

**THE EFFECTIVENESS OF FOREIGN EXCHANGE EXPOSURE  
ON IMPROVING FIRMS' FINANCIAL PERFORMANCE  
(A CASE OF FINANCIAL INSTITUTIONS OPERATING IN  
ZANZIBAR)**

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**A Dissertation Report Submitted to the School of Business in Partial Fulfillment of  
the requirements of Mzumbe University's Masters Degree in Accounting and  
Finance (Msc AF)**

**2014**

**CERTIFICATION**

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled, The effectiveness of foreign exchange exposure on improving firms’ financial performance; A case study of Financial institutions operating in Zanzibar, in partial/fulfilment of the requirements for award of the degree of Masters of Science in Accounting and Finance (MSc A&F) of Mzumbe University.

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## **DEDICATION**

This work is dedicated to my beloved wife; Mrs Aziza Mzee Mtumwa, our beloved son Abdul-Fattah Abdalla and daughters Ruhayma Abdalla and Naifat Abdalla, and the family of Mr Mtumwa Omar Khamis and Mwaka Abdalla Khamis for their moral support, patience and encouragement for the whole period of my study.

## **ABBREVIATION AND ACRONYMS**

PBZ	People's Bank of Zanzibar
NMB	National Microfinance Bank
NBC	National Bank of Commerce
FBME	Federal Bank of the Middle East,
CRDB	Cooperative Rural Development Bank
TFA <sub>s</sub>	Tanzania Financial Accounting Standard
NBAA	National Board of Accountant and Audit
R&D	Research and Development
US	United State
US\$	United State Dollar
CAPM	Capital Asset Pricing Model
GDP	Growth Domestic Product
SPSS	Statistical Package for Social Sciences
FX	Foreign Exchange

## **ABSTRACT**

Foreign exchange exposure has lately been a hot topic since adoption of floating foreign exchange rate consequential from abolishment of the fixed exchange rate system of Bretton Woods in 1970's. Companies search for suitable hedging techniques to minimize or eliminate the foreign exchange exposure to the institutions in order to improve the financial performance. Therefore, this study aimed at assessing the effectiveness of foreign exchange exposure on improving firms' financial performance e to the financial institutions operating in Zanzibar.

The research methodology used was survey research approach. A sample size of 50 respondents from 10 financial institutions, the methods of data collection involved both primary and secondary sources. The Statistical Package for Social Sciences (SPSS) software and Microsoft Excel program (spread sheet) were used to analyze the data where simple frequencies and percentages on Tables and figures were created to help the presentation of the findings.

The main findings indicate that there is inverse relationship of foreign exchange costs and payable to the net income and direct relationship to the net loss of the financial institutions operating in Zanzibar and then the study found that there is direct relationship to the net income and inverse relationship to the net loss of the financial institutions operating in Zanzibar, therefore the study concludes that the flexible of foreign exchange rate has an effect on foreign exchange costs and payables and foreign exchange revenue and receivable to the net income of the financial institutions operating in Zanzibar.

In light of the findings, it was recommended that, financial institutions should review their foreign exchange risk managing policies and employ suitable hedging techniques in order to either minimize or eliminate the effect of the foreign exchange exposure on their financial institutions.

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## **CHAPTER ONE**

### **INTRODUCTION**

This research explains the effectiveness of foreign exchange exposure on improving firms' financial performance on financial institution operating in Zanzibar. The chapter comprises background and statement of the problem, objectives of the study, research questions and significance of the study and limitation of the study.

#### **1.1 Background of the study**

Since the breakdown of the Bretton Woods fixed-parity system in the early 1970s, the volatility of exchange rates and its associated risks have become an increasingly important component of international financial management. Standard economic analysis implies that exchange rate movements affect both the cash flow of a firm's operations and its discount rate employed to value a firm. The wide currency fluctuations experienced during the last few decades heightened the interest in the potential vulnerability of multinational firms to foreign exchange rate risk, and this issue has spawned a considerable amount of researches.

From a theoretical perspective, it is a generally held view that exchange rate fluctuations are an important source of macroeconomic uncertainty. They should thus have a significant impact on firm value, regardless of whether the firm is domestically or internationally oriented (Shapiro, 1975; Hodder, 1982; Levi, 1994; Marston, 2001).

The adoption of a floating exchange rate regime, the rapid globalization of national economies and the attempts by financial institutions to seek investment opportunities and markets beyond their immediate borders account for the increasing exposure of firms to foreign exchange risk in recent times.

A common definition of exchange rate risk relates to the effect of unexpected exchange rate changes on the value of the firm (Madura, 1989). In particular, it is defined as the possible direct loss (as a result of an unhedged exposure) or indirect loss in the firm's cash flows, assets and liabilities, net profit and, in turn, its stock market value from an

exchange rate move. To manage the exchange rate risk inherent in multinational firms' operations, a firm needs to determine the specific type of current risk exposure, the hedging strategy and the available instruments to deal with these currency risks

Exchange rate movements have been a big concern for investors, analyst, managers and shareholders since the abolishment of the fixed exchange rate system of Bretton Woods in 1970. This system was replaced by a floating rates system in which the price of currencies is determined by supply and demand of money. Given the frequent changes of supply and demand influenced by numerous external factors, this new system is responsible for currency fluctuations (Abor, 2005). These fluctuations expose companies to foreign exchange risk.

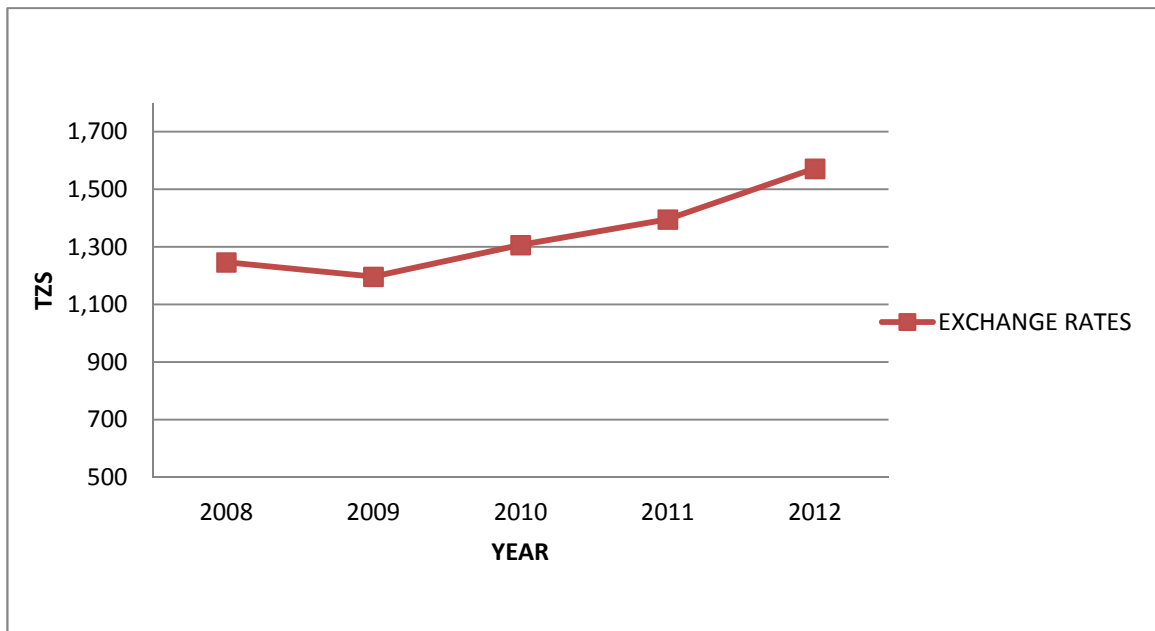
Moreover, economies are getting more and more open with international trading constantly increasing and as a result companies become more exposed to foreign exchange rate fluctuations. Foreign exchange exposures is the sensitivity of changes in the real domestic currency value of assets liabilities or operating incomes to unanticipated changes in exchange rate (Adler and Dumas, 1984).

Generally, companies are exposed to three types of foreign exchange risk: accounting (translation) exposure, transaction (commitment) exposure and economic (operational, competitive or cash flow) exposure (Eiteman et al., 2006). In practice, economic exposure is computed as the net sensitivity of some aggregate measure of firm value to currency fluctuations. By focusing on the net sensitivity, economic exposure includes the direct and indirect effects of currency fluctuations.

Foreign currency exposures arise whenever a company has an income or expenditure or an asset or liability in a currency other than that of the balance sheet currency. Indeed exposures can arise even for companies with no income, expenditure, asset or liability in a currency different from the balance sheet currency. When there is a condition prevalent where the exchange rates become extremely volatile the exchange rate movements destabilize the cash flows of a business significantly. Such destabilization of cash flows that affects the profitability of the business is the risk from foreign currency exposures.

Figure 1.1, below illustrates the movement of the US\$ to the Tanzanian shilling exchange rate from year 2008 to 2012 and it is clearly evident that the financial performance of the financial institutions may be affected with the foreign exchange fluctuation.

**Figure 1.1: Exchange Rate**



**Source: OCGS – Socio-Economic Survey (2012)**

## 1.2 Statement of the problem

Tanzania, during the time experienced a fixed foreign exchange regime. Foreign currency risk therefore, was not an issue of relevance to domestic businesses. Since foreign currency market has been decontrolled and liberalized, together with the rest of financial markets foreign currency risk and its management have become matters of interest not only to banking institutions and businesses but also to other players in the financial markets.

Several study have been conducted and generally found that fair value earnings, resulting from recognizing unrealized holding gains and losses, and are more volatile than those computed under historical cost accounting (e.g. Barth et al., 1995; Bernard et al., 1995; Hodder et al., 2006). Barth et al. (1995) argue that because this increased volatility is not

reflective of the underlying economic volatility of banks operations, inefficient capital allocation decisions by investors will result, thus raising bank's cost of capital. Dickinson and Liedtke (2004) have found a high degree of agreement that the higher volatility of reported income would increase the cost of capital of insurance companies and it would be more difficult to provide earnings forecasts or forward-looking information to the investment community.

The exchange rate regimes and the implications for macroeconomic management as well as managing foreign exchange risk (Abor, 2005), Chepkairor (1987) did a study on an assessment of the impact of foreign exchange fluctuations on projects partly funded through foreign currency denominated loans, Kurgat (1998) conducted an empirical study of spot market efficiency on Kenya's foreign exchange bureaus, Cherutoi (2006) did a study on extent of commercial banks exposure to foreign exchange risk and Chiira (2009) conducted a survey of foreign exchange risk management practices by oil companies in Kenya. In Tanzania, Assad (2011) who did a study on a survey of foreign currency risk awareness and management practices in Tanzania, a research study supported by a grant from the Investment Climate and Business Environment Research Fund, jointly funded by Trust Africa and IDRC. but very little was known about the firm exposure to exchange risk in Zanzibar. In this context that this research evaluated the effects of variations in the exchange rate in the financial performance of the financial institutions in Zanzibar.

The purpose of this study will be to evaluate the effect of exchange rate exposure through a survey of financial institutions in Zanzibar and to show how financial institutions are exposed by currency movements. Exchange rate fluctuations affect operating cash flows and firm value through translation, transaction, and economic effects of exchange rate risk exposure. (Choi and Prasad, 1995). Income based on fair values reflects income volatility more than historical cost-based income. It is also found that income is (not) more volatile with the recognition of unrealized fair value gains/losses on financial instruments (investment property).

### **1.3 Research Objectives**

The objectives of this study were categorized into two parts, general objective and specific objectives. In the sub-sections that follow (i.e. sub-section 1.3.1 and 1.3.2), the details of each category are provided

#### **1.3.1 General objective**

The overall objective of this study was to investigate the effectiveness of foreign exchange exposure on improving firms' financial performance.

#### **1.3.2 Specific objectives**

The specific objectives of the study were:

- (i) To evaluate the extent of usage of foreign exchange currencies on revenues and receivables as well as costs and payables.
- (ii) To establish the written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions.
- (iii) To evaluate the extent of improvements of firms' financial performance (as the effects of the foreign exchange exposure)

### **1.4 Research questions**

The researcher based on three basic questions as follows:

- (i) To what extent do the foreign exchange currencies on revenues and receivables as well as costs and payables are used?
- (ii) What are the written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions?
- (iii) To what extent do the firms' financial performance (as the effects of the foreign exchange exposure) improve?

### **1.5 Scope of the Study**

The research covered only ten financial institutions operating in Zanzibar, the ZSSF, The people bank of Zanzibar, Zanzibar Insurance Corporation, CRDB, NMB, Jubilee Insurance, Exim Bank, NBC, Tanzania Postal Bank and FBME. The study conducted in

Zanzibar Islands particularly in financial institutions operating in Zanzibar by looking the effects of exchange rate exposure on financial performance for five years from 2008-2012

### **1.6 Significant of the Study**

Understanding this study is very important; it provides understanding of the effects of exchange rates on the financial performance of the financial Institutions of Zanzibar. Such understanding will enhance different strategies aiming to improve the financial performance of the financial institutions in Tanzania.

### **1.7 Limitations of the Study**

The biggest challenges of this study were:-

#### **1. Data availability**

This was the main problem of using questionnaires as a method of data collection. Due to the fact that this was not a face to face interview kind of questions, so that the respondent was not willing to give exact answers for some questions and they may refused to respond to a question on the grounds that they were not spokespersons of the organization.

#### **2 Bureaucracy**

Bureaucracy was another problem that the researcher expected to face during the fieldwork. Some respondents were not able to provide data till they allowed by their superior.

#### **3 Confidentiality of data.**

Thirdly, it was possible that some of the respondents were not provide their true opinions during the interviews because they regarded some of the questions as sensitive.

However, this group was regarded to be small and we assumed that they were not affecting the overall results and conclusions.

## **1.8 Delimitations of the study**

1. The researcher try to be closed corporate with staff as well as managements of the organizations so as to get effective corporation and participation of organization in order to fulfill the objective of the study.
2. Bureaucracy can be solved by formulating the questions that are related to the concern level in organization.
3. Confidential of data. The researcher built friend relationship with respondents in order to get full corporation from them for acquiring the information that needed.

## **1.9 Organization of the Study**

Chapter one includes Introduction, the problem statement, Research objectives ,General research objectives, Specific research objectives, the significant of the study, the limitation of the study, scope of the study and Organization of the study . Chapter two is the literature review which includes Theoretical literature review, Empirical literature review and Conceptual framework.

Chapter three consist of Introduction, Study area, the research design, Research technique, population under study, Sample and sampling techniques, Analytical methods, Data collection methods and types of data collected and Analytical method. Chapter four focuses on data presentation and data analysis. Chapter five is the discussion of findings and chapter six finalize with summary of findings, conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter consists of three sub-sections; the Theoretical literature review, Empirical literature review and Conceptual Framework of this study. Many literatures has been written on the subject of effect of exchange rate exposure on the firm's financial performance and how exchange rate changes affect both national economies and the returns and cash flows of multinational corporations has been the subject of much theoretical and empirical research in economics and finance. Finally, the conceptual frame work has established the cause-effect relationship of indicators variables of the study.1084952183872

#### **2.2 Definitions of the terms**

Firms dealing in multiple currencies face a risk (an unanticipated gain/loss) on account of unanticipated changes in exchange rates, quantified in terms of exposures. Exposure is defined as a contracted, projected or contingent cash flow whose magnitude is not certain at the moment and depends on the value of the foreign exchange rates. The process of identifying risks faced by the firm and implementing the process of protection from these risks by financial or operational hedging is defined as foreign exchange risk management.

##### **2.2.1 Foreign exchange risk management**

Foreign currency exchange risk is the additional riskiness or variance of a firm's cash flows that may be attributed to currency fluctuations (Giddy, 1977, Brigham and Ehrhardt, 2005). Normally, foreign currency risk exists in three forms; translation, transaction and economic exposures.

Foreign currency risk management involves taking decisions which aim at minimizing or eliminating the negative effects of currency fluctuations on statement of financial position and comprehensive income statement values, a firm's receipts and payments arising out of current transactions, and on long term future cash flows statement of a firm.

Creativity by managers and innovations in financial instruments have, over the years, made available to firms a number of avenues that can be followed in managing the impact of foreign currency rate fluctuations. These avenues are known more commonly as hedging techniques. A hedge is a means of defence against possible loss. Hedging is the process of reducing exposure, and consists of a number of techniques intended to offset or minimize the exchange risk of loss on assets or liabilities which are denominated in a foreign currency. Some hedging techniques can be implemented within the firm, i.e. without involving any market-based financial instruments. These are known as internal hedging techniques. All other techniques necessitate taking recourse to market - based financial instruments. These are external hedging techniques.

### **2.2.2 External Hedging Strategies / Instruments**

A derivative is a financial contract whose value is derived from the value of some other financial asset, such as a stock price, a commodity price, an exchange rate, an interest rate, or even an index of prices. The main role of derivatives is that they reallocate risk among financial market participants, help to make financial markets more complete. This section outlines the hedging strategies using derivatives with foreign exchange being the only risk assumed.

#### **2.2.2.1 Forward Contracts**

When a firm has an agreement to pay (receive) a fixed amount of foreign currency at some date in the future, in most currencies it can obtain a contract today that specifies a price at which it can buy (sell) the foreign currency at the specified date in the future. This essentially converts the uncertain future home currency value of this liability (asset) into a certain home currency value to be received on the specified date, independent of the change in the exchange rate over the remaining life of the contract.

#### **2.2.2.2 Futures Contracts**

These are equivalent to forward contracts in function, although they differ in several important features. Futures contracts are exchange traded and therefore have standardized and limited contract sizes, maturity dates, initial collateral, and several other features. Given that futures contracts are available in only certain sizes, maturities and currencies, it is generally not possible to get an exactly offsetting position to totally eliminate the

exposure. The futures contracts, unlike forward contracts, are traded on an exchange and have a liquid secondary market that make them easier to unwind or close out in case the contract timing does not match the exposure timing. In addition, the exchange requires position taker to post s bond (margins) based upon the value of their positions. This virtually eliminates the credit risk involved in trading in futures.

### **2.2.2.3 Money Market Hedge**

Also known as a synthetic forward contract, this method utilizes the fact from covered interest parity, that the forward price must be exactly equal to the current spot exchange rate times the ratio of the two currencies' riskless returns. It can also be thought of as a form of financing for the foreign currency transaction.

A firm that has an agreement to pay foreign currency at a specified date in the future can determine the present value of the foreign currency obligation at the foreign currency lending rate and convert the appropriate amount of home currency given the current spot exchange rate. This converts the obligation into a home currency payable and eliminates all exchange risk. Similarly a firm that has an agreement to receive foreign currency at a specified date in the future can determine the present value of the foreign currency receipt at the foreign currency borrowing rate and borrow this amount of foreign currency and convert it into home currency at the current spot exchange rate.

Since as a pure hedging need, this transaction replicates a forward, except with an additional transaction, it will usually be dominated by a forward (or futures) for such purposes; however, if the firm needs to hedge and also needs some short term debt financing, wants to pay off some previously higher rate borrowing early, or has the home currency cash sitting around, this route may be more attractive that a forward contract.

### **2.2.2.4 Options**

Foreign currency options are contracts that have an upfront fee, and give the owner the right, but not the obligation to trade domestic currency for foreign currency (or vice versa) in a specified quantity at a specified price over a specified time period. There are

many different variations on options: puts and calls, European style, American style, and future-style etc.

The key difference between an option and the three hedging techniques above is that an option has a nonlinear payoff profile. They allow the removal of downside risk without cutting off the benefit from upside risk. There are different kinds of options depending on the exercise time the determination of the payoff price or the possibility of a payoff. While many different varieties exist, there are a few that corporations have found useful for the purposes of hedging transaction exposures. One of these is the average rate (or Asian or Look back) option. This option has as its payoff price, not the spot price but the average spot price over the life of the contract.

Thus these options can be useful to a firm that has a steady stream on inflows or outflows in a particular currency over time. One large average rate option will basically act as a hedge for the entire stream of transaction. Moreover, the firms will lock in an average exchange rate over the period no worse than that of the strike price of this option. Finally, because the average rate is less volatile than the end of period rate (remember the average smoothes volatility this option will be cheaper than equivalent standard options.

Thus the firms obtains in a single instrument hedging for a stream of transaction so reduces transaction costs plus benefits from the “hedging” over time of the averaging effect. Another popular exotic option for corporations is the basket rate option. Rather than buy options on a bunch of currencies individually, the firms can buy an option based upon some weighted average of currencies that match its transaction pattern. Here again since currencies are not perfectly correlated the average exchange rate will be less volatile and this option will therefore be less expensive. There firm can take advantage of its own natural diversification of currency risk and hedge only the remaining risk.

#### **2.2.2.5 Swaps**

A swap is a foreign currency contract whereby the buyer and seller exchange equal initial principal amounts of two different currencies at the spot rate. The buyer and seller exchange fixed or floating rate interest payments in their respective swapped currencies

over the term of the contract. At maturity, the principal amount is effectively re-swapped at a predetermined exchange rate so that the parties end up with their original currencies. The advantages of swaps are that firms with limited appetite for exchange rate risk may move to a partially or completely hedged position through the mechanism of foreign currency swaps, while leaving the underlying borrowing intact. Apart from covering the exchange rate risk, swaps also allow firms to hedge the floating interest rate risk.

#### **2.2.2.6 Foreign Debt**

Foreign debt can be used to hedge foreign exchange exposure by taking advantage of the International Fischer Effect relationship. This is demonstrated with the example of an exporter who has to receive a fixed amount of dollars in a few months from present. The exporter stands to lose if the domestic currency appreciates against that currency in the meanwhile so, to hedge this; he could take a loan in the foreign currency for the same time period and convert the same into domestic currency at the current exchange rate. The theory assures that the gain realized by investing the proceeds from the loan would match the interest rate payment (in the foreign currency) for the loan.

#### **2.2.3 Internal Techniques**

Using external financial tools to hedge currency exchange risk is a way of hedging on one hand. On the other hand, internal hedging would also be an efficient way. Since this trading company knows the date when it pays out the highest amount of cash outflow, it can adjust the transaction date during a month to smooth the cash flow streams. There are five scenarios to be compared by the cash flow method in the next part.

##### **2.2.3.1 currency of Invoicing Approach**

While such financial hedging instruments as forward contract, swap, future and option contracts are well known, hedging through the choice of invoice currency, an operational technique, has not received much attention. The firm can shift, share or diversify exchange risk by appropriately choosing the currency of invoice. Firm can avoid exchange rate risk by invoicing in domestic currency, there by shifting exchange rate risk on buyer. As a practical matter, however, the firm may not be able to use risk shifting or sharing as much as it wishes to for fear of losing sales to competitors. Only an exporter

with substantial market power can use this approach. Further, if the currencies of both the exporter and importer are not suitable for settling international trade, neither party can resort to risk shifting to deal with exchange exposure.

#### **2.2.3.2 Leading and Lagging Approach (Receivable and Payable)**

Another operational technique the firm can use to reduce transaction exposure is leading and lagging foreign currency receipts and payments. It involves the decision of delaying or fastening the payable or receivable according to the fluctuation of exchange rates. Leading and lagging are terms relating to the speed of settlement of debts. Leading deals with an immediate payment or the granting of very short term credit. Lagging deals with the taking of long term credit in relating to foreign currency settlements.

Additional benefits can be obtained by the use of these techniques when currency exchange rates are fluctuating (assuming if the settlement is in the payer's currency, the leading would be beneficial to the buyer if this currency were weakening against the payee's currency, Lagging would be appropriate for the payer if the currency were strengthening if the settlements were to be made in the payee's currency the position would be revised. In either case the payee's view would be the opposite.

The firm would like to lead soft currency receivables and lag hard currency receivables to avoid the loss from depreciation of the soft currency and benefit from the appreciation of the hard currency. For the same reason, the firm will attempt to lead the hard currency payables and lag soft currency payables. To the extent that the firm can effectively implement the Lead/Lag strategy, the transaction exposure the firm faces can be reduced.

#### **2.2.3.3 Netting (Bilateral & Multilateral)**

Invoices offsetting the group's debtors and creditors in the same currency and only covering the net position, For example, there is no point in subsidiary hedging a \$1 million receivable at the same time as another subsidiary is hedging an overall group position and only cover the group net exposure. One can forecast the change. If the subsidiaries use different functional currencies, a currency of conversion is agreed in

which all inter group debts are converted before cancelling them to remain only with net amount to be covered.

#### **2.2.3.4 Matching**

It involves the use of receipt in a particular currency to met payment obligations in the same currency. Successful matching depends on reliable forecasts of amount and timing of future inflows and cash flows of currencies. Or Involves the matter of looking inputs at what extent is available or coming from in large amount and setting the policy concerning the payment (payable and receivable)

#### **2.2.3.5 Internal Asset and Liability Management**

Involves choosing the different currencies in which the assets and liabilities of the company are dominated. Essential assets should be in a strong currency and liabilities in weak currencies. Alternatively assets in foreign currencies can be financed by loan dominated in that country's currency to reduce the group's exposure to movement in exchange rates.

### **2.3 Steps of foreign exchange risk management**

Here under are the steps where by multi-national companies follow when they manage foreign exchange risk.

#### **2.3.1 Forecasts**

After determining its exposure, the first step for a firm is to develop a forecast on the market trends and what the main direction/trend is going to be on the FX rates. The period for forecasts is typically 6 months. It is important to base the forecasts on valid assumptions. Along with identifying trends, a probability should be estimated for the forecast coming true as well as how much the change would be.

#### **2.3.2 Risk Estimation**

Based on the forecast, a measure of the Value at Risk (the actual profit or loss for a move in rates according to the forecast) and the probability of this risk should be ascertained. The risk that a transaction would fail due to market-specific problems should be taken into account. Finally, the Systems Risk that can arise due to inadequacies such as reporting gaps and implementation gaps in the firms' exposure management system should be estimated.

### **2.3.3 Benchmarking**

Given the exposures and the risk estimates, the firm has to set its limits for handling foreign exchange exposure. The firm also has to decide whether to manage its exposures on a cost centre or profit centre basis. A cost centre approach is a defensive one and the main aim is ensure that cash flows of a firm are not adversely affected beyond a point. A profit centre approach on the other hand is a more aggressive approach where the firm decides to generate a net profit on its exposure over time.

### **2.3.4 Hedging**

Based on the limits a firm set for itself to manage exposure, the firms then decides an appropriate hedging strategy. There are various financial instruments available for the firm to choose from: futures, forwards, options and swaps and issue of foreign debt. Hedging strategies and instruments are explored in a section.

### **2.3.5 Stop Loss**

The firms risk management decisions are based on forecasts which are but estimates of reasonably unpredictable trends. It is imperative to have stop loss arrangements in order to rescue the firm if the forecasts turn out wrong. For this, there should be certain monitoring systems in place to detect critical levels in the foreign exchange rates for appropriate measure to be taken.

### **2.3.6 Reporting and Review**

Risk management policies are typically subjected to review based on periodic reporting. The reports mainly include profit/ loss status on open contracts after marking to market, the actual exchange/ interest rate achieved on each exposure and profitability vis-a-vis the benchmark and the expected changes in overall exposure due to forecasted exchange/ interest rate movements. The review analyses whether the benchmarks set are valid and effective in controlling the exposures, what the market trends are and finally whether the overall strategy is working or needs change

## **2.4 Choice of hedging instruments**

The literature on the choice of hedging instruments is very scant. Among the available studies, Geczy et al. (1997) argues that currency swaps are more cost-effective for

hedging foreign debt risk, while forward contracts are more cost-effective for hedging foreign operations risk. This is because foreign currency debt payments are long-term and predictable, which fits the long-term nature of currency swap contracts. Foreign currency revenues, on the other hand, are short-term and unpredictable, in line with the short-term nature of forward contracts.

A survey done by Marshall (2000) also points out that currency swaps are better for hedging against translation risk, while forwards are better for hedging against transaction risk. This study also provides anecdotal evidence that pricing policy is the most popular means of hedging economic exposures. These results however can differ for different currencies depending in the sensitivity of that currency to various market factors. Regulation in the foreign exchange markets of various countries may also skew such results

#### **2.4.1 Determinants of Hedging Decisions**

The management of foreign exchange risk, as has been established so far, is a fairly complicated process. A firm, exposed to foreign exchange risk, needs to formulate a strategy to manage it, choosing from multiple alternatives. This section explores what factors firms take into consideration when formulating these strategies.

##### **2.4.1.1 Production and Trade**

An important issue for multinational firms is the allocation of capital among different countries production and sales and at the same time hedging their exposure to the varying exchange rates. Research in this area suggests that the elements of exchange rate uncertainty and the attitude toward risk are irrelevant to the multinational firm's sales and production decisions (Broll, 1993). Only the revenue function and cost of production are to be assessed, and, the production and trade decisions in multiple countries are independent of the hedging decision.

The implication of this independence is that the presence of markets for hedging instruments greatly reduces the complexity involved in a firm's decision making as it can separate production and sales functions from the finance function. The firm avoids the

need to form expectations about future exchange rates and formulation of risk preferences which entails high information costs.

#### **2.4.1.2 Cost of Hedging**

Hedging can be done through the derivatives market or through money markets (foreign debt). In either case the cost of hedging should be the difference between value received from a hedged position and the value received if the firm did not hedge. In the presence of efficient markets, the cost of hedging in the forward market is the difference between the future spot rate and current forward rate plus any transactions cost associated with the forward contract. Similarly, the expected costs of hedging in the money market are the transactions cost plus the difference between the interest rate differential and the expected value of the difference between the current and future spot rates. In efficient markets, both types of hedging should produce similar results at the same costs, because interest rates and forward and spot exchange rates are determined simultaneously.

The costs of hedging, assuming efficiency in foreign exchange markets result in pure transaction costs. The three main elements of these transaction costs are brokerage or service fees charged by dealers, information costs such as subscription to Reuter reports and news channels and administrative costs of exposure management.

#### **2.4.2 Factors affecting the decision to hedge foreign currency risk**

Research in the area of determinants of hedging separates the decision of a firm to hedge from that of how much to hedge. There is conclusive evidence to suggest that firms with larger size, R&D expenditure and exposure to exchange rates through foreign sales and foreign trade are more likely to use derivatives. (Allayanis and Ofek, 2001) First, the following section describes the factors that affect the decision to hedge and then the factors affecting the degree of hedging are considered.

##### **2.4.2.1 Firm size**

Firm size acts as a proxy for the cost of hedging or economies of scale. Risk management involves fixed costs of setting up of computer systems and training/hiring of personnel in foreign exchange management. Moreover, large firms might be considered as more

creditworthy counterparties for forward or swap transactions, thus further reducing their cost of hedging. The book value of assets is used as a measure of firm size.

#### **2.4.2.2 Leverage**

According to the risk management literature, firms with high leverage have greater incentive to engage in hedging because doing so reduces the probability, and thus the expected cost of financial distress. Highly levered firms avoid foreign debt as a means to hedge and use derivatives.

#### **2.4.2.3 Liquidity and profitability**

Firms with highly liquid assets or high profitability have less incentive to engage in hedging because they are exposed to a lower probability of financial distress. Liquidity is measured by the quick ratio, i.e. quick assets divided by current liabilities). Profitability is measured as EBIT divided by book assets.

#### **2.4.2.4 Sales growth**

Sales growth is a factor determining decision to hedge as opportunities are more likely to be affected by the underinvestment problem. For these firms, hedging will reduce the probability of having to rely on external financing, which is costly for information asymmetry reasons, and thus enable them to enjoy uninterrupted high growth. The measure of sales growth is obtained using the 3-year geometric average of yearly sales growth rates. As regards the degree of hedging Allayanis and Ofek (2001) conclude that the sole determinants of the degree of hedging are exposure factors (foreign sales and trade).

In other words, given that a firm decides to hedge, the decision of how much to hedge is affected solely by its exposure to foreign currency movements. This discussion highlights how risk management systems have to be altered according to characteristics of the firm, hedging costs, nature of operations, tax considerations, and regulatory requirements.

## **2.5 Sources of FX Risk**

There are many potential sources of foreign exchange exposure. Having assets or liabilities with net payment streams denominated in a foreign currency is may be the most obvious source of risk. This risk is easy to identify and hedge payment streams in the major currencies can be converted into domestic currency using currency swaps, for example, or payments can be matched by natural hedging, but having assets and liabilities abroad can also decrease a firm's exchange exposure.

Each company engaged in international trading is exposed to foreign exchange risk since foreign revenues, for example, are generally denominated in foreign currency, Revenues and costs incurred in a foreign currency are exposed to exchange rate risk. Often firms have to pay in a foreign currency for imported raw materials and receive foreign currency for exported finished goods. This problem gets more complicated if the firm's revenue exposure and cost exposure are in different currencies.

Generally speaking, each investment in a foreign country that generates cash inflows or outflows denominated in a foreign currency is exposed to a foreign exchange risk. Such cash flows can be revenues from foreign operations, dividends or royalties coming from foreign subsidiaries, expenses paid in a foreign country, etc.

A firm without any foreign assets or liabilities, Or without any international trade, can also be exposed to currency risk, Exchange rate volatility can affect a firm's competitive position on its home market and as a consequence its profitability, A cheaper Japanese Yen, for example, means cheaper production cost for Japanese car producers and it is a good opportunity for them to export cheaper cars to the USA. In this case, US car producers see one part of their local market shift to their Japanese competitors.

Financial activities, such as foreign currency borrowing or lending, guarantees, etc, represent another kind of source of foreign exchange risk. Allayannis and Ofek (2001) find that exchange rate exposure is positively and significantly related to the level of foreign debt that the firm has. At the same time, foreign debt can be another way to hedge

foreign currency exposure since it represents a cash outflow in a foreign currency. It can only be used as a hedge when a firm has foreign revenue, By contrast, imports, which also represent a cash outflow in a foreign currency, cannot be hedged through foreign debt.

Chamberlain. Howe and Popper (1996) try to explain foreign exchange rate exposure of 30 US bank holding companies by the following variables , size (measured by the log of total assets), foreign assets (the dollar value of foreign debt and foreign equity securities held in the investment portfolio and foreign commercial loans), foreign liabilities (the dollar value of interest and non interest bearing deposits held in foreign offices), the Net (which is the difference between foreign assets and foreign liabilities) foreign change offs (these are foreign loans charged off), dummy exchange contracts ( takes on a value of 1 if the company reports non-zero values of the notional value of foreign exchange contracts which mature in one year or less), and foreign currency translation (the cumulative translation effects of exchange rates o assets and liabilities held by the company in business units with functional currencies other than the dollar).

These variables explain 25-40% of the estimated foreign exchange exposure; they observe that the more foreign debt a bank has, the more it is exposed to foreign exchange risk. They also find that little foreign exchange exposure is strongly correlated with most of the accounting measures, and it is most highly correlated with the size of the firm. However, we think that size itself cannot be a source of exchange rate exposure. The bigger the firm, the more foreign trades it has, and the smaller the firm, the more it is focused on its local market. So it is not surprising to see bigger firms (which are most often multinationals) having a bigger exposure to foreign exchange risk.

## **2.6 FX Exposure on firm value**

The theoretical framework for the exchange rate exposure of firms is based on the fact that, exchange rate exposure has potentially positive or negative impact on the profitability and value of the firm. This is captured in the valuation process in terms of the

firm's stock returns. Thus, the approach to modelling the exchange rate exposure has been to regress the exchange rate on firms' returns. Fisher's (1907, 1930) on interest rates made it clear that the value of an investment project is equal to the discounted cash flow that this investment generates to its owner(s). The most simple and intuitive formula illustrating this principle is the investment formula calculating the present value of a single investment project under certainty.

The Modigliani-Miller Theorem is a cornerstone of modern corporate finance. At its heart, the theorem is an irrelevance proposition: The Modigliani-Miller Theorem provides conditions under which a firm's financial decisions do not affect its value. MM (1980, p. xiii) explains that with well-functioning markets (and neutral taxes) and rational investors, who can do the corporate financial structure by holding positive or negative amounts of debt, the market value of the firm (debt plus equity) depends only on the income stream generated by its assets.

## **2.7 Expected future cash flows**

Modern principles of the theory of finance suggest that the management of corporate foreign exchange exposure may neither be an important nor a legitimate concern. It has been argued in the tradition of the Modigliani-Miller Theorem, that the firm cannot improve shareholder value by financial manipulations. The MM theorem-based argument against risk management contended that the individual investor is a sufficient foreign exchange hedger by himself without having to involve intermediaries in hedging activity. This argument also assumes that foreign currency markets are efficient.

Two main imperfections prevent the individual investor from being an efficient hedger when compared to the firm. These are entry barriers and information gaps (Dufey and Srinivasulu, 1983). Entry barriers are in the form of size and structural barriers. Minimum size requirements in financial and commodity markets tend to be too large for individual investors. They cannot, as a result, enter and efficiently operate in these markets.

Moreover, internal hedging techniques are firm-structured. They are tailored along operations of a firm and are hardly available to individual investors. Structurally, the individual investor is limited in making use of these hedging avenues. Specifically, investors themselves can hedge corporate exchange exposure by taking out forward contracts in accordance with their ownership in a firm. Managers do not serve them by second-guessing what risks shareholders want to hedge

## **2.8 Necessity of managing foreign exchange risk**

A key assumption in the concept of foreign exchange risk is that exchange rate changes are not predictable and that this is determined by how efficient the markets for foreign exchange are. Research in the area of efficiency of foreign exchange markets has thus far been able to establish only a weak form of the efficient market hypothesis conclusively which implies that successive changes in exchange rates cannot be predicted by analyzing the historical sequence of exchange rates (Soenen, 1979).

However, when the efficient markets theory is applied to the foreign exchange market under floating exchange rates there is some evidence to suggest that the present prices properly reflect all available information (Giddy and Dufey, 1992). This implies that exchange rates react to new information in an immediate and unbiased fashion, so that no one party can make a profit by this information and in any case, information on direction of the rates arrives randomly so exchange rates also fluctuate randomly. It implies that foreign exchange risk management cannot be done away with by employing resources to predict exchange rate changes. Once a firm recognizes its exposure, it then has to deploy resources in managing it in a heuristic way to manage this risk effectively.

## **2.9 Causes of variation of price of goods in two countries**

Movements in exchange rates tend to be influenced by two important variables; the relative prices of goods in two countries and relative interest rates. The Purchasing Power Parity (PPP) theorem explains the relationship between relative prices of goods and exchange rates. The PPP theorem propounds that under a floating exchange regime, a relative change in purchasing power parity for any pair of currency calculated as a price

ratio of traded goods would tend to be approximated by a change in the equilibrium rate of exchange between these two currencies (Shapiro and Rutenberg, 1976).

The relationship between relative interest rates and foreign exchange rates is explained within the interest rate theory of exchange rate expectations. Nominal interest rate differentials between two countries tend to reflect exchange rate fluctuations. Giddy (1977) called this the international Fisher effect, a close relationship to the Fisher effect, a phenomenon observed by Irving Fisher (1896). If the international Fisher effect holds, interest rates in appreciating currencies tend to be low enough, and in depreciating currencies high enough, to offset expected currency gains and losses. If foreign exchange markets are efficient, then the two theorems must hold.

Therefore, foreign exchange rates take into account all expected interest rate and purchasing power differentials. As such, critics of foreign currency risk management, argue, there is no exchange risk to justify risk management activity. In further support of the argument of irrelevancy of foreign exchange risk management, critics also bring in the Capital Asset Pricing Model (CAPM). The logic being, even if foreign exchange risk existed, it would be either systematic or unsystematic risk.

Unsystematic risk can be diversified away by investors themselves in accordance with portfolio theory by adding low-risk, low- return securities to the portfolio. Systematic risk, on the other hand, is already discounted in asset pricing. Therefore, if foreign exchange pricing is in line with CAPM, then a firm cannot increase its value through hedging. Movement of its share price will be along the Security Market Line (SML) only, which takes account of the systematic risk (Adler, 1982; Logue & Oldfield, 1977).

Feiger and Jacquillat (1981) also argued, with some proof, using the Modigliani Miller (MM) theorem that corporate exchange risk hedging is a superfluous activity. What a firm does an individual shareholder can do on his own account through "homemade hedging". Consequently, a well-diversified shareholder does not need firms to seek reduction of

exchange risk. It is a duplication of efforts, a costly exercise that detracts management from the pure value - adding activities.

Criticisms of foreign currency risk management all rest on efficient market operating conditions. Proponents of foreign currency risk management argue their case pointing at limitations in assumptions and caveats inherent in conditions necessary for foreign exchange markets to operate efficiently. Studies have indicated that, in the long term PPP theorem holds, in that, long term exchange rates are approximated by relative price differentials.

However, short term adjustment between price changes and exchange rates are not immediate. Studies have shown poor correlation between exchange rate changes and relative price changes and interest rates in the short run (Giddy, 1977; Aliber and Stickney, 1975). As long as adjustment between exchange rates and relative price changes and interest rates is not immediate, firms are exposed to exchange risk. Moreover, PPP holds for weighted average prices of two countries, it does not necessarily hold for relative prices of specific commodities. At the level of individual commodities losses can be suffered as a result of unexpected exchange rates and this must be viewed as exchange risk.

A firm therefore, cannot rely solely on macroeconomic relationship of PPP and relinquish its responsibility to manage exposure. Proponents of currency risk management argue that contrary to the CAPM position, risk management activity can add value to a firm. CAPM assumes away market imperfections like transaction costs and default risk. If transaction costs and default risk are taken into account, there is an argument for a firm to manage variability of its cash flows and profitability so as to reduce its default risk status (Dufey and Srinivasulu, 1983). This reduction could translate into increased ability to raise funds and at lower cost. This would, other things being equal, contribute to increase in a firm's value.

## **2.10 The Relevance of Foreign Currency Risk Management**

In an early study, Adler and Dumas (1984) present a method of estimating the foreign exchange exposure using a single-factor market model to estimate the elasticity of firm equity returns to exchange rate changes. Jorion (1991) estimates exposure using a two-factor model that thereafter became the norm for estimating foreign exchange exposure controlling for market risk. For a sample of firms drawn from the Fortune 500, he finds that the degree of exposure varies directly with the degree of foreign involvement.

Other studies have re-confirmed these basic findings regarding the foreign exchange exposure faced by internationally involved and multinational companies, and explored in greater detail various issues that arise in the procedures used for estimating such exposure - issues that are important considerations in this study. The first issue is the nature of the market model used to estimate corporate foreign exchange exposure. The focus of this paper is not the validity or efficiency of the various asset pricing models, but instead, based on prior studies, the research focus on how foreign exchange exposure is estimated. Earlier studies used a monthly, contemporaneous horizon to measure exposure.

Beginning with the seminal study by Jorion (1990), initial research in this area focused on whether corporations are exposed to foreign exchange risk (see Bodnar and Gentry, 1993, Bartov and Bodnar, 1994, 1995, and Chow, Lee and Solt, 1997a, b). Allayannis and Ofek (2001) and Simkins and Laux (1996) investigate the effect of financial hedging on foreign-exchange exposure. More recently, Pantzalis, Simkins, and Laux (2000) examine the ability of operational hedges to reduce exposure. However, few studies thus far have examined the combined influence of financial hedges and operational hedges on foreign exchange exposure.

However, if the impacts of these exchange rate changes are longer lasting or more permanent in nature, then longer estimation time horizons may be more appropriate. This question of estimation time horizon has been addressed in studies such as Chow, Lee and Solt (1997), Bodnar and Wong (2003) and Martin and Mauer (2003). While generally these studies find that the estimated number of firms with significant foreign exchange

exposure is higher for longer time horizons, Bodnar and Wong are cautious in recommending very-long term horizons that may lead to limited non-overlapping time periods. Another issue in developing foreign exchange exposure estimates has to do with portfolio size. Generally, there are two major choices in this regard. The first method is to estimate exposure on the firm level and the other method is to estimate the exposure for portfolio groupings, formed either by size, industry, level of international activity, or another criteria.

Many studies assess both the firm level and portfolio level exposures. As indicated earlier, prior studies have focused on exposures of internationally involved or multinational firms. Using a large sample of firms from many different countries, Doidge, Griffin and Williamson (2002) find that foreign exchange exposure is related to the level of foreign activity. They also find that large firms exhibit more foreign exchange exposure than smaller firms after controlling for the level of foreign activity.

Bartov, Bodnar and Kaul (1996) find an increase in equity volatility following the breakdown of the Bretton Woods agreement and increased exchange rate volatility but equity risks increased much more for firms with a multinational presence than it did for a control sample of domestic firms. Similarly, Jorion (1990) uses a two-factor model for sample portfolios of large corporations and found the exposure varied with the degree of foreign involvement while the exposure for a sample of domestic firms is not significantly different from zero. As has been noted in theoretical studies, industry effects also seem important in estimating foreign exchange rate exposure.

In a study of individual bank exposures, Martin and Mauer (2003) find the vast majority of domestic banks exhibit exposure to at least one major currency and this exposure is greater than in a sample of internationally oriented banks with longer-term exposures more prevalent than short-term exposures, consistent with Bodnar and Wong (2003) and Chow, Lee and Solt (1997). Using a two-factor and a multifactor arbitrage pricing model, Jorion (1991) finds that exchange risks differ across industry portfolios. Bodnar and Gentry (1993) using data from the US, Canada and Japan also find industry differences in

foreign exchange exposure and note that that the exposure direction and level are broadly consistent with economic theory.

Using a sample of firms in the automotive industry in the US and Japan, Williamson (2001) finds that foreign sales are a major determinant of exposure but there is considerable time variation in exchange rate exposure. However, Griffin and Stulz (2001) find the effect of exchange rate shocks is minimal in explaining relative US industry performance and is evensmaller in other countries that are more open to trade finding that industry effects are more significant than exchange rate effects.

While there may be some differences in empirical findings, as Marston (2001) shows, foreign exchange exposure most likely depends on the competitive structure in an industry. Additional firm characteristics have also been assessed as to their impact on foreign exchange exposure. He and Ng (1998) use a sample of Japanese firms and find that a quarter of their sample of multinational firms have exposure and is positively related to size and negatively related to financial leverage. Koutmos and Martin (2003) use industry sector portfolios from four countries and find that exchange rate exposure is asymmetric over different appreciation depreciation periods.

Furthermore, these asymmetries are more pronounced in the financial and non-cyclical sectors. Overall, studies of foreign exchange exposure find that multinational corporations and corporations with extensive foreign business have significant foreign exchange exposure. However, most studies find that this estimated exposure is less than expected by economic theory perhaps due to operational and financial hedges used by companies facing foreign exchange exposure.

While a few studies have included domestic firms without foreign activity and generally found them not to be exposed to foreign exchange risk, no prior study has addressed the determinants of foreign exchange exposure of domestic firms. It is common practice among firms to use a combination of production and marketing strategies across the firm's different operating units (operational hedges) to manage long term exposure,

whereas foreign exchange derivatives (financial hedges) are more often used for managing short term exposure. Long-term operating policy adjustments are costly and difficult to reverse, hence they are most effective when the firm possesses a network of multiple operating units that span many business and geographic areas.

It is widely believed that changes in exchange rates have important implications for financial decision-making and for the profitability of firms. One of the central motivations for the creation of the euro was to eliminate exchange rate risk to enable European firms to operate free from the uncertainties of changes in relative prices resulting from exchange rate movements. At the macro level, there is evidence that the creation of such currency unions results in a dramatic increase in bilateral trade (Frankel and Rose, 2002). But do changes in exchange rates have measurable effects on firms? The existing literature on the relationship between international stock prices (at the industry or firm level) and exchange rates finds only weak evidence of systematic exchange rate exposure (Doidge et al., 2003; Griffin and Stulz, 2001, two recent studies). This is particularly true in studies of US firm share values and exchange rates.

Recent financial crises showed that emerging countries are extremely vulnerable to sudden swings in international capital flows. In these countries, commonly, periods of relative tranquility, characterized by substantial capital inflows and real GDP growth, are followed by periods when capital flows abroad, and output plummets. In some countries, such crises lead not only to economic downturns but also to social unrest. Although there is a consensus among economists that emerging markets should take measures to reduce their external vulnerability, there is no agreement about the role of the choice of the exchange rate regime in this matter.

At the center of this debate is the fact that due to the widespread problem of the dollarization of liabilities, depreciations of the home currency in emerging markets would cause a collapse in companies. Balance sheets, leading to a fall in output. Therefore, one mechanism through which the choice of the exchange rate regime could affect countries vulnerability would be to exert influence on corporate financial policies.

One hypothesis in the international finance literature is that fixed exchange rate regimes would increase countries vulnerability by leading companies to disregard the exchange rate risk, biasing their borrowing towards foreign currency denominated debt, and/or reducing their hedging activities. According to this hypothesis, floating regimes would help to reduce countries vulnerability by inducing creditors and debtors to take seriously their exchange rate exposure.

On the other hand, the so-called original sin theory argues that, independently of the exchange rate regime, emerging countries will always be vulnerable to external shocks. There will always be a currency mismatch on company's balance sheets, since domestic companies would never be allowed to borrow in the domestic currency, and most of their revenues come from domestic activities. In a similar way, Calvo and Mishkin (2003) argue that the construction of healthy macroeconomic institutions would be the key to countries macroeconomic stability, and the choice of the exchange rate regime would likely be of second order importance to alleviate countries external vulnerability.

Since the theoretical literature has not reached a consensus, at the end of the day, the answer for this question should be empirical, as pointed out by Eichengreen and Hausmann (1999), gathering survey (and other) data on hedged and unhedged exposures and analyzing their determinants should be a high priority for academics.“ This study tries to shed light on this question by analyzing the behaviour of foreign currency exposure.

### **2.11 Nature and Measurement of Foreign Exchange Risks**

The importance of foreign exchange exposure increased shortly after 1973 as the world moved towards a flexible exchange rate system. While corporations faced currency risks prior to that time as there were significant deviations from purchasing power parity, foreign exchange risk became explicitly and nominally much more important after 1973. Exposure to foreign exchange risk can arise when the domestic currency values of assets, liabilities and cash flows denominated in a foreign currency are subject to change due to exchange rate changes.

Under perfect market conditions and if parity conditions in the foreign exchange market (purchasing power and interest rate) hold, changes in the domestic currency values of foreign assets, liabilities and cash flows should offset changes in exchange rates so that there would be no foreign exchange exposure. In addition, if all exchange rates could be anticipated, firms could take appropriate offsetting actions with no resulting foreign exchange exposure. However, because of market frictions and deviations from rational expectations, most firms face significant exposure to exchange rate changes.

### **2.12 Four Methods to translate foreign currency to home currency**

Current/Non-Current Method: All current assets and current liabilities are translated at current exchange rate. Monetary/ Non-Monetary Method: All monetary assets and liabilities are translated at current exchange rate. Temporal Method: Same as Monetary/Non-Monetary method but inventory may be translated at current exchange rate IF it is shown at market value. Current Rate Method: All balance sheet and income statement items are translated at current exchange rate.

### **2.13 Classification of FX exposures and averting strategies**

Financial economists distinguish between three types of currency exposures – transaction exposures, translation exposures, and economic exposures. All three affect the bottom-line of the business. Transaction exposure can be defined as the sensitivity of realized domestic currency values of the firm's contractual cash flows denominated in foreign currencies to unexpected exchange rate changes. Transaction exposure is sometimes regarded as a short-term economic exposure. Transaction exposure is the gain or loss that might occur during settlement of foreign exchange transaction. Such a transaction could be the sale / purchase of products or services lending or borrowing of money or any other transaction involving mergers and acquisitions. Transaction exposure arises from fixed-price contracting in a world where exchange rates are changing randomly.

The profitability of the export transaction can be completely wiped out by the movement in the exchange rate. Such transaction exposures arise whenever a business has foreign currency denominated receipt and payment. The risk is an adverse movement of the exchange rate from the time the transaction is budgeted till the time the exposure is

extinguished by sale or purchase of the foreign currency against the domestic currency. Furthermore, in view of the fact that firms are now more frequently entering into commercial and financial contracts denominated in foreign currencies, judicious management of transaction exposure has become an important function of international financial management.

The main causes of transaction exposure among others are purchasing or selling on credit when prices are stated in a foreign currency; borrowing or lending funds when repayment is to be made in a foreign currency; being a party to an unperformed foreign exchange forward contract; acquiring assets or incurring liabilities denominated in a foreign currency. Essentially, four different strategies are available to a company for managing foreign currency risk: Take no action; Trade positions actively, always hedge everything; selectively hedge risk. For most companies the first two approaches are impractical alternatives. The third option to adopt a fully hedged strategy is costly and offers no flexibility, but does relieve management of the need to take an active decision-making posture.

A selective hedging policy, however, relies on economic decision-making as the basis for judging the company's exposure to risk or, conversely, ability to gain. The company should cover only those exposures where the currency risk exceeds the cost of hedging. Treasury should constantly evaluate and reassess its risk to currency fluctuations and the cost of hedging exposures on a selective basis.

A variety of hedging techniques are available for managing currency risk. These techniques may be classified under two groups: internal techniques—those aimed at reducing or preventing an exposed position from arising and external techniques typically contractual measures aimed at minimizing exchange losses that may result from an existing exposure. Each company must specify which hedging products are acceptable for managing their exposures. Treasury staff must have clear guidelines within which to function on a day-to-day basis.

## **2.14 Financial Performance**

The word 'Performance' is derived from the word 'parfourmen', which means 'to do', 'to carry out' or 'to render'. It refers to the act of performing; execution, accomplishment, fulfilment, etc. In broader sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed. In other words, it refers to the degree to which an achievement is being or has been accomplished. In the words of Frich Kohlar "The performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's success, conditions, and compliance.

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

## **2.15 Financial Performance Analysis**

In short, the firm itself as well as various interested groups such as managers, shareholders, creditors, tax authorities, and others seeks answers to the following important questions:

1. What is the financial position of the firm at a given point of time?
2. How is the Financial Performance of the firm over a given period of time?

These questions can be answered with the help of financial analysis of a firm.

Financial analysis involves the use of financial statements. A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a Balance Sheet, or may reveal a series of activities over a given period of time, as in the case of an Income Statement.

Thus, the term ‘financial statements’ generally refers to two basic statements: the Balance Sheet and the Income Statement.

### **2.15.1 Statement of Financial Position**

Shows the financial position (condition) of the firm at a given point of time, It provides a snapshot and may be regarded as a static picture. “Balance sheet is a summary of a firm’s financial position on a given date that shows.

Total assets = Total liabilities + Owner’s equity.”

### **2.15.2 The comprehensive income statement**

(Referred to in India as the profit and loss statement) reflects the performance of the firm over a period of time. “Income statement is a summary of a firm’s revenues and expenses over a specified period, ending with net income or loss for the period.”

However, financial statements do not reveal all the information related to the financial operations of a firm, but they furnish some extremely useful information, which highlights two important factors profitability and financial soundness. Thus analysis of financial statements is an important aid to financial performance analysis. Financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the business.

The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm’s position and performance. The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second is to arrange the information in a way to highlight significant relationships. The final is interpretation and drawing of inferences and conclusions. In short, “financial performance analysis is the process of selection, relation, and evaluation.”

## 2.16 Areas of Financial Performance Analysis

Financial analysts often assess firm's production and productivity performance, profitability performance, liquidity performance, working capital performance, fixed assets performance, fund flow performance and social performance. However in the present study financial health of GSRTC is measured from the following perspectives:

1. Working capital Analysis
2. Financial structure Analysis
3. Activity Analysis
4. Profitability Analysis

## 2.17 Significance of Financial Performance Analysis

Interest of various related groups is affected by the financial performance of a firm. Therefore, these groups analyze the financial performance of the firm.

The type of analysis varies according to the specific interest of the party involved.

**Accounting Payable:** interested in the liquidity of the firm (appraisal of firm's liquidity)

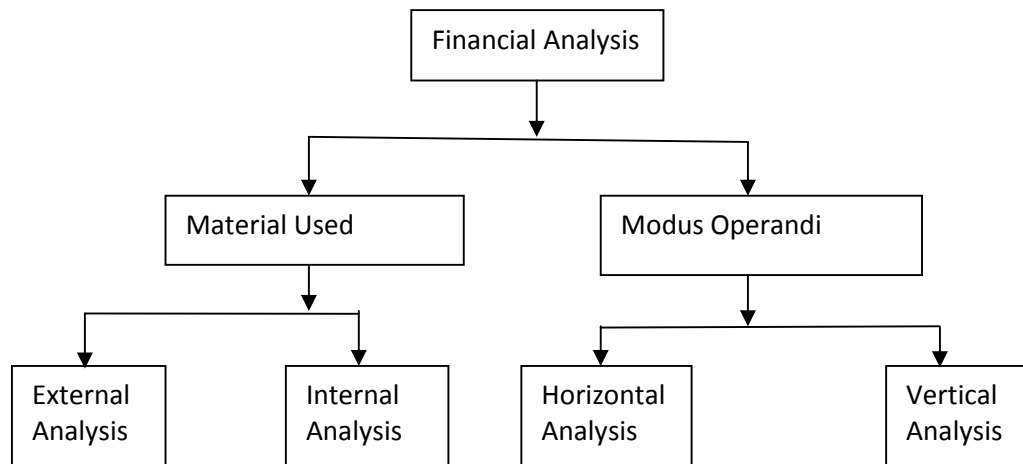
**Bond holders:** interested in the cash-flow ability of the firm (appraisal of firm's capital structure, the major sources and uses of funds, profitability over time, and projection of future profitability)

**Investors:** interested in present and expected future earnings as well as stability of these earnings (appraisal of firm's profitability and financial condition)

**Management:** interested in internal control, better financial condition and better performance (appraisal of firm's present financial condition, evaluation of opportunities in relation to this current position, return on investment provided by various assets of the company, etc)

## 2.18 Types of Financial Performance Analysis:

Financial performance analysis can be classified into different categories on the basis of material used and modes operandi as under:



**1. Material used:** On the basis of material used financial performance can be analyzed in following two ways:

### **External analysis**

This analysis is undertaken by the outsiders of the business namely investors, credit agencies, government agencies, and other creditors who have no access to the internal records of the company. They mainly use published financial statements for the analysis and as it serves limited purposes

### **Internal analysis**

This analysis is undertaken by the persons namely executives and employees of the organization or by the officers appointed by government or court who have access to the books of account and other information related to the business.

**2. Modus operandi:** On the basis of modus operandi financial performance can be analyze in the following two ways:

### **Horizontal Analysis**

In this type of analysis financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with the standard or base year and

changes are shown usually in the form of percentage. This analysis helps the management to have an insight into levels and areas of strength and weaknesses. This analysis is also called Dynamic Analysis as it based on data from various years.

### **Vertical Analysis**

In this type of Analysis study is made of quantitative relationship of the various items of financial statements on a particular date. This analysis is useful in comparing the performance of several companies in the same group, or divisions or departments in the same company. This analysis is not much helpful in proper analysis of firm's financial position because it depends on the data for one period. This analysis is also called Static Analysis as it based on data from one date or for one accounting period.

### **2.19 Techniques/Tools of Financial Performance Analysis:**

An analysis of financial performance can be possible through the use of one or more tools / techniques of financial analysis:

#### **Accounting Techniques**

It is also known as financial techniques. Various accounting techniques such as Comparative Financial Analysis, Common-size Financial Analysis, Trend Analysis, Fund Flow Analysis, Cash Flow Analysis, CVP Analysis, Ratio Analysis, Value Added Analysis etc. may be used for the purpose of financial analysis. Some of the important techniques which are suitable for the financial analysis of GSRTC are discussed hereunder:

#### **Ratio Analysis**

In order to evaluate financial condition and performance of a firm, the financial analyst needs certain tools to be applied on various financial aspects. One of the widely used and powerful tools is ratio or index. Ratios express the numerical relationship between two or more things. This relationship can be expressed as percentages (25% of revenue), fraction (one-fourth of revenue), or proportion of numbers (1:4). Accounting ratios are used to describe significant relationships, which exist between figures shown on a balance sheet, in a profit and loss account, in a budgetary control system or in any other part of the

accounting organization. Ratio analysis plays an important role in determining the financial strengths and weaknesses of a company relative to that of other companies in the same industry. The analysis also reveals whether the company's financial position has been improving or deteriorating over time. Ratios can be classified into four broad groups on the basis of items used: (1) Liquidity Ratio, (ii) Capital Structure/Leverage Ratios, (iii) Profitability Ratios, and (iv) Activity Ratios.

### **Common-Size Financial Analysis**

Common-size statement is also known as component percentage statement or vertical statement. In this technique net revenue, total assets or total liabilities is taken as 100 per cent and the percentage of individual items are calculated likewise. It highlights the relative change in each group of expenses, assets and liabilities.

### **Trend Analysis**

Trend analysis indicates changes in an item or a group of items over a period of time and helps to draw the conclusion regarding the changes in data. In this technique, a base year is chosen and the amount of item for that year is taken as one hundred for that year. On the basis of that the index numbers for other years are calculated. It shows the direction in which concern is going.

### **Diagrams & Graphs**

Diagrams and graphs are visual aids, which give a bird's eye view of a given set of numerical data. They present the data in simple readily comprehensible and intelligible form. Graphical presentation of statistical data gives a pictorial effect instead of just a mass of figures. They depict more information than the data shown in the table which through light on the existing trend and changes in the trend of the data.

## **2.20 Empirical Literature Review**

Here the researcher reviewed the work done by other researchers on the related topic in previous years to be able to know what they found out.

Mussa J. Assad (2011) who did a study on a survey of foreign currency risk awareness and management practices in Tanzania, a research study supported by a grant from the Investment Climate and Business Environment Research Fund, jointly funded by Trust Africa and IDRC. Concluded that the capacity within the country to manage foreign currency risk is either weak or mostly nonexistent or where it is somewhat in existence there is a need to strengthen that capacity.

Mussa J. Assad (2011) emerged from the study that it was not normal practice for local firms to have a policy in place. A divergent view was however observed in subsidiaries of overseas holding companies which evidently had a document in place to guide practice. Mussa J. Assad (2011) Come out from the study that the respondents in firms were less informed and unable to use foreign currency hedging techniques and this was the case for both internal hedging techniques as well as external hedging techniques and financial intermediaries did not have readily available instruments and products for managing foreign currency risk did not help in enhancing the practices in place within firms.

Analogous to Shapiro's (1975) influential work, Levi (1994) explores the relationship between firm value and exchange rates from a microeconomic point of view, relating foreign exchange risk exposure to economic and financial characteristics of the company. He therefore develops a multi-currency model, which takes both the tax rate and the firm's net monetary asset and liability position for each currency into account. Distinguishing between a one-product exporting and a one-product importing firm, he shows that the sensitivity of the firm to exchange rate changes of currency  $j$  depends directly on the elasticity of demand for the product in country  $j$  and on the profit generated in country  $j$ . He also shows that the impact of exchange rate fluctuations varies inversely with the tax rate and the opportunity cost of capital<sup>5</sup>. In a similar context, Allayannis (1996) describes analytically the exposure of an exporter and that of an importer showing that they may not be symmetric as the former is related to the elasticity of demand in the foreign countries whereas the latter is depending on the elasticity of demand in the home country

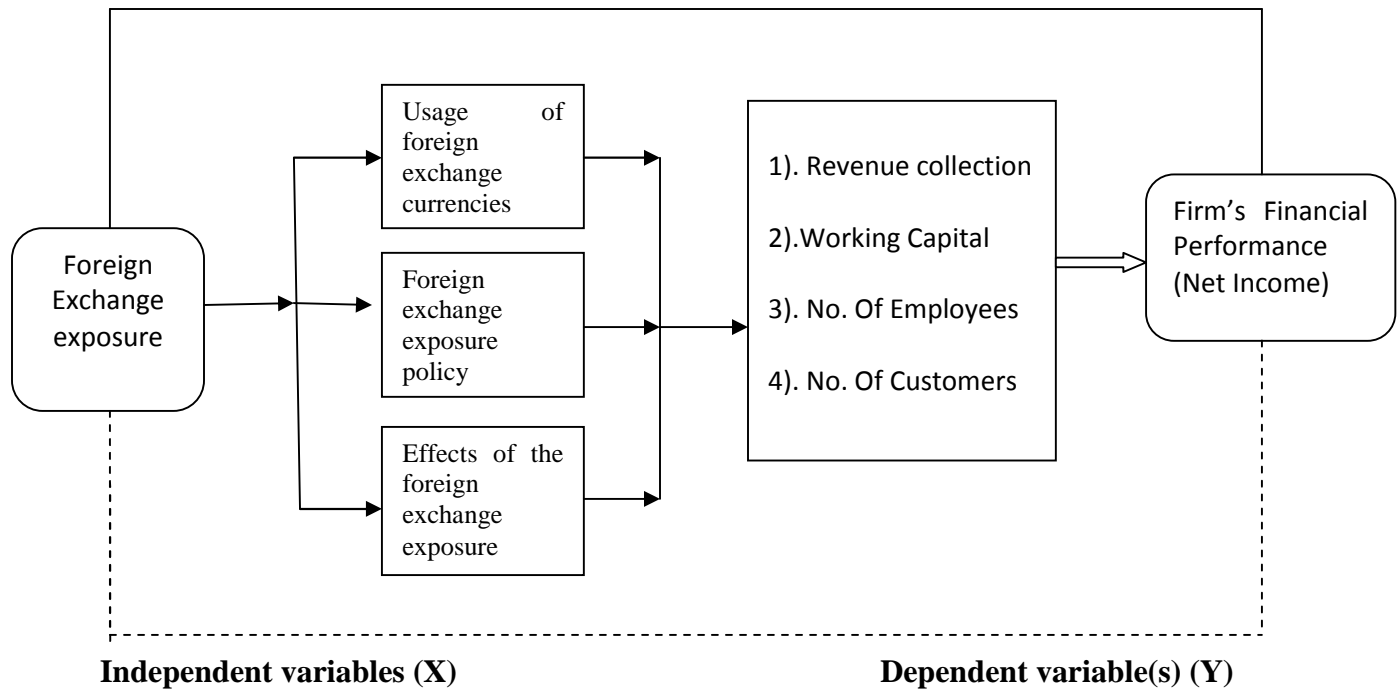
## **2.21 Conceptual framework**

A concept is an image or symbolic representation of an abstract idea. Chinn and Kramer (1999) define a concept as a complex mental formulation of experience. While the theoretical framework is the theory on which the study is based, the conceptual framework is the operationalization of the theory.

The study focuses on two main variables that formed the conceptual frame work (Independent and dependent variable).The model variables interrelationship can be conceptualized as shown in Figure 2:1. According to Adam and Kamuzora (2008) Theoretical/Conceptual framework is a model of how one theory makes logical sense of the relationship among the several factors that have been identified as important to the problem. It is a narrative outline presentation of variables to be studied and hypothetical relationships between and among the variables. It aims at indicating the most important areas to be covered by the study. As we can't construct a house without foundation, a research work also needs foundation (Adam & Kamuzora, 2008).

There two types of variables in this conceptual model, the dependent variable and independent variables. The dependent variable of this study is the firm's financial performance which will be measured by fluctuation of foreign exchange rate on independent variables (unrealized foreign exchange loss/gain, cost and accounting payable and revenue and account receivable).

**Figure 2.1: Conceptual framework**



**Source: created by author of this study**

The conceptual framework is presented as shown above. It shows the independent variables on the left side and the dependent variable on the right side. The conceptual framework shows the set of factors (independent variables) that affect the firm's financial performance (outcome) as a result of fluctuation in FX rates.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents methodologies employed during the study. In this regard, it discusses the study area which is Zanzibar Islands. This includes a discussion of research design, research approaches, population, sample and sampling procedures are explained. The information on the research methods and instruments used to collect data and data analysis procedure are discussed.

#### **3.2 Research Design**

This study used the descriptive research design which generally describes the characteristics of a particular situation, event or case. It involves both qualitative and quantitative data. The reason for adoption of descriptive research design was to describe and find out the effects of exchange rate exposure on the financial performance of financial institutions in Zanzibar. As defined by Glass & Hopkins (1984), descriptive research design involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection and often uses visual aids such as graphs and charts to help the reader in understanding data distribution.

#### **3.3 Population of the study**

Best and Khan (1998) have stated that a population is a group of components or individuals who have one or more characteristics in common that are in interest of the researcher. The size of this study has identified by the researcher, considering staffs of financial departments of the financial institutions of Zanzibar who can provide information related to the effects of exchange rate exposure on the financial performance of financial institutions in Zanzibar. For the purpose of this study, sample of respondents expected to include the heads of Department, Managerial and non Managerial employees.

### 3.4 Research Approaches

Qualitative and quantitative research approaches were used during data collection. Data collected through application of qualitative approach include: source of revenue, problems associated during revenue collection and strategies employed during revenue collection.

Quantitative research approach was used to collect quantifiable data such as the amount of revenue collected in different years. Quantitative approach facilitates computation of data into percentages as well as tabulations. Qualitative and quantitative research approaches will be applied during data collection because they bridge each other and there is no research which is pure qualitative or pure quantitative (Jacobs, 2000). According to Franklin (2000), application of both qualitative and quantitative research approaches allows the researcher to enjoy conversations with respondents through interviews (qualitative) and reward of numbers (quantitative).

### 3.5 Units of Analysis.

The units of analysis comprised of 10 financial institutions operating in Zanzibar. Specifically the sample of firms forming the basic survey belonged to three broad economic sectors namely banking industry, social security industry and insurance industry. Some of their revenues and expenditures are denominated in the foreign currencies, notably the US dollar (\$).

**Table 3.1: Unit of analysis**

<b>Unit of analysis</b>	<b>Sample</b>	<b>Response ( %)</b>
Managing Director (1 @ firm)	10	13
Financial Manager (1 @ firm)	10	13
Ass. Financial Manager (1 @ firm)	10	13
Accountants (5 @ firm)	50	61
<b>TOTAL</b>	<b>80</b>	<b>100</b>

*Source: Researcher's own compilation*

### 3.6 Sample frame

The study sample frame was composed of a list of employees in the department of finance/treasury of each of the selected companies (financial institutions) operating in Zanzibar which was 80 in number as shown in table 3.2. According to Mugenda and Mugenda, when the population is more than 10,000 individuals, 384 of them are recommended as the desired sample size (Mugenda & Mugenda, 1999). The study anticipated a sample frame of 10 firms. However, a total of 10 firms were finally sampled and participated in the study as shown by table 3.2 below.

**Table 3.2: Sample Frame**

<b>Financial Institutions</b>	<b>Sample</b>	<b>Total</b>
<b>Banking Industry</b>		
People Bank of Zanzibar Ltd	8	
NMB	8	
CRDB	8	
NBC	8	
Exim Bank	8	
FBME	8	
Tanzania Postal Bank	8	<b>56</b>
<b>Social Security Industry</b>		
Zanzibar Social Security	8	<b>8</b>
<b>Insurance Industry</b>		
Zanzibar Insurance Corporation	8	
Jubilee Insurance	8	<b>16</b>
<b>Total</b>		<b>80</b>

*Source: Researcher's own compilation*

### 3.7 Sampling technique

The Judgemental or purposive sampling method used in this study, under this sampling procedure the researcher selected respondents based on her/his reasonable judgment that they were the ones who are most likely to provide the desired information. This can also

mean that the information obtained was reasonably representative of the rest of the population. Under this study the Heads of finance/treasure departments, finance/treasure manager, ass. Finance/treasure manager and Accountant of each financial institution were selected by using this technique.

### **3.8 Types and sources of data**

The research study employed Primary and Secondary data where questionnaires methods used as primary data and reviewing of various documents used in the secondary data collection method.

### **3.9 Data collection methods**

This section provided explanation of methods used in data collection process and their approach. However, here are general possible methods given by different author, both primary and secondary data were collected in this study, further details of each group were collected from respondents.

#### **3.9.1 Primary data**

This was direct information gathered from respondents. It was the first hand information researcher collected from field study. For gathering information through this method the researcher used the following techniques:

##### **3.9.1.1 Questionnaire.**

The researcher set and distributed questionnaire to the staffs of financial institutions operating in Zanzibar. The questionnaire comprised of structured questions. Limited open ended questions were included to capture the qualitative aspects or explanations for some responses. The questionnaire covered 3 key issues experienced in foreign exchange namely the extent of usage of foreign exchange currencies on revenues and receivables as well as costs and payables, the written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions and the extent of improvements of firms' financial performance (as the effects of the foreign exchange exposure).

### **3.8.2 Secondary Data**

This was included processed data that were recorded in different sources such as financial reports, journals, magazines, internet web, and various articles. All these were termed as documentary review.

#### **3.8.2.1 Documentary Review**

Saunders, (2009) defines documentary review as a tool of data collection from the secondary data by use of documents. They refer the data that had been collected and analyzed by someone else, which may be either published or not published. Usually published data are available in various official documents. In this area, one may find publication of international bodies and their subsidiary organizations, public records, journals, books, magazines and newspapers, research reports, public reports and historical documents, pamphlets, research papers, reports.

Unpublished data found in diaries, unpublished letters, biographies and researcher workers, private and individual organization. The study will use both published and unpublished source of data to get useful information need for the study. It will be used to enhance data and any information gathered by primary source of data collection and to verify the data and information obtained through questionnaires.

### **3.10 Data Analysis Procedure**

Data analysis is an important step towards finding solution of a problem understudy. Guba and Lincholin (1994) describe data analysis as being a systematic process involving working with data, organizing them and dividing them into small manageable parts. Under this study, the open-coding procedure will be applicable during data analysis. In this case, the first step is to transcribe data. Data analysis begun with individual response and responses from different respondents was sorted and group them in order to tally with research objectives. Comparison of data was done to identify those which were related. This will reduce data into small manageable analytical packages which was usefully for analysis and drawing the conclusion as well as putting forward the recommendation for immediate action and further research. This process was mostly used to analyze

qualitative data. Quantitative data will be analyzed through the use of SPSS, into which data was computed, tabulated and presented into percentage.

## CHAPTER FOUR

### PRESENTATION OF RESEARCH FINDINGS

#### 4.1 Introduction

This chapter presents and analyses the research findings of the study on the effects of exchange rate exposure on firms financial performance, case of Financial Institutions operating in Zanzibar. The study findings address the following issues the extent of usage of foreign exchange currencies on revenues and receivables as well as costs and payables, the written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions and lastly, the extent of improvements of firms' financial performance (as the effects of the foreign exchange exposure).

#### 4.2 Demographic and Socio-economic characteristics of the respondents

The total number of respondents who were in this study was 50 comprised of 8 (16%) managing directors, 9 (18%) finance managers, 10 (20%) Assistant Financial Managers and 23 (46%) accountants. Their distribution is illustrated in Table 3.3 below.

**Table 4.1 : Distribution of the Respondents**

S/N	RESPONDENTS	NUMBER OF RESPONDENTS	%
1	Managing Director	8	16
2	Financial Manager	9	18
3	Ass. Financial Manager	10	20
4	Accountants	23	46
	<b>Total</b>	<b>50</b>	<b>100</b>

Source: Research study, 2012

#### 4.3 Categories of respondents by age and sex

Demographer and other socio scientists have special interest in the age structure of a population, not only because it is a fundamental measure of population growth, but also as an instruments that helps to understand various activities are undertaken. While the age structure has enormous implication on the management of various resources and

administrative functions, sex has influence on the prioritization of the various services and participation in various activities in society.

As such age and sex were taken into consideration during this and the respondents who were included in this study were both grow-up and mature. The age-sex categorization of the respondents was shown in Table 3.4.

**Table 4.2: Categories of Respondents by Age and Sex**

AGE	RESPONDENTS				SEX		TOTAL	
	MD	FM	ASS. FM	ACC.	M	F	NO	%
Below 25				2	0	2	2	3
25-30			1	8	6	3	9	13
31-36		1	2	5	4	4	8	11
37-42	1	2	1	2	2	4	6	9
43-48	2	3	3	3	9	2	11	16
49-54	4	2	2	1	6	3	9	13
54-60	1	1	1	2	4	1	5	7
<b>TOTAL</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>23</b>	<b>31</b>	<b>19</b>	<b>50</b>	<b>71</b>
<b>NO RESPONSE</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>12</b>	<b>8</b>	<b>20</b>	<b>29</b>
<b>TOTAL</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>40</b>	<b>43</b>	<b>27</b>	<b>70</b>	<b>100</b>

Source: Research Study, 2014

Table 3.4 Indicates that most of the respondents were aged 25 and 48 that is 52%. This is the most active group in the socio-economic development within a country. There were only 5 respondents who are above 55 years of age; only 20 (29%) respondents did not answer the questionnaire given to them.

Regarding sex, the table shows that the female respondents were 19 and male respondents 31. This shows that female are fewer than males in the Zanzibar especially in the cadre Managing Director (MD), Finance Manager (FM) and Assistant Finance Manager (ASS. FM) who engage in business hence, prevalence of male dominance in decision making.

#### 4.4 Educational background of the respondents

The researcher asked the level of formal education of the respondents because of the assumption that knowledge is fundamental in understanding the sources and nature of problems as well as devising mechanism of solving issues. Knowledge is also crucial in the management and mobilization of resources.

In this study, the term education was used to refer to formal education, which is provided in school under a well organized curriculum. The respondents were grouped into six categories of educational levels that is primary, ordinary secondary, advanced secondary, diploma, advanced diploma, bachelor degree and master's degree. Table 3.5 illustrates the distribution of educational levels of the respondents

**Table 4.3: Educational Level of Respondents**

EDUCATION LEVEL	RESPONDENTS				TOTAL	
	MD	FM	ASS. FM	ACC.	N	%
PRIMARY	-	-	-	-	-	-
O'LEVEL	-	-	-	-	-	-
A'LEVEL	-	-	-	2	2	4
DIPLOMA	-	-	-	3	3	6
ADV'DIPLOMA/BACHELOR	-	-	4	14	18	36
MASTERS and Above	8	9	6	4	27	54
<b>TOTAL</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>23</b>	<b>50</b>	<b>100</b>

Source: Researcher Study, 2012

Referring table 3.5, it can be deduced that most of the respondents, that is 4% had received advanced secondary level followed by 6% diploma, 36% received either advanced diploma or bachelor degree, and 54% masters degree.

#### 4.5 Major Business Line of the respondents

The range of businesses represented in the sample of respondent was wide and covered the key areas targeted for the study. Whether or not a firm was local or a subsidiary of an overseas holding company was considered important for this study in that foreign exchange risk management strategies would have been perhaps different between local

firms and subsidiaries of foreign firms. The profile of respondent institutions by line of industry as summarized in table 3.6

**Table 4.4: Major business line of respondent institutions**

<b>Financial Institution</b>	<b>Frequency</b>	<b>Percentage</b>
Banking Industry	7	70
Insurance Industry	2	20
Social Security Industry	1	10
	<b>10</b>	<b>100</b>

**Source: from the field data (2014)**

#### **4.6 Usage of foreign exchange currencies**

The researcher presented the usage of foreign exchange currencies, which department is concerned with these transactions and determines the effectiveness of the foreign exchange policy for the financial institutions operating in Zanzibar

##### **4.6.1 Usage of foreign exchange currencies on revenues and receivables as well as costs and payables.**

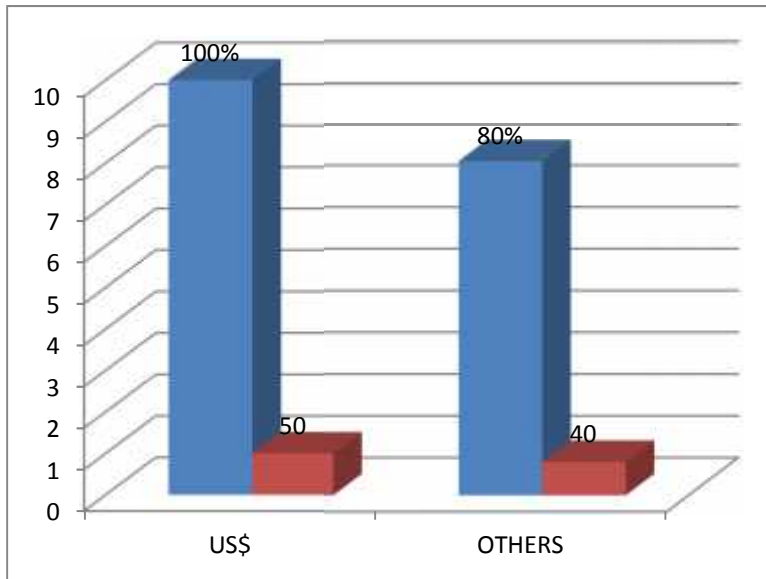
The study sought to determine the extent of usage of foreign exchange currencies on the revenues and receivables also on costs and payables and the impacts they have on the future payments. The findings revealed that all respondents used US\$ to facilitate their foreign transactions by 100% when they received the foreign revenues and receivables, also paid their foreign costs and payables. And then they used other currencies to facilitate their foreign transactions by 80% when they received the foreign revenues and receivables and made their payment on foreign costs and payables as shown on the table 4.1 and figure 4.1, this show that US dollar was the most currency used for foreign transactions by the financial institutions operating in Zanzibar.

**Table 4.5: Currency used to facilitate foreign currency transactions**

<b>Currency</b>	<b>Frequency</b>	<b>Percentage</b>
US\$	50	100
OTHERS	40	80

**Source: from the field data (2014)**

**Figure 4.1: Currency used to facilitate foreign currency transactions**



**Source: from the field data (2014)**

#### **4.6.2 The department which dealing with foreign exchange risk management**

The study sought to determine the department which dealing with foreign exchange risk management, whether they had written foreign exchange policy and if they did not have whether they still hedged against foreign exchange risk. The study also investigated on the hedging policy availability, its effectiveness on foreign exchange hedging to their financial institutions. The findings are as summarized in tables 4.2

**Table 4.6: Department dealing with risk management**

<b>Department</b>	<b>Frequency</b>	<b>Percentage</b>
Finance and accounting	10	100
Treasury	0	0
	<b>10</b>	<b>100</b>

**Source: from the field data (2014)**

From the findings shown in table 4.2 above on the department which deals with foreign exchange risk management in the financial Institutions operating in Zanzibar, the study found that all of the respondent as shown by 100% in the table no. 4.2, indicate that finance and accounting department was responsible for dealing with foreign exchange

risk management in their institutions, whereas non of financial institutions indicate that treasury department was responsible for dealing with foreign exchange risk in their institutions. This shows that finance and accounting department was the main department that dealt with foreign exchange risk in the financial institutions operating in Zanzibar.

#### **4.6.3 Effectiveness of the foreign exchange policy**

The study sought to determine the effectiveness of the foreign exchange policy for the financial institutions operating in Zanzibar. From the findings shown in table 4.3, the study found that 60% of the respondents indicated that the foreign exchange policy was good, 20% of the respondents indicated that it was average, whereas another 20% of the respondents indicated that the foreign exchange policy was excellent. This shows that foreign exchange policy used by financial institutions operating in Zanzibar is above average by a 100% effectiveness compared to the institutions with below average.

**Table 4.7: Effectiveness of the foreign exchange policy**

<b>Effectiveness</b>	<b>Frequency</b>	<b>Percentage</b>
Excellent	10	20
Good	30	60
Average	10	20
Below Average	0	0
Poor	0	<b>0</b>
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: from the field data (2014)**

#### **4.7 The written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions.**

Regarding to this, the researcher presented whether the written policy on the foreign exchange exposure is applied or not. Furthermore, the researcher presented the hedging policy, for those who fully and partially manage the foreign exchange rate risks.

#### 4.7.1 Written policy on foreign exchange

On whether financial institutions operating in Zanzibar had a written foreign exchange policy, from the findings shown in table 4.4 above the study found that 30% of the respondents indicate that their institutions had written foreign exchange policy, 60% of the respondents indicate that their institutions didn't have any written foreign exchange policy whereas 10% of the respondents were not aware of any written policy on foreign exchange. This shows that majority of the financial institutions operating in Zanzibar didn't have any written policy on foreign exchange.

**Table 4.8: Presence of written policy on foreign exchange**

<b>Presence of written policy</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	15	30
No	30	60
Don't Know	5	10
	<b>50</b>	<b>100</b>

**Source: from the field data (2014)**

#### 4.7.2 Hedging policy in the organization

To those institutions that had written foreign exchange policy, the study as represented by table 4.5, revealed that 33% of the respondents indicated that their institutions were managing foreign exchange exposure by hedging fully, another 67% of the respondents indicated that their institutions were using hedging partially whereas none of the respondent indicated that their institutions didn't hedge at all, this information shows that the financial institutions operating in Zanzibar that have written policy on foreign exchange exposure were using hedging fully while others were partially hedging on hedging foreign exchange exposure.

**Table 4.9: Hedging policy in the organization**

<b>Hedging policy</b>	<b>Frequency</b>	<b>Percent</b>
Hedging fully	17	33
Hedging partially	33	67
<b>Total</b>	<b>50</b>	<b>100</b>

**Source: from the field data (2014)**

### 4.7.3 Hedging by institutions with no written policy on foreign exchange

To those institutions among the respondents that didn't have written policy on foreign exchange, the study revealed that they were hedging against foreign exchange risk as shown by 83% of the respondents who indicated yes and other institutions that didn't have written policy on foreign exchange that they were not hedging against foreign exchange risk as shown by 17%. This shows that all the institutions operating in Zanzibar were hedging against foreign exchange risk as shown in table 4.6.

**Table 4.10: Hedging by institutions with no written policy on foreign exchange**

<b>Hedging with no written policy</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	42	83
No	8	17
Don't Know	0	0
	<b>50</b>	<b>100</b>

**Source: from the field data (2014)**

### 4.7.4 Hedging partially by firms with policy

On those institutions that were partially hedging against foreign exchange, the study revealed that they had a policy and their percentage of partially hedging is 40% and 60%, 50% of the respondents who indicated that their financial institutions were hedging partially indicated that their institutions hedged by 60% and those who indicated that their institution hedged by 40% were shown by another 50% of the respondent as depicted in table 4.7.

**Table 4.11: Hedging partially by firms with policy**

<b>Percentage of Hedging partially</b>	<b>Frequency</b>	<b>Percentage</b>
60%	25	50
40%	25	50
Total	<b>50</b>	<b>100</b>

**Source: from the field data (2014)**

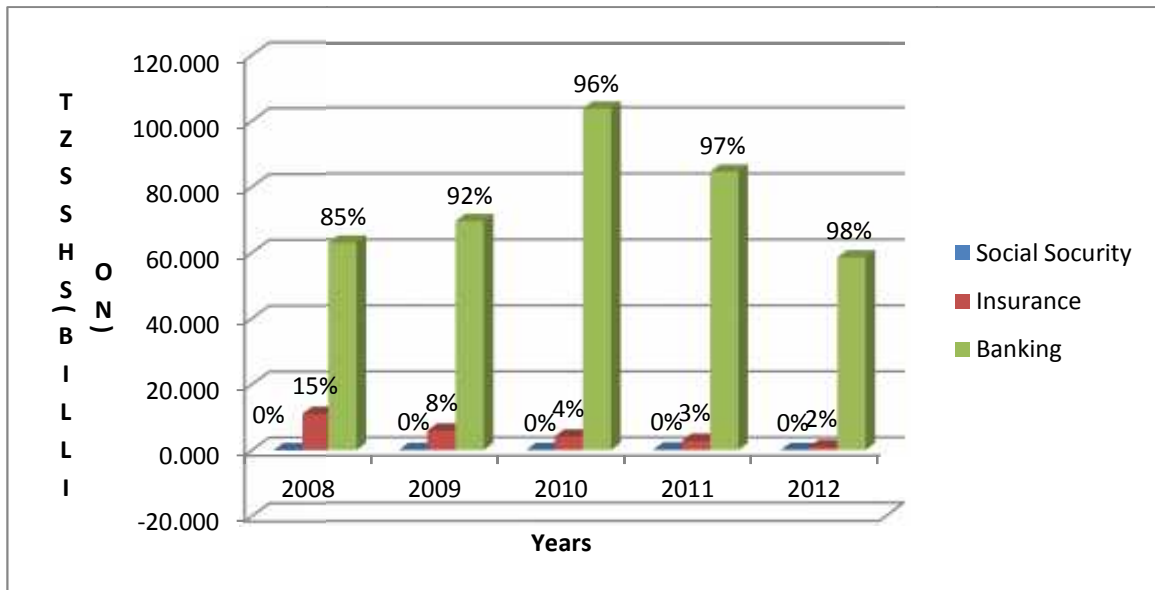
#### **4.8: Improvements of firms' financial performance (as the effects of the foreign exchange exposure)**

So as to respond to the specific research objective three, the researcher presented the unrealized foreign exchange gain/loss, accounts posted with foreign exchange differences (gains /losses), foreign exchange costs and payables, foreign exchange revenue and receivable, net income by industry and Working capital, number of employees and number. of customers.

##### **4.8.1 Unrealized foreign exchange gain/loss**

According to the figure 4.2: below, researcher wanted to know in what level in which the net foreign exchange gain/loss shared between the three industries, the study found that more than 85% of the net foreign exchange gain/loss dominated by banking industry compared to Insurance industry and Social Security industry, where as below 15% of net foreign exchange gain/loss are dominated by insurance industry and 0% are social security industry. This means that Banking Industry deals with the huge number of foreign transactions compared to the Insurance industry and Social Security industry so that Banking industry effected more with the foreign exchange risk than insurance industry and Social Security industry.

**Figure 4.2: Unrealized foreign exchange gain/loss**



Source: Documentary review

#### 4.8.2 Accounts posted with foreign exchange differences (gains /losses)

The question was asked in a positive (direct) language that the respondents were required to state that, which account (statement) they used to record (post) the foreign exchange differences (gains / losses), the study revealed that majority of the respondents as shown by 70% indicated that their institutions used income statement whereas 30% of the respondents indicated that their institutions used cash flow statement to post foreign exchange gains /losses, as shown in table 4.8. This means that the resolution of posting unrealized foreign exchange gain/loss in the comprehensive income statement of the financial institutions operating in Zanzibar, confirmed that the firms' financial performance (net income) affected with the changes of net unrealised foreign exchange gains/losses.

**Table 4.12: Accounts posted with foreign exchange differences (gains /losses)**

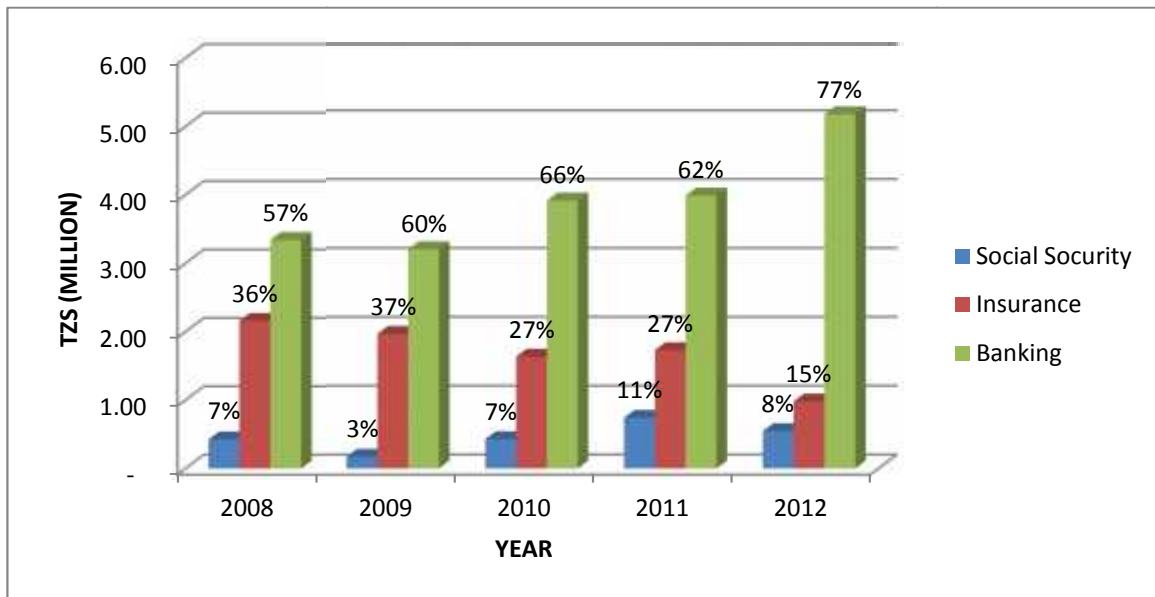
Account	Frequency	Percentage
Income Statement	7	70
Cash flow Statement	3	30
Total	<b>10</b>	<b>100</b>

Source: from the field data (2014)

### 4.8.3 Foreign exchange costs and payables

From the finding research found that between 57% to 77% of the foreign exchange cost and payable made by the Banking industry compared to Insurance industry and Social Security industry, where as insurance industry made between 15% to 37% and Social Security industry made between 3% to 11%

**Figure 4.3: Foreign exchange costs and payables**

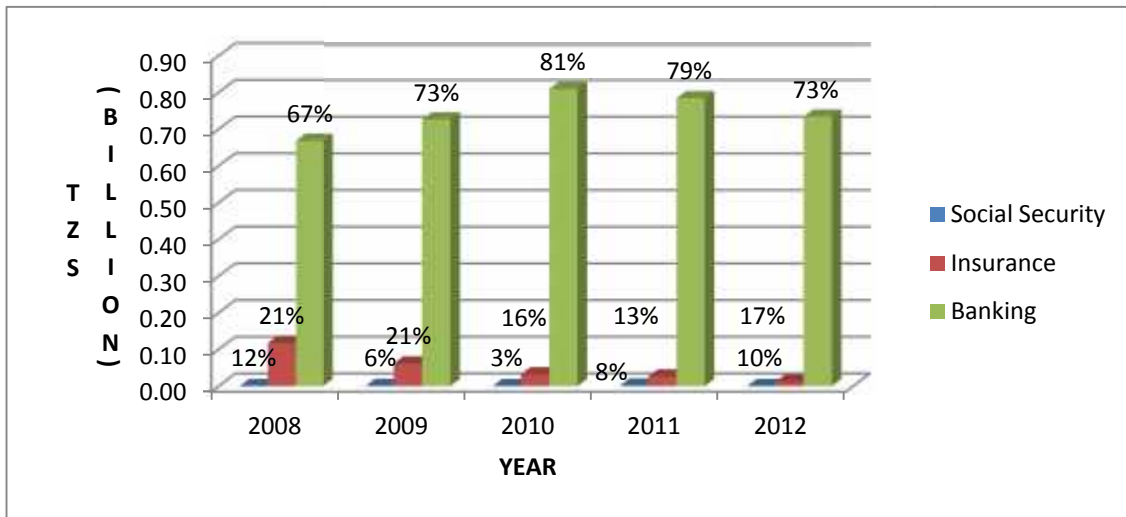


**Source: Documentary review**

### 4.8.4 Foreign exchange revenue and receivable

From the finding research found that between 67% to 81% of the foreign exchange revenue and receivable realized by the Banking industry compared to Insurance industry and Social Security industry, where as insurance industry made between 13% to 21% and Social Security industry made between 3% to 12%

**Figure 4.4: Foreign exchange revenue and receivable**

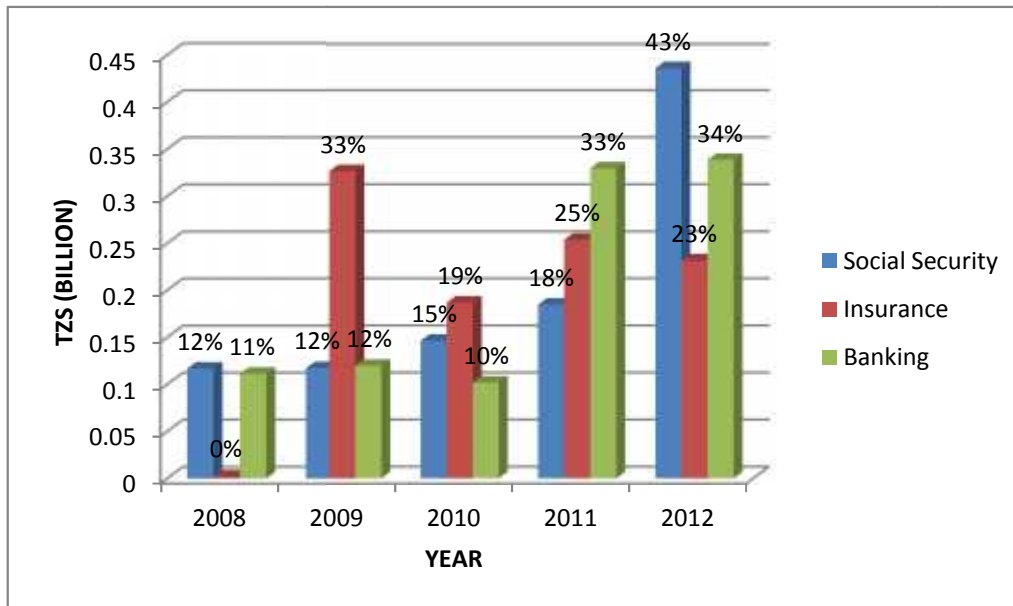


**Source: Documentary review**

#### **4.8.5 Net income by industry**

From the finding research found that the net income have been increasing from one year to another such that Social security industry on 2008 the net income was 12% but on 2012 the net income of social security industry was 43% of the total industry's net income of five years meanwhile the income of insurance industry was 0% on 2008 but on 2012 the net income of insurance industry was 23% of the total industry's net income of five years, for Banking industry the net income was 11% on 2008 but on 2012 the net income of Banking industry was 34% of the total industry's net income of five years as shown on the figure 4.5.

**Figure 4.5: Net income by industry**

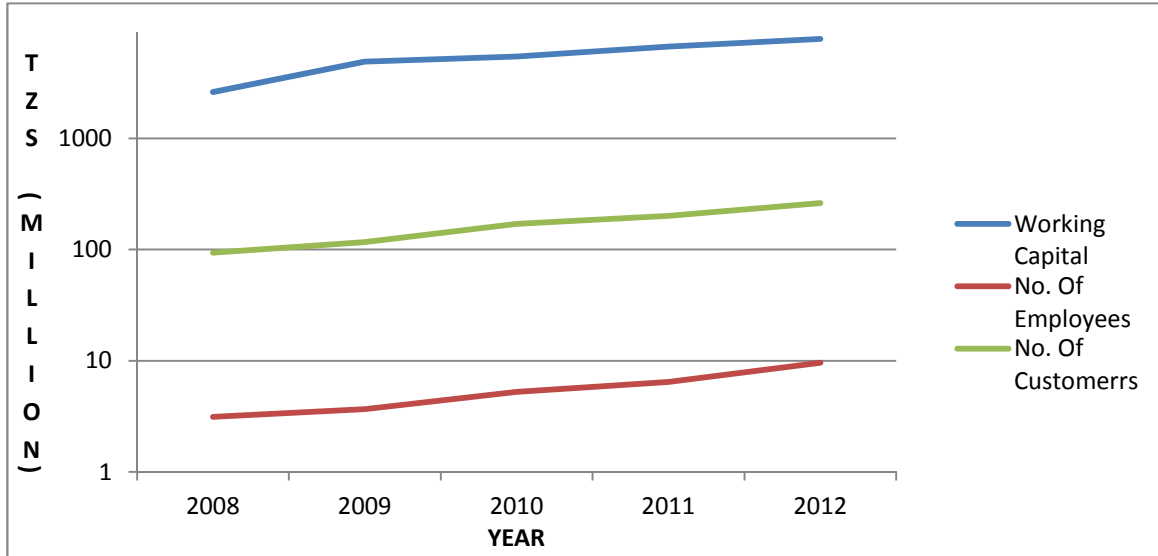


**Source: Documentary review**

#### **4.8.6 Working capital, no. Of employees and no. Of customers**

The study also sought to measure the financial performance of the institutions through the trend of institutions' working capital, number of employees and number of customers, Graph 4.1: Present the trend of the working capital, number of employees and number of customers from the year 2008 to 2012, according to that graph the working capital, number of employees and number of customers were increasing from year 2008 to the year 2012, this trend prove that the financial performance of the financial institutions operating in Zanzibar performing well.

**Graph 4.6: Working capital, no. Of employees and no. Of customers**



**Source: Documentary review**

The study established the regression tools in order to measure the effects of the foreign exchange revenues and receivable and foreign exchange costs and payables to the net income of the financial institutions operating in Zanzibar.

**Table no.4.13: Regression Model Summary**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.985 <sup>a</sup>	.970	.941		.14776

a. Predictors: (Constant), Foreign EX Revenues, And Foreign Ex costs

b. Dependent Variable: Net Income

The regression analysed the information from 10 financial institutions operating in Zanzibar base on financial statements of the 5 years, The information presented in table no. 4.10 above show that the multiple coefficient (R) is 0.98, the coefficient of determination (R-Square) is 0.97 and adjusted R- Square is 0.94 and the standard error of the estimate is 0.14

**Table no. 4.14: Regression Coefficients**

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	41.774	23.280		1.794	.215
Foreign EX Costs	-1.595	1.127	-.177	-1.416	.293
Foreign EX Revenue	.674	.083	1.013	8.086	.015

a. Dependent Variable: Net Income

From the table 4.10 above show that, the coefficient of foreign exchange revenues and receivables is 0.674, t- value is 0.08 and P- value is 0.01. Where by the coefficient of foreign exchange costs and payables is -1.595 and t-value is -1.41 and P- value is 0.29 and the constant is 41.77, t – value is 1.79 and P – value is 0.2.

## CHAPTER FIVE

### DISCUSSION OF RESEARCH FINDINGS

#### 5.1 Introduction

This chapter covers a discussion of research findings of the study. The discussion is based on the effects of exchange rate exposure on firms financial performance, The study findings discussed address the following issues: the effect of unrealized foreign exchange gain or loss on Net Income of Financial institution, the influence of foreign exchange on costs and accounting payable to the Net Income of Financial institution and lastly the effect of foreign exchange on Revenue and accounting receivable towards the profit of financial institution.

The study sought to determine the respondent department and therefore requested the respondent to indicate their department; from the findings on the department which the employees worked the study revealed that respondents were from the finance and account departments. This was believed viable since employees from the finance and account departments were deemed to have the knowledge of the foreign exchange exposure.

The study also sought to determine the financial institutions' years of operation in Zanzibar and from the findings, the study found that most of the financial Institutions had been in operation between 10 to over 50 years.

The types of institutions represented in the sample of respondents was wide and covered the key areas targeted and considered important for this study in that on the effect of foreign exchange exposure on firms financial performance, the case study of financial institutions which operating in Zanzibar, the study found that the financial institutions selected comprised three difference business industries, such that Banking industry 70%, Insurance industry 20% and Social Security industry 10% as summarized in table 3.6

## **5.1 Usage of foreign exchange currencies**

According to the first objective, the researcher discussed the usage of foreign exchange currencies, which department is concerned with these transactions and determines the effectiveness of the foreign exchange policy for the financial institutions operating in Zanzibar

On this objective before all, the researcher wanted to know the currency used by the financial institutions to pay their foreign costs and payable, the study found that all financial institutions operating in Zanzibar were using US dollars to pay their foreign costs and payable by 100% and then they were using other currencies to pay their foreign costs and payable by 80% as shown on the table 4.1 and figure 4.1. This shows that US dollar was the currency mostly used to pay the foreign costs and payable by the financial institutions which operating in Zanzibar.

The study also sought to determine the effectiveness of the foreign exchange policy for the financial institutions operating in Zanzibar, the study found that majority of the respondent institutions indicate that the foreign exchange policy was good for 60% as presented by table no. 4.3, this shows that foreign exchange policy used by the financial institutions was above average.

## **5.2 The written foreign exchange exposure policy (for both transaction and foreign exchange exposures) in the financial institutions.**

Regarding to this, the researcher discussed about the written policy on the foreign exchange exposure. Furthermore, the researcher presented the hedging policy, for those who fully and partially manage the foreign exchange rate risks.

On whether the institutions had a written foreign exchange policy, the study found that 30% of the financial institutions operating in Zanzibar had written foreign exchange policy as indicated by of the respondents who selecte yes. Those institutions that had written foreign exchange policy the study revealed that 33% of them were hedging fully and 67% of those institutions were hedging partially, this information shows that the financial institutions which operating in Zanzibar that have written policy on foreign exchange exposure are hedging partially while others are hedging fully. To those

institutions that didn't have a written policy on foreign exchange the study revealed that they were hedging against foreign exchange risk. This shows that all the financial institutions which operating in Zanzibar hedging against foreign exchange risk.

### **5.3 Improvements of firms' financial performance (as the effects of the foreign exchange exposure)**

So as to respond to the specific research objective three, the researcher discussed the unrealized foreign exchange gain/loss, accounts posted with foreign exchange differences (gains /losses), foreign exchange costs and payables, foreign exchange revenue and receivable, net income by industry and Working capital, number of employees and number. of customers.

The researcher wanted to know the department which deal with the foreign exchange management in the financial institutions operating in Zanzibar, From the findings on the department which deals with foreign exchange risk management in the financial institutions operating in Zanzibar, the study found that finance and accounting department was responsible for dealing with foreign exchange risk management in the financial institutions operating in Zanzibar.

On the account posted with foreign exchange gains or losses, the study revealed that majority of financial insstitutions which operating in Zanzibar use comprehensive income statement for 60% whereas others firm use cash flow statement for 40% as shown by the respondents on the table no.4.4 to post foreign exchange gains or losses. These findings strongly reveal that there is an effect in the company's financial performance as a result of dealing with foreign exchange in the normal business operations

On the foreign costs and payables paid by financial institutions which operating in Zanzibar in industry as individual, the study found that between 57% to 77% of the costs and payables were dominated by banking industry compared to Insurance industry and Social Security industry, where as between 15% to 36% of the costs and payables were dominated by insurance industry and between 3% to 11% were social security industry for the whole financial institutions operating in Zanzibar as shown by the graph 4.2. This

means that Banking Industry deals with the huge number of foreign transactions compared to the Insurance industry and Social Security industry so that Banking industry more effected with the foreign exchange risk than insurance industry and Social Security industry.

On the net foreign exchange gain/loss by industry as individual, the study found that more than 85% of the net foreign exchange gain/loss dominated by banking industry compared to Insurance industry and Social Security industry, where as between 15% to 2% of net foreign exchange gain/loss are dominated by insurance industry and 0% are social security industry for the whole financial institutions operating in Zanzibar. This means that Banking Industry deals with the huge number of foreign transactions compared to the Insurance industry and Social Security industry so that Banking industry more effected with the foreign exchange risk than insurance industry and Social Security industry

On the foreign revenues and receivables received by financial institutions which operating in Zanzibar in industry as individual, the study found that between 57% to 77%of the revenues and receivables were dominated by banking industry compared to Insurance industry and Social Security industry, where as between 15% to 36% of the revenues and receivables were dominated by insurance industry and between 3% to 11% were social security industry for the whole financial institutions operating in Zanzibar as shown by the graph 4.4. This means that Banking Industry deals with the huge number of foreign transactions compared to the Insurance industry and Social Security industry so that Banking industry more effected with the foreign exchange risk than insurance industry and Social Security industry.

The research want to know the institutions financial performance through institutions net income from year 2008 to 2012, from the finding research found that the net income have been increasing from one year to another such that Social security industry on 2008 the net income was 12% of the total net income of five years but on 2012 the net income of social security industry was 43% of the total net income of five years, meanwhile the income of insurance industry was 0% on 2008 of the total net income of five years but on 2012 the net income of insurance industry was 23% of the total net income of five years, for Banking industry the net income was 11% on 2008 of the total net income of five

years but on 2012 the net income of Banking industry was 34% of the total net income of five years, this means that the financial performance of the financial institutions operating in Zanzibar are improving as shown by the graph 4.5.

Moreover the study use net income of the financial institutions which operating in Zanzibar to measure their financial performance, the study also sought to measure the financial performance of the institutions through the trend of institutions' working capital, number of employees and number of customers, Graph 4.6. Present the trend of the working capital, number of employees and number of customers from the year 2008 to 2012, according to that graph the working capital, number of employees and number of customers were increasing from year 2008 to the year 2012, this trend prove that the financial performance of the financial institutions operating in Zanzibar performing well

From the regression analysis the study found that, relatively big number of R Square about 97% indicates that variations in foreign exchange revenues and receivables and foreign exchange costs and payables across financial institutions operating in Zanzibar account for a big proportion of the variation in net income of the financial institutions operating in Zanzibar. This finding show that either change of foreign exchange revenues and receivables or foreign exchange costs and payables cause the net income of financial institutions operating in Zanzibar to change.

Both foreign exchange revenues and receivables and foreign exchange costs and payables are measured in millions of Tanzania shilling. The study found that, the coefficient of foreign exchange revenues and receivables is 0.674, t-value is 0.08 and the P-value is 0.01, it is statistical significant of 1%. From this observation we can say that, foreign exchange revenues and receivables have direct relationship with the net income of financial institutions operating in Zanzibar, therefore one Tanzania shilling increase on foreign exchange revenues and receivables tend to be associated with a 0.674 Tanzania shilling increasing in net income of the financial institutions holding the foreign exchange costs and payables be the same.

In other side that, the coefficient of foreign exchange costs and payables are -1.595, t-value is -1.41 and the P-value is 0.29, it is statistical insignificant but foreign exchange costs and payables show the negative relationship to the net income of financial institutions operating in Zanzibar, it means that one Tanzania shilling increase on foreign exchange costs and payables cause to decrease the net income of financial institutions operating in Zanzibar by 1.59 holding the foreign exchange revenues and receivables the same as shown by table 4.10.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter presents the summary of the study, conclusion, recommendations, limitation and areas for further research. It commences with the summary, then conclusion, recommendations and finally highlights areas for further research.

#### **6.2 The Summary and Conclusion**

The findings from this study showed that there were financial institutions which had been in operation in Zanzibar between 10 to over 50 years and they used comprehensive income statement and cash flow statement to facilitate the recording of foreign exchange gain or profit. The study thus conclude that unrealized foreign exchange gains/losses had an effect on the Net Income of the financial institutions which operating in Zanzibar as it was posted to either on comprehensive income statement or cash flow statement.

The study observes the foreign currencies were used by the financial institutions operating in Zanzibar for receiving and paying their foreign revenues and receivables and foreign costs and payables respectively, the study found that, The financial institutions used all relevant foreign currencies on foreign transactions but the US dollar turned out to be the most dominant source of exchange rate risk to the financial institutions operating in Zanzibar.

The findings from the study show that, banking industry is the leading industry of the financial institutions on dealing with foreign exchange transactions compared to insurance industry and social security industry, this evidenced by their foreign exchange revenues and receivables and foreign exchange costs and payables, therefore banking industry more effected with the foreign exchange volatility against their financial performance.

The study also found that, foreign exchange costs and payable have inverse relationship to the net income of the financial institutions operating in Zanzibar and foreign exchange

revenues and receivables have direct relationship to the net income of financial institutions operating in Zanzibar and then the study found that, foreign exchange costs and payable have direct relationship to the net loss of the financial institutions operating in Zanzibar and foreign exchange revenues and receivables have inverse relationship to the net income of financial institutions operating in Zanzibar.

### **6.3 Recommendations**

In light of the above findings, the researcher has proposed that the financial institutions whose foreign exchange policy was not present in their institutions should establish a comprehensive policy for managing foreign exchange exposure in order to meet the need of minimizing the negative effects of currency fluctuations on the company's consolidated earnings position.

For those financial institutions had foreign exchange policy in place but the policies were not in use, the institutions should streamline that policy and make easy to provide specific guidelines for implementing foreign exchange risk management. Lastly, financial institutions should remember that a foreign exchange policy is a living document and should be reviewed on an annual basis to ensure that it meets current institution objectives.

The financial institutions are also recommended that, they should put emphasis on capacity building to their manpower on how to manage the foreign exchange exposure, through short term sponsorship programmes on the short courses provided by the relevant authorised boards either within or outside the country, in order to be aware and capable to exploit the updated foreign exchange policy for the best managing foreign exchange exposure.

It was recommended by the researcher that, the financial institutions operating in Zanzibar should employ suitable foreign exchange hedging techniques in order to either minimize or eliminate the effect of the foreign exchange exposure on their final accounts.

#### **6.4 Areas for Further Research**

The comparative study of the research should be conducted in order to assess the effects of foreign exchange exposure on firms' financial performance of various financial institutions in Tanzania. As part of this study a further area for research should be empirical investigations into the effects of foreign exchange exposure on the firms' financial performance specifically in the financial institutions, and here the case study approach could be considered. Once again financial data would form an integral part of the data collected. The findings portrayed the effects of foreign exchange exposure on firms' financial performance a case financial institutions operating in Zanzibar. It is advised that further studies be done on the following issues;

- i) The effects of foreign exchange exposure on foreign aids (grant and credit) from the foreign countries to Zanzibar.
- ii) The effects of foreign exchange exposure on non- financial institutions in Zanzibar.

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**Appendix 1: Research Questionnaire**

**PART I – COMPANY PROFILE**

- 1) Company name.....
- 2) Respondent’s name.....
- 3) Respondent’s department.....
- 4) Industry of operation.....
- 5) Years of operation in Zanzibar.....

**PART II - EVALUATE THE EXTENT OF USAGE OF FOREIGN EXCHANGE CURRENCIES ON REVENUES AND RECEIVABLES AS WELL AS COSTS AND PAYABLES.**

6) Which department or section deals with risk management in your organization?

Accounting and Finance

Treasury

7) Does your company have a written foreign exchange policy?

Yes  No  Don't Know

8) If number 8 is (Yes) what is your hedging policy in your organization?

Hedging fully  hedging partially

Not hedging at all  Don't Know

9) If number 8 is (No) do you still hedge against foreign exchange risk?

Yes  No  Don't Know

10) If your policy is hedging partially in number 9 above, what is the percentage?

.....%

11) What is your annual unrealized foreign exchange gain/loss (please fill the table in terms of figures Tshs. Millions) eg. 1m,2m...

<b>YEAR</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Unrealized Gain/Loss</b>					

12) Which account do you post your foreign exchange gain or losses?

Comprehensive Income statement

Cash Flow statement

**PART III – ESTABLISH THE WRITTEN FOREIGN EXCHANGE EXPOSURE POLICY (FOR BOTH TRANSACTION AND FOREIGN EXCHANGE EXPOSURES) IN THE FINANCIAL INSTITUTIONS.**

13) What is the percentage of the annual foreign exchange expenditures (costs) and a/c payable as compared to no.15 above? (please fill the table in terms of figure ) eg.1million, 2 million...

<b>YEAR</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>FX. Exp.(cost) and a/c payable</b>					

14) Which currencies do you use to pay your foreign account payables? (tick if more than one).

US\$

Others

**PART IV – EVALUATE THE EXTENT OF IMPROVEMENTS OF FIRMS’ FINANCIAL PERFORMANCE (AS THE EFFECTS OF THE FOREIGN EXCHANGE EXPOSURE)**

15) What is the percentage of the annual foreign exchange revenue and a/c receivable as compared to no.15 above? (Please fill the table in terms of figure) eg.1million, 2million ....

<b>YEAR</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>FX Revenue and a/c Receivable</b>					

16) Which currencies do you use to receive your foreign account receivable? (tick if more than one).

US\$

Others

17) Please fill the table below according to your organization.

<b>YEAR</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Working Capital</b>					
<b>No. Of Employee</b>					
<b>No. Of Customer</b>					

**THANK YOU**