and Profitability

When profitability was predicted on relationship between production cost and profitability (p value=0.000). From the analysis above, company maximizes profit by reducing operation costs (Beta=.122, p-value=.030), attainable low costs through automation
(Beta=0.259, p-value=.015), The firm has adopted price leadership strategy (Beta=.312, p-value=.000), outsourcing technique has been applied to reduce remuneration (Beta=.512, p-value=.115), we match low price with quality and technological advancement (Beta=.112, p-value .219).

The variables: company maximizes profit by reducing operation costs, attainable low costs through automation, and the firm has adopted price leadership strategy were significant with p-value <0.05. The results of the regression coefficients, t-statistics, standard errors of the estimates and p values are illustrated below in table 4.15.

Table 4.15: Coefficients of Production Cost and Profitability

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant) Profitability</td>
<td>B: 1.674</td>
<td>Beta: .136</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .353</td>
<td>t: 4.515</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .000</td>
</tr>
<tr>
<td>Company maximizes profit by reducing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>operation costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: .122</td>
<td>Beta: .136</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .078</td>
<td>t: 1.364</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .030</td>
</tr>
<tr>
<td>We have attainable low costs through</td>
<td></td>
<td></td>
</tr>
<tr>
<td>automation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: .259</td>
<td>Beta: .261</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .079</td>
<td>t: 2.385</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .015</td>
</tr>
<tr>
<td>The firm has adopted price leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: .312</td>
<td>Beta: .627</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .087</td>
<td>t: 6.114</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .000</td>
</tr>
<tr>
<td>Outsourcing technique has been applied to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reduce remuneration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: .512</td>
<td>Beta: .289</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .156</td>
<td>t: 4.115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .115</td>
</tr>
<tr>
<td>We match low price with quality and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>technological advancement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: .112</td>
<td>Beta: .897</td>
</tr>
<tr>
<td></td>
<td>Std. Error: .269</td>
<td>t: 1.451</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig.: .219</td>
</tr>
</tbody>
</table>

4.6 Correlation Analysis between Profitability and Other Variables

The research did a correlation analysis to determine the relationship between profitability, interest rate, exchange rate and production cost. Finding from the research revealed that
there was a negative correlation between profitability and interest rate, (I=-.123, r>0.05), also a strong positive correlation between profitability and exchange rate (E= 0.154, r<0.05), and a negative correlation between profitability and cost of production (C=-.062, r>0.05).

Table 4.16: Correlation Analysis between Profitability and Other Variables

<table>
<thead>
<tr>
<th></th>
<th>Profitability</th>
<th>Interest Rate</th>
<th>Exchange Rate</th>
<th>Cost of production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.123</td>
<td>.154**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.069</td>
<td>.020</td>
<td>.114</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>Pearson Correlation</td>
<td>-.123</td>
<td>1</td>
<td>.582</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.069</td>
<td>.699</td>
<td>.211</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>Pearson Correlation</td>
<td>.154**</td>
<td>.582</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.020</td>
<td>.699</td>
<td>.042</td>
</tr>
<tr>
<td>Cost of production</td>
<td>Pearson Correlation</td>
<td>-.062</td>
<td>-.192</td>
<td>-.308*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.114</td>
<td>.211</td>
<td>.042</td>
</tr>
</tbody>
</table>

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

4.7 Chapter Summary
This chapter has brings forward the results and findings. The first section provided a critical analysis of demographic data, the second section effects of interest rate on profitability, the third section provided findings on effects of exchange rates on profitability. The fourth section give the findings on the relationship between production cost and profitability. Chapter five discusses the findings, conclusions and recommendations as per the findings.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction
In this chapter, the findings from the data collected are presented. Subsequently, the findings are discussed in relation to previous studies and findings from the literature conclusions and recommendations are also drawn.

5.2 Summary
The study was aimed at determining the extent to which financial factors affecting profitability of manufacturing firms listed in the NSE in Kenya. The study was guided by the following questions; to what extent does interest rate affect profitability of manufacturing firms listed in NSE in Kenya? To what extent does exchange rates affect profitability of manufacturing firms listed in NSE in Kenya? To what extent does cost of production affect profitability of manufacturing firms listed in NSE in Kenya?

The target population consisted of 50 employees from manufacturing firms in Kenya, where a sample of 44 respondents was drawn out of which 40 questionnaires were filled and returned. The data was then scrutinized using descriptive and inferential statistics by using SPSS software. The results were offered by use of figures and tables.

With regard to the first objective, majority agreed that the economic environment in Kenya is risky and that interest rates affects investment on a technology, there was uncertainty on high volatility of stock markets as shown. The study also sought to establish strategic options to manage interest rate risk exposure respondents were asked to respond to a set of questions on a five point likert scale. Majority of the respondents agreed that Interest rate fluctuations have an impact on the company’s competitive position. However, there was uncertainty on the cost of hedging by financial means being too high or the change in the interest having minimal effect on cash flow.

The study also sought to establish effects of Forex rate on Profitability. Majority of the respondents agreed that Foreign exchange volatility affects the profitability; Foreign exchange volatility affects the performance. There was however uncertainty on whether Foreign exchange volatility affects the competitiveness, or whether the firms have adequate internal regulations for foreign exchange volatility as well as if clear policies regarding foreign exchange volatility are in place. A regression done between variables of Forex rate
and earning on profitability revealed that 13.9% of the variation in profitability was because of the variation in forex rate.

The third objective of the study sought to establish relationship between production cost and profitability. The respondents agreed that they have been able to attainable low costs through automation, outsourcing technique has been applied to reduce remuneration, the firm maximizes profit by reducing operation costs, and there was uncertainty on the firm adopting price leadership strategy and matching low price with quality and technological advancement. Regression analysis revealed that the variables: company maximizes profit by reducing operation costs, attainable low costs through automation, and the firm has adopted price leadership strategy were significant with p-value <0.05.

5.3 Discussion

5.3.1 Interest Rate Affect Profitability

With regard to the first objective, majority agreed that the economic environment in Kenya is risky and previous research has established that incidences such as decline in the interest rate as a common rule is most excellent for the economic atmosphere because firms can easily pay for taking loan as they don’t have to pay higher interest rate for taking the loans. To regulate the economic development, interest rate is used as a device. As economy developed rapidly it will cause inflation in the economy (Amadeo, 2012).

In other words Revel (2011) explains that prices go up to higher point which reduce the buying power of people which affect the demand of people for goods and services because of the shifting accessibility of bank loans. But on the other hand, when interest rates are low the cost of borrowing decline which increase the buying power of public and as result they tend to make investments and spend in different forms. Mulani (2012) adds that lower interest rate also gives opportunity to businesses to take capital investment loan. By making huge investment in rising sectors and making significant profit, it also enhances the firm’s confidence.

As result the economy become stable and employment opportunities in the country increases The findings show that interest rates affects investment on a technology. Similarly, Mulani (2012) also established that manufacturing corporations within the developing countries have in recent past undergone lots of depression, this includes: increasing costs of oil and raw materials, high interest rates, high advancement in
innovation and technology also as high client expectation on the standard of product and services.

The study also found that there was uncertainty on high volatility of stock markets as however Mulani (2012) study reveals that there is empirical proof additionally shows a rise within the volatility of stock markets and also the earnings of corporations in developed and developing countries for the last three decades.

Majority of the respondents agreed that Interest rate fluctuations have an impact on the company’s competitive position. Previous studies show that Increasing rate and capital flow volatility are found to increase inflation uncertainty and encourage investments whereas discouraging fixed investments by real sector corporations (UNCTAD, 2016). what is more, world bank (2012) estimates that reducing consumption volatility could produce welfare gains within the order of 4%-10% of consumption in 20 Latin American countries (with an overall mean of 20% and median of 7.7%) although such gains would be 1.2% on the average in developed countries, additionally, despite comprehensive reform programs persistent capital market imperfections and high real interest rates in developing countries still hurt firm profit.

However, there was uncertainty on the cost of hedging by financial means being too high or the change in the interest having minimal effect on cash flow. Previous studies differ to this as indicated by Baulier (2011) who noted that rising rate of interest and over disbursement cause stress on inflation. Whereas on the other hand, once rate of interest goes up it makes borrowing costlier resulting into fall in growth and investment on a brand-new technology. Rate of interest not simply priced to loans, but it's conjointly priced to unpaid bills, mortgages and credit cards and it's solely applicable on the unpaid portion of bills or loans

5.3.2 Exchange Rates Affect Profitability

Majority of the respondents agreed that Foreign exchange volatility affects the profitability and performance of firms. A comparative study of corporations across four African countries, however over a really short period of time, found restricted proof that corporations were affected by real exchange rate changes (Bigsten et al.1999). Alternative proof, supported by macro knowledge, suggests that changes within the real rate of exchange may have a serious impact on producing exports from Africa, Sekkat and Varoudakis (2000).
Overvalued exchange rates and constraints on imports will lead to exportation being unprofitable for nearly all producers not solely, or mainly, for producing ones. an outsized real overvaluation could be a common measure within the dramatic decline in exports volumes throughout the Seventies and early Eighties in Republic of Ghana, Uganda, Republic of Kenya and Tanzania. it had been the reversal of those policies that was the key policy that enabled export volume growth to occur (Sekkat an Varoudakis (2000).

The proof appears clear that policies that avoid an overvaluation of the real rate are a pre-condition for the expansion of exports. In terms of macro fluctuations, Calvo et al. (1993) established that foreign factors accounted for 30-60 per cent of the variance in real exchange rates and reserves in 10 Spanish American countries, which can facilitate justification of why Montiel and Serven (2004) found that developing countries faced a lot of higher real exchange rate volatility than developed countries throughout the Nineties. Similarly, within the case of resource flows, Arias (2014) showed that external factors explained over half portfolio inflows to thirteen developing countries throughout the Nineties.

There was however uncertainty on whether Foreign exchange volatility affects the competitiveness, or whether the firms have adequate internal regulations for foreign exchange volatility as well as if clear policies regarding foreign exchange volatility are in place. On a worldwide level, the behavior of volatility of exchange rate has been extensively studied. Adjasi & Biekpe (2015) investigated the connection between stock costs and rate movement in Gold Coast, South Africa, Egypt, Kenya, Mauritius and Nigeria. The study created use of a var model to look at the connection between exchange rates and stock costs. Their study found no long-term stable relationship between the exchange costs and exchange rates for these countries.

A regression done between variables of Forex rate and earning on profitability revealed that 13.9% of the variation in profitability was because of the variation in forex rate. Adjasi and Biekpe (2015) explain that macro policy that changes rate can profit those companies that export; it'll scale back the gain of companies that area unit intensive users of foreign inputs. therefore, the effects of real rate changes on commerce rely pretty much on the orientation of the world. Another study was conducted by Todani & Munyama (2010) who used the ARDL bounds testing procedure on quarterly information. This disclosed that there was a significant relationship between rate of exchange variability on South African
exports to other parts of the globe. Obadan (2009), whereas completing a study in Nigeria by the moving average variance as a measure of variability established that the rate of exchange plays a task in connecting the price system in numerous countries so ensure traders match costs directly.

Obadan (2009), finalized that changes in rate of exchange have a robust impact on imports and exports of the countries involved through its impact on the relative costs of products. He thought of the rate of exchange to be a very important acquisition variable for counter-inflationary policy. This stems from the essential make-up model of evaluation and therefore the view that nominal wages tend to regulate according to price changes. rate of exchange below this condition conveys data concerning the basics within the economy and the way a fast-deprecating local currency might fuel inflationary expectations.

5.3.3 Cost of Production Affect Profitability

The third objective of the study sought to establish relationship between production cost and profitability. The respondents agreed that they have been able to attainable low costs through automation. McGlaphren (2013) cites that production prices are expenses, like materials and labor that an organization incurs within the course of manufacturing the merchandise to sell to customers. In general, the lower the assembly price, the more the profit, or the number left over when subtracting expenses from sales revenue. However, low production prices don't essentially guarantee a high profit. A business might have unsustainably high fastened prices, like rent, or might cut production prices of manufacturing an inferior product that no-one desires.

The findings also revealed that outsourcing technique has been applied to reduce remuneration, and the firm maximizes profit by reducing operation costs. Cost leadership strategy refers to gaining competitive advantage through charging sustainably lower costs than alternative competitors (Porter, 2001). This can be achieved by reducing prices incurred in production and distribution so as to lower the price of commodities. In markets wherever there's control, this can be still attainable through automation, flexibility and improved production thereby eliminating giant share of inefficiencies within the production function. once a corporation keeps lowering costs while not a reduction in operative prices, it runs the danger of depletion of resources and consequently being insolvent particularly during a ferociously competitive market (Woodruff, 2007).
There was uncertainty on the firm adopting price leadership strategy and matching low price with quality and technological advancement. However, Marrison (2012) explains that for producing companies to be competitive, they have to adopt price leadership, characterized by tight management of overhead and variable prices, optimum use of production capacities and rating below competitive worth levels. this can be geared toward achieving superior results. Zahra (2000) posits that, outsourcing may be a widespread technique of reducing remuneration costs whereas maintaining manpower size and productivity.

Cost leadership strategy seeks to boost potency and management prices throughout the organization offer chain (El-Keley, 2006). The strategy additional needs management to focus its attention on competing on price (Cheah et al., 2007). A low-priced position provides a firm a defense against contention from competitors, as a result of its lower prices means it will still earn returns when its competitors have exhausted their profits through contention (Porter 1980). companies adopting price leadership strategy attempt to be the low-priced producers within the markets. Sources of price benefits depend upon industrial structure. price benefits might come back from economies of scale, economies of scope, demeanor technology, discriminatory access to materials and different factors. With price advantages, companies are able to have above-average profits or will command value.

Regression analysis revealed that the variables: company maximizes profit by reducing operation costs, attainable low costs through automation, and the firm has adopted price leadership strategy were significant with p-value <0.05. Grant (2015) argues that common to the success of Japanese firms in trade goods industries like cars, motorcycles, electronics, and musical instruments has been the power to reconcile low price with prime quality and technological advancement. This position is additional supplemented by Barney and Hesterley (2006) who affirm that few layers within the structure; easy reportage relationships, little company employees, and specialize in slim range of business functions are parts of organizational structure that permit companies to appreciate the complete potential of price leadership methods.

Li and Li (2008) posit that price leadership strives to provide a customary, high-volume product at the foremost competitive worth to customers. it's necessary to notice that a corporation could be a cost to leader however that doesn't essentially imply that the corporate product would have an occasional price. In sure instances, the corporate will as
an example, price a mean worth whereas following the low-priced leadership strategy and reinvest the additional profits into the business lynch (2003). the danger of following the value leadership strategy, however, is that the corporate's specialize in reducing prices even typically at the expense of different important factors might become therefore dominant that the company loses vision.

5.4 Conclusion
5.4.1 Interest Rate Affect Profitability

It is established that the economic environment and interest rate fluctuations have an impact on the company’s competitive position and operations in the industry. However, there is a lack of knowledge on the cost of hedging and the impact of interest rate on cash flow.

5.4.2 Exchange Rates Affect Profitability

The study concluded that foreign exchange volatility affects the profitability as well the performance. There is a need for the involved bodies to have the necessary knowledge about foreign exchange volatility and its impact on the competitiveness. The study also concluded that the firms need to have adequate internal regulations for foreign exchange volatility and this should be fostered by setting up of clear policies regarding foreign exchange volatility.

5.4.3 Cost of Production Affect Profitability

The study concluded that manufacturing firms have had low costs through the implementation of automation and outsourcing technique. The firms should continue reducing operation costs so as to maximizes profit.

5.5 Recommendations
5.5.1 Recommendations for Improvement

5.5.1.1 Interest Rate Affect Profitability

Interest rate fluctuations have an impact on the company’s competitive position this therefore shows the risky economic environment in Kenya. It is necessary for this firms to adopt measures to assist them mitigate the uncertainty on high volatility of stock markets. This could include getting into contracts with suppliers to minimize these risks.
5.5.1.2 Exchange Rates Affect Profitability

Foreign exchange volatility affects the profitability, performance in able to sort this the firms need to utilize financial tools such as foreign exchange contracts, forwards and swaps, Options and interest rate contracts to managing exchange rate fluctuations.

5.5.1.3 Cost of Production Affect Profitability

Manufacturing firms need to adopt automation, outsourcing technique and reduce operation costs to be able to enjoy profit maximization. Despite many not being aware of the firms adopting price leadership strategy and matching low price with quality and technological advancement. There is a need to adopt the techniques, as they would help the firms increase profitability.

5.5.2 Recommendation for Further Studies

This study focused on manufacturing firms and there is a need for a similar study to be done on agricultural and automobile industry to be able to generalize the findings of the study.
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Grambovas, M., & Mcleay, K. (2002). Do Firms Hedge In Response To Tax Incentives?.The Journal Of Finance, 57(2), 815-839
Fiat Money: Money Without Intrinsic Value That Is Used As Money Because Of Government Decree


“Sustainability And Production Costs In The Global Farming Sector: Comparative Analysis And Methodologies” European Commission, Brussels 21-22 June 2011


Vong, A, Hoi, S. (2009). Determinants Of Bank Profitability In Macao. Faculty Of Business Administration, University Of Macau
APPENDIX I: QUESTIONNAIRE

Questionnaire on the impact of financial factors on profitability of manufacturing firms listed on the Nairobi securities exchange

The purpose of this questionnaire is to collect information on impact of financial factors on profitability of manufacturing firms listed on the Nairobi Securities Exchange. All the information collected will be treated as private and confidential and will only be used for research purposes. Your assistance in completion of this questionnaire is highly appreciated.

Section 1: General Information

Tick the appropriate response from the alternatives provided.

1.1. Indicate your Gender:

[ ] Male    [ ] Female

1.2. Indicate your level of education

[ ] a. Diploma
[ ] b. Bachelor
[ ] c. Masters
[ ] d. Doctorate
[ ] e. Other (Please specify) __________________________

1.3. How long have you been working in the Manufacturing industry?

[ ] a. Less than 2 years
[ ] b. 3 – 5 years
[ ] c. 6 – 9 years
[ ] d. 10 years and above

1.4. What is your position in the company?

[ ] a. Finance officer
[ ] b. Senior accountant
[ ] Risk manager
[ ] c. Other (Please specify) __________________________

1.5. How many years has your firm operated in Kenya?

[ ] a. Less than a year
[ ] b. 1 – 5
[ ] c. 6 – 10
[ ] d. 11 – and above
**Section 2: Interest Rate Exposure**

2.1. Please tick (✓) the appropriate answer for the alternatives

Where: Strongly Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly agree (5)

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<thead>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>The economic environment in Kenya is risky</td>
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<tr>
<td>There is a high volatility of stock markets</td>
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<tr>
<td>Interest rates affect investment on a technology</td>
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<td>Interest rates affect buying power of manufacturing firms</td>
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</table>

**Strategic options to manage Interest rate risk exposure**

2.2. Tick (✓) the appropriate answer from the alternatives.

Where: Strongly: Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly agree (5)

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<tbody>
<tr>
<td>Interest rate fluctuations have an impact on the company’s competitive position</td>
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<tr>
<td>The cost of hedging by financial means is too high</td>
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<tr>
<td>The change in the interest has minimal effect on cashflow.</td>
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**Section 3: Relationship Between Foreign Exchange Trading And Profitability**

3.1. For the statements below, tick (✓) where appropriate

Where: Strongly Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly agree (5)

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<tbody>
<tr>
<td>Foreign exchange volatility affects the performance of my company</td>
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<tr>
<td>Foreign exchange volatility affects the profitability of my company</td>
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<tr>
<td>Foreign exchange volatility affects the competitiveness of my company</td>
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<tr>
<td>My company has clear policies regarding foreign exchange volatility</td>
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<tr>
<td>My company has adequate internal regulations for foreign exchange volatility</td>
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</table>
3.2. How important are the following financial means/tools used in managing exchange rate fluctuations?

Where Strongly Disagree (1) Disagree (2) Neutral (3) Agree(4) Strongly agree (5).

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<tr>
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<th>2</th>
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<tbody>
<tr>
<td>Total contracts</td>
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<tr>
<td>Foreign exchange contracts</td>
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<td>Forwards and swaps</td>
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<td>options</td>
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<tr>
<td>Interest rate contracts</td>
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</table>

3.3. Any other tool affecting exchange rate fluctuations

Section 4: Relationship Between cost of production And Profitability

3.1. For the statements below, tick (√) where appropriate

Where: Strongly Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly agree (5)

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>My company maximizes profit by reducing operation costs</td>
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<tr>
<td>We have attainable low costs through automation</td>
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<tr>
<td>The firm has adopted price leadership strategy</td>
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<tr>
<td>Outsourcing technique has been applied to reduce remuneration</td>
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<tr>
<td>We match low price with quality and technological advancement.</td>
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</tbody>
</table>

THANK YOU FOR TAKING YOUR TIME TO FILL THIS QUESTIONNAIRE
APPENDIX II: MANUFACTURING FIRMS LISTED AT THE NSE

1. B.O.C Kenya Ltd
2. British American Tobacco Kenya Ltd
3. Carbacid Investments Ltd
4. East African Breweries Ltd
5. Mumias Sugar Co. Ltd
6. Unga Group Ltd
7. Eveready East Africa Ltd
8. Kenya Orchards Ltd
9. A. Baumann CO Ltd
10. Bamburi Cement