

**THE INFLUENCE OF INFLATION ON FINANCIAL  
OPERATIONS: A CASE OF CRDB BANK**

**By  
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**A Dissertation Submitted in Partial Fulfillment of the Requirements for Award  
of Master of Accountancy and Finance (MSC Accountancy & Finance) of  
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**2014**

**CERTIFICATION**

We, the undersigned, certify that we have read and hereby recommend for the acceptance by the Mzumbe University, a dissertation entitled **The Influence of Inflation on Financial Operations: A Case of CRDB Bank**, in partial fulfillment of the requirements for award of the degree of Master of Business Administration of Mzumbe University.

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## **DEDICATION**

I, dedicate this work to my parents in a way that cannot be forgotten due to their vital responsibility of forming, directing and influencing me in all circumstances to get my education.

## **ABBREVIATIONS AND ACRONYMS**

BOT	-	Bank of Tanzania
CPI	-	Consumer Price Index
CRDB	-	Cooperative Rural Development Bank
PPI	-	Producer Price Index

## **ABSTRACT**

The study on the influence of inflation on financial operations was conducted at CRDB bank. The objectives of the study were; to identify issues which cause inflation in tanzania; to analyze techniques which are used by the bank to combat inflation and to assess the extent inflation influenced bank operations.

A case study design was used where as 80 respondents were considered as a sample size. Data collection methods were questionnaire, interview and documentary analysis. where as data collection instruments were questionnaire, interview questions and documentary analysis schedule. Data were presented by using table and graphs.

The study found that, there are different issues that can cause inflation in tanzania. The major causes for inflation involves; raw material prices, public expenditure, oil price and money circulation. Also, the study found significant number of the respondents (25%) identified fiscal and monetary policy as a major technique used by the bank to combat inflation. The study found majority of the respondents (77.5%) suggested inflation has high influence on bank operations.

The study concluded that, there are different issues that can cause inflation in Tanzania. The major cause of inflation involves; labour market, import prices, raw material prices, public expenditure, oil price, money circulation and decline in productivity. Also, the study concluded that there are various techniques that can be used to control inflation. Inflation can be controlled though; Fiscal and monetary policy, increase interest rate, reduces export demand, making import cheaper, increase saving rate and control wage. The study recommended that bank operating expenses should be considered as a determinant and prerequisite for improving bank performance, since expenditure are controllable expenses.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Problem**

There is now a substantial body of evidence indicating that sustained and, therefore, likely predictable high rates of inflation can have adverse consequences either for an economy's long-run rate of real growth or for its long-run level of real activity. This finding raises an obvious question that does higher inflation does it affects banking operation (Khathlan, 2011).

A growing theoretical literature describes mechanisms whereby even predictable increases in the rate of inflation interfere with the ability of the financial sector to allocate resources effectively. More specifically, recent theories emphasize the importance of informational asymmetries in credit markets and demonstrate how increases in the rate of inflation adversely affect credit market frictions with negative repercussions for financial sector (both banks and equity market) performance and therefore long-run real activity (Huybens and Smith 1998). The common feature of these theories is that there is an informational friction whose severity is endogenous. Given this feature, an increase in the rate of inflation drives down the real rate of return not just on money, but on assets in general.

The implied reduction in real returns exacerbates credit market frictions. Since these market frictions lead to the rationing of credit, credit rationing becomes more severe as inflation rises. As a result, the financial sector makes fewer loans, resource allocation is less efficient, and intermediary activity diminishes with adverse implications for capital investment. The reduction in capital formation negatively influences both long-run economic performance and equity market activity, where claims to capital ownership are traded (Huybens and Smith 1999 and Boyd and Smith 1996).

Existing models also emphasize that only when inflation exceeds certain “critical” rates do informational frictions necessarily play a substantial role. For example, in

Azariadis and Smith (1996) or Boyd, Choi, and Smith (1997), when inflation is very low, credit market frictions may be “nonbinding,” so that inflation does not distort the flow of information or interfere with resource allocation and growth. However, once the rate of inflation exceeds some threshold level, credit market frictions become binding, and there is a discrete drop in financial sector performance as credit rationing intensifies. These models further predict the existence of a second threshold rate of inflation. Once inflation exceeds this threshold, perfect foresight dynamics are associated with endogenous oscillation in all variables, so that inflation is highly correlated with inflation variability and asset return volatility.

Furthermore, related models suggest the existence of a third inflation threshold (Boyd and Smith 1998; Huybens and Smith 1998, 1999). In some cases, once the rate of inflation exceeds this critical level, perfect foresight dynamics do not allow an economy to converge to a steady state displaying either an active financial system or a high level of real activity.<sup>3</sup> When this occurs, further increases in inflation have no additional detrimental effects on the financial system. Thus, in effect, these models imply that once the rate of inflation reaches a certain critical threshold, “all of the damage to the financial system has already been done.” Further increases in inflation will have no additional consequences for financial sector performance or economic growth.

Thus, the theoretical literature on credit market frictions, finance, and growth delivers empirically testable implications regarding the consequences of higher long-run or permanent rates of inflation. Higher rates of inflation are associated with greater inflation and stock return variability. Higher inflation implies less long-run financial activity. In economies with high inflation, intermediaries will end less and allocate capital less effectively, and equity markets will be smaller and less liquid. Several inflation thresholds may characterize the relationship between inflation and financial sector conditions. Most prominently, once inflation exceeds a critical level, incremental increases in the (long-run) rate of inflation may have no additional impact on financial sector activity. Higher long-run inflation implies lower long-run levels of real activity and/or slower long-run growth rates.

Therefore with the notable theoretical analysis of the higher inflation to overall economy and financial intermediaries, this study stress itself in examining the influence of inflation on financial operations” a case of CRDB Bank in Tanzania. In analyzing the stated objective, the study will concentrate on knowing whether Tanzania has been experiencing higher inflation rates and what are its impacts on the financial operation in Tanzania.

## **1.2 Statement of the Problem**

As financial intermediaries, banks play an important role in the operation of an economy. This is particularly true in the case where no debt market exists. Here, banks are the sole providers of funds, and their stability is of paramount importance to the financial system. As such, an understanding of determinants of their performance is essential and crucial to the stability of the economy.

Economic theory reveals that developed financial sector mobilizes savings efficiently and reallocates the resources to productive projects and hence stimulates economic activities in the country. However, high rate of inflation worsens the efficiency of financial sector through financial market frictions and slows down the economic performance. Inflation tends to induce volatility in equity returns as well as lowers the real return on savings. In inflationary periods, governments are inclined to impose additional tax burden on the financial sector to reduce their budget deficits (Bencivenga and Smith, 1993). It is observed that inflation impedes the performance of financial markets by reducing the level of investment in the economy

Inflation also adversely affects capital accumulation and investment and deteriorates income distribution (Shahbaz et al. 2010). Following Goldsmith (1969), McKinnon (1973), King and Levine (1993), Levine and Zervos (1998), Beck et al. (2000), and Beck and Levine (2004), seem to suggest that financial development has a positive impact on long run economic growth. While Bonfiglioli (2006), Bittencourt (2007) and Shahbaz and Farid (2011) conclude that financial development seems to reduce either income inequality or poverty through physical capital formation and economic growth.

### **1.3 Research Objective**

#### **1.3.1 Main Research Objective**

The main research objective is to investigate the influence of inflation on financial operations” a case of CRDB bank.

#### **1.3.2 Specific Research Objectives**

- i. To identify issues which cause inflation in Tanzania
- ii. To analyze techniques which are used by the bank to combat inflation
- iii. To assess the extent inflation influenced bank operations.

### **1.4 Research Questions**

The study was guided by the following specific questions:

- i. What are issues which cause inflation in Tanzania?
- ii. What are the techniques which are used by the bank to combat inflation?
- iii. To what extent inflation influenced bank operations?

### **1.5 Significance of the Study**

The study may provide important input to bankers and banks on analyzing the consequences of higher inflation to the banking operations and performance. This implies that with this study the data collected from the CRDB Bank can be an indicate toward the impacts of inflation to financial sector mostly banking sector

The study also add value in analysing how customers from the banks are affected with inflation that can provide vital roles in consolidating efforts in addressing adverse impacts of the inflation

The study adds value to economist and planners in policy analysis and implication. The economist and policy makers can use the input from the study for policy recommendations in the country in order to address inflation in the economy.

## **1.6 Limitation of the Study**

The study was encountered by some difficulties or limitations that limit the researcher and in one way or another have affected the study. The study was encountered by the following limitations.

Insufficient information ; the study is new in Tanzania, in most cases the data collection are not sufficient to make a research effective because there is no published literature concerning the influence of inflation on financial operations.

Time constraints, the time provided for conducting this study is too short compared to the adversity of the topic being studied. Moreover, the study was encountered by fund shortage.

Response of respondents; sometimes the respondents were not responding accurately or return questionnaire at right time something made difficult to collect information in a right time. Likewise other respondents responded negatively when an interviewed.

## **1.7 De-Limitation of the Study**

The researcher made different efforts to solve the limitations of the study. Due to lack of fund and time schedule, the researcher decided to conduct the study in Dar es Salaam. Moreover, the researcher was able to solve the fund constraints by help of his friends.

Furthermore, the researcher overcome biased answers by emphasizing on honest and assuring respondent that the research is solely for academic purposes, and all answers were confidential, this increase respondent rate. Meanwhile, online sources were used to extract literature to increase sources of information.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents literature review of the study, the chapter presents theoretical and empirical literature review. The first section of the chapter presents definition and measures of inflation while the quantity theory of money is presented in section two. The last section of the chapter gives empirical literature review.

#### **2.2 Theoretical Literature**

##### **2.2.1 Definition and Measures of Inflation**

Inflation is a highly controversial term which has undergone modification since it was first defined by the neo-classical economists. Neo-classical defined inflation as a galloping rise in prices caused by excessive increase in the quantity of money. For Keynesians true inflation happens when money supply increases beyond full employment level (Jhingan, 1997). Though various economists define inflation in different ways there is an agreement that inflation is a sustained increase in the general price level. Even though inflation is a sustained rise in prices it may be of various magnitudes. When the rise in prices is very slow Like that of a snail or creeper, it is called creeping inflation. Creeping inflation happens when prices increase less than 3 percent per annum. Such an increase is regarded as safe and essential for economic growth. When prices rise at a rate greater than 3 but less than 10 percent per annum, it is called walking inflation. Walking inflation is a warning signal for the government to control inflation before it becomes running inflation. An annual increase in prices at rate of 10 to 20 percent is called running inflation. When inflation rate goes above 20 percent it is called hyperinflation (Jhingan, 1997).

Menji cited in Dornbusch et al (2001) identified various price indexes which are commonly used to measure inflation in various countries. They include the following:

- i. Consumer Price Index (CPI). It measures the cost of buying a fixed basket of goods and services representative of the purchase of consumers. Inflation is measured by measuring the percentage change in the prices of a given basket goods over time as compared to the price in the base year.
- ii. GDP Deflator. It is the ratio of nominal GDP in a given year to real GDP of that year. It comprises of all the goods produced in a country but excludes imports. The deflator measures the change in prices that has occurred between the base year and the current year.
- iii. Producer Price Index (PPI). It is a measure of the cost of given basket of goods, however it differs from the CPI partly in its coverage, which includes raw materials and semi-finished goods. In addition, Producer Price Index measures prices at an early stage of the distribution system, whereas the CPI measures prices when households do their spending.

A shortage of labour causes inflationary pressure. If firms are struggling to employ sufficient labour, workers are in a position to demand higher wages. This can easily lead to wage inflation which causes inflation. When wages rise, firms will try to pass on the cost increases to customers leading to cost push inflation. If wages rise, workers have an increase in income leading to higher disposable income and higher spending, this can cause demand pull inflation. If other inflationary pressures are muted. A shortage of labour puts upward pressure on wage increases.

Inflation affects labour market efficiency by influencing firms' wage-setting practices and compensation schemes. In economies with competitive labour, capital, and product markets, comparable workers at equivalent jobs will tend to be compensated similarly. If an employer sets wages too low, it will lose employees; the resulting turnover will lead to lower profits. If an employer pays too much, it will either suffer a profit loss or be forced to lay off workers because it will be unable to price products competitively. Thus, any factor that interferes with firms' accurate wage setting can raise unemployment, worker turnover, or company failures. Since labour is typically a large component of companies' costs, such widespread interference in this market can impair the efficiency of the economy (Mbowe, 2008).

The overall increase in price movement of goods and services in an economy usually as measured by the Consumer Price Index and the Producer Price Index. Over time, as the cost of goods and services increase, the value of shilling is going to fall because a person won't be able to purchase as much with that shilling as he/she previously could. While the annual rate of inflation has fluctuated greatly over the last half century. The increase in import prices leads to the fall in the domestic value of currency which leads to inflation. Inflation due to an increase in the price of imports. As the price of imports increase, prices of domestic goods using imports as raw materials also increase, causing an increase in the general prices of all goods and services. Imported inflation may be caused by foreign price increases or depreciation of a country's exchange rate (Mbowe, 2008).

### **2.2.2 The Quantity Theory of Money**

Totonchi (2011) the quantity theory of money is one of the oldest surviving economic doctrines. It asserts that changes in the general price level of general prices are determined primarily by changes in the quantity of money in circulation. The quantity theory of money formed the central core 19<sup>th</sup> century classical monetary analysis, provided the dominant conceptual framework for interpret in contemporary financial events and formed the intellectual foundation of orthodox policy prescription designed to preserve the gold standard. David H (1711-79) provided the first dynamic process analysis of how the impact of a monetary change spread from one sector of the economy to another, altering relative price and quantity in the process. He provided considerable refinement, elaboration and extension to the quantity theory of money.

David Ricardo (1772-1823) thought such disequilibrium effects ephemeral and unimportant in the long run equilibrium analysis. He charged that inflation in Britain was solely the result of the Bank of England's irresponsible over issue of money, when in 1797, under the stress of the Napoleonic Wars; Britain left the gold standard for an inconvertible paper standard. He discouraged discussions on possible beneficial output and employment effects of monetary injection.

According to Dlamini et al (2001) proponents of the quantity theory of money agree with Milton Friedman that inflation is always and everywhere a monetary phenomenon and is produced by a more rapid increase in the quantity of money than output. That is, cost increases may occur, but they are only inflationary by allowing an increase in the money supply. Thus, a monetarist model would typically include rates of change in the money supply as having a positive correlation with inflation and growth in real income as having a negative correlation.

Curwen (1976) the original quantity theory is expressed by Fisher's equation of exchange as;  $MV=PT$  where (M) stands for the stock of money in the economy, (V) stands for the velocity of money circulation, (P) is the average price level and (T) stands for the number of transactions in the economy. The classical economists assumed that (V) is constant over time and that the economy is at its full employment level, which implies that (T) is also constant.

Under these restrictions, it implies that changes in the money stock ( $\Delta M$ ) directly affect changes in the price level. Also the monetarists with Milton Friedman (1956) followed the same argument as their predecessors (the classical economists). They only differ in respect to the assumptions on (V) and (T). According to Friedman, money demand is one of the five main forms of holding wealth, and that any significant change in any of the other forms of wealth would cause velocity of circulation to vary, but only in the long-run.

According to Laeven and Maksimovic, (2006) customer satisfaction is a good predictor for the likelihood of repeat purchases and revenue growth. In addition, customers are assets and their values can both grow and decline. However, customer satisfaction can be increased by investing in costly technology or productive processes. Mohamad, (2007), argued that, institutions or companies which believe the customer is the "profit center" must adopt the modern customer-oriented organization chart where customers are considered first or are at the top; next is front-line staff who meet and attend customers followed by intermediate managers who support the front-line staff.

Another element of caring for the customer involves customizing the product or service to suit the customer's needs. According to Mishkin, (2009), customized products and communications contribute towards attracting customer attention as well as developing customer loyalty and "lock-in". Furthermore, the use of targeted and personalized communications will increase switching costs for the customer which ultimately contributes to the business' profitability.

Businesses that choose a customization strategy need to undertake careful investigations of their customers. Business needs to understand what their customers regard as value and what they are willing to pay as successful customization will build customer loyalty but at the same time it is costly to customize products (Lewis, 2003). A point worth noting is that a business should customize those product or service features that cannot be copied in order to maintain a competitive advantage over its rivals (Zeng, 2007).

It is believed that the goal of every organization is to meet the needs and the requirements of its stakeholders. Meeting the needs and the requirements of the stakeholders will not only ensure the survival of the organization but also allow it to flourish. Customers are presumed to be one of the most important stakeholders in any organization because without them, organizations are not likely to succeed. Hence, marketers emphasize on research in the area of consumer behaviour and particularly behavioural intention. Knowledge of consumer behaviour will go along way in ensuring effective marketing policies towards the interest of customers which will eventually facilitates positive customer attitude towards the organizations. More especially, since customer behavioural intention is a strong indication of his actual behavior (Ahmed and Huda, 2011).

### **2.2.3 Monetary Theory of Inflation**

Totonchi J (2011) Monetarisms are the followers of Friedman (2006) who emphasise that "only money matters". According to them, the money supply is the "dominate, though not exclusive" determinant of both the level of output and prices in the short run, and of the level of prices in the long run. The long run output level is not

determined by the supply of money. They emphasized the role of money. Modern quantity theory led by M. Friedman holds that “inflation is always and everywhere a monetary phenomenon that arises from a more rapid expansion in the quantity of money than in total output. They employed the familiar identity of exchange equation developed by Fisher.

#### **2.2.4 Demand Pulls Theory**

Totonchi J (2011), emphasized that demand-pull inflation is a result of an increase in aggregate demand for goods and services. The aggregate demand includes consumption, investment as well as government expenditure. When the value of aggregate demand exceeds the value of aggregate supply at the full employment level, the inflationary gap arises. The greater the gap between the aggregate demand and aggregate supply, the more rapid is the inflation. Keynesian do not deny this fact that even before reaching full employment production factors and various appearing constraint that appears quickly during prosperity is originally resulting from non-proportioned section, branches and or various economic resources that are accounted from natural properties of discipline based on market.

According to demand-pull inflation theory of Keynes, policy that causes decrease in each component of total demand is effective in reduction of pressure demand and inflation. One of the reductions in government expenditure is tax increase and to control volume of money alone or together, can be effective in reducing effective demand and inflation control. In difficult conditions, such as during hyperinflation in the period of war that control of volume of money or reduction in general expenditure may not be practical increase in tax can get along with direct action for control on demand. Totonchi, (2011).

#### **2.2.5 Cost-Push Theory of Inflation**

Totonchi, (2011), Cost-push inflation is caused by wage increases enforced by unions and profit increases by employers. The type of inflation has not been a new phenomenon and was found even during the medieval period. But it was reviewed in the 1950s and again in the 1970s as the principal cause of inflation. The basic cause

of cost-push inflation is the rise in money wages more rapidly than the productivity of labour. The labour unions press employers to grant wage increases considerably, thereby raising the cost of production of commodities. Employers in turn, raise prices of their products. Higher wages enable workers to buy as much as before, in spite of higher prices. On the other side of the coin, the increase in prices induces unions to demand still higher wages. In this way, the wage-cost spiral continues, thereby, leading to cost-push or wage-push inflation.

Totonchi (2011), cost-push inflation may be further attributed by upward adjustment of wages to compensate for rise in cost of living. A few sectors of the economy may be affected by increase in money wages and prices of their products may be rising. Often their products are used as inputs for the production of commodities in other sectors. As a result, cost of production of other sectors will rise and thereby push up the prices of their products. Thus wage push inflation in a few sectors of the economy may soon lead to inflationary rise in prices in the entire economy.

Further, an increase in the price of imported raw materials may lead to cost-push inflation. Cost-push inflation is also a result of profit-push inflation. Oligopolist and monopolist firms raise the price of their products to offset the rise in labour and cost of production to earn higher profits. There being imperfect competition in the case of such firms, they are able to administer price of their products. Profit-push inflation is, therefore called administered-price inflation or price-push inflation.

#### **2.2.6 The Purchasing Power Parity Theory**

Dlamini A et al (2001) the purchasing power parity theory based on the assumption that all goods are tradable and is physically identical. This theory is used to explain changes in exchange rates in terms of differentials in inflation between countries and it suggests that in a common currency arrangement, the rate of inflation of the dominant country should influence the inflation rates of smaller countries. That is, it assumes that the prices of the trading countries should be the same when expressed in the common currency, with the differential being accounted for by tariffs and transport costs. In a fixed exchange rate regime, purchasing power parity relates the

price level in one country to that of another through the exchange rate, and can be expressed in terms of rate of changes

Where “pd” stands for domestic price level, “e” for nominal exchange rate and “pf” for foreign price level

### **2.2.7 New Political Macroeconomics of Inflation**

Totonchi (2011), literature provides fresh perspectives on the relations between timing of elections, performance of policy maker, political instability, policy credibility and reputation, and the inflation process itself. The case for central bank independence is usually framed in terms of the inflation bias (deviation) present in the conduct of monetary policies. However, the theoretical and empirical work suggests that monetary constitutions should be designed to ensure a high degree of central bank autonomy. They also overlook the possibility that sustained government deficits, as a potential cause for inflation, may be partially or fully indigenised by considering the effects of the political process and possible lobbying activities on government budgets, and thus, on inflation.

Monetarists argue that inflation is essentially a monetary phenomenon (Friedman, 1953). Assuming that economic agents are rational, increases in the supply of money lead to proportionate increases in price, leaving real money balances and output unchanged. Monetarist models the mechanisms by which monetary policy affects inflation and how such mechanisms can be used to control price inflation (Svensson, 2000; and Hendry, 2001)

Structuralist’s models distinguish between basic (or structural) inflationary pressures and mechanisms that transmit or propagate such pressures (Kirkpatrick and Nixon, 1987). Key structural bottlenecks identified include distorting government policies, the conflicts between capitalists and workers over the distribution of income between profits and real wages (Agenor and Montiel, 1996), the inelastic supply of foodstuffs, the foreign exchange constraint and government budget constraint. The mechanism that propagates inflation is therefore the efforts by social classes and/or sectors to

maintain their relative positions in the face of price increases (Kirkpatrick and Nixon, 1987).

According to Gregory (2005) demand-side inflation is caused by an increase in aggregate demand. The increase in aggregate demand causes the price level to rise and more output to be produced. Increasing prices are associated with more output and, hence, more employment (less unemployment). In the case of demand-side inflation, there is a trade-off between higher prices and unemployment. Higher prices mean less unemployment.

Gregory (2005) supply-side inflation occurs when an exogenous increase in costs (which reduces aggregate supply) pushes up prices. Aggregate supply falls when there is an exogenous increase in the costs of firms, that is, an increase caused by something outside the system. Costs could rise exogenously for a number of reasons: price increases in international oil markets, particularly bad harvests, international disorders, or decrease in productivity. With a decrease in aggregate supply, the price level is pushed up and less output is produced. An adverse supply shock has raised prices and unemployment simultaneously.

Gregory (2005) when inflation is moderate, supply-side and demand-side inflation looks the same. It is difficult for the individual economic agent to know whether inflation originates on the demand side or supply side. By considering demand-side inflation: as aggregate demand rises, the demand for goods and services and labour generally increases. As individual markets respond to these demand increases, prices and wages rise. Firms see their labour and material costs rising. They also see that the market is prepared to pay a higher price for their product, and they pass their higher costs along to their buyers in the form of higher selling prices. In the firm's view (and in the view of the firm's customers), prices have risen because labour and material costs have risen. Even though the real cause of inflation was an increase in aggregate demand, to the individual participants in the economy it appeared as supply side inflation.

### **2.2.8 Mark up Theory**

Jhingan, (1997) the theory is based on the assumption that both prices and wages are “administered” and are settled by workers and business firms. Firms fix administrative prices for their goods by adding to their direct materials and labour costs and some standard mark up which covers profit. Labour also seeks wages on the basis of a fixed mark up over its cost of living. Mark up theories are related to cost push models if prices rise due to the expectations of firms and workers that their mark-ups are lower than the required costs and prices regardless of the state of aggregated demand. The theory may also be related to demand pull models if firms and workers raise their mark-ups due to increase in demand.

### **2.2.9 Expectations Hypothesis**

Jackman et al (1981) this new development in inflation theory is based on the argument that expectations are important determinants in the inflationary pressures. There are two views on how expectations determine the inflationary process. According to traditional view, adaptive expectations approach, people correct their expectation of the inflation gradually. This is due to the fact that people base their expectation of inflation on past inflation. This view tell us that in the short run before people adjust their expectation policies of the government have the power to influence unemployment and output.

### **2.2.10 Structural Inflation**

According to this view, inflation in less developed countries is due to structural rigidities of their economies. The advocates of structural inflation say that the agricultural sector is irresponsive to price increases in less developed countries due to defective system of land tenure, lack of irrigation, lack of storage and marketing facilities, bad harvest and the depends of agriculture on rain. Menji S cited in Jhingan (1997) to prevent the price increase of food products, through imports is not possible due to foreign exchange constraints.

Moreover the price of imported products is relatively higher than their domestic prices. Another cause of structural inflation is that the rate of export growth in a

developing country is slow and unstable. The sluggish growth rate of exports and the foreign exchange constraints lead to the adoption of the policy of industrialization based on import substitution. Such a policy leads to inflation due to the rise in price of industrial products, income increases in the non-agricultural sectors and the relative inefficiency of the new industries during the “learning” period. The secular deterioration in the terms of primary products of developing countries further limits the growth of income from exports leading to exchange rate devaluation.

### **2.11 Overview of the Banking Sector in Tanzania**

The Tanzania banking sector embarked on a plan for financial liberalization in 1992 in order to sustain its economic growth. This has been accomplished through the mobilization of financial resources as well as by increasing competition in the financial market and by enhancing the quality and efficiency of credit allocation. As a result of the liberalization, the banking sector in Tanzania has been booming, particularly over the last few years (Adam, 1995).

The total assets have increased by 60%, from \$ 1.7 billion at the end of 1999 to \$ 2.7 billion at the end of June 2004. Because of this, new merchant banks, commercial banks, bureau de change, insurance companies, a stock exchange and related financial units have entered the market. With a total of 27 banks and a few non-banking financial institutions, which are not allowed to open current accounts, the market is characterized by a few big players and several small banks (Kilindo, 1997).

In Tanzania, 90% of deposits are in the hands of eight banking institutions, three local banks and five foreign banks. Local banks primarily service local customers while foreign banks tend to operate as subsidiaries of large groups, such as Citigroup and Barclays, using strategies oriented to the international market. As a consequence, foreign banks focus on international customers and national clients who prefer to keep their deposits in foreign currencies. There are four categories of banks, oriented towards different markets and clientele operating in Tanzania: local private banks, regional banks, international banks and multinational banks (Aikael, 2007).

Overall, the outlook for the banking industry in Tanzania is very positive and there are appealing opportunities for new comers to the sector. Currently, there is a positive trend in lending to SMEs that is producing greater confidence in their growth potential among financial institutions and, more generally, in the economy as well, which is generating a positive spiral. In addition, the government is also introducing new laws that are expected to enhance lending activities (Adam, 1995).

Banks contribute to economic growth through their financial intermediation role. Banking sector in Tanzania has experienced fundamental changes over the last decade following banks and other financial institutions reforms starting from the early 1990s. However, what is still concealed is the extent to which banks are efficient in Tanzania. Banking industry in Tanzania is open to entry and therefore it is highly contestable.

Commercial banks in the country can be subdivided into three major categories: large domestic banks; subsidiaries of the major international banks; and small banks. About 50 percent of the total banks' assets are held in the large domestic banks while subsidiaries of the major international banks account for 40 percent and the small banks hold the remaining 10 percent. Risk vulnerability of the Tanzanian banks which was examined through stress test found that banks are generally resilient to shocks (Aikaeli, 2007).

In the year 2009 there has been a healthy growth in the number of people who use banks. While the population has grown by 10% over the past three years (2006-2009), the number of people holding a bank account has risen by 33% at the same period (Mishkin, 2009).

However, despite the encouraging growth in the number of people with bank accounts, it only serves 9% of the adult population in Tanzania was banked by 2009. This indicates that the potential for growth in the banking sector is still high (Mishkin, 2009).

Though the Tanzania banking sector enjoyed another year of satisfactory performance in terms of assets and funding growth, profitability and capital adequacy, the growth was much reduced in several areas measured when compared to 2008 (Ndukwe et al., 2012). It may be fair to say that growth in the sector has slowed down due to the effects of the global financial crisis and the economic slowdown. However, based on the historical performance over the past five years and the global financial crisis notwithstanding, growth appears poised to continue over the medium to long term (Petersen and Rajan, 1995)

In some respects there has been a retreat of financial services to the rural areas as indicated by closures of several rural based bank branches during the restructuring program. The composition of financial services was changed as windows for rural finance in those banks were closed or considerably reduced even by those banks which were formerly devoted to rural financing. The financial sector reforms are still in progress but there is increasing concern that the majority of the rural population which constitutes 70-80% of the population and comprise 90% of all the poor in Tanzania have not benefited from the financial reforms. They have largely been by passed by these reforms (Adam, 1995).

The need to enhance accessibility of financial services to the rural poor in Tanzania deserves high priority on the agenda of the on-going financial sector reforms. In recognition of the need for improving access to financial services by the rural population this conference has been organized to focus on The Future of Rural Finance in Tanzania. It is envisaged that this conference will address the experience and lessons learned to date in the development of rural finance with a view to facilitating appropriate design of rural finance and develop sustainable financial services for the needs of rural population in Tanzania (Adam, 1995).

A Customer satisfaction is the ability that an organization possesses to meet the needs of their customers on a regular basis Satisfaction is the state felt by a person who has experienced a performance or outcome that has fulfilled his or her

expectations. Satisfaction is thus a function of relative levels of expectation and perceived performance (Gaurav, 2010).

Satisfaction is the person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectation. According to Huimin and Guozheng, (2010), the first task for any business-oriented institution is "to create customers". However, customers face a vast array of product and service choices, prices as well as suppliers. So, customers estimate which products or service offer will meet their needs thus enhancing repurchase probability. Thus customer satisfaction or dissatisfaction is subjective and dependent on perceived performance and expectations.

Customer satisfaction is related to customer expectations. Three outcomes can be anticipated, if the product or service meets customers' expectation, then customer satisfaction exists. If it exceeds customer expectation, then there is customer delight. If the product or service goes beyond customer delight, then the customer is surprised (Lewis, 2003). The higher the level of fulfillment, the higher the satisfaction, Since marketing focuses on the needs and wants of the customers, one of the prime marketing objectives should be to maximize customer's satisfaction (Zeng, 2007).

There is a strong relationship between providing excellent customer service and a business' profitability (Dorrian, 1996). However, while difficult to measure, intangible assets such as the brand and, more importantly, the customer should be included as additional determinants of the business' value (Irwin and Grayson, 2006).

### **2.3 Empirical Literature Review**

Vogel (1974) developed a monetary model for explaining inflation in Latin America. The model considers the rate of inflation ( $P_t$ ) as a dependent variable and the percentage change in money supply during current and previous years ( $M_t$  and  $M_{t-1}$ ) as explanatory variables.

He made a conclusion that the coefficients of  $M_t$  and  $M_{t-1}$  are highly significant and thus indicates that an increase in the rate of growth of money supply causes a proportionate increase in the rate of inflation within two years. At the same time the rate inflation is not found to be inversely influenced by the growth rate of real income. The rate of inflation is not found to be so much influenced by  $(P_{t-1} - P_{t-2})$ , rather inflation rate lagged by one year,  $P_{t-1}$  has much influence on the current rate of inflation. The increase in the last equation above is mainly attributed to the high significance of  $P_{t-1}$ .

McCandless and Weder (1995) looked at inflation in 110 countries during a 30 year period. The study reveals that inflation and monetary aggregates are positively correlated in the long run. However, as the time horizon shortens, the correlation falls. Campillo and Miron (1996) examine the determinants of inflation across 62 countries over the period 1973-1994 by considering the distaste for inflation, optimal tax considerations, time consistency issues, non-inflationary policies and other factors as important determinants of inflation.

Inflation rate is measured by the Consumer Price Index. The authors' have adopted OLS technique with standard error, estimated by White (1980) procedure. They found economic fundamentals like economic openness and optimal tax considerations are relatively important determinants of inflation whereas institutional arrangements like central bank independence or exchange rate mechanisms are relatively less important.

Menji S cited in Mogsin and Schimmelpfening, (2006) in their study of inflation in Pakistan used monthly data from 1998 to 2005. The researchers used a stylized monetarist model that includes monetary variable, exchange rate, output, and wheat support prices. The results from the model show that in the short run inflation in Pakistan is influenced by monetary factors and wheat support price mainly. Output and nominal effective exchange rate have also found to affect inflation in the short run. In the long run, the results show that inflation is mainly determined by monetary

variables. The researchers recommended using monetary policy in targeting inflation around 5%.

Hammermann and Flangan (2007) in their studies of persistent inflation differentials across 19 transition economies used annual data from 1955-2004. They used an OLS panel regression model. The result from the model show that, central banks incentive towards higher short run inflation is a key reason for the observed inflation differentials

Unanticipated shocks to supply and demand are also found to be important determinates of cross country inflation differentials. The evidence on the political and constitutional milieu is mixed but result stressed the fact that the more a central bank is independent the lower inflation in that country. Fiscal considerations have also found to explain the inflation differentials, countries with high government debt and low financial market development have been found to have high inflation. Recommended in liberalizing the economy, to promote faster financial market development, to eliminate labour market over hangs and to improve the independence of central banks, in order to avoid high inflation rates

According to Totonchi (2011) the cause of inflation in industrialized countries is broadly identified as growth of money supply whereas in the less developed countries, inflation is not a purely monetary phenomenon. Beside, factors typically related to fiscal imbalances such as higher money growth and exchange rate depreciation arising from a balance of payments crisis dominate the inflation process in less developed countries.

Razzak (2001) examined the New Zealand experience from a monetary perspective and showed that the time series correlation between inflation and monetary aggregates was high only during high-inflation periods and disappeared when inflation was low. Likewise, Lissovolic (2003) examined the transitional economy of Ukraine from a monetary and structural perspective using monthly data over the

period 1993-2002 and concluded that money, wage and exchange rate largely affect inflation.

Maliszewski (2003) examined determinants of inflation in Georgia and the relationship between prices, money and exchange rate over the period 1996:1 to 2003:2. The study revealed that exchange rate is the dominant determinant of inflation. Blavy (2004) also examined the dynamic of inflation in Guinea using a simple monetary model.

Domac and Elbirt (1998) examine the behaviour and the determinants of inflation in Albania by employing three different approaches. Firstly, the authors decomposed inflation into four components: seasonal, cyclical, trend, and random. Secondly, they used Granger causality test on both the consumer price index and key economic variables, to investigate their information content. And, lastly, they used co integration and error-correction techniques to the process of inflation to a monetary model.

They conclude that; inflation exhibits strong seasonal patterns associated with agriculture seasonality with monetary aggregates matching inflation by lag of two-months and that the exchange rate also exhibits a stable seasonality pattern; Granger causality test shows that M1 (currency in circulation plus demand deposits) and the exchange rate have predictive impact for most components of the CPI and that credit to the government is a good predictor of medical care, transportation and communication prices.

The study finds that an increase in the fiscal deficit would undermine competitiveness by producing appreciation in the real exchange rate; lastly, the cointegration and error-correction model show that inflation is positively related to both money supply and the exchange rate and negatively related to real income in the long run. The impact of exchange rate on inflation occurs a month later, while the impact of real income and money take place two and four months later respectively.

Dlamini et al (2001) attempts to identify the relevant influencing factors of inflation in Swaziland using both open monetary and structural variables over the period 1974-2000, The CPI of Swaziland is taken to be the dependent variable with the explanatory variables being real income (Y), nominal money supply (M), nominal interest rate (R), nominal exchange rate (E), nominal wages (W) and South African consumer prices (SP)

Due to limitations of real sector data, annual time series are used. The authors apply co integration technique and ECM to estimate relationship between inflation and its determinants. The study found that money supply and interest rate has insignificant influence on inflation.

The coefficient of real income growth was also insignificant, though it was positive. However, foreign price (i.e. South African inflation) and exchange rate has significant long-run influence in inflation. It was also found that a large interdependence between wages and inflation exist both in the short and long run. They conclude that changes in the lagged exchange rate, South African inflation and nominal wages were major determinants of inflation in Swaziland.

Khan and Schimmelpfening (2006) have examined the relative importance of monetary and supply side factors for inflation in Pakistan over the period 1998:1 to 2005:6. The model consists of money supply, credit to private sector and 6-month Treasury bill rate as monetary variables and nominal effective exchange rate, Wheat prices guaranteed by the government as supply side factors. Both annual real and nominal GDP are interpolated to 12-month moving average as activity variable. The open economy generalized monetarist model includes administered wheat prices to reach at hybrid monetarist-structuralists model,

Where a dot over a variable denotes growth rate (first derivative with respect to time), this P is prices,  $m$  stands for money,  $y$  for real GDP,  $v$  for velocity of money,  $r$  for interest rate,  $e$  for exchange rate and  $w$  for wheat support price. The variables are taken in the natural logarithm form. They estimate the above relation in both the

short term and the long term using a VECM. They made a conclusion that in the long run, monetary factors play a dominant role in inflation with a lag effect of one year, whereas administered prices influence inflation in the short-run only.

The studies by Fry (1974), Pant (1977; 1978) have shown a weak association between money and prices using basic statistical analysis. These studies have generally looked at the inflationary process in Nepal from a closed economy monetary perspective.

Pant (1977) revealed that inflation in Nepal is not much explained by the movement of monetary aggregates, rather they concludes that it is mainly due to structural changes in the economy. These conclusions contrast with the observation of Sharma (1987) who identifies the influencing factor of India and was also shown empirically by Khatiwada (1981). The author had adjusted the closed economy model to take into account external influence and found a relatively strong relationship of both narrow money and Indian prices, with Nepalese prices.

Neupane (1992) had continued exploration of the appropriate model for Nepal and in this vein, had examined both monetarist (closed economy) and structuralist's approaches to the inflation process in Nepal over the period 1965 to 1988 by using OLS technique.

The author has used percentage change in CPI as the dependent variable and percentage change in current money supply, money supply lagged by one and two years, percentage change in GDP, and the expected cost of holding money, percentage change in output in commodity producing sectors lagged by one year, percentage change in the import price index lagged by one year and percentage change in government budget deficit as the explanatory variables. The monetarist model includes the rate of growth of money supply (M), per capita income (Y), and the expected cost of holding money (C) as explanatory variables of inflation.

Similarly, the structuralist's model of inflation is examined by using agricultural bottleneck, foreign exchange constraints, and fiscal constraints. The model consists of one year lagged percentage change in output ( $Y_{t-1}$ ) and import price index ( $MP_t$ ), percentage change in government expenditure ( $GOV_t$ ) and expected cost of holding money

The findings of the study suggested that monetary policy is an important instrument to control inflation. An increase in money supply in line with the growth of per capita GDP could help to control inflation. However, the study could not empirically provide superiority of one approach to the other in explaining inflation; rather it exhibits the broader perspective of the complexities of the inflationary process.

Iyoha (1973) used a sample of 33 less developed countries and analysed the relationship for both yearly and 5-year averaged data from 1960/61 through 1964/5. The OLS was used in this study. The study related inflation (proxied by rate of wholesale price index or consumer price index and openness in simple bivariate framework. It was found that openness is negatively related to inflation. However, the results in the multivariate exercise were not unambiguous although openness variable always had negative sign, but it was found to be significant only occasionally.

Changes in income and money growth were the other explanatory variables found to be significant when used separately. Otherwise, change in income variable tended to dominate the money growth variable. Keran (1979) concludes that there is marginal difference in inflation determinants in Saudi Arabia and the world, that too of degree and not of kind. His study found that domestic inflation is influenced by world price measured in terms of export price of major industrialized countries and monetary growth.

Onis and Ozmucur (1990) used vector autoregressive models (VAR) and simultaneous equation model on monthly data, and found that, devaluation and supply side factors were the main factors affecting the inflation in Turkey. Juselius

(1992) investigated the price behaviour in Denmark using three kind of macroeconomic explanations of inflation and found that deviation from steady state is the main cause of inflation in Denmark. Further, foreign factors like exchange rate and interest rate are found to be more important factor of price rise. (Khathlan, 2011)

According to Darrat (1993) monetary growth, foreign interest rate and inflationary expectation were found to be the key determinants of inflation in Saudi Arabia during the period 1962-1981. Metin (1995) in his study on Turkey found that fiscal expansion is the main factor responsible for inflation during 1950-1988. Excess money demand also has positive relation with price rise in the short run. Lim and Papi, (1997) in the case of Turkey found that monetary variables like money and exchange rate depreciation are more important determinant of inflation during the period 1970-1995.

De Brower and Ericson (1998) have developed used mark up model to examine the inflation in Australia and found that consumer price is a mark up over domestic and import cost with adjustment for dynamic and relative aggregate demand. Jin (2000) used the vector autoregressive method in his analysis of East Asian economies found that fiscal policy and foreign price shocks are important determinants of inflation. Sekine (2001) found that in the case of Japan, mark up relationship, excess money and output gap are important determinants of inflation. Khan and Schimmelpfening (2006) in the case of Pakistan found that broad money growth and private sector credit growth are the essential variables determining inflation. (Khathlan, 2011)

Bonito (2007) in his study in Iran revealed that there is a close relation between money growth and inflation in the long run and in the short run. He found long run relationship between price level, money, output, rate of return on money and exchange rate. This relation is also hold in the short run. Cheung (2009) revealed that in seven of the developed countries, commodity price is important signal for inflation in these countries. He further found that the movement of commodity price can provide larger signals for inflation in the commodity exporting countries than the commodity importing countries.

Neupane (1992), in a study conducted for Nepal Rastra Bank, used an eclectic approach of the monetarist and structuralists views. The study had identified money supply, international prices (particularly Indian prices), exchange rate, real output, government expenditure and expectation factors as major sources of inflation in Nepal.

Similarly, infrastructural bottlenecks, imperfect market condition and market oriented economic policies are also instrumental for inflation escalation. The study utilized simple regression analysis and find that the explanatory power of a closed economy monetarist model (where price is the function of money supply and real output) is very low; the study then included external variables of an open economy model of regression analysis which includes Indian wholesale price exchange rate, lagged effect of money supply, government expenditure as additional explanatory variable. ISD (1994) found that a 10 percent increase in Indian prices causes a more than 8 percent rise in domestic price level in Nepal.

Khatiwada (1994) examined the inflation process in Nepal utilizing basis of the quantity theory of money. Initially, results showed low explanatory power and suggested that there were other missing variables in the equation. When open economy variables, such as Indian inflation and the exchange rate, were included this showed significant increase in the explanatory power of the equation. The study had also included structural variables such as per-capita output and the government expenditures, but those did not have a significant effect being swamped by the monetary variables. The study further looks at long-run analysis and finds that the best fit to be that of five year moving averages

Where “IPI” stands for Import Price Index, the study finds that IPI is consistently significant and suggests that inflation in Nepal is influenced by open economy forces.

Pandey (2005), made use of excess demand model inflation and applied OLS, stationarity test, co integration technique and error correction modeling to study the

determinants of inflation in Nepal. The study revealed real GDP, money supply (both narrow and broad), government expenditure, Indian inflation and exchange rate as explanatory variables affecting inflation, over the period 1973-2004. Although bivariate regression between price and the average money revealed significant relationship, the low explanatory power of the equation suggested inclusion of more variables.

The author could not find any change in the explanatory power of the model while including public expenditure as well as real GDP, a supply side variable. In an open economy monetarist model, Indian prices and exchange rate with Indian rupees and US dollar are included; nevertheless, the explanatory power of the model is limited to 47 percent only. The study also used the ECM to avoid the problem of losing long-run information on data to reveal both short-term relationship and adjustment toward long run equilibrium.

Where, X stands for explanatory variables. Pandey (2005) has found long run relationship of inflation in Nepal with money supply (narrowly defined), Indian inflation and exchange rate with India (as explanatory variables) however the error-correction term was not found to be significant, suggesting that there is no short run adjustment with regard to inflation in Nepal.

Mbowe (2008) studies investigating information power of money on inflation differ in methodologies, time span of data used, and the countries covered differ in the socio-economic backgrounds. It is not surprising, therefore, that these studies come up with different conclusions.

Some studies have employed Granger-causality tests between financial sector variables and output or inflation (Friedman and Kuttner, 1992; and Andersson and Sj, 2000). The critique advanced against this method is that some of the results may be sensitive to changes in the sample (Friedman and Kuttner, 1992; Emery, 1996; and Andersson and Sj, 2000). Simple regression analysis has also been used to determine the relationship between monetary aggregates and policy targets in various

studies. The weakness of simple regression analysis is that its results may be misleading since economic time series are usually auto correlated.

However this weakness can be overcome by using lags of the dependent variable as exogenous variables in the distributed lag model (Stock and Watson, 2003). Thus, as long as a financial variable contains some information that can be used independently to predict movements in inflation, policy makers should exploit that information (Friedman and Kuttner, 1992).

According to Cagan (1956) and Friedman (1956, 1960, 1971) monetarist explanation of inflation has centered on money supply as the major cause. Later arguments said that in some cases it was more proper to view causation as running from inflation to money supply (Aghevli and Khan 1977a, 1977b, 1978), Chandra and Tallman (1997), Orden and Fisher (1993),

Baek (1993) and Black et al (2000) reveal that money improves the forecasts of inflation. Furthermore, Orden and Fisher (1993) generally support that monetary shocks contribute up to 30 percent in variations of prices in Australia. For South Korea, Baek (1993) finds that money supply shocks give strong and long run effects to price movement. Nevertheless, Chandra and Tallman (1997) find inconclusive results in that while extended broad money supply (M3) is important in some systems, the block exogeneity tests do not support the view that M3 was a significant inflation predictor.

Friedman (1992) finds that productive role of monetary aggregates (narrow money supply, M1 and broad money supply, M2) on output and prices declined in the 1990s, becoming almost non-existent. This weak role of money is also evident in Tallman and Chandra (1997, 1996) and Astley and Haldane (1997). Astley and Haldane find that none of the monetary aggregates (for UK) in the 1990s offered sufficiently robust early-warning signals. Tallman and Chandra (1997) conclude that monetary aggregates contain no significant information for explaining subsequent

fluctuations in output growth or inflation for Australia. In South Africa, Nell (1999) shows that money is endogenous to consumer price inflation.

Mbowe (2008) Results are also mixed when using data from Africa, but a good number of existing studies support the role of money in predicting inflation. Whereas in a few cases monetary aggregates are important in explaining movements in prices, other factors such as the exchange rate, foreign prices and interest rate measures seem to be equally important.

Chhibber, (1992) came up with a detailed econometric model that models both monetary and structural factors of inflation in Zimbabwe. The study shows that nominal monetary growth, foreign prices, exchange and interest rates, unit labour costs and real income are determinants of inflation in Zimbabwe. Canetti and Greene (1992) used Granger and pierce causality tests in order to investigate the role of domestic money supply on inflation in six African countries. The results suggest that growth in money supply and the nominal exchange rate have significant causal influence on inflation. The findings also lent support to the exogeneity of money supply.

Durevall and Ndung'u (2001) estimate a dynamic error correction model of inflation for Kenya and find that money supply affects prices only in the short run. The excess money demand error correlation term is not significant at any conventional levels. However, they find a significant role for the three-month Treasury bill rate. Nachenga (2001) also finds highly significant role for the Treasury bill rate in Uganda. He further finds that the first lag of growth in money supply is significant.

However, Sacerdoti and Xiao (2001) estimated a similar model to that of Nachenga (2001) for Madagascar and argue that the money variable is insignificant at all convention levels. Instead, they find a very significant role for the exchange rate. Similarly, Durevall and Kadenge (2000) reveal that after the reforms, money supply ceases to be an important determinant of inflation in Zimbabwe.

Mwansa (1998) estimates both an error correction and VAR model of inflation for Zambia and finds that the second lag of M1 is weakly significant for inflation, whereas Andersson and Sjö (2000) find that money predicts prices in an error correction model setting. By using multivariate causality tests, Andersson and Sjö (2000) find that the price level is Granger caused by a combination of money supply and the exchange rate.

In contrast, Simatele (2004) conducts forecast experiments using autoregressive modeling and finds that M2 performed better than M1 but not as well as the exchange rates or domestic debt. The second lag of the deposit interest rate and the contemporaneous value of the domestic debt are significant in the error correction model of inflation. The dynamics of inflation are also influenced by food supply constraints (Ubide, 1997; Durevall and Ndung'u, 2001).

Elbadawi (1990) on his study on the determinants of inflation in Uganda during the period 1988-89, his study revealed that rapid monetary expansion and the depreciation of parallel exchange rate were the principal determinants of inflation in Uganda.

Kandil and Morsy (2009) in their study on the determinants of inflation in GCC found that many studies, however, consider inflation in individual countries, without taking into account regional issues. Moreover, the focus of most of the empirical work has been on short-run inflationary pressures, without taking into consideration other factors operating in the long term. Hasan and Alogoskoufis (2008) estimate a model that distinguishes between long and short term determinants of inflation in Kuwait and Saudi Arabia. This investigation provides a more comprehensive evaluation of the determinants of inflation in the six GCC countries.

Piers and Tsidi (1998) tested for stationarity and employed co integration analysis in order to identify both short and long run price relationships. The study covered the 1974-88 periods using quarterly data. The results revealed evidence of co integration between the Swazi and South African inflation, money supply growth and the

external value of the Rand/Lilangeni. The error correction term was significant and this term estimated the feedback in the current period from the previous time period (quarter) disequilibrium, which in that study was very small at 0.6%.

Gaomab (1988) employed a general to specific method using an unrestricted autoregressive distributed lag model, stationarity testing, co integration analysis as well as error correction modeling to distinguish clearly between short run and long run price relationships. The model incorporated a wide range of variables applicable to the Namibian situation, such as real income, broad money supply, nominal interest rate (proxied by the prime lending rate), the nominal exchange rate of Namibian dollar against the US dollar, and foreign prices as represented by the South African and American.

Menji cited in Yohannes (2000) in this study of inflation in Ethiopia used quarterly data from 1967/68 to 1998/99. Yohannes used three econometrics models; monetarists, demand and supply side model and structuralism model. Results from the first model show that money supply is a cause of inflation in the short run. The results from the second model show that inflation inertia and actual world inflation affect Ethiopian inflation in the short run.

In the last model structural variables have been found to explain both short run and long run inflation in Ethiopia while inflation inertia, money supply and world inflation explain inflation only in the short run.

Mehari and Wondafrash (2008) investigated the impact of money supply on inflation in Ethiopia. The researchers used quarterly data from the first quarter of 1996/97 until the second quarter of 2006/07. Mehari and Wondafrash (2008) used independent models for the narrow money supply and broad money supply. The result from their work reveals that money supply has a direct impact on inflation.

The impact of narrow money supply which includes currency outside banks and net demand deposits was found to be greater than that of broad money supply which

includes narrow money supply and quasi money. From the studies reviewed on Ethiopia; in the short run money supply, inflation inertia and actual world inflation have been found to affect inflation while in the long run Ethiopian inflation is attributed to structural factors, mainly to the bottle necks of the agricultural sector, and to monetary factors (Menji. S, 2009)

Menji cited in Mwase, (2006) a structural vector auto regression (VAR) model to capture the relationship between short term movements in exchange rate and inflation. The results of the study indicate that currency appreciation is associated with a decrease in inflation rate, with one quarter lag. The exchange rate pass through to inflation Tanzania is found to be incomplete and decreasing. A low, significant and persistent pass through existed through the period 1990:

He argues that the non conventional response of inflation to exchange rate movement could be attributed to the effect of macroeconomic and structural reforms. His study concludes that the decrease in the pass through is attributed to the macro economic and structural reforms that took place in Tanzania. The researcher stressed that the results were primarily due to the opening up of sectors previously sheltered from competition and due to the deflationary effects of expansion in clothing, furniture, production and the house hold sector. He finally recommends for authorities to seek to maintain low and stable inflation and to continue on the ongoing structural reforms to increase efficiency and production.

Menji cited in Egwaikhede, et al (2006) concluded their results by stating that the official exchange rate in Nigeria is the main determinant of inflation and budget deficits. Finally, the researchers recommend using restrictive monetary policy to complement the exchange rate policy adopted.

Fannizza and Soderling (2006), in their analysis of fiscal determinants inflation in five Middle East and North African (MENA) countries for the years 1998-2005 used cash-in advance model using Fiscal Theory of Prices. The main aim of the research was to know the main reason for the existence of low inflation in MENA countries

despite the increase in money supply in the countries. The results show that strong fiscal position in MENA countries has resulted in lower inflation. According to the results Morocco's privatization frame work, Egypt's defacto exchange rate and Lebanon's high debt but largely dominated in foreign currency were the main factors that contributed largely to the strong fiscal position of the countries.

Kathmandu B cited in Mathema (1998) has used an expectation augmented Phillips curve approach to examine whether the nominal wage increases are the most significant sources of cost-push inflation in Nepal.

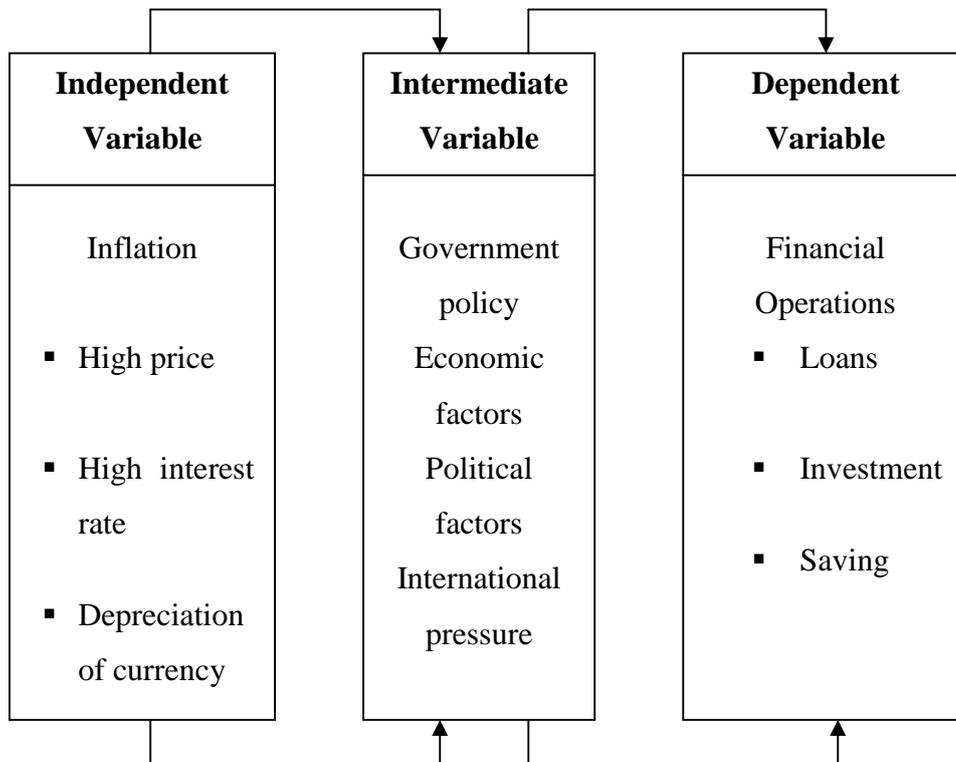
#### **2.4 Research Gap**

Empirical literature review shows that, a good number of similar studies have been conducted. But, there is no study that identifies the extent inflation influenced the bank operations. Therefore, the study intends to identify the extent inflation influenced the bank operations in Tanzania.

#### **2.5 Conceptual Framework**

The study assumes that, dependent variable is financial operations. Financial operations are influenced by inflation. Also, the study assumes that inflation is characterized by high price, high interest rate and depreciation of currency. The characteristics of inflation influence financial operations. Moreover, the dependent variable of the study is affected by intermediate variables. These involve government policy, international pressure, economic and political factors. The dependent variable of the study contains loans, saving and investment operations. These assumptions are summarized in Figure 2.1 below

**Figure 2. 1: Conceptual Framework**



**Source:** Research Own Construct, 2014

Figure 2.1 presents conceptual framework of the study. The study assumes the independent variable of the study is inflation. Inflation is characterized by high prices, high interest rate and depreciation of currency. Also, the study assumes the dependent variable of the study is financial operations. Financial operations are characterized by loans, investment and saving.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents research methodology. In this chapter the researcher described research design, the organization as a case, area of study, study population, variables and their measurements, sample size and sampling techniques, types and sources of data, data collection methods, reliability and validity issues, and data analysis methods. In that case, the researcher collected data regarding the influence of inflation on financial operations” a case of CRDB bank.

#### **3.2 Research Design**

A case study design was used. According to Kothari, (2004) research design refers to collection of arrangement for data collection. The motive for adopting the case study design is due to the following merits as outlined by Kothari (2004); A case study design provides an intensive description and analysis of a single situation. It involves in depth contextually analysis of the similar situations in other organizations where the nature and definition of the problem happen to be the same as experience in the current situation. It is a fairly exhaustive method which enables the researcher to study deeply and thoroughly different aspects of the phenomenon. Moreover, it is flexible in respect to data collection methods and saves both time and costs.

#### **3.3 Area of Study**

The study was conducted at CRDB Bank. The CRDB Bank Headquarters is found in eastern part of the URT in Dar-es-Salaam City at Ilala district. The CRDB Bank head office is situated along side of Azikiwe Street. The bank is chosen because it has the largest number of customer with great operations.

#### **3.4 Study Population**

Population refers to the totality of objects under investigations (kamuzora and Adam, 2008). Saunders et al (2007) suggests that population is the complete set of cases or group members while a sample are a subgroup or part of a larger population. Population of the study includes all CRDB employees located in Dar es Salaam

### 3.5 Sample Size and Sampling Procedure

A sample is a small group or subject of the population which a study selects from the purpose of the study and from which generalization is made about the characteristics of the population (Saunders *et al.*, 2005). The researcher selects 80 respondents as a sample size that was made up by employees and management of CRDB.

According to Saunders and Thornhill (2009), sampling is the process of selecting a sufficient number of elements from the population, so that a study of the sample and an understanding of its properties or characteristics would make it possible for us to generalize such properties or characteristics to the population element. The researcher used purposive sampling in selecting respondents. Purposive sampling is a form of non probability sampling in which decisions concerned individuals to be included in a sample are taken by the researcher, based on the criteria which may include specialist knowledge. This sampling method involves purposive or deliberate selection of particular units of the universe for constituting a sample which represents the universe. The technique was used because some of the respondents were not be available at the time of data collection.

**Table 3.1: Sample Size Distribution**

Section	No of employees	Percentage
Finance officer	16	20.0
Information Technology	8	10.0
HR officers	8	10.0
Operation officers	48	60.0
<b>Total</b>	<b>80</b>	<b>100.0%</b>

**Source:** Researcher Own Construct, 2014

### 3.6 Types of Data

Data may be classified as primary data and secondary data; in this study the researcher collected and used both primary and secondary data. Primary data are the

data which the researcher prepares for a specific study i.e. data collected for the first time. These data were needed because they generate new and original information. The researcher collected these data through interviews.

In this study, the researcher also collected and used secondary data. Secondary data were collected through document analysis. Documentary analysis involves CRDB Bank documents such as Annual financial reports, various banking operations policies, monthly reports submitted to central banks. The secondary data were so important to be used in this study since were useful to answer the research questions of the study. Secondary data does not also exhaust people's good will by re-collecting readily available data and allow for large scale studies on a small budget. These data are also having some disadvantages because they were not made for the researcher's study but for other uses therefore, the researcher will not take them directly instead modified them to be more useful for the study.

### **3.7 Data Collection Methods and Instruments**

In this study the researcher used various data collection methods depending on the type of information required, who are having that information, how complex are those information, and also how confidential are those information. The researcher use questionnaire, interviews and document analysis as methods of data collection. The reasons for employing these three methods of data collection were due to the nature of the study and also to enhance the validity and reliability of data that was collected and used for the purpose of achieving the study's objectives and answering the research questions. In collecting primary data the study use questionnaires and interview.

#### **3.7.1 Interview Method**

The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses (Kothari, 2004). This involves verbal interaction between the researcher and respondent. The researcher prepared the interview guide questions in connection to research questions. The technique was used because, sample will be controlled more effectively, more information and that

too in greater depth can be obtained, also the technique associated with greater flexibility, therefore the researcher has the opportunity to restructure questions so as to reach the research objectives. Interviewees were CRDB employees and customers. Interviews allow participants to provide rich, contextual descriptions of events. According to Saunders and Thornhill, (2009), interview helps to get reliable and valid information relevant to the research.

### **3.7.2 Documentary Analysis Method**

The researcher collected second hand information through reviewing documents related to the influence of inflation on financial operations. Documents which analyzed by a researcher consist of documentary materials such as Company annual reports, Directors report, financial Statement and other verbal materials either spoken or written. In light of this, documents are sources of information, without them research is impossible

### **3.7.3 Focus Group Discussion**

The Focus Group Discussion is a qualitative research technique that is used in the process of data collection. In this study, three group discussions were held and each consisted of 10 respondents. Group discussion members were selected depending on age status, educational level, gender and position. The researcher uses the focus group discussion in order to study the influence of inflation in financial operations. The researcher starts with general questions to specific questions in order to encourage open and easy discussion to bring out true feelings and thoughts.

Therefore the researcher selected the conducive and comfortable environments in order to encourage both effective and productive discussion. However, the researcher takes the precaution that, the focus group discussion involved small sample size in order to keep time and cost down.

### **3.7.4 Questionnaire**

Questionnaire was used for the purpose of collecting a large proportion of the desired information to be collected within short or limited time and resources. The use of questionnaire is of advantage because of economy, influencing interview's bias and

the possibility of anonymity. Before all, a pilot study was conducted for pre-test questionnaire. By using this method researcher have to distribute self administered questionnaire to the respondents.

However, it also has disadvantages like low response rate, misunderstanding of some questions, no opportunity to ask further questions by the researcher, which are challenges to validity. In order to enhance validity, constant follow up was done to respondents whose questionnaires are not returned; also piloting the questionnaire was done and the misunderstanding were corrected; other data collection methods like interviews were used to complement the questionnaire and enhance validity.

### **3.7.5 Interview Questions**

The study conducted an interview which involved some selected CRDB official. In order to acquire information relevant to the research problem, an interview questions were used to facilitate interview. Closed and open ended questions were used during interview.

### **3.7.6 Documentary Review Schedule**

Document review schedule consists of analyzing the contents of documentary materials such as company's policy, company performance reports and the contents of all other verbal materials, which can be either spoken or printed. Documentary review schedule was used in reviewing documents. This is a statement that indicates how documents were reviewed.

## **3.8 Data Management**

Data processing involves editing, coding, tabulation was used as a key factor in whole process of research. This was done in the area in order to make the research be accurate and effectively as follows;

Editing was done immediately after receiving questionnaire from respondents. This

involves correction of errors that might appear in the whole process of research writing. Also to help the researcher to translate and look for clarification on what respondents wrote about.

Coding was done after completing data editing the answers from the respondents were given code. According to Kothari (2008), Coding refers to a process of assigning numerals or other symbols to answers so as responses can be put into a limited numbers of categories or classes. Coding allows efficient analysis and through it several replies may be reduced to small numbers which contain the critical information required for analysis.

Tabulation was used to assemble data into concise and logical order. The researcher analyze data collected qualitatively where words were used to explain findings and quantitative analysis where the data used numbers, computation of total and percentages, data analysis was base on research objectives.

Validity is the ability of the measuring instruments or research study to measure what it claims to measure. To ensure validity, the measuring instrument (questionnaire) was pilot tested so as to able to refine it and ensure that respondents were free from problem in responding to the questions. It ensures, to a certain extent, validity of questions and reliability of data to be collected.

Reliability refers to ability to obtain similar results by measuring an object, trait or construct with independent but comparable measures (Kothari, 2003). This was determined as in measurement procedures, to certain whether or not the quality of an instrument to produce the same results when employed under the same conditions is attained. To maintain accuracy, the researcher used excels as a tool for data analysis; this made the research findings to be more accurate. The data were tested using cronbach's package to determine reliability of the data.

### **3.9 Data Analysis procedure**

The researcher use EXCELL software as an instrument of data analysis before giving interpretation so as to know influence of inflation on financial operations” a case of CRDB bank. The researcher used statistical and financial computations so as to realize the predetermined objectives. The researcher use tables, charts, bar line, and graphs; the use of descriptive methods for data analysis purposely to increase the validity and reliability of data collected and used. The descriptive method of data analysis assisted the researcher to come up with a number of conclusions, solutions to the problem, and various recommendations

## CHAPTER FOUR

### PRESENTATION OF THE FINDINGS

#### 4.1 Introduction

This chapter presents presentation of the findings in line with the objectives of the study. The first section of the chapter gives background characteristics of the respondents whereas; issues which cause inflation in Tanzania are discussed in section two. Section three of the chapter presents techniques which are used by the bank to combat inflation the last section of the chapter explains the extent inflation influenced bank operations.

#### 4.2 Background Characteristics of the Respondents

##### 4.2.1 Age of the Respondents

The study was interested to examine the age of the respondents in order to measure the capability of the respondents to provide responses for the study. Respondents were asked to identify their age. In their reply, the study found majority of the respondents (53.8%) were aged between 25 to 34 years, as presented in Table 4.1

**Table 4. 1: Respondents Age**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
15-24	7	8.8
25-34	43	53.8
35-44	20	25.0
45-54	6	7.4
Above 55	4	5.0
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.1 presents respondents age, the study found out of 80 respondents, 43 (53.8%) were aged between 25 to 34 years. Also, the study found small number of the respondents (8.8%) was aged between 15 to 24 years. It's found insignificant number of the respondents (25%) was aged between 35 to 44 years. The study found out of 80 respondents, 6 (7.4%) were aged between 45 to 54 years. Moreover, the study found small number of the respondents (5%) was above 55 years. This implies that, respondents were capable to provide responses for the study. This indicates that,

the study involves all age groups, which brings a sense of reliability. Therefore, respondents suggestions and recommendations were considered.

#### **4.2.2 Gender of the Respondents**

The study examines the gender of the respondents in order to establish the influence of gender on inflation and financial operations. Respondents were asked to identify their gender, in their respond. The study found majority of the respondents (60%) were male, as presented in Table 4.2

**Table 4. 2: Gender of the Respondents**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
Male	48	60.0
Female	32	40.0
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.2 presents gender of the respondents, the study found the large number of the respondents (60%) were male. Also, it's found out of 80 respondents, 32 (40%) were female. This implies majority of the respondents were male. Both genders were involved by the researcher in collection of data. This indicates that, the researcher was not bias on finding out the influence of inflation on bank operations at CRDB bank.

#### **4.2.3 Level of Education**

The study was interested to examine the level of education in order to identify the capability of the respondents. Respondents were asked to identify their level of education, in their reply the study found majority of the respondents (67.5%) have first degree/Advanced diploma qualification, as shown in Table 4.3

**Table 4. 3: Level of Education**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Secondary School	2	2.5
Certificate in any Training	5	6.3
Diploma	7	8.7
First Degree/Advanced Diploma	54	67.5
Post Graduate Degree (Masters/ Phd)	12	15.0
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.3 presents the level of education of the respondents. Its found majority of the respondents (67%) have first degree/Advanced diploma qualification. Also, the study found small number of respondents (2%) and (5%) have secondary school and certificate qualification respectively. Moreover, the study found significant number of the respondents (8.7%) have diploma qualification. The study found out of 80 respondents, 12 (15%) have post graduate degree (masters or Phd). This implies the respondents were capable to provide responses for the study.

### **4.3 Issues which cause Inflation in Tanzania**

The study identifies issues which cause inflation in Tanzania. The study classifies the causes in to two categories. These are major causes and other causes of inflation.

#### **4.3.1 Major causes of Inflation**

Respondents were asked to identify major causes of inflation in Tanzania. In their respond the study found the large number of the respondents (31.2%) identified oil price as a major cause of inflation in Tanzania. Table 4.4 presents the finding on the major cause of inflation.

**Table 4. 4: Major causes of Inflation**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
Labour Market	5	6.3
Import Prices	7	8.7
Raw Material Prices	9	11.3
Public Expenditure	6	7.5
Oil Price	25	31.2
Money Circulation	8	10.0
Decline in Productivity	20	25.0
<b>Total</b>	<b>80</b>	<b>100</b>

**Source:** Field Data, 2014

Table 4.4 presents major causes of inflation, the study found the large number of the respondents (31.2%) suggest oil price is a major factor cause inflation. Also, the study found small number of the respondents (6.3%), (7.5%) and (8.7%) identified labour market, public expenditure and import prices respectively. Moreover, the study found insignificant number of respondents (11.3%) suggested raw material prices as a major cause of inflation. It's found out of 80 respondents, 8 (10.0%) identified money circulation as a major cause of inflation. Furthermore, its found important number of respondents (25%) suggested decline in productivity affect inflation.

Table 4.4 shown that an oil price is major factor cause inflation, this is similar to responses obtained during interview, one of the interview respondents reveals that

*“Oil price is one of the major factor that can cause inflation, when the oil price change in the international market, may cause inflation”.*

The study examines other causes of inflation. Respondents were asked to identify other causes of inflation. The study found there are various causes of inflation; majority of the respondents (52.5%) identified low level of tax, as presented in Table 4.5

**Table 4. 5: Other causes of Inflation**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Natural Disaster	8	10.0
National Dept	12	15.0
Cost Push	5	6.3
Low level of Tax	42	52.5
High lending	6	7.5
Currency Devaluation	7	8.7
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.5 presents other causes of inflation. These contains minor caused on inflation. The study found small number of the respondents (6.3%) and (7.5%) identified cost push and high lending respectively. Also, the study found significant number of the respondents (15%) and (10%) suggested national dept and natural disaster. During interview one respondent stated that:

*“National dept influence the rises of inflation in Tanzania. The government may print new money to reduce national dept. This increase inflation rate”*

Moreover, the study found the unimportant number of the respondents (8.7%) identified currency devaluation as a factor influencing inflation. This implies that, apart from import prices, raw material prices, public expenditure and oil price there are other factors that can cause inflation. These involve natural disaster, national dept, cost push and low level of tax. Moreover, the study found majority of the respondents (52.5%) identified low level of tax. It’s found apart from oil prices and other major causes. There are minor causes, these include natural disaster, national dept, cost push, low level of tax and high lending

#### **4.4 Techniques Used by the Bank to Combat Inflation**

There are various techniques used by banks to combat inflation. The study found significant number of the respondents (25%) identified fiscal and monetary policy as a major technique used by the bank to combat inflation. Also, it’s found out of 80

respondents, 11 (13.8%) suggest the bank increase interest rate to combat inflation, as presented in Table 4.6

**Table 4. 6: Techniques Used by the Bank**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Fiscal and monetary policy	20	25.0
Increase interest rate	11	13.8
Reduce export demand	12	15.0
Making import cheaper	3	3.7
Increase saving rate	22	27.5
Control wage	12	15.0
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.6 presents techniques used by the bank to combat inflation, the study found small number of the respondents (3.7%) and (13.8%) suggest making import cheaper and increase interest rate respectively. The study found significant number of the respondents (15%) and (13.8%) identified control wage and increase interest rate respectively. This implies that, the bank control wage, increase interest rate and making import cheaper to control inflation.

Moreover, it's found the bank increase saving rate to combat inflation. Significant number of the respondents (27.5%) identified that bank increase saving rate to combat inflation. This is similar to responses obtained during interview, one respondent revealed that: *“Bank promote saving in order to reduce inflation rate. This technique is adopted by central banks”*

It's observed that the large number of the respondents (25%) identified the banks use fiscal and monetary policy.

#### 4.5 The Extent Inflation Influenced Bank Operations

The study examines the extent inflation influenced bank operations. Respondents were asked to what extent inflation influence banks operations. The study found majority of the respondents (77.5%) suggested inflation has high influence on bank operations, as presented in Table 4.7

**Table 4. 7: Extent**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
High Extent	62	77.5
Low Extent	18	22.5
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

The study found inflation affect bank operations. Small number of the respondents (22.5%) identified for small extent inflation influence bank operations. Also, the study found out of 80 respondents, 62 (77.5%) suggested inflation has great influence on bank operations.

Moreover, the study was interested to examine the effects of inflation to bank operations. Respondents were asked to identify the effects of inflation to bank operations. It's found the large number of the respondents (31.2%) identified inflation increase bank operational cost, as presented in Table 4.8

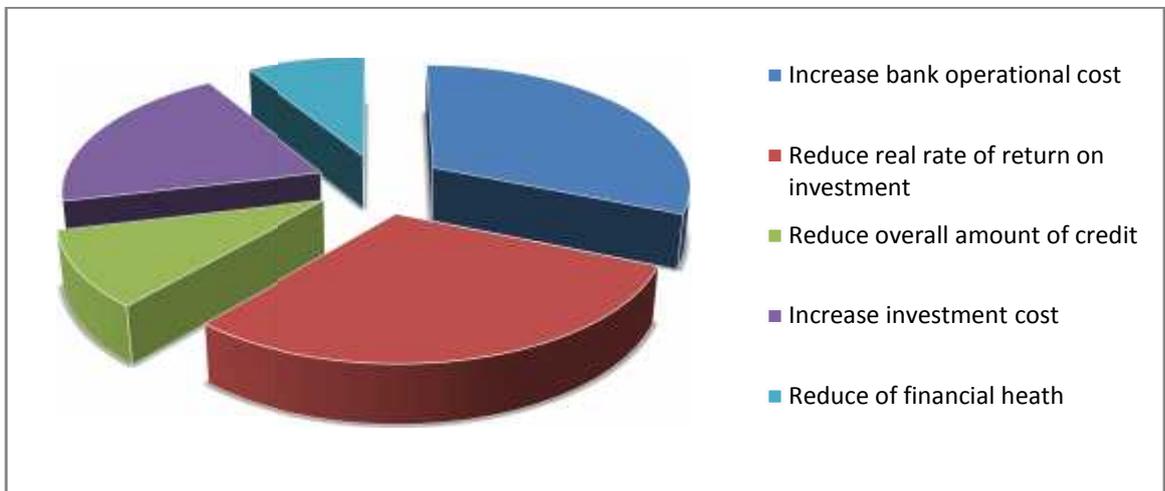
**Table 4. 8: Effects of Inflation to Bank Operations**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Increase bank operational cost	25	31.2
Reduce real rate of return on investment	24	30.0
Reduce overall amount of credit	8	10.0
Increase investment cost	16	20.0
Reduce of financial heath	7	8.8
<b>Total</b>	<b>80</b>	<b>100.0</b>

**Source:** Field Data, 2014

Table 4.8 presents effects of inflation to bank operations. Various effects of inflations to bank operations were identified by the respondents. Its found small number of the respondents (8.8%) identified reduce financial health of the banks whereas (10%) of the respondents suggested inflation reduce overall amount of credit. Significant number of the respondents (20%) and (24%) identified increase investment cost and reduce real rate of return on investment respectively, as presented in Figure 4.1

**Figure 4. 1: Effects of Inflation to Bank Operations**



**Source:** Field Data, 2014

Figure 4.1 presents effect of inflation to bank operations. The study found small number of the respondents (8.8%) and (10%) identified reduce financial health and overall amount of credit respectively. This implies that inflation affects various bank operations. These include bank operational cost, real rate of rate, and investment cost.

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS**

#### **5.1 Introduction**

This chapter presents discussion of the findings. The first section of the chapter discusses issues which cause inflation in Tanzania whereas techniques which are used by the bank to combat inflation are presented in section two. The last section of the chapter gives the extent inflation influenced bank operations.

#### **5.2 Issues which Cause Inflation in Tanzania**

##### **5.2.1 Labour Market**

The study examines issues which cause inflation in Tanzania. Various causes were identified by the respondents. It's found small number of the respondents (6.3%) identified labour market as a major cause of inflation in Tanzania. This is similar to the study made by Totonchi (2011), the study labour market is one of the major causes of inflation. A shortage of labour causes inflationary pressure.

If firms are struggling to employ sufficient labour, workers are in a position to demand higher wages. This can easily lead to wage inflation which causes inflation. When wages rise, firms will try to pass on the cost increases to customers leading to cost push inflation. If wages rise, workers have an increase in income leading to higher disposable income and higher spending, this can cause demand pull inflation. If other inflationary pressures are muted, a shortage of labour puts upward pressure on wage increases. Inflation affects labour market efficiency by influencing firms' wage-setting practices and compensation schemes.

##### **5.2.2 Import Prices**

The study found import price is one of the major causes of inflation in Tanzania. The study found out of 80 respondents, 7 (8.7%) identified import price. This is related to the study med by Khathlan, (2011), import prices may influence inflation, the increase in import prices leads to the fall in the domestic value of currency which leads to inflation. Inflation due to an increase in the price of imports, as the price of imports increase, prices of domestic goods using imports as raw materials also

increase, causing an increase in the general prices of all goods and services. Imported inflation may be caused by foreign price increases or depreciation of a country's exchange rate.

### **5.2.3 Raw Material Prices**

The study found raw material price may influence inflations. Its found significance number of the respondents (11.3%) identified raw material price is a major cause of inflation in Tanzania. This implies that raw material prices may influence inflation. Aghevli and Khan, (1978), found that, any factor that interferes with firms' accurate wage setting can raise unemployment, worker turnover, or company failures. Since labour is typically a large component of companies' costs, such widespread interference in this market can impair the efficiency of the economy.

### **5.2.4 Public Expenditure**

The study found small number of the respondents (7.5%) identified public expenditure is a major cause of inflation in Tanzania. Government expenditures yield positive externalities and linkages. In the short run, the rate of inflation does not affect the economic growth but government expenditures do so. The absence of any relationship between public spending and output may not be surprising since the evolution of the Tanzania economy depends heavily on foreign mainly of their capital. That is, one of the main contributors to economic growth in Tanzania is foreign direct investment and remittances, which may limit the importance of fiscal policy on the economy. However, it should be noted that higher public spending may lead to an increase in the deficit and debt, leading to higher macroeconomic instability which may limit foreign investment.

### **5.2.4 Oil Price**

The study found the large number of the respondents (31.2%) identified oil price. Sharp increases in the price of oil are generally seen as a major contributor to business cycle asymmetries. Moreover, the very recent highs registered in the world oil market are causing concern about possible slowdowns in the economic performance of the most developed countries.

Another specific difficulty that monetary policy faces when oil prices rise is in assessing to what extent the increase in oil prices also has effects on potential production. This may be the case if the increase in oil prices means, for instance, that part of the real capital in the economy become obsolete and take time to replace. In this case, inflationary pressure will be higher than it would have otherwise been. Therefore relatively tighter monetary policy is needed to bring inflation back in line with the target. Where increases in oil prices affect the potential production of the economy, these effects will only be visible after a time lag.

### **5.2.5 Money Circulation**

Money is anything that is generally acceptable as a means of exchange”. The most commonly accepted view is that “all media of exchange and payment, whose acceptance the law requires in discharge of debts”, may be called money. Bank notes (Coins, currency and cheques) are generally accepted and are, therefore, money.

Inflation occurs when the government creates additional money and circulates the same into the economy to meet war expenditures. When government increases its expenditure to the public through provisions of social services such as health, water, education etc, leads to the increase in the money circulation in the markets .The increase in the money circulation leads to the increase in the inflation in the country.

### **5.2.6 Decline in Productivity**

The study found decline of productivity is a major cause of inflation in Tanzania. Significant number of respondents (25%) identified decline in productivity may cause inflation. It refers to that rise in the price level, which takes place because wages increase to a greater extent than labour productivity. These costs (wages) are passed on to the consumers in the form of higher prices. The production of consumption goods decline, the prices of such commodities increased because of high demand in the market.

The sectors that matter most in contributing to inflation include agriculture, foreign trade, and the government sectors (Dowla 1994). Increased consumer demand for

agricultural products comes as the result of population growth, rapid urbanization, and growth in real income. The sluggish supply response to increased demand results in an increase in food prices coupled with downward price inflexibility in non-agricultural sectors dominated by oligopolies. The increased food prices and downward flexibility of non-agricultural prices result in a general price level increase; this situation is termed an agricultural bottleneck.

### **5.3 Techniques which are used by the Bank to Combat Inflation**

#### **5.3.1 Fiscal and Monetary Policy**

The study found significant number of the respondents (25%) identified the inflation can be overcome by fiscal and monetary policy. Fiscal measures, involves reduction of government spending, imposition of new taxes and encouragement of savings or introducing compulsory saving schemes reduced the rate of inflation in the country. The monetary and fiscal measures will reduce the money supply in the country. Monetary measure involves increase the market rate of interest that will reduce the aggregate spending. Central bank can reduce the cash available to the banking system, the capacity of the banks to lend money to the borrowers will be reduced. The Central bank can sell the Government securities to the banks or to the public so that cash available with bank or public can be reduced. Also Consumer credit control can reduce money supply.

#### **5.3.2 Increase Interest Rate**

The study found important number of the respondents (13.8%) identified inflation can be controlled by increase interest rate. Increased interest rates will help reduce the growth of aggregate demand in the economy. The slower growth will then lead to lower inflation. This is similar to the study made by Rutasitara (2004), the study found higher interest rates reduce consumer spending because: Increased interest rates increase the cost of borrowing, discouraging consumers from borrowing and spending. Increased interest rates make it more attractive to save money Increased interest rates reduce the disposable income of those with mortgages.

Higher interest rates increased the value of the exchange rate leading to lower exports and more imports. Raising benchmark interest rates is the preferred plan of action when it comes to the central bank's fight against inflation. It's the easiest and simplest strategy, and the results can sometimes be quicker compared to other methods. All a monetary body does, in this instance, is increase the benchmark that most commercial and retail banks refer to when creating client loans. These products include mortgage, student and car loans, along with commercial loans for businesses. Once these rates rise, the cost of money increases. This reduced the lending rate of people in the banks.

Rise in the interest rates is a very useful tool for restricting monetary inflation. Increase in the real rates of interest decreases the demand for loans, thereby limiting the growth of broad money.

### **5.3.3 Reduce Export Demand**

The study found by reduce export demand, Tanzania can reduce inflation rate. The study found out of 80 respondents, 12 (15%) identified inflation can be controlled by reduce export demand. Temporary controls may complement a recession as a way to fight inflation: the controls make the recession more efficient as a way to fight inflation (reducing the need to increase unemployment), while the recession prevents the kinds of distortions that controls cause when demand is high.

### **5.3.4 Making import Cheaper**

The purpose of importing is to provide a product of the highest demand for the lowest cost; however, not everyone is successful in implementing this policy. Importing products from other countries or states can be a valuable and profitable business for, as long as the importing costs don't overwhelm the sales costs. The cheaper importation of goods and services from abroad reduced prices of such goods and services and hence low inflation in the country.

### **5.3.5 Increase Saving Rate**

Higher saving rates reduce the amount of money because less people seek loans, and loans are usually made with new money. When banks make loans, they usually first create new money, then lend it. A central bank usually creates money lent to a national government. Therefore, when a person pays back a loan, the bank destroys the money and the quantity of money falls. Saving reduce money circulation, by reducing money circulation the country can control inflation. Inflation occurs when the government creates additional money and circulates the same into the economy to meet war expenditures. When government increases its expenditure to the public through provisions of social services

### **5.3.6 Control Wage**

The study found important number of the respondents (15%) identified wage control will reduce inflation rate in Tanzania. This implies that wage control is one of the techniques that can reduce inflation in Tanzania. Wage growth is a key factor in determining inflation, if wages increase quickly it will cause high inflation. However, it was effectively dropped because it was difficult to widely enforce. A rise in the interest rate discourages borrowing from both companies and households.

When interest rates increase, it simultaneously encourages the savings rate, owing to an escalation in the opportunity cost of expenditure. If an employer sets wages too low, it will lose employees; the resulting turnover will lead to lower profits. If an employer pays too much, it will either suffer a profit loss or be forced to lay off workers because it will be unable to price products competitively. Thus, any factor that interferes with firms' accurate wage setting can raise unemployment, worker turnover, or company failures. Since labour is typically a large component of companies' costs, such widespread interference in this market can impair the efficiency of the economy

## **5.4 Extent Inflation Influenced Bank Operations**

The study found majority of the respondents identified for large extent inflation influence bank operations. Inflation affect various bank operations, inflation affects

investment and daily operations of the banks. This is similar to the study made by Chhibber, (1992), the study found inflation has great influence on bank operations, inflation affect interest rate, a fixed exchange rate is usually used to stabilize the value of a currency, agaist the currency it is pegged to. It can also be used as a means to control inflation. However, as the value of the reference currency rises and falls, so does the currency pegged to it. This essentially means that the inflation rate in the fixed exchange rate country is determined by the inflation rate of the country the currency is pegged to. In addition, a fixed exchange rate prevents a government from using domestic monetary policy in order to achieve macroeconomic stability.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter presents summary, conclusion and recommendation of the study. The first part of the chapter put down summary of the study. Section two gives conclusion of the study while recommendations are discussed in part three.

#### **6.2 Summary of the Study**

The study on the influence of inflation on financial operations was conducted at CRDB bank. The objectives of the study were; to identify issues which cause inflation in tanzania; to analyze techniques which are used by the bank to combat inflation and to assess the extent inflation influenced bank operations.

A case study design was used where as 80 respondents were considered as a sample size. Data collection methods were questionnaire, interview and documentary analysis. where as data collection instruments were questionnaire, interview questions and documentary analysis schedule. Data were presented by using table and graphs.

The study found that, there are different issues that can cause inflation in tanzania. The major causes for inflation involves; raw material prices, public expenditure, oil price and money circulation. Also, the study found significant number of the respondents (25%) identified fiscal and monetary policy as a major technique used by the bank to combat inflation. The study found majority of the respondents (77.5%) suggested inflation has high influence on bank operations.

The study concluded that, there are different issues that can cause inflation in Tanzania. The major cause of inflation involves; labour market, import prices, raw material prices, public expenditure, oil price, money circulation and decline in productivity. Also, the study concluded that there are various techniques that can be used to control inflation. Inflation can be controlled though; Fiscal and monetary policy, increase interest rate, reduces export demand, making import cheaper,

increase saving rate and control wage. The study recommended that bank operating expenses should be considered as a determinant and prerequisite for improving bank performance, since expenditure are controllable expenses.

### **6.3 Conclusion**

The study concluded that, there are different issues that can cause inflation in Tanzania. The major cause of inflation involves; labour market, import prices, raw material prices, public expenditure, oil price, money circulation and decline in productivity. Also, the study concluded that there are various techniques that can be used to control inflation. Inflation can be controlled though; Fiscal and monetary policy, increase interest rate, reduces export demand, making import cheaper, increase saving rate and control wage. Moreover, the study concluded that for high extent inflation influence banks operations. Inflation cause increase bank operational cost, reduce real rate of return on investment, reduce overall amount of credit, increase investment cost and reduce of financial health

High rate of inflation worsens the efficiency of financial sector through financial market frictions and slows down the economic performance. Inflation tends to induce volatility in equity returns as well as lowers the real return on savings. In inflationary periods, governments are inclined to impose additional tax burden on the financial sector to reduce their budget deficits

### **6.3 Recommendations**

The following are recommendations of the study

#### **Immediate Effects**

Bank operating expenses should be considered as a determinant and prerequisite for improving bank performance, since expenditures are controllable expenses and if efficiently managed can contribute positively to the performance of commercial banks.

Domestic demand should be offset, at least in part, by export demand from the foreign recipients of the income transfer, in net terms, there will be a negative impact on the consumer demand for goods produced in the oil importing nations.

Price stability should be the overriding, long run goal of monetary policy. The government should make sure there is price stability in Tanzania.

Bank investments should be diversified by speculating inflation rate, there is a significant negative impact of inflation on bank operations. The implication is that bank investments are not worth equity capital employed or the regulatory authority set up a high regulatory capital.

### **Future Research**

Long-run goal of monetary policy should be price stability. A goal of price stability immediately follows from the benefits of low and stable inflation, which promote higher economic output. Furthermore, an institutional commitment to price stability is one way to make time-inconsistency of monetary policy less likely.

Monetary policy should be forward looking. If policymakers wait until undesirable outcomes on inflation and output fluctuations actually arise, their policy actions are likely to be counterproductive.

Policymakers should see not only price fluctuations, but also output fluctuations as undesirable. This is why the price stability goal should be seen as overriding in the long-run but not in the short-run.

The government should expand oil reserve in order to overcome rapid raise of oil price. Also, a central bank should stress transparency and communication.

#### **6.4 Areas for Further Studies**

Future studies should measure the relationship between the rate of inflation and economic growth variable; also, studies should measure the relationship between economic growth variable, the rate of inflation and disaggregated government expenditure, government current expenditure and the government development expenditure.

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## **APPENDICES**

### **Appendix 1: Questionnaire**

My name is Stephen Simwiche, a Masters Student from Mzumbe University. I am conducting a research on The Influence of Inflation on bank operations. Your participation on answering this questionnaire could make this research be effective and complete. Therefore I am kindly requesting your attention to read and answer the questions below to the best of your knowledge and ability.

### **General Instruction**

Circle the collect answer and fill the blank

### **Respondents Profile**

1. Age

- a) 15-24
- b) 25-34
- c) 35-44
- d) 45-54
- e) Above 55

2. Sex

- a) Male
- b) Female

3. Level of education

- a) Secondary School
- b) Certificate in any Training
- c) Diploma
- d) First Degree/Advanced Diploma
- e) Post Graduate Degree ( Masters/Phd)

**General Questions**

4. What is the major cause of inflation in Tanzania?

- a) Fiscal and monetary policy
- b) Increase interest rate
- c) Increase saving rate
- d) Control wage

5. Apart from the above, what are other major causes of inflation?

.....  
.....

6. What are the techniques which are used by the bank to combat inflation?

- a) Fiscal and monetary policy
- b) Increase interest rate
- c) Reduce export demand
- d) Making import cheaper
- e) Increase saving rate
- f) Control wage

7. Identify other techniques which are used by the bank

.....  
.....

8. Do you understand the extent inflation influenced bank operations?

- a) Yes
- b) No

9. To what extent inflation influenced bank operations?

- a) High extent
- b) Low extent
- c)

10. What are the effects of inflation to bank operations?

- a) Increase bank operational cost

- b) Reduce real rate of return on investment
- c) Reduce overall amount of credit
- d) Increase investment cost
- e) Reduce of financial heath

11. What are other effects of inflation to bank operations? Please mention

.....  
.....

## **Appendix 2: Interview Guide**

1. What are issues which cause inflation in Tanzania?
2. What are the techniques which are used by the bank to combat inflation?
3. To what extent inflation influenced bank operations?
4. What should be done to control inflation in Tanzania?

**Appendix 3: Time Table**

<b>Months</b>	<b>Feb – Mar 2014</b>	<b>April 2014</b>	<b>May – June 2014</b>	<b>July – Aug 2014</b>
Writing proposal and presenting				
Data Collection				
Analyzing data Collected and Writing report				
Preparation and presentation of research report				

#### **Appendix 4: Research Budget**

<b>No</b>	<b>Details</b>	<b>Amount in Tshs.</b>
1	Stationery	200,000.00
2	Meal	200,000.00
3	Transport	100,000.00
5	Air time	100,000.00
6	Other expenses	100,000.00
<b>Total</b>		<b>700,000.00</b>