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FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE

THE ANALYSIS OF THE IMPACT OF EXCHANGE RATES FLACTUATIONS AND RISK MANAGEMENT ON BANK PERFORMANCE IN ZIMBABWE. A SURVEY OF 8 COMMERCIAL BANKS IN HARARE (CBD).

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Dedication.

To my lovely parents Mr. and Mrs. Zhou and my siblings Lingadani, Vimbikai and Chidochashe

Declaration

I, Evidence Zhou do hereby declare that this dissertation is a result of my own work investigation and research, except to the extent indicated in the acknowledgements, references and comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

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Abstract

In an international trade involve different currencies; the variability of foreign exchange rates are a potentially sensitive factor that control the level of profitability of commercial banks as it impacts their financial intermediation process. Fluctuations in exchange rate may be a source of risk to an organization. Huge losses in foreign exchanges may result to organizations failures in addition to instigating enormous burdens on profitability of an organization. In Zimbabwe exchange rate variations have been characterized with periods of rapid depreciation of the domestic currency Zimbabwean dollar against USD and other strong currencies. The study aimed at investigating the effects of exchange rate fluctuations on financial performance of commercial banks in Harare CBD. The study reviewed theoretical and empirical studies on exchange rate and financial performance. The study adopted a descriptive survey. The study adopted correlation analysis to explain the association between ROA, inflation rates, interest rates spread, bank size and exchange rates.

linear regression model was employed. Return on assets was the dependent variables and exchange fluctuations variables as the independent The study concluded that the inflation rates have been increasing yearly over the entire study period. The relationship however between inflation and returns on assets was negative and hence it negatively impacted performance. The study concluded that interest rates especially lending rates have been increasing over time whereas the same observation was not eminent in deposit rates by banks. The study therefore concludes that the interest rates spread has been increasing in the recent years since borrowing had become expensive thus profitable whereas deposits rates were very small. The study recommended relevant authorities for instance. The RBZ should adequately put measures to safeguard the value of the domestic currency and reduces the risk. This would ensure a slight fluctuation of the current against other currencies.

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Abbreviations

CBD	Central Business District
RBZ	Reserve Bank of Zimbabwe
PPP	Purchasing Power Parity
ROA	Return on Assets
ROE	Return on Equity
USD	United States Dollar
FOREX	Foreign Exchange

Chapter one

General Introduction

1.0 Introduction

This chapter is the introductory chapter. The researcher intends to explore the discursive implications of exchange rates and risk management on bank performance. This chapter presents the background to the study, statement of the problem, objectives of the research, research questions, significance of the study, scope of the study, research assumptions and the organisation structure of the whole research project.

1.1 Background to the study

The mechanism of exchanging price by translating one currency in one country into another currency is known as the exchange rate (Basil, 2019). The exchange rate is an integral part of the international trade, balance of payments, and the overall national economic performance of a country (Jabara, 2020). Fixed or floating can occur as a result of the foreign exchange rate variability. Banks in Zimbabwe are battling for survival due to poor economic performance, exchange rates, low capacity utilisation by industry and depressed demand against a backdrop of low disposable incomes (RBZ, 2019). The country's balance of payment is in deficit at a time when domestic credit demand is very high resulting in a vicious loop of reduced access to liquidity slowing growth. When inflation did not abate and with the black market continuing to put pressure on the exchange rate for foreign currency, the RBZ introduced the weekly auctions of foreign currencies at the end of June 2020 (RBZ, 2021). As it stands the inflation of June hit the peak of 29.4% month on month inflation rate and an annual inflation rate of 457.2%. The auction system was set in an attempt to curb rampant inflation which had led the Zimdollar down to US$1:80 Zim dollar. A foreign exchange auction is a system where the central bank regularly sell a given amount of foreign exchange through a bidding process and buys foreign exchange in an intervening-periods at the previous auction determined rate. The auction system managed to drop the inflation from a peak of 485.3% in July 2020 to 188.90% by the end of the same year. Taking into account the background information, this study explores an analysis on the discursive implications of exchange rates and risk management on bank performance in Zimbabwe.

1.2 Statement of the problem

Presently, the Zimbabwean exchange rate is characterized by inflation crisis. The exchange rate is determined by demand and supply forces. However, the central bank can intervene through floor rate and reserve requirement as deemed appropriate. The Zimbabwean currency has been continuously depreciating against major hard currencies such as the US dollar, the British Pound and Euro. As a financial intermediary, the variation in exchange rate can affect the performance of the banks in different ways, which is basically classified as a direct and indirect effect. The direct effect of exchange rate on bank profitability can be easily determined by measuring the change in the value of foreign currency denominated asset and liability. When home currency is depreciated, banks recognize accounting gain on their foreign currency denominated asset and loss on foreign currency denominated liability. In this regard, the present study seeks to examine the implications of exchange rates and risk management on bank performance.

1.3 Research Objectives

The major objective of this study is to;

- examine the implications of exchange rates and risk management on bank performance

The secondary objectives are as follows;

- to analyse the influence of exchange rates on financial performance of commercial banks in Zimbabwe
- to determine the causality relations between the exchange rate and the financial performance of commercial banks.
- to suggest the possible best practices in bank risk management

1.4 Research Questions

(I) What are the implications of exchange rate on financial performance of commercial banks?

(ii.) What are the causality relations between exchange rate and the financial performance of commercial banks?

(iii) Are there possible best practices in bank risk management?

1.5 Justification of the Study

To Academics

This study is likely to generate new information useful to the academic community for further studies focusing on exchange rates, risk management and bank performance, and this research can be a point of comparison with future researches. The study will add to the body of knowledge on the implications of exchange rates and risk management in relation to bank performance.

To the Banking industry

The study will assist bankers in Zimbabwe to appreciate the advantages of implementing effective strategies towards mitigating adverse effects exchange rates on bank performance to their advantage. Therefore, the banks will make an informed decision based on the facts of the benefits of such strategies. In addition, the banks will know the critical success factors for exchange rates and risk management to work efficiently. Thus, the banks will benefit from first mover advantage.

To the researcher

The researcher will broaden his knowledge on the implications of exchange rates and risk management on bank performance.

1.6 Scope of the Study

The research is covering all commercial banks in Harare central business district. Risk management employees are targeted to provide responses. Conclusions are drawn from the responses given and not necessarily from all banks' input.

1.7 Assumptions of the Study

The researcher assumes that the study will receive maximum cooperation and support from the respondents concerning the discursive implications of exchange rates and risk management on bank performance. The researcher assumes that the study will be objective in data collection, analysis,

presentation and discussion of the study findings and will provide accurate information to the best of their knowledge.

1.8 Delimitations of the study

The aim of the research is to explore the implications of exchange rates and risk management on bank performance. The research will focus on commercial banks within the Harare Central Business District (CBD) where there is high concentration of commercial banks.

1.9 Limitations of the study

- Some respondents refused to disclose information on account of confidentiality and privacy and the researcher had to persuade them by providing the assurance that the researcher would keep the information confidential.
- Distortion of information resultantly emanating from some respondents' misrepresentation of questions asked.
- Time was not even enough to sufficiently gather the required information needed for the completion of the research and the collection of the views of the participants.

1.10 Definitions of key terms

Exchange Rate

Bradley and Moles (2002) defined exchange rate as the price of a unit of foreign currency against domestic currency. According to Reid and Joshua (2004), exchange rate is the value of the one unit of foreign currency against local currency.

Risk management

Risk management constitutes main characteristics of good risk practices including leadership of the risk team, adequate compensation of the risk team and compliance with laws & best practice. There is a view that companies with risk management departments are better corporate performers.

Financial performance

According to Adetayo et al. (2004), financial performance comprises of achievement measurements of an organization. Financial performances measure an organizations benchmarks and financial objectives. A wide range of measures are used in measuring firm's financial performance including; profitability measures, liquidity measures and debt measures (Reid and Joshua, 2004).

1.11 Organisation of the study

The study has five chapters which are categorised as follows:

Chapter 1 provides an introduction to the study in terms of the background to the study, statement of the problem, significance of the study, research objectives and questions, scope of the study as well as assumptions of the study.

Chapter 2 reviews empirical literature on the thematic areas in alignment with the objectives of this study. The chapter also reveals the theoretical framework underpinning the study.

Chapter 3 focuses on explaining the research methodology guiding this study. This chapter includes a detailed explanation and justification of the research methods including research approach, research design, target population, sample size, sampling method, research instruments, data collection procedures, data analysis and presentation methods, reliability, validity, and ethical considerations.

Chapter 4 analyses, presents and discusses data. Results and discussion are guided by research objectives.

Chapter 5 provides the conclusions to the whole study and gives recommendations. These conclusions are derived from the findings based on the research objectives of the study and data collected and analysed. The chapter provides implications that are based on theory, policy and practice, and limitations and future research.

1.13 Chapter summary

This chapter outlines the research map for the study. The background to the study- highlighting the subject matter under investigation, statement of the problem, research objectives, research questions,

scope of the study, justification of the study, assumptions of the study and organisation of the whole research project are explained in this chapter. The background to the study denotes the overall status of banks and exchange rates scenarios. The following chapter presents a review of related literature to the present study conforming to the research objectives of the study.

Chapter 2

Literature Review

2.0 Introduction

This chapter is devoted to the review of existing literature on earlier studies on exchange rate, risk management as well as commercial banks' profitability. For the purpose of achieving the objectives of this study, it is necessary to review some earlier work in this subject that would provide us with adequate theoretical and empirical background for assessing the relevance and contributions of this research study. This study ascertains the relationship that exist between exchange rate, risk management and commercial banks' profitability making use of analytical and econometric research tools.

2.2 Theoretical Literature Review Underpinning Study

2.2.1 Exchange rate and bank performance

According to Popper (1996) exchange rate fluctuations affect banks both directly and indirectly. The direct effect comes from banks' holdings of assets (or liabilities) with net payment streams denominated in a foreign currency. Foreign exchange rate fluctuations alter the domestic currency values of such assets. This explicit source of foreign exchange risk is the easiest to identify, and it is the most easily hedged. He further explained that a bank without foreign assets or liabilities can also be indirectly exposed to currency risk because the exchange rate can affect the profitability of its domestic banking operations. For example, consider the value of a bank's loan to an exporter. An appreciation of the home currency might make it more difficult for the exporter to compete against foreign firms. If the appreciation thereby diminishes the exporter's profitability, it may also diminish the probability of timely loan repayment and, correspondingly, the profitability of the bank. As the exchange rate is linked to foreign competition, to the demand for loans, or to other aspects of banking conditions; it will affect even "domestic" banks.

Similarly, Mbutor (2010) mentioned that owing to information asymmetries, depreciation in exchange rate might cause lending to decline in two different ways. First, if such depreciation worsens borrowers' balance sheets, then the default risk will be enlarged and banks would shy away from making loans. On the other hand, if banks are exposed to short term liabilities in foreign currencies, then such liabilities will be amplified to the tune of the extent of depreciation of the local currency and any other associated costs, thus, dampening their potential to create credit. Likewise, using a bank's loan to an exporter as an example, Chamberlain et al. (1997) demonstrate that banks that perfectly hedge their accounting exposure could still be exposed to significant foreign exchange risk if exchange rate movements significantly affect cash flows, competitiveness, and credit risk of banks'

customers (i.e. indirect or economic exposures). This indicates that the sources of foreign exchange risk of banks are far more than just their holdings of net foreign assets.

Wong et al., (2008) indicated that the direct effect of individual banks exchange rate exposure can be discerned largely from their accounting data, while the indirect exposure, which arises from impacts of exchange rate fluctuations on the economy in general and banks' customers in particular, is subtler. Foreign exchange risk also may be linked to other types of market risk, such as interest rate risk. Interest rates and exchange rates often move simultaneously. So, a bank's interest rate position indirectly affects its overall foreign exchange exposure. The foreign exchange rate sensitivity of a bank with an open interest rate position typically will differ from that of a bank with no interest rate exposure, even if the two banks have the same actual holdings of assets denominated in foreign currencies. Therefore, the vulnerability of the bank as a whole to foreign exchange fluctuations depends on more than just its holdings of foreign exchange (Popper,1996).

Generally, foreign exchange rate movements could be an important source of risk for banking institutions. In the worst case, large foreign exchange losses may lead to bank failures. In the literature, a large number of empirical works have been carried out to examine the foreign exchange exposure of banks. However, most of these studies mainly focused on banking markets which are well developed market, by comparison, studies focusing on less developed banking markets are relatively scant.

2.3 Empirical Review Underpinning Study

2.3.1 Exchange Rate Variation on Banks Profitability

According to different studies (Rao and Lakew (2012), Kanwal and Nadeem (2013), Pan and Pan (2014), Ongore and Kusa (2013), Kiganda (2014)), the factors that affect the profitability of a bank could be broadly classified as bank specific or internal and external factors. The bank specific factors relate to a bank's overall managerial practices on capital structure, liquidity management, credit risk, loan portfolio management, expense management and diversification of a bank's line of products or activities. The external factors generally relate to the industry and macroeconomic variables within which the bank operates. The external factors include factors related to the level of competition in the industry to which the bank belongs (concentration), barriers related to entry to and exit from the industry, the pace of economic growth, the nature of the regulation and supervision of the banking industry, inflation, financial deepening, and monetary and physical policies, among others. The external factors can be further classified in to industry specific factors and macro-economic factors.

Macroeconomic factors that affect the bank performance include GDP, inflation rate, exchange rate inter alia (Rao & Lakew, 2012).

Kanwal and Nadeem (2013) and Pan and Pan (2014)) indicated that the change in these macroeconomic factors affect the profitability of commercial banks in different extent and magnitude. For example, Kanwal and Nadeem (2013) in their study of the impact of Macroeconomic variables on the profitability of listed commercial banks in Pakistan, have found that; GDP has positive insignificant impact on the ROA of the bank, but insignificant negative impact on ROE while Inflation rate on the other hand, has a negative link with all profitability measures (ROA, ROE). Overall, the selected macroeconomic factors are found to have a negligible impact on earnings of commercial banks. In contrast, Pan and Pan (2014) in their study of the impact of macroeconomic factors on the profitability of China's commercial banks found that macroeconomic factors do have a substantial influence to the earning power of commercial banks. Economic growth, inflation, interest rates and money supply growth have positive correlations with bank profitability. Again this study didn't address the impact of exchange rate variation on the banks profitability. There are also other studies conducted on the impact of macroeconomic factors on the banks profitability. However, as indicated by the result of the two studies cited above, the findings on the impact of macroeconomic variables on banks profitability are not consistent. Most of these studies hadn't assessed the impact of exchange rate on the banks profitability as one of the Macroeconomic variables. However, there are other studies which tried to investigate the impact of exchange rate variation on the banks profitability; the empirical findings of these studies are summarised as follows.

Kiganda (2014) undertook a study to examine the effect of Macroeconomic Factors on Commercial Banks Profitability in Kenya with Equity Bank Limited in focus. He analyzed the effect of macroeconomic factors (real GDP, inflation and exchange rate) on the profitability of equity bank limited by taking data for the period of 2008 to 2012. The profitability of the bank (dependent variable) is represented by ROA. The results indicated that macroeconomic factors (real GDP, inflation and exchange rate) have insignificant effect on bank profitability in Kenya at 5% level of significance. The study concludes that macroeconomic factors including exchange rate do not affect bank profitability in Kenya Dietrich and Wanzenried (2011) carried out a study to identify the factors that influence the profitability of commercial banks in Swaziland for the period 1999 to 2006 by taking data from 453 banks. They used ROAE and ROAA alternatively as dependent variables and considered eleven bank specific and five industry-specific and macroeconomic factors as explanatory variables in their analysis. The study found a positive and significant relationship between bank profitability (measured in terms of ROAA) and equity to total assets and GDP growth rate, whereas

bank size and cost to income ratio were found to be negatively and significantly associated with bank profitability.

Taiwo and Adesola (2013) examined the effect of exchange rate on the performance of Nigerian banks for the period between 1970-2005. They used two different dependent variables: ratio of loan loss to total advance and capital deposit ratio to represent the performance of the bank. The effect of exchange rate on these two proxies of bank performance was empirically tested with two different modes. The regression results for the model tested the relation of loan loss to total advance and exchange rate revealed that there exists a positive relationship between exchange rate and loan loss which may explain the tendency of bank to accumulate bad loans as a result of fluctuating exchange rate. The result of the second model indicated that capital deposit ratio does not have significant relationship with exchange rate.

Another study on Nigeria bank by Osuagwu (2014), found that exchange rate is significant as a determinant of bank profitability through return on equity and non-interest margin, but not significant to return on asset as a measure of profitability. The researcher mentioned that the insignificance of exchange rate to return on asset is perhaps attributed to the fact that a very large percentage of bank assets are fixed or off balance sheet items. The variability of the asset portfolio of banking firms is not largely responsive to the variations in exchange rate.

Choi, et al. (1992) had conducted study on 48 largest US commercial banks by using monthly data over the period of January 1975 to December 1987.They observed that bank stock returns respond negatively to interest rates and the impact of the exchange rate depends on the banks' net position in foreign currencies. Their results confirmed that a depreciation of foreign currencies negatively influenced bank stock returns. Another study by He et al. (2014) examined the effect of foreign exchange rate fluctuation on the profitability of US based commercial banks. The study was conducted on 22 large US based banks for a period of 40 years. The study basically evaluated how the US bank earning (net income) respond to the changes in value of the foreign currencies relative to US dollar. The regression result indicated that the value of the dollar relative to a basket of global currencies considered in the study (i.e. European currencies and Asian currencies) is positively related to the returns generated by the largest U.S. based banks.

Merikas (1999) also finds that stock returns of Greek banking institutions are also impacted by exchange rate fluctuations. Babazadeh & Farrokhnejad (2012) examined the effects of foreign

exchange changes on Banks' operations and profits by applying Error Correction Model (ECM) on one of the commercial banks in Iran for the period of five years from 2006 to 2010.The results explain that exchange rate was a significant determinant of profits. From the studies reviewed, it is noted that the impact of exchange rate on the banks profitability is inconsistent. Some researchers (Kiganda (2014), Taiwo and Adesola (2013)) found that exchange rate has insignificant effect while others (Osuagwu (2014), He et al (2014) and Babazadeh and Farrokhnejad (2012)) claimed that exchange rate has positive significant effect on the bank's profitability. Moreover, Choi et al (1992) claimed that the effect of exchange rate on banks profitability depends on the banks net position of foreign currency. This study will therefore investigate the discursive implications of exchange rates and risk management on bank performance in Zimbabwe.

2.4 Theories

This section explores the theories relevant to this study, with considerations being made to the purchasing power parity (PPP) theory and international fisher effect (IFE) theory.

2.4.1 The Purchasing Power Parity (PPP) Theory

In 1918 after the war ended Gustav Cassel introduced the Purchasing Power Parity (PPP) theory to correct differential occurred in inflation rate countries experienced, the theory means that prices of related goods and services from different countries remain unchanged after adjusting the exchange rates of those countries. (Menon &Viswanathan, 2005) The PPP theory explains that in different countries the value of homogeneous commodities is identical. If purchasing power in different countries is close then the exchange rates between the currencies of the world should be in balance. According to Ross, et, al (2008), the currency of a nation may be incorrectly priced because money has no buying power against the price of goods in that nation. This hypothesis is founded on the premise that there are no transactional costs, no barriers to exchange, and homogeneity of the goods being exchanged. When the business of exchange of currency occurred at spot rate the price of a homogenous commodity across borders will be equal.

PPP is applied to exchange rates which say that the exchange rate among two different countries should reflect PPP means that the cost of commodities in one country needed to be the same on the other country's currency when converted it. For example, in the case of the United Kingdom (UK) and the United States (US), the value of the basket for the UK is 10 pounds and for the USD is 1600 dollars whiles the fluctuation of the exchange rate between countries is 1 pound = 160 Us dollars. This indicates that the exchange rate reflects PPP as we would be able to purchase almost the same amount of commodities in the United Kingdom and is worth 10 pounds while converted to US dollars, Even if the US commodities increases to 1.700 dollars and the exchange rate stays the same so that

this exchange rate cannot represent the PPP, as if 10 pounds of commodities converted to US dollars are not yet precisely the same basket price in the US, 100 dollars must remain to purchase the same basket amount of commodities across the US.

2.4.2 The International Fisher Effect

The International Fisher Effect (IFE) theory was introduced by Irving Fisher around the 1930s. According to the theory, the change in the exchange rate is predicted by IFE through the nominal interest rate between countries. Therefore, the theory implies that the currency is expected to depreciate when a country's nominal interest rate is higher against those foreign countries having nominal interest lower, higher nominal interest rates reflect inflation rate expectation (Staikouras & Wood, 2003).

The ability to connect inflation to real and nominal interest rates was one of the most important contributions Fisher made to the field of economics. The Fisher Effect explains that the growth rate in the money supply will be brought change by increasing the nominal interest rate and, which is proportional to the increase in the inflation rate. This Fisher Effect helps us understand why inflation should not be seen as impacting the actual long-term interest rate. To prevent inflation affecting the real interest rates, the nominal interest rate must reflect the inflation rate changes.

Within the banking industry, the Fisher effect is clear, that the interest rates that an investor has on a savings account are just the nominal interest rate. The theory explains that countries do not adjust interest rates by the same magnitude and central bankers have changed their emphasis from interest rate target to inflation target exchange rates, due to the explanation it shows that the theory is applicable (Siro, 2017). According to IFE a country with a higher inflation rate have a higher nominal interest rate, therefore the difference between the two countries' inflation rate and nominal interest rate will reflect the expected changes in exchange rate because an increase in the inflation rate will automatically reflect the nominal interest rate to increase. This theory of IFE is also applicable to the variation of the exchange rate.

2.5 Determinants of Financial Performance of Commercial Banks

There are so many determinants of commercial bank on financial performance but in our study we will explain seven determinants as shown below;

2.5.1 The Size of the Bank

The size of the bank has a very significant role to play in the Bank's performance that cannot be ignored. Big banks leverage economies of scale and hence are more competitive than smaller companies (Wild & Han, 2010). The size of the bank usually influences the market share, which in turn affects competitiveness, the greater the market share of a business, the greater the income, thus, if commercial banks rise lending on the grounds of this claim they have low-interest rates and therefore better profits. The market share of the bank essentially consumes future economies of scale or disease ecosystems. The Bank's size has many repercussions for its financial results (Ahmed & Ahmed, 2010). Big firms can maximize economies of size and volume and therefore be more competitive than small businesses (Wild & Han, 2010).

2.5.2 Capital Adequacy

Capital is a crucial factor that impacts income for the banks. Moreover, it is the amount of equity owned by the owners that can be included in the company capital in order to meet different of risk (Athanasoglou, et al 2005). As suggested by (George & Dimitrios, 2004) most higher-capital banks do much better than their underinvested peers. There is a strong correlation among EU financial institutions between income and equities (Staikouras & Wood, 2003).

2.5.3 Bank Liquidity Management

Commercial banks must have enough resources available to successfully mediate between deficit and surplus households. Managers should also aim for an acceptable equilibrium level (Ubindi, 2006). If liquidity is on the downside instead banks borrow at competitive rates from fellow banks or central banks. The resultant high liquidity is a depletion of strategic assets (Waheed, 2009). Tabari & Emami (2013) suggest that the liquidity issue exists because of the bank's inability to manage debt decreases or to fund growth in assets. An illiquidity bank means that it cannot receive sufficient funds at a reasonable rate, either through expanded liabilities or accelerated transition of assets. Banks do not enjoy adequate liquidity during times they cannot meet the necessary debt capacity without turning the asset into liquidity at a reasonable cost (Wamukhoma, 2014).

2.5.4 Credit Risk Management

This is a systematic approach to risk assessment, using monitoring methods to handle risks. The strategies involved are: insurance, reducing risk, mitigating risk, and embracing risk. Credit risk assessment involves a two-step process involving: the identification of the risk vector and the quantification of risk using statistical models (Tabari & Emami, 2013). Credit risk management is a comprehensive approach to risk management, the application of compliance techniques, and the use

of risk reduction management methods. Risk reduction is a two-stage cycle (Tabari & Emami, 2013). The first is to define the risk vector because it must be the main factor that triggers variables.
One is the development of risk quantification approaches using statistical models to explain the risk profile of the instrument (Nyandema et al, 2016).

2.5.5 Inflation Rates

The inflation rate is the second external determinant associated with commercial banks' performance because when the inflation rate is high-interest rate is high also and affects banks' performance. The low purchasing power of people occurred when there is a high inflation rate therefore the money that people remain for saving in banks and invest will be used for purchasing basic needs. This situation means that the numbers of people deposit money for saving in the bank will decline so the bank won't have enough cash reserve forgiven loans to peoples which lead to the reduction of bank profitability and poor performance. The high inflation rate forced people to take out their savings money from commercial banks because peoples use more money for consuming basic needs. This means that banks will face a shortage of funds, due to a shortage of funds banks cannot give loans to the people and commercial banks profit mostly derived from interest earned from the loan. Therefore, high inflation rate reduces commercial banks' profitability (Murerwa, 2015).

2.5.6 Interest Rates

One of the external determinants that increased financial results for commercial banks is the interest rate. Different research has been done to assess the relations between the interest rate and financial performance of commercial banks and the result shows that there is a positive relationship that shows an increase in interest rate leading to an increase in the financial performance of commercial banks. Commercial banks provide loan to the people so raise in interest rate reduce the demand of people to borrow money from banks and for the customer who has a loan already will be difficult to return the loan with high interest on time, this will affect banks profitability and performance. Always people prefer taking a loan from an institution whose interest rate is small rather than borrowing money from a bank that has a high-interest rate. A high-interest rate reduces profitability as well as the performance of the banks because people won't take loans (Murerwa, 2015).

2.5.7 Gross Domestic Product (GDP)

The gross domestic product is one of the fundamental measurements of the overall economic performance and this measurement is used by taking the whole economic activities within a specific country so these two concepts linked to each other such as an increase in economic activity lead gross domestic product to grow. Improvement of human beings' living standards is caused by an increase

in economic activity and when economic activity increased people can be in a position to interact with banking activities. This means that banking profitability and overall performance will expand due to more transaction of money exchange will take place (Murerwa, 2015).

A high level of the Gross domestic product indicates the high economic level of activity in the country results in an improved standard of living for peoples. High levels of economic activities lead peoples to afford to buy the basic needs as well as also have the remaining money for saving and investing more and mostly peoples use commercial banks as their safe way of keeping their money. Commercial banks used money that customers saved for business such as to invest more and provide loans to the peoples to increase bank profitability (Murerwa, 2015).

2.6 Crisis Management Plan

According to Mitroff (2006), crisis management is first and foremost about prevention. In fire fighting terms, it means putting in place strong fire safety codes, smoke alarms and behaving responsibly. However, no matter how good such policies look on paper, economic externalities, and endogenous developments in financial markets or stochastic factors can trigger economic problems. The challenge at this stage is to contain the crisis, limit damage, stop widespread contagion and restore confidence through risk mitigation. In the fire example, it involves stopping it from spreading using hand-held fire extinguishers, fire blankets and fire doors. In the banking sector, this means planning for the unforeseen as highlighted earlier. Various scenarios have to be acted and management has to ensure that there is a workaround in the event of a crisis. Sometimes, even the best containment efforts can fail and the crisis deepens and spreads.

2.7 Stress Testing

According to Njanike (2009), stress testing for market and interest rate risk has been practiced for several years but stress testing on credit risk has emerged more recently. Given the rapidly changing environment, investments in Information Technology (IT) are now necessary to enhance the timely availability of risk information that will enable quality analysis and assessment of stress situations (Rajan, 2005). An organization that invests in liquidity risk management information systems find it easier to automate most of their processes and forecast balance sheet needs of their business units (Njanike 2009). Stress testing is a ‘what if’ scenario that is based on assumptions (Hereth, 2000). For instance, in liquidity management, the bank may stress an 8day period on their capability of meeting customer payment demands in the event of either an internal or external negative publicity on bank or banks. In this case, the bank is assessing the convertibility of certain products into cash to meet customer payments.

According to the Basel committee article on stress testing (2010), the involvement of the board and senior management in stress testing issues is critical. Management should be involved from the setting of stress testing objectives all the way to decision making using the stress numbers from the defined stress scenarios (ibid). The Bankers magazine (October 2011), supports the same idea of senior management involvement and made statements that the banks that were highly exposed to the Global financial crisis of 2008 survived because senior management took an active interest in the whole process of stress testing and made sound decisions based on accurate stress information.

2.8 Understanding Risk

According to Pyle (1997), implementation of risk management differs significantly between banks, but there are some broad principles on which most can agree, for instance, the RBZ has the Risk management framework (RMF) popularly known as the BSD number 1 of 2006 and Zimbabwean banks are expected to use it as a guide. The RBZ RMF is built from the Basel committee documents whose objectives are to raise risk awareness to bankers, guide banks on risk management, etc, in an effort to protect depositors' funds and keep the banking environment sound. It is important to ingrain a risk culture and to know the Basel accords if banks are to remain on top of the situation.

2.9 Risk Culture

The board and management should consciously promote a responsible approach to risk and ensure that the long-term survival and reputation of the bank is not jeopardized while expanding the Bank's market share (Miccolis, 2002). This effectively means, the way the bank should be run comes from the top. The responsibility for risk management in the bank is fully vested in the Board of Directors which in turn delegates such to senior management and all the way to the junior staff (Knight & Pretty, 2008). It is important to tell staff to pay attention to both quantifiable and unquantifiable risks because the two are equally likely to cause bank failures. Last but not the least, the bank should always avoid products, markets and businesses where it cannot objectively assess and manage the associated risks. In other words, the bank should not venture where it cannot see in terms of risk or pitfalls.

According to the Banker Magazine (January 2012), a few people deny the fact that bank boards were as culpable as their senior management in failing to spot the dangerous levels of risk building within the banks in the lead-up to the global financial crisis. In the buoyant lead-up to the crisis, many banks grievously underestimated the levels of risk to which they were exposed. Some failed to aggregate concentrations of subprime mortgage risk across many different business areas and, as the boom progressed; value-at-risk. Models based on insufficiently long data histories pulled many into a false sense of security. Even Basel II internal rating based models proved misleading when a point-in time

rather than a through-the-cycle methodology was used. As banks rushed to sell good assets, liquidity problems emerged in unexpected places (Hopkin, 2010)

.

The above scenarios prove that risk culture was not as embedded as it is now. A set of principles designed to promote a consistent and effective risk culture, run from the top. The Banker Magazine (January 2012), reiterates that Risk management is the responsibility of senior management, particularly the Chief Executive Officer (CEO), and the board has an essential oversight role. Boards should set, and regularly review, goals for risk appetite and strategy, and monitor performance over time. Risk management should be the direct responsibility of a chief risk officer, with enough seniority and independence to do the job properly (SCB Risk Radar, 2010). It should not be overdependent on particular models or a single methodology, and models should not be a substitute for 'thinking'. It should avoid the silo approach and aggregate risk across the firm, while making sure governance structures are implemented at an operational level. Finally, banks should stress-test more consistently and comprehensively, taking into account exposures and aggregations that may have been previously overlooked. Stress testing results should have a meaningful impact on business decisions (ibid).

According to an SCB Risk Radar (2009), it is important for banks to draft a document that is commonly called a Product Programme Guide (PPG) that allows all forms of risk to be assessed on a product before it is launched. Apart from risk assessment, the PPG also describes the product itself, the customer base and it allows mitigating factors to be documented. Above all, the product programme is signed off at high level as evidence that all stakeholders are happy before product launch.

2.10 Reasons Why Banks Continue to Fail

According to an SCB bank failures survey, (2011), over 2000 banks or financial institutions, many of these in advanced economies, failed or nearly failed over the past 40 years. The major causes of the failures were;

A. Hidden or ignored concentrations which, by themselves, seldom lead to failures. Failures occur as these concentrations are brought to the fore with the occurrence of unexpected externalities. The global financial crisis of 2008 started with mortgage lending bubble.

B. Failure to revaluate risks in the face of fundamental changes in competitive, monetary or regulatory landscape. People fail to notice the changing environment that requires an equal change in risk management.

C. Success-breeds-failure syndrome - a condition characterised by people or organisations continuing with a once successful strategy, often with deepened commitment, in the hope of producing spectacular results. This is mostly common in Treasury departments where positions keep increasing hoping to make a bigger kill because they (traders) previously made more with a smaller position.

D. De-emphasis of risk management functions due to excessive management focus on business growth, profit generation or a total slackening approach to risk management.

E. Regulatory failure due to lax, misdirected or anachronistic regulations.

F. Risky Business Strategy – This was evident in Zimbabwe during the hyperinflationary period as banks employed survival strategies, most of which were outside the banking core business.

G. Fraud – Banks lose money through internal direct or indirect stealing by staff members. The banks can fail especially where huge amounts are involved. News of fraud also contributes to bank-runs.

H. Contagion effects from crisis at other institutions with similar business strategies or portfolio profiles. Political interference prevents the bank from taking sound business decisions. An unstable political environment also makes banks lose focus. There are many reasons that lead to bank failures. Risk managers try and tighten controls on an on-going basis but unique reasons always come up and cause a downfall to unsuspecting banks (Gruening, 2009). Non-performing loans alone can cause distress.

2.11 Role of main risks in bank failures

The importance of operational risk management and controls is highlighted by the collapse of Barings in February of 1995. According to Borodovsky (2000), Britain's Board of Banking Supervision concluded that Barings' failure was due to immense losses from unauthorized and hidden derivatives trading of an employee of Barings Futures Pte. Limited in Singapore, that went virtually undetected by management. The trader (Nick Leeson) had been left unsupervised in his dual role as head of futures trading settlements. Barings bank’s failure to independently monitor the trader's activities as well as its failure to separate front and back office functions created operational risk which resulted in large losses and, ultimately, the total collapse of the firm. Similar poor management led to even larger losses at Japan's Daiwa Bank Ltd. ("Daiwa") in the bond market. In 1995, it was discovered that a bond trader at Daiwa was able to conceal approximately $1 billion in trading losses because of

his access to Daiwa's accounting books. As with Barings, the Daiwa trader was in control of accounts as well as trading activities and again, operational risk was not under o control here.

Separation of trading and support functions, a fundamental risk management practice, was violated in both. According to Hanley (2005), an example of the danger inherent of market risk is highlighted in the bankruptcy of Orange County. Orange County's Treasurer used the Orange County Investment Pool's resources to invest in a significant amount of derivative securities, namely "structured notes" and "inverse floaters". When interest rates rose, the rates on these derivatives securities declined along with the market value of those notes (since they were at rates below those generally available in the market). This resulted in a $1.7 billion loss to the Orange County Investment Pool.

2.12 Foreign Exchange Risk Management Practices

Foreign exchange risk refers to the likelihood that unexpected change in exchange rates will alter the home currency value if foreign currency cash payment and receipts are expected from a foreign source. For instance, a sudden depreciation of the Kenyan Shillings against the USD can increase the cost of servicing an obligation especially for business whose input resources are imported. Taggert and McDermott (2000) assert that forex related firms are subject to foreign exchange risk on the payables and receipts in foreign currencies. They define foreign exchange risk practices as a program of assessment (identification and quantification) and counterstrategies to mitigate exchange rate risk and save firm`s economic value. Kirt further adds foreign exchange risk is a financial risk to manage value creation and loss prevention in a firm by internal and external financial tools. According to Featherson, Littlefield and Mwangi (2006), forex risk arises when fluctuation in the relative values of currencies affects the competitive position or viability of an organization. If financials of a firms project are exposed to forex risk, then they depend on unanticipated exchange rates changes. Generally, companies are exposed to, Transaction exposure, Economic exposure and Translation exposure (El-Masry, 2006; Salifu et al, 2007).

Transaction risk occurs where the value of the existing obligations are worsened by volatility in the forex rates. Transactional exposure arises from future cash flows and where the value of existing obligations are affected by changes in forex rates. Economic risk relates to adverse impact on entity income for both domestic and foreign operations because of sharp, unexpected change in exchange rate. Translation exposure occurs through currency mismatch and it is related to assets or income derived from offshore enterprise (Madura, 2003). Forex risk comes about as a disparity between the

assets held by a bank and the loans that fund its financial position. An unexpected depreciation of the local currency against the USD can dramatically increase the cost of servicing debt relative to revenues. The creditworthiness of the bank (hence the ability to raise new funds) can also be negatively affected and even generate a negative net revenue which are serious for the long-term financial stability of the bank (Moles, 2002). Banks are more vulnerable to forex risk in developing countries where the risk of currency depreciation is high. Forex risk practices differ among banks depending on aspects such as the company‟s size, the nature and complexity of its activities. However, a broad forex risk plan should deal with at least good management information systems, contingency planning, and other managerial and analytical techniques.

Forward Contracts

Currency forwards are defined as a contract for buying currency for future delivery at a price set today. Forex forwards help investors manage the inherent risk in currency markets by predetermining the rate and date on which they will purchase or sell a given amount of foreign exchange. The portfolio is thus protected against a possible depreciation and there are no additional costs from doing a spot trade. Deliverable forwards (outright forwards) are contracts that are settled with the physical delivery of the foreign currency while nondeliverable forwards are settled by cash for the gain or loss on the value of the contract. Bodnar and Gebhardt (1998) indicate that the most frequently used method is forward contracts. Forwards fully hedge a firm‟s exposure. Conversely, some risks including settlement risk that exchange rate moves in the reverse as forecast, and counterparty risk where the other party is unable to perform on the contract, the high cost of forwards will sometimes prevent firms from exercising this tool to fully hedge their exposures.

Cross-Currency Swaps

Sun et al (1993) say that currency swap is where counterparties exchange equal initial principal of two different currencies by spot rate, though a costly third party offsets default risk. In general terms, a currency swap is when two parties agree to exchange payments denominated in one currency for payments denominated in another. The aim is to eliminate cash flows scheduled in an undesired currency with flows in a desired currency to raise capital in currencies of no significant revenues. Having raised the capital however, the company may wish to swap its repayment into a currency in which it has future operating revenues.

Options

Currency option is a derivative where the owner has the right but not the obligation to exchange money denominated in one currency into another currency at a pre-agreed exchange rate on a specified date. An option is a unique financial instrument or contract that confers upon the holder or the buyer of the option, the right, but not the obligation, to buy or sell an underlying asset, at a specified price, on or up to a specified date. This is to say that the option buyer can simply let the right lapse by not exercising it. On the other hand, if the option buyer chooses to exercise the right, the seller of the option has an obligation to perform the contract according to the agreed terms. The asset underlying a currency option can be a spot currency or a futures contract on a currency. An option on a spot currency gives the option buyer the right to buy or sell the said currency against another currency, while an option on a currency futures contract gives the option buyer the right to establish a long or short position in the relevant currency futures contract. Options on spot currencies are commonly available in the interbank over-the-counter markets, while those on currency futures are traded on exchanges (Bodnar & Richard, 1998). It thus avoids potential exposure as counterparties have free and open choice to trade currency amount at specified rate before expiry date.

2.13 Chapter summary

This chapter highlighted the literature review and theoretical framework. The review of literature included highlighting the perceptions of the scholars on exchange rates, risk management, bank performance as well as knowledge from some case studies undertaken by the scholars. The next chapter describes the research plan. It examines the methods which were employed in undertaking this research as well as highlighting the research design, study population, sampling, data collection, ethical issues, feasibility and the limitation and delimitations of the study. The next is Chapter 111 focusing on Research Methodology.

Chapter three

Research methodology

3.0 Introduction

This chapter presents the methodology used for this research and it provides the details on the research design, target population sampling techniques, the research instruments used in the data collection and information gathering methodology. Data presentation and analysis procedures are elaborated herein. The chapter seeks to address the research issues identified in chapter one and the overall research plan to data collection.

3.1 Research philosophy

A research philosophy is influenced by the beliefs that a researcher holds about the nature of reality and the researcher's view of what constitutes acceptable knowledge (Saunders, Lewis & Thornhill 2009). As stated by Saunders *et- al*, (2003), if the positivism approach is undertaken, the investigator would claim to be external to the course of gathering data. This is due to the fact that there is little that can be done to alter the substance of the data collected. In this case, the researcher is independent of and did not affect and cannot be affected by the subject of the research. For the purpose of this study, a positivist philosophy was adopted. This is because there is need to produce conclusive results on the issue thus the research seeks to obtain evidence objectively. This study seeks to ascertain the assumptions established from existing philosophies. The paradigm is perfect for examining the discursive implications of exchange rates and risk management on bank performance.

3.2 Research design

This research employs the quantitative research design. Commenting on the importance of a research design, Zikmund cited by Pandey and Pandey (2015:18) defines a research design "as a master plan for analysing the needed information". O' leary (2017) asserts that quantitative approach is an approach to research highly reliant on quantified data (numerical data as well as concepts we code with numbers). Denzin and Lincoln (2005) define quantitative research as a methodology that makes useful descriptions of observed phenomena and explains the possible associations amongst descriptive surveys, longitudinal incidences, correlational and ex- post aspects investigation designs. By way of a quantitative approach, confirmations are thus evaluated and also theories are refined and tested (White 2000). Quantitative research design can be experimental or non-experimental (Welman *et- al* 2007). With experimental designs there can be some form of intervention while non-experimental designs do not have any planned interventions. The research will use the correlation quantitative design. This research is quantitative in nature. Quantitative research only seeks precise measurements and analysis of target concepts in order to answer research questions and it makes it an objective approach to measuring phenomena (Shuttleworth, (2008). According to Creswell (2013), quantitative methods involve the process of collecting, analysing, interpreting, and writing the results of a study. Therefore, a quantitative research design is relevant for this study as it explores experiences, operations and perspectives of bank employees on the implications of exchange rates and risk management on bank performance.

3.3 Target Population

Target population is the total collection of all units of analysis, which a researcher wishes to consider for specific intended study (Rugenyi & Bwisa, 2016). Population is a complete set of components,

persons or objects that have some common features well-defined by sampling ways put in place by the researcher. Population is the whole pool from where a statistical sample is drawn (Kenton, 2019). Saunders, (2007) agrees by uttering, population is the whole set of cases from which a sample is drawn. The target population of the research constitutes 8 commercial banks in Zimbabwe Harare central business centre (cbd) namely CBZ, Barclays, Standard Chartered, Stanbic, ZB Bank, ZABG, BANCABC, ECOBANK.

3.4 Sample size

Adam (2020) avers that it is impossible to make accurate inferences about the population when a test sample does not truly represent the population from which it is drawn due to sample bias, this makes the appropriate sample size important in survey research. The sample of this research was calculated by using Taro Yamane (Yamane, 1973) formula with 95% confidence level. The calculation formula of Taro Yamane is presented as follows;

$$n = \frac{N}{1 + N(e)^2}$$

Where: n= sample size required

N = number of people in the population

e = allowable error (%)

The substitution will be as follows;

N= 100

e=0.05

Thus n= 80

3.4 Sampling technique

The method opted for the current study is non probability sampling. Under this sampling method, the researcher adopts purposive sampling method. The number of potential interviewees is determined by the research question, as well as by accessibility to and availability of experts (Bazeley 2017). Sharma (2017) avers that Purposive sampling reflects a group of sampling techniques that rely on the judgement of the researcher when it comes to selecting the units (for instance, people, case/

organizations, events, pieces of data) that are to be studied. According to Denzin and Lincoln (2005), purposive sampling involves grouping of participants according to preselected criteria appropriate to a particular research question. Purposive sampling affords the researcher to select cases or participants that would be best, enable one to answer the research questions in detail and to meet the research objectives (Saunders et al., 2012:283). Purposive sampling is ideal for this research because it allows the researcher to collect relevant and specific information from the targeted participants relevant to the interpretation and analysis on exchange rates and risk management on bank performance.

3.5 Data Collection Instruments

Questionnaires were used to collect quantitative data. Cannel and Kahn (2008) defined a questionnaire as a list of questions which are carefully documented and given to a respondent to answer. A self-administered questionnaire was applied. According to Creswell (2017) a self-administered questionnaire (SAQ) refers to a questionnaire that has been designed specifically to be completed by a respondent without intervention of the researchers. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents (Uyangoda, 2015). A questionnaire has a number of advantages. The researcher used questionnaires because they were relatively easy to analyse a large sample of the given population and could be conducted at relatively low cost, they are simple to administer and the format was familiar to most respondents. The questionnaires enabled the researcher to get information from individuals on issues that were difficult to obtain in an interview setting both open and closed questions were used so that the problem questions could be thoroughly answered. Open ended questions gave the participants enough time to read through questions and elaborate on the answers in own words. However, one of the disadvantages of a questionnaire is that, it the respondents may misinterpret the questions asked hence the researcher may get distorted information.

3.6 Validity and Reliability of Research Instruments

- **Validity**

3.6.1 Pilot testing

Flick (2013) described a pilot study as small-scale study conducted before an actual study in order to reveal defects in the research plan. In pilot studying or pre-testing, the data collection instruments are tested before the actual study. The open-ended questions were pre-tested first before starting the data collection process. The pilot study was used to identify items in the open-ended questionnaires and semi-structured interviews that were ambiguous or unclear to the respondents and hence changed or

modify them. The pilot study also helped the researcher to familiarise himself with the administration of the instruments. The purpose for piloting was to check for 'clarity and relevance of the research tools so that any necessary amendments could be done, if necessary, in preparation of the main study' ((Merriam, 2015). After carrying out the pilot test, necessary corrections were made before the actual data collecting exercise commenced.

Reliability

According to Saunders *et al*, (2009), reliability is defined as the extent to the questionnaire yields consistent research findings. It relates to the credibility of the findings (Welman *et al*, 2007). Reliability means consistency or repeatedly over a time of study (Greener, 2008). Therefore using the same research instrument should repeatedly give the same results. Findings should be the same regardless of different settings or different assessors conducting the study, (Trochim 2000). The researcher minimised participant bias through ensuring anonymity of respondents. The researcher w also reduced bias through the use of a self-administered questionnaire to all respondents. Cronbach's alpha reliability test was conducted on all the questions on the questionnaire. Values less than 0.6 will considered poor, 'those within the range of 0.7 are considered satisfactory while values above 0.8 are good', Sekaran, (2010).

3.7 Data sources

- **Primary data**

Primary data is the original data collected by the researcher for the purpose of his or her own study at hand and they come from first occurrences of a piece of work (Zayton, 2004). According to Kothari (2004), primary data is that which happen to be original in character and specifically for the study, where there has been little if any processing and is therefore collected for the first time. Primary data for this research was collected by means of questionnaires. The justifications for use of primary data sources include the following: the data is original and is found to be relevant to the current research; Primary data is authentic and more reliable. With primary data, interpretation is better and specific research issues are addressed. Data gathering can be controlled by the researcher; the researcher does not depend on stored information like archives thus proprietary issues can be addressed (Yin, 2018). Primary data is relevant for this study to provide an informed in-depth analysis on the subject matter in question.

- **Secondary Sources**

Secondary data is data gathered and collected prior to and for the purpose other than this project. Secondary data is that which have already been collected and processed for a certain Purpose. O' Leary (2015) asserts that secondary data is pre-existing data in print and online., Examples of secondary literature sources include books, magazines and newspapers, journals and other publications**.** The justification for the use of secondary sources of data is to provide vital information pertaining to risk management, bank performance and exchange rates. Secondary data for this study was sourced from academic journals, textbooks or articles (both online and in print).

3.8 Data presentation and data analysis

Quantitative data for this research is presented in pie charts, tables and bar graphs. Quantitative data measure uses different scales, which can be classified as nominal scale, ordinal scale, interval scale and ratio scale. Often (not always), such data includes measurements of something (Kabir, 2016). Data to be collected from the questionnaires will be processed first before being analysed. Walliman (2011) refers to data analysis as summarising the mass of collected raw data and to display it in a way which enables one to detect patterns and trends. Questionnaires used for collecting data for this current research was screened for anomalies and coded with numbers assigned to each. Statistical package for social sciences (SPSS), a software package meant for analysis of social science data was used to analyse quantitative data. Data was statistically analysed by means of the Statistical Package for the Social Sciences (SPSS) version 21. The linear regression was performed, to determine statistically significant relationships between the behavioural intention and actual usage. A p-value of less than 0.05 was selected for the statistical effect of the results. Multiple regression analysis was performed to strengthen and give the direction of the hypothesized relationships.

3.9 Ethical issues

Research is guided by a set of research ethics, and these research ethics create the frame of reference which guides ethical considerations. Ethical consideration ensures that research is carried out within parameters of right and wrong, to enhance the integrity of the research and reliability of the findings. Akaranga and Makau (2016) assert that to avoid exploitation of humans, the Nuremberg code of 1948 was promulgated. Ethical considerations implore researchers to consider what is right or wrong and guide their conduct during research in a way which does not violate the rights of others. This echoes the sentiments of moral obligation to the participants and the social work profession. Research participants are not passive beings who just serve the purpose of giving a researcher the data he needs, but rather they are an indispensable part of the research. This means it is their right to be informed on the purpose of the research, that it is not compulsory to participate, also the respondents ought to

know how the information will be stored and that their reservations or queries regarding the research protocol are very important. The rights to self-determination remain inviolable. Thus, the dignity, rights, safety and wellbeing of participants will be a primary concern in this research.

3.9.1 Informed consent

The participation of participants in research is premised upon volition. Every participant has the inherent right to choose to or not to take part in the research. Additionally, consent should come after the prospective participant has been furnished with all the information needed. Akaranga and Makau (2016) assert that informed consent is when a person knowingly, voluntarily, intelligently, and in a clear and manifest way gives his or her permission or assent to participate. Thus, there is great emphasis on the volition of participants to contribute to the study. The research will uphold the fact that participants have a right to know everything about the research before they choose to or not to take part in it. Upholding informed consent is imperative in that it helped the researcher to gain the buy-in of the participants and they will participate with all willingness which enriches the information the researcher elicits. To ensure informed consent, researcher will issue a written consent form and further made a verbal plea to get the client's informed consent. This will ensure that all participants will be doing so willingly, unwillingness may be a confounding factor in eliciting truthful information about the issue.

3.9.2 Confidentiality

Confidentiality is both a right and an obligation. It is a right to the participant and a mandate for the researcher to ensure that information is not released in ways that can expose the participant to harm of any nature. According to Uyangoda (2015), confidentiality is related to the participants' right of beneficence. Therefore, it refers to the treatment of information shared under the condition that it will not be released in a way inconsistent with the prior agreement with all interested parties. The research will be premised on the dominant approach to confidentiality. This approach asserts that researcher must collect, analyse and present data without compromising the identity of the participants. To ensure that confidentiality will be respected, the researcher will ensure anonymity by using pseudonyms to ensure that during data transcription no participant identity would permeate through to the final information. The ultimate intent will be complete confidentiality for all the participants, which Baez (2002) refers to as the 'convention of confidentiality'.

3.10 Chapter summary

This chapter highlighted the research approach used by the researcher, which was quantitative in nature. It also highlighted the study population which were employees of stated commercial banks . Also, the chapter highlighted the data collection methods which were questionnaires. The chapter then highlighted data analysis, presentation and ethical issues which guided the course of the research. The following chapter focuses on presenting research findings, data analysis and interpretation of results. The next is Chapter IV focusing on data presentation, analysis and discussion.

Chapter 4

Data presentation, discussion and analysis

4.0 Introduction

This chapter sets forth to discuss the findings of the research. The data was garnered from questionnaires distributed to the target population. The findings are presented in a quantitative format in order to allow ease of analysis and understanding. This chapter evaluates various sentiments and suggestions from the sample of respondents in preparation for a conclusive stance in the following chapter. The following are the research objectives that this chapter addresses; (i)to analyse the influence of exchange rates on financial performance of commercial banks in Zimbabwe; (ii) to

determine the causality relations between the exchange rate and the financial performance of commercial banks; (iii) to suggest the possible best practices in bank risk management.

4.1 Preliminary data analysis

This section outlines an overview of the respondent's information for instance their demographic information along with further attributes that permit an enhanced comprehension of the determinants influencing the way they responded.

4.1.1 Response rate

A total of 80 questionnaires were distributed and 68 were successfully filled and returned. This marked a response rate of 85%, which was favourable as suggested by Dommeyer et al., (2004) that a satisfactory response rate has to be 75% and above.

Table 4.1; Questionnaire response rate

Position held	Issued	Received	Percentage
Top management	15	11	73.3
Employers	15	13	86.6
Employees	40	35	87.5
Middle management	10	9	90
Total	80	68	85

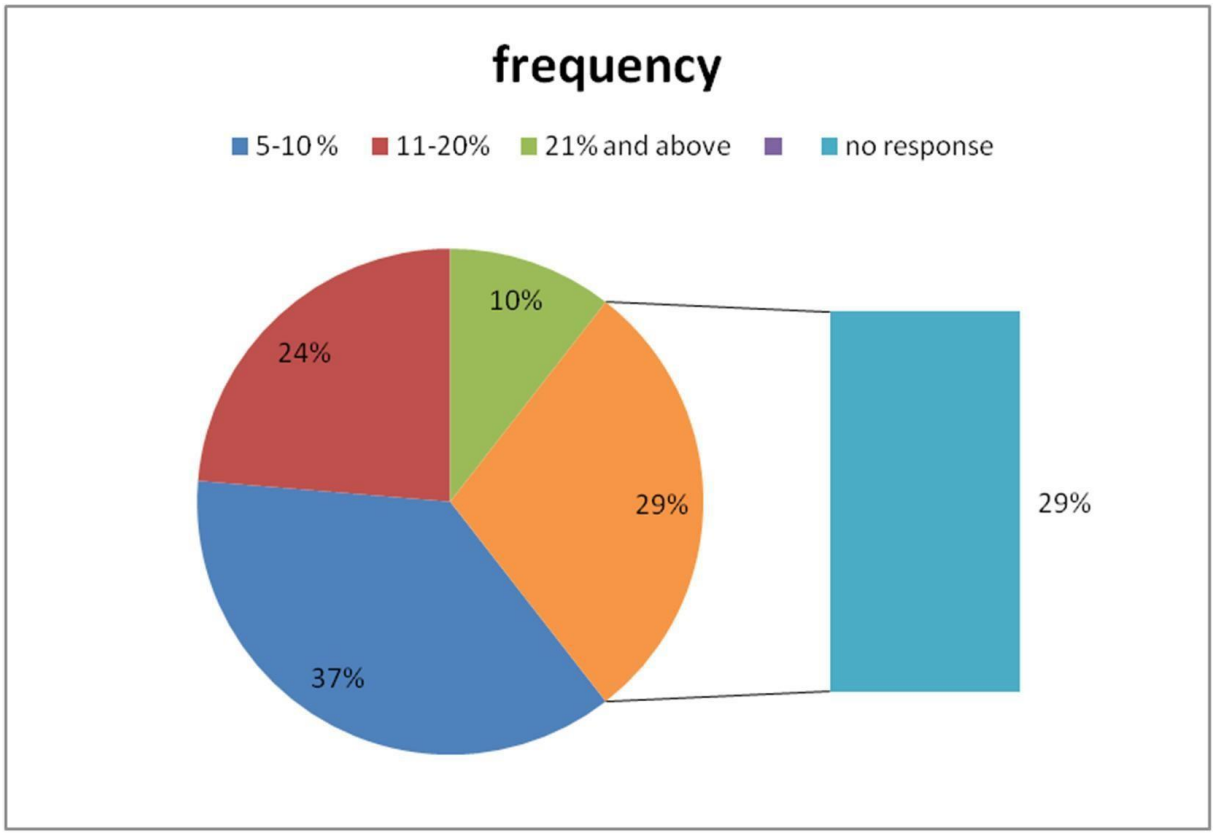
4.1.1 Summary of preliminary Response Rate of the Samples

Category	Branch and departments managers	Head office managers	Total (%)
Sample	30	7	37

No. Responses	27	7	34
Response rate			91.8

The table 4.1.1 shows the overall response rate of the study from the commercial banks branch and head offices managers. This study achieved 91.8% response rate. The response was above the set standard of 65% (Punch 2003). Hence, 91.8% response rate is of great significance in the presentation of the population of the study, high degree of confidence and validity of the findings.

Fig 1: Chart: Frequency account



4.1.2 Gender distribution

Fig 2 shows that the majority of the respondents were men who constituted 57.3% of the respondents and women constituted about 42.7%. This implies that generally in the financial sector there are more of men as compared to women especially in the managerial sector.

Fig 2 Gender response rate

The ratio of males and females in the study is shown in the table below.

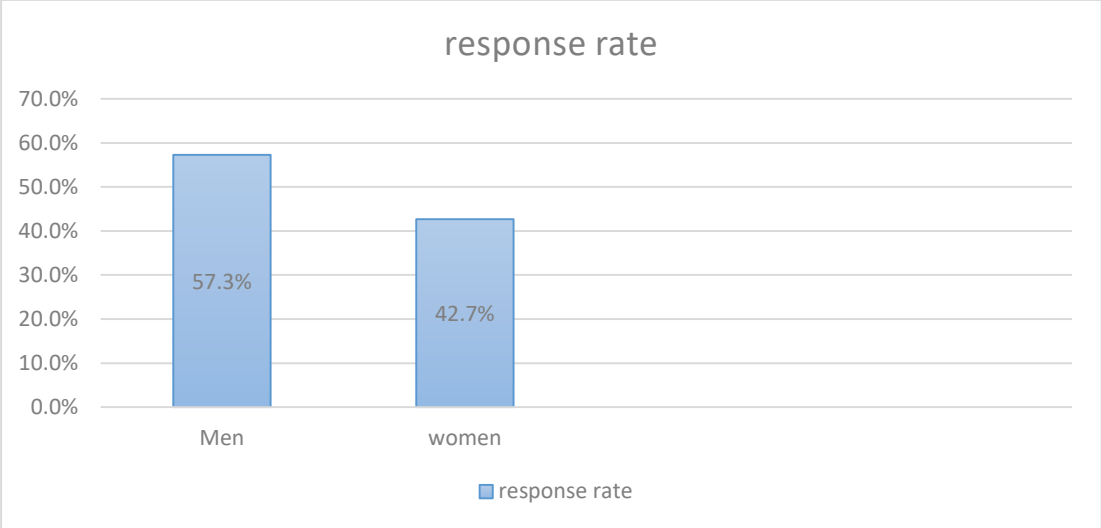


Table 4.1.3 Gender analysis

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Male	46	57.5	57.5	57.5
	Female	34	42.5	42.5	100.0
	Total	80	100.0	100.0	

Fig 3 Working Experience

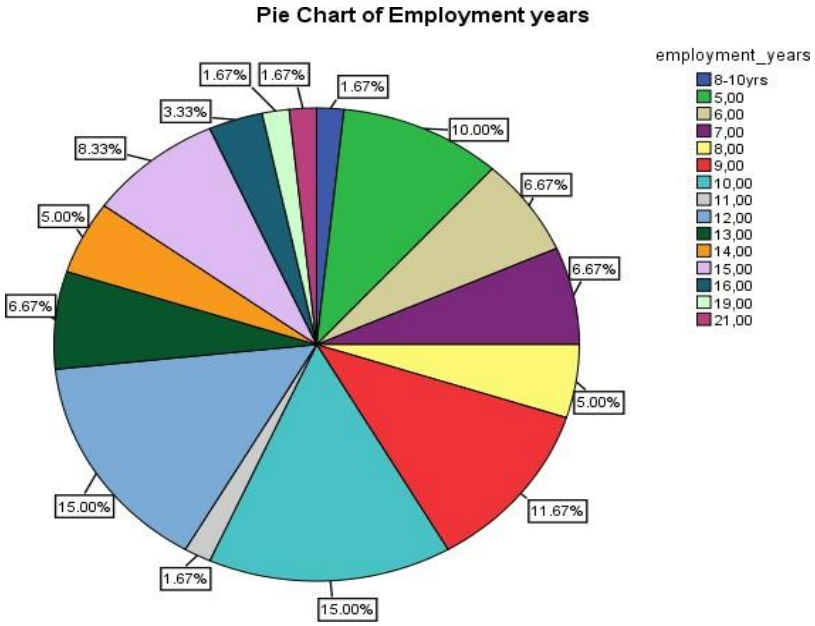
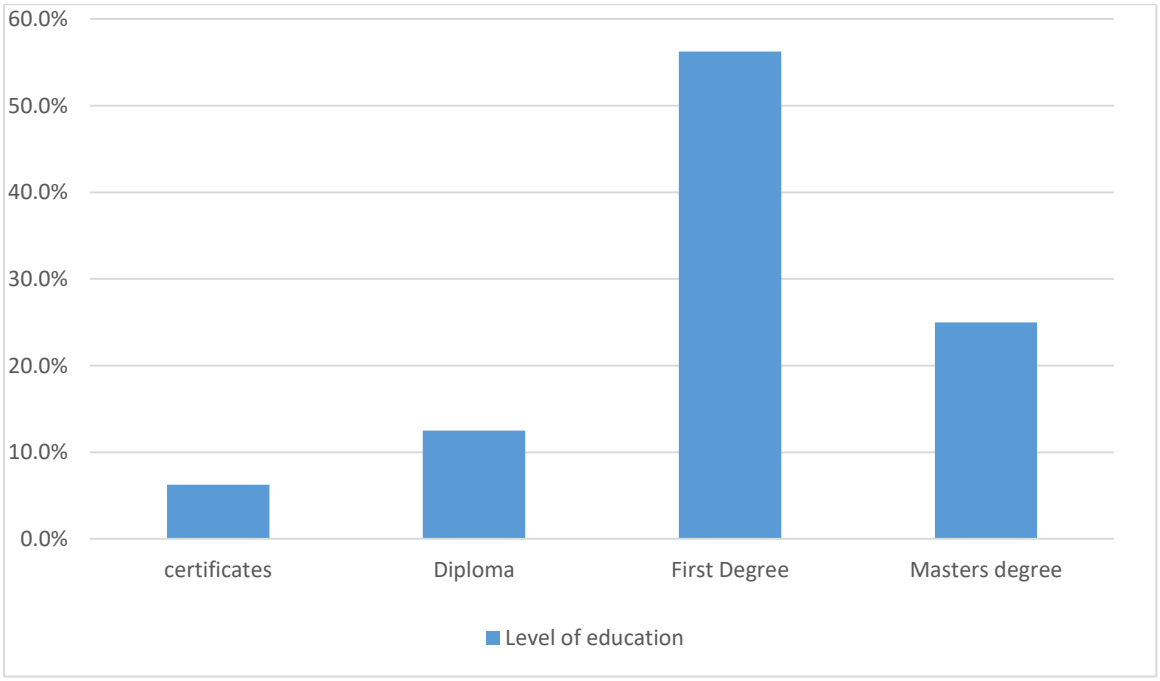


Fig 2 shows that respondents constituting 1.67% have 21 years working experience, with highest number of working experience, respondents with 1.67% have an average of 16 years working experience and respondents with 5 years working experience constituting 10% have least working experience within the banking industry. This implies that respondents in this study had sufficient exposure within the industry to give credible responses on the subject matter in question.

4.1.4 Level of Education

From the responses, it was found that there are holders of first degree with a bigger percentage of 56.25% educated up to the master's level with 25%, also there are those with diplomas holding 12.5% and lastly the rest have certificates in finance and risk management 6.25%. As such, all the banks under study had people with theoretical knowledge of exchange rates and risk management. These results are illustrated in chart below fig4:

Fig 4 shows Levels of Education



4.1.5 Final response

Bank	Population	Sample	Distributed	Responded
CBZ	16	10(62.5%)	10	10(100%)
Barclays	12	10(83.3%)	10	8 (70%)
Standard Chartered	12	10(83.3%)	10	8 (80%)
Stanbic	12	10(83.3%)	10	8 (80%)
ZB Bank	12	10(83.3%)	10	7 (70%)
ZABG	12	10(83.3%)	10	8 (80%)
BANCABC	12	10(83.3%)	10	9 (90%)
ECOBANK	12	10(83.3%)	10	10 (100%)
Total	**100**	**80(80%)**	**80**	**68(85%)**

According to the table above, the total population which was considered from the eight selected banks and out of that 80% were taken as the sample. Next the questionnaires were distributed among the total sample size and it was 100% distribution. The final column indicates the response for the questionnaires and it was considered as sufficient data for the analysis process.

4.2 Key Findings

4.2.1 Exchange rates impact on financial performance of commercial banks in Zimbabwe

Table 4.2.1 Impact of exchange rates on financial performance of commercial banks

To find out the strength and the statistical significance of the association of the independent and the dependant variables, this study used the Spearman's Rank Correlation Coefficient as shown in the table below

		Financial performance
Exchange rate	Correlation Coefficient	0.901
	Sig (2 Tailed)	0
	N	68

The above table shows that there is a statistically significant impact of 0.901 between exchange rate and inflation. Over 80% of the respondents either agree or strongly agree that exchange rates highly impact on the financial performance of commercial banks in Zimbabwe. In this regard, exchange rates adversely impact on the financial performance of commercial banks, therefore leading to less growth.

4.2.2 Profitability and Exchange rate volatility

Table 4.2. 2 Profitability and Exchange rate volatility

Most commercial banks in Zimbabwe's profitability has been affected by exchange rate volatility?	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	23	34	34	34
Agree	21	31	31	65
Neutral	11	16	16	81
Disagree	13	19	19	100
Strongly disagree	0	0	0	100
Total	68	100	100	

Table 4.2.2 shows that 34% of the respondents strongly agree, 31% agree, 16% not sure and 19% disagree on the impact of exchange rate on bank profitability. The results imply that

commercial banks' business profitability is being affected by the effects of exchange rate volatility of USD.

Table 4.2.3 Foreign exchange auction and financial performance

Do you think the usd exchanges and auction system trigger high inflation which results in commercial and financial business failure?	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	27	40	40	40
Agree	22	32	32	72
Neutral	11	16	16	88
Disagree	8	12	12	100
Strongly disagree	0	0	0	100
Total	68	100	100	

Table 4.2.3 shows that 40% of the respondents strongly agree that exchange rate volatility affects the financial performance of commercial banks, 32% agree, 16% neutral and a measly 12% disagree. This means that commercial banks are very sensitive to fluctuations in exchange rates. The findings of the study are in line with findings of Baldwin and Yan (2010) which reveal that real currency appreciation increases the probability of plant death. The plant closures can be explained by falling demand for locally produced manufactures as competition from imported products intensifies. Weller and O'Neill (2012) contend that deindustrialisation is said to become a headache when it involves not only a decline in both output and employment but also when banking losses are not offset by employment growth in other sector.

4.3 Causality relations between the exchange rate and the financial performance of commercial banks

Table 4.3 causality relations between the exchange rate and the financial performance

Exchange rate (Pearson correlation) Sig 2-tailed	**1**	**.399**
N	**68**	**.003**
Financial performance (Pearson correlation) Sig. 2-tailed	**0.002**	**1**
N	**68**	**68**

Is there a symbiotic relationship between exchange rates and financial performance?	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	25	37	37	37
Agree	22	32	32	69
Neutral	8	12	12	81
Disagree	13	19	19	100
Strongly disagree	0	0	0	100
Total	68	100	100	

There is high evidence to support the notion that there are causality relations between the exchange rate and the financial performance. The above table indicates that there is high substantial positive impact between the exchange rate and the financial performance of commercial banks; r= 0,399, p>0.003 reflecting the significance of the impact.

4.4 Possible best practice in bank risk management.

There is no one formula for survival in the banking industry. From the researcher's experience, banking is a zero-tolerance area when it comes to the conduct of bank business. This means that banks should always operate within guidelines and spelt out statutes. There are certain documents such as the Internal Capital Adequacy Assessment Process (ICAAP), the Crisis Management plan and various other such guidelines that are recommended for each financial institution as a starting point. This research reveals that all Zimbabwe commercial banks have these setups in place. Banks however, continue to fail because they do not do the basics of banking right. Short cuts are a common phenomenon as people focus on revenue at the expense of sound risk management practices. Banks are also losing forecast due to rapid changes in the industry and are simply caught unaware. Undercapitalization and liquidity challenges leave some banks with no other option except to close.

It is therefore a fact that banks should be adequately capitalized, should have trained staff, should do the basics right, should be regularly audited, should be transparent in their dealings, innovative and should obviously move with time. The list is not exhaustive but it is important to be ahead of the changing curve.

4.5 Correlation

		ROA	FORWARDS	CROSS-CURRENCY SWAPS	OPTIONS
ROA	Pearson Correlation	1	5	555	623
	Sig. (2-tailed)		.000	.000	.000
	N	252	252	252	252
Forwards	Pearson Correlation	523	1	-049	670
	Sig. (2-tailed)	.000		756	000
	N	252	252	252	252
Cross-currency swaps	Pearson Correlation	555	-049	1	.038
	Sig. (2-tailed)	.000	756		.808
	N	252	252	252	252
Options	Pearson Correlation	623	.670	.038	1
	Sig. (2-tailed)	.000	.000	.808	
	N	252	252	252	252

On the correlation of the study variables, the researcher conducted a Pearson correlation. From the findings on the correlation analysis between Return on Assets and various derivatives, the study found that there was a strong positive correlation coefficient between Return on Assets and forward contracts as shown by correlation factor of 0.523. The study also found a positive correlation between ROA and cross currency swaps as shown by correlation coefficient of 0.555. The study also found a positive correlation between ROA

and options as shown by correlation coefficient of 0.623. Hence all the derivatives had a position relationship with return on assets as a measure of financial performance.

4.6 Regression analysis

In this section the study presents the research findings on the relationship between various independent variables on the regression model and financial performance.

4.6 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881a	0.776	0.759	2.704

a. Predictors: (Constant), Options, Cross- Currency Swaps, Forwards

From the table above, R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by R 0.881 at 5% significance level. The Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in the table above the value of adjusted R squared was 0.759 an indication that there was variation of 76% on return on assets due to changes in forward contracts, cross currency swaps and options at 95% confidence interval. This is an indication that 76% of the changes in return on assets could be accounted for by the independent variables.

The study found that unit increase in Forward Contracts, while holding other factors constant, will lead to an increase in ROA by 4.513 ($p = 0.027$). This is in line with Bodnar and Richard (1998) who indicated that the most frequently used method is forward exchange contract. With forwards, the firm can be fully hedged. However, some risks including settlement risk

that exchange rate moves in the opposite direction as either forecast, and counter party risk which the other party is unable to perform on the contract, the high cost of forward contracts will sometimes prevent firms to exercise this tool to fully hedge their exposures.

A unit increase in Cross Currency Swaps, while holding other factors constant, will lead to an increase in ROA by 4.728 ($p = .037$). This correlate Sun (1993) who posits currency swap where counterparties exchange equal initial principal of two different currencies by spot rate and comparative advantage. Though a costly third party offsets default risk. The usual aim to replace cash flows scheduled in an undesired currency with flows in a desired currency to raise capital in currencies of no significant revenues.

The study also found a unit increase in Options, while holding other factors constant, will lead to an increase in ROA by 11.154 ($p<.0.043$). This concur with Bodnar and Richard (1998) who indicate that options on spot currencies are commonly available in the interbank over-the-counter markets, while those on currency futures are traded on exchanges. Currency option is a derivative instrument where the owner has the right but not the obligation to exchange money denominated in one currency into another currency at a pre-agreed exchange rate on a specified date. It thus avoids potential exposure as counterparties have free and open choice to trade currency amount at specified rate before expiry date.

4.7 Chapter summary

This chapter was initiated by analysing the samples which were under consideration. The demographics of the data samples, distribution of questionnaire and the final response were presented in tables, pie charts and in bar graphs. The composition of the respondents was briefly introduced. A detailed illustration of responses according to the different variables was given, with supporting statistical analysis. Finally, all findings were presented in a summarised format and conclusions and recommendations would be discussed in the next chapter.

Chapter 5

Conclusion and Recommendations

5.0 Introduction
The thrust of this present study was to explore the discursive implications of exchange rates and risk management on bank performance. This final chapter summarises the study and concludes the findings for each objective. Recommendations are also included and it is hoped that they will be of great use in Zimbabwe banking industry.

5.1 Conclusions
On the correlation of the study variables, the researcher conducted a Pearson correlation. From the findings on the correlation analysis between Return on Assets and various derivatives, the study found that there was a strong positive correlation coefficient between Return on Assets and forward contracts as shown by correlation factor of 0.523. The study also found a positive correlation between ROA and cross currency swaps as shown by correlation coefficient of 0.555. The study also found a positive correlation between ROA and options as shown by correlation coefficient of 0.623. Hence all the derivatives had a strong position relationship with return on assets as a measure of financial performance.

There was a strong positive relationship between the study variables represented by R 0.881 at 5% significance level. The adjusted R squared was 0.759 an indication that there was variation of 76% on return on assets due to changes in forward contracts, cross currency swaps and options at 95% confidence interval. This is an indication that 76% of the changes in return on assets could be accounted for by the independent variables. The F critical at 5% level of significance, 3 d.f, 251 d.f was 2.6049, while F computed was 13.733, since F calculated is greater than the F critical (value = 2.6049), this shows that the overall model was significant. Hence forward contracts, currency swaps and option have an effect on financial performance of commercial banks.

From the regression equation above it was found that holding forward contracts, cross currency swaps and options to a constant zero, return on assets would be 2.951. A unit increase in forward contracts would lead to improvement on return on assets by 4.513 units. A unit increase in cross-currency swaps would lead to improvement of return on assets by 4.728 units and a unit increase in options would lead to improvement on return on assets by 11.154 units. Overall options had the greatest effect on return on assets, followed by cross currency swaps then forward contracts.

The research summarises that banks use different risk management tools, techniques and assessment models to manage their risk. It is however, noted that models are good but they should be complimented with qualitative information, that is, acceptable reasons why things are happening this or that way. The models should also be back-tested and over-reliance on the models is a recipe for disaster as models are not sensitive to all changes, for example, inflationary pressures. Furthermore, the study also shows that a comfortable level of capital is good but much higher capital requirements paralyse some institutions as evidenced by past bank failures locally and abroad.

Since the purpose of capacity building is to improve knowledge, skill and attitudes to job satisfaction, the banks provide training for employees at least once per year as agreed by most of the respondents. Product knowledge as well as industry trends are therefore key to avert a scenario where a bank fails due to competition.

5.2 Recommendations

Based on the findings, the researcher would recommend that the banks could establish a risk management team that should be responsible for the following actions that will help in minimising risk:

• Establish external credit rating agencies to obtain the true information of the clients and use modern credit evaluation techniques like Altman Z score. Furthermore, banks should invest in information technology to store the data and ensure the information is available when needed at the click of a button.

• Since credit and liquidity risks were singled out as the most important risk types that will easily fail banks, information about the bank ‘s credit exposure and liquidity gaps must be presented to management in time. In addition, banks should grant approval authority to qualified and experienced individuals.

• As part of corporate governance, policies and standards that conform to regulatory requirements and bank operations in general should be followed through on a regular basis. This includes prudent lending with adequate capital. The culture of performing independent dip-sticks by fellow employees, auditors and regulators should be an ongoing event. Ideally, the Central Bank should make time to inspect financial institutions even when there are no signs of distress. Best practice dictates that audits be done at least annually.

• Local banks should embrace modern risk management techniques and fully adhere to Basel accords and any further promulgations. This includes abiding by disclosure requirements as lack of transparency will not correct the situation but worsen the position that might lead to bank failure.

• Risk managers should form a body similar to Dealers' forum where risk developments and best practices are shared.

5.2.1 Policy Recommendations

- The study recommends that; foreign exchange risk management should always be taken in to account to improve the banks return on assets and hence overall performance of the banks. Policy makers should undertake to understand risk affecting the foreign exchange markets among commercial banks to improve capital investments to maximize returns of the banks hence overall performance.

The study recommends that commercial banks should engage in Forex trading where the returns are highly maximized since investments in capital projects involve huge investment capital. The banks management should put structures in place so as to enhance returns on capital and assets and in turn maximize returns to the commercial banks.

APPENDIX

1 QUESTIONNAIRE

My name is Zhou Evidence and I am a Banking and Finance student at Bindura University of Science Education. I am conducting research on THE ANALYSIS OF THE IMPACT OF EXCHANGE RATES FLACTUATIONS AND RISK MANAGEMENT ON BANK PERFORMANCE IN ZIMBABWE. A SURVEY OF 8 COMMERCIAL BANKS IN HARARE. (Cbd**)** I am kindly inviting you to complete this questionnaire.

The results of this survey are truly anonymous and as such do not write your name anywhere on this questionnaire. You may answer the questions honestly and as objective as you can be. The findings of this study will be treated as strictly confidential. Please contact me on evidencezhou046@gmail.com , 0784752238 for any questions and clarifications.

Thank you for your cooperation

Zhou Evidence.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender (Please tick)

□ Male □ Female

2. Education level (Tick highest)

□ Diploma □ Bachelors □ Masters

Other (specify) …….

3. Age bracket (Please tick)

□ Less than 30 years □ 30 -39 years

□ 40 -49 year □ Above 50 years

4. Years you been working with the organization (Please tick)

□ Less than 5 years □ 5-10 years

□ 10-15 years □ More than 15 years

5. Department you work in (Tick appropriate)

□ Finance □ Audit □ Risk management

□ advisory □ Mortgage □ Human resource

Other…… (specify)

SECTION B: CORPORATE INFORMATION

How many employees does your organisation have?

□ Below 100 □ between 101 and 500 □ between 501 and 1000

- Above 1000

Section C: PROFITABILITY AND EXCHANGE RATE VOLATILITY.

Rating Scale FOR SECTION C,D,E and D

1= Strongly disagree 2= disagree 3= Not Sure (Neutral) 4=Agree 5=Strongly Agree

	1	2	3	4	5

Most commercial banks in Zimbabwe's profitability has been affected by exchange rate volatility?					

SECTION D: FOREIGN EXCHANGE AUCTIONAND FINANCIAL PERFOMANCE

	1	**2**	**3**	**4**	**5**
Do you think the usd exchanges and auction system trigger high inflation which results in commercial and financial business failure?					

SECTION E. RELATIONSHIP BETWEEN EXCHANGE RATE AND FINANCIAL PERFOMANCE

	1	**2**	**3**	**4**	**5**
Is there a symbiotic relationship between exchange rates and financial performance					

SECTION F. RISK MANAGEMENT AND BANK PROFITABILITY

	1	**2**	**3**	**4**	**5**
Poor risk management (credit) triggers negative performance (profits) of the commercial banks					

References

Adetayo, J. O. (2013). Management of foreign exchange risks in a selected commercial bank, in Nigeria. *Journal of Social Science*, 8(3): 207-13.

Bradley, K. and Moles, P. (2002). Managing strategic exchange risk exposure- evidence from UK Firms. *Managerial Finance*, 5(28): 29-39.

Jabara, C. L (2020). *How Do Exchange Rates Affect Import Prices? Recent Economic Literature and Data Analysis*: Working Paper no. ID-21, US International Trade Commission.

Reid, W. and Joshua, D. (2004). *The Theory and Practice of International Financial Management.* Upper Saddle River, NY: Prentice Hall.

RBZ Bank failures review (2021), RBZ Supplement1 63.

RBZ RMF (2019), Bank Licensing Supplement, BSD2

Basil, J. (2019), Risk Management in Banking, 2nd edition, John Wiley & Sons Ltd, West Sussex

Chamberlain, S., Howe, J. S., and Popper, H. (1997), "The Exchange Rate Exposure of U.S. and Japanese Banking Institution", *Journal of Banking and Finance,* 21(6), pp.871-92.

Choi, J.J., Elyasiani, E. & Kopecky, K. (1992). "The Sensitivity of Bank Stock Returns to Market, Interest and Exchange Rate Risks, *Journal of Banking and Finance*, 16, (5) 983-1004**.**

Mbutor, M., (2010), "E*xchange rate volatility, stock price fluctuations and the lending behavior of banks in Nigeria* "Research Department, Central Bank of Nigeria

Jorion, P. (2003), Financial Risk Manager handbook, 2nd Edition. John Wiley & sons 42. John, W. and James, P. (1993), Research Concepts, McGraw Hill 43. Kane, E.J.; Rice, T. (2006), Bank Runs and Banking Policies: Lessons for African

Kendall, R. (2004), *Risk Management for executives*, Prentice Hall

Knight, R. and Pretty, D. (2008), *Philosophies of Risk,* Michigan University Press

Lancaster, J. (2005), *Principles of research in Behavioural science,* 2nd Edition,

McGraw Hill, Montreal 47. Love, N. (2002), *Using Data / Getting Results, Northwood*, MA: Christopher Gordon Publishers.

Mason J.M. (2010), *Future of Risk Management in Banks*, McGraw Hill

Mehran, H. and Thakor A.V. (2011), Bank Capital and Value in the CrossSection, Review of Financial Studies.

Mian, A. and Sufi A. (2009), The Consequences of Mortgage Credit Expansion: Evidence From the U.S. Mortgage Default Crisis, Quarterly *Journal of Economics.*

Miccolis, J.A. (2002), *Enterprise Risk Management in the Financial Services Industr*y, Prentice Hall

Miller, R. (1998), *The Importance of Credit Risk Management,* McGraw-Hill

Mitroff, I. (2006), *The Essentials of Crisis Managemen*t, McGraw-Hill

Rao,K,R,M.&Lakew,T,B.(2012). "Determinants of Profitability of Commercial Banks in a Developing Country: Evidence from Ethiopia". *International Journal of Accounting and Financial Management Research* (IJAFMR).ISSN2249- 6882.Vol. 2 Issue 3 Sep 2012 1-20

Taiwo, O. and Adesola, O.A. (2013), "Exchange rate Volatility and Bank performance in Nigeria *Asian Economic and Financial Review*, 3(2): 178-185.Adam, A.N. 2020. Sample size determination in survey research. *Journal of Scientific Research & Reports*. 26(5): 90-97.

Creswell, J.W. 2013. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* Singapore.SAGE Publications.

Flick, S. 2013. *Pilot Testing*. San Francisco, CA: Jossey-Bass.

Kabir, S.M.S. 2016. Methods of Data Collection. Basic Guidelines for Research.

Saunders, M. 2003. *Research Methods for Business Students*. Pearson Education: Mumbai.

Walliman, N.2011. *Research Methods: The Basics*. New York: Routledge.

O' Leary, Z. 2017.The essential guide to doing your Research project. London: Sage

Uyangoda J. (2015). *Social Research: Philosophical and Methodological Foundations*. Social Scientists' Association. Colombo

Wagner, E. 2010. Survey Research, in Paltridge, B. & Phakiti, A. (eds.) *Continuum Companion to Research Methods in Applied Linguistics*. London/ New York: Continuum International Publishing Group. 22 – 38.

Yin, R.K. (2018). *Study Research Design and Methods,* Third Edition: Sage

RBZ Bank failures to review(2006) RBZ supplement 1