

The Effect of Foreign Exchange Exposure on the Financial Performance of MNCs in Rwanda

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ABSTRACT

Multinational companies that operate in emerging markets like Rwanda must contend with significant risks associated with foreign exchange exposure. The financial performance of these companies can be greatly influenced by fluctuations in currency values. The research aimed to examining how foreign exchange exposure affects the financial performance of multinational companies in Rwanda. The main objective of the research is to investigate the impact of foreign exchange exposure on the financial performance of multinational companies in Rwanda using metrics such as Net Profit Margin. Cross sectional Design was employed. The association between foreign exchange exposure and various financial measures of financial performance has been assessed using statistical analysis of financial data derived from the annual reports of selected multinational companies operating in Rwanda for the period of 2018 to 2022. The targeted population for the research was 50 companies of Multinational companies in Rwanda while sample size of 11 was employed. The study adopted Correlation and Regression Analysis as data analysis technique. The findings of the study revealed that there is no significant influence of foreign exchange exposure on the financial performance of Multinational companies in Rwanda. It was concluded that there is no significant influence of foreign exchange exposure on the financial performance of Multinational companies in Rwanda. The study recommends amongst others that Hedging, insurance, and currency diversifications are examples of currency risk transfer strategies that businesses should employ. It is also advised to use currency swaps, forward markets, and futures markets as instruments to manage foreign exchange risk.

Keywords: Economic Exposure, Financial Performance, Foreign Exchange Exposure, Net Profit Margin, Transactional Exposure, Translational Exposure

INTRODUCTION

The practice of international trade has been a long-standing tradition that spans thousands of years, wherein goods and services are transferred across national borders. It continues to persist in the present era as a vital aspect of the global economic system, contributing to the economic growth, sustenance, and viability of nations worldwide. Given its importance, efforts have been made in recent decades to enhance the permeation of international trade on a global scale by removing or reducing various barriers that may hinder or act as impediments to its expansion and the entry of firms across the world (Ulgen & Inan, 2022). This has led nations all over the world to enter into several accords to encourage the expansion of international commerce. Notably, these agreements include the North American Free Trade Agreement (NAFTA) in 1995, which aimed to ease cross-border trade and promote globalization, the European Union (EU) in 1993, and the General Agreement on Tariffs and Trade (GATT) in 1947, which aimed to eliminate and reduce tariffs, quotas, and other barriers (Sykes, 2023).

Due to these developments, companies have emerged that are engaged in trading and operating on an

international scale (Katerina & Aneta, 2014). In light of the encouragement of international trade through trade agreements, particularly in the aftermath of the Second World War, and the subsequent opening up of global markets by most national economies, companies operating on an international level have been obligated to devote close attention to the financial risks that stem from changes in exchange rates, as posited by Morina et al. (2020). In fact, financial risks that arise from changes in exchange rates have been given a considerable amount of attention, particularly in light of the collapse of the Bretton Woods fixed exchange rate system, which occurred in the early 1970s, as noted by Bartram (2009). This is largely due to the evident fact that the surge in international trade has rendered companies vulnerable to the caprices of foreign exchange exposure.

Foreign exchange exposure broadly refers to the perils that arises due to unstable currency rates and has the potential to affect the functioning of a multinational company (Arize et al., 2018). According to the definition provided by Georgiadis and Zhu (2020), foreign exchange exposure arises when a corporation owns assets or liabilities that are denominated in a foreign currency or when it undertakes business activities in foreign regions. As a matter of fact, Jeon, Zheng and Zhu (2017) suggest that the importance of foreign exchange exposure has grown significantly as a factor that affects companies, given their consequential impact on future cash flows. This is because the values of floating currencies are subject to daily changes and having the tendency to continuously affect a firm's financial performance in terms of its assets and liabilities that are denominated in foreign currencies (Jeon et al. 2017). Financial performance is a concept which is used to refer to the ability of a business to generate profits and optimize shareholder wealth. To assess the financial wellbeing of a company, there are a variety of indicators that can be used. These include return on assets, return on equity, various profitability ratios, liquidity ratios, and solvency ratios (Khan, Nowman & Imran, 2015).

For multinational companies, financial performance is an essential component as it has a direct impact on their ability to attract investors, secure financing, and augment their operations (Mulinya & Olweny, 2019). Multinational companies otherwise known as MNCs are vast companies that have crossed national boundaries, operate internationally, and have intricate organizational structures. They can also be defined as enterprises that own or manage the production of goods or services in one or more countries other than their own (Kim & Milner, 2019). The terms international Corporation, transnational corporation," and "stateless corporation" can also be employed to describe MNCs (Fieldhouse, 2000). MNCs possess significant economic power due to their enormous size. In the modern, globalized world, multinational companies (MNCs) play a significant role in international trade and investment. As MNCs expand their business operations internationally, they are exposed to various risks associated with foreign trade differences, which can considerably affect their financial performances (Kim & Milner, 2019). The potential harm that these risks could cause upon their ability to generate revenue necessitates that MNCs exercise prudence in managing risks. MNCs are also exposed to various unknown trade risks through their dealings with far-flung countries, interests in unfamiliar resources, and transactions involving unknown monetary standards (Kim & Milner, 2019).

Muiru, Kisaka and Kalui (2018) further posits that foreign exchange exposure may also have a bearing on the earnings, costs, and cash flows of multinational corporations (MNCs), along with their overall financial performance. Consequently, over the past 50 years, scholars have given considerable attention to multinational corporations (MNCs) and foreign exchange exposure which are now among the most extensively researched topics in international business (IB) (Quer et al., 2017). In Rwanda, like in many African developing countries, most multinational corporations experience impediments to their success due to foreign exchange exposure (Twesige & Gashega, 2019). The implication of this is that for MNCs prepared to invest internationally, countries in Africa, like Rwanda offer a diverse range of markets, but they risk losing out on opportunities if they are not sufficiently informed about market dynamics (Dipha & Katrodia, 2022). As Rwanda continues to attract more foreign investment, it is highly likely that more

multinational companies will establish offices there. These companies will also have to contend with the risks associated with holding assets or liabilities that are denominated in currencies other than those used for business, which is referred to as managing their foreign exchange exposure.

The effective management of foreign exchange exposure is crucial for maintaining financial stability and competitiveness since alterations in foreign exchange rates can affect the values of assets and liabilities. There has however been limited research conducted on the effect of foreign exchange exposure on the financial result/performance Rwandan multinational companies. For decision-makers and corporate executives, this knowledge gap represents a significant obstacle to developing strategies that will effectively support Rwanda's economic growth. Additionally, little research has been conducted on how exposure to foreign exchange affects developing countries in Africa such as Rwanda. The paucity of related studies highlights the materiality of current findings in developing countries where institutional requirements and financial circumstances necessitate customized solutions to address foreign exchange exposure and financial performance.

Statement of the Problem

The subject of foreign exchange exposure refers to the likelihood of financial risk faced by multinational enterprises consequence to fluctuations in the exchange rates of foreign currencies. The impact of foreign exchange exposure on the financial result or performance of multinational enterprises has been extensively researched and analyzed. This is due to its perceived importance for the global survival of multinational companies, the maintenance of international trade, and the economic evolution of developed and developing countries on a global scale. Despite the potential influence of foreign exchange exposure on the financial result of MNCs in various countries worldwide, there has been a lack of attention paid to emerging economies, especially those located in Africa. In particular, there is a scarceness of research on this topic within the context of Rwanda. Most studies conducted in the Rwandan context have focused on other factors such as business size, capital structure and corporate governance with little on foreign exchange exposure (Twesige & Gasheja, 2019).

As multinational companies operating in Rwanda continue to undertake considerable risk by embracing uncharted trade avenues, internationally, the extent of internationalization, and the methods employed in hedging exchange risks for financial performance all exert a significant influence on foreign exchange exposure. Additionally, the correlation between foreign exchange exposure and financial performance is a complex and intricate phenomenon, which has the potential to yield both favourable and unfavourable outcomes (Twesige & Gasheja, 2019). However, the exact role of foreign exchange exposure on the financial performance of MNCs in Rwanda has not been fully explored. To address this research gap, managing foreign exchange risk requires an in-depth understanding of the issue, as well as tailor-made risk-reduction measures. Hedging has been the most commonly used approach to mitigate foreign exchange exposure, but risk managers and their institutions still struggle to devise effective hedging plans. There is no "one-size-fits-all" solution to foreign exchange issues; multinational companies require a unique hedging strategy to address its specific problem.

On the basis of the above, it becomes imperative to explore the effect of foreign exchange exposure on the financial performance of MNCs in Rwanda. Such research will shed valuable light on the magnitude of foreign exchange risks that MNCs operating in the country confront and help to drive risk-reduction initiatives. Therefore, the primary objective of this study examines the effect of foreign exchange exposure on the financial performance of multinational corporations in Rwanda. This research work is examining the extent to which the financial result or performance of MNCs in Rwanda can be impacted by foreign exchange exposure.

Research Aim and Objectives

The general objective of the dissertation is to examine the effect of foreign exchange exposure on the financial performance of MNCs in Rwanda. The specific research objectives are:

1. To examine the extent to which transactional exposure affects the Net Profit Margin (ROE) of Multinational companies in Rwanda.
2. To examine the effect of economic exposure on Net Profit Margin (ROE) and of Multinational companies in Rwanda.
3. To identify the effect of translational exposure on the Net Profit Margin (ROE) of Multinational companies in Rwanda.

Research Hypotheses

The following research questions were addressed in order to meet the goals of the study:

Ho: There is no significant influence of transactional exposure on the Net Profit Margin (ROE) of Multinational companies in Rwanda.

Ho: There is no significant influence of economic exposure on the Net Profit Margin (ROE) and return on Assets (ROA) of Multinational companies in Rwanda.

Ho: There is no significant influence of translational exposure on the Net Profit Margin (ROE) of Multinational companies in Rwanda.

Significance of Study

The study's findings have significant theoretical and practical implications for understanding the risks associated with foreign exchange exposure and how it impacts the financial performance of MNCs in Rwanda. The study provides an extensive understanding of the intricacies associated with foreign exchange exposure and the financial performance of multinational companies in Rwanda. The research is of great significance for academics and researchers as it can help bridge the knowledge gap on foreign exchange exposure and financial performance in Rwanda, especially as a developing market. Additionally, the study highlights crucial issues that require further investigation by researchers in the future. Since foreign exchange exposure is a concept that is globally expanding, this study has the inherent potential to significantly contribute to the existing knowledge base, assist the academic community, and lay the foundation for future research on foreign exchange exposure and financial performance of MNCs in developing countries in Africa.

The study is also important for several parties, including potential investors who want to open businesses in Rwanda. Investors are motivated to place their money in places or regions that offer high returns. By being made aware of foreign exchange exposure and the probable factors that could affect financial performance among MNCs operating in Rwanda, investors can make wise choices about how to approach the Rwandan business environment. Furthermore, the study will contribute extensively to the existing knowledge base on foreign exchange exposure in emerging economies, an area where limited research has been conducted. The outcome of this research is useful to policymakers who intend to enhance the competitiveness of multinational firms in Rwanda and promote economic growth. Business executives seeking to optimize their financial performance and effectively manage their exposure to foreign exchange will also benefit from the conclusions of this study.

LITERATURE REVIEW

The Concept of Foreign Exchange Exposure

Exposure, a concept that pertains to the probability or likelihood of a modification transpiring in the assets, liabilities, or even both of an entity, consequent to the impact of an exchange rate, is an intrinsic and indispensable element of the worldwide financial system. This assertion is bolstered by the scholarly inquiries undertaken by Muiru et al. (2018), who explicated on the fundamental essence of exposure in the financial terrain. Foreign exchange exposure, conversely, denotes the potential for a corporation to encounter a gain or loss as a direct consequence of exchange rate movements, which can be regarded as a reflection of the macroeconomic environment's uncertainties, encompassing changes in a extensive range of economic and financial variables, such as exchange rates, interest rates, inflation rates, relative pricing, among others (Muiru et al., 2018). For example, the average exchange rate of Rwanda franc to United States Dollars on 4th January 2023 and 30th June 2023 as stated on the National Bank of Rwanda (BNR) website were Rwf 1,071.70/\$1 and Rwf 1,164.55/\$1 respectively. The difference of these two rates which is within 6 months period is Rwf 92.86.

The phenomenon known as foreign exchange exposure also denotes the degree to which a given enterprise's monetary inflows and outflows are vulnerable to unforeseen fluctuations in the rates of exchange between currencies (Ito, Koibuchi, Sato, and Shimizu 2013, as cited in Muiru et al., 2018). It is of utmost importance to take note that the incessant fluctuations in a company's assets, liabilities, and operating income as a consequence of these uncertainties can be perceived as macroeconomic environmental perils that affect all businesses in the economy, albeit with varying degrees of intensity, contingent on the makeup of their operations (Prasad & Suprabha, 2015). For example, alterations in the exchange rate may have vastly diverse repercussions on net importers and exporters, while the effects of interest rate modifications on a financial institution would be significantly dissimilar from those on a manufacturing company, which further emphasizes the need for a comprehensive understanding of the intricacies of the economic environment (Muiru et al., 2018).

Foreign exchange exposure, which pertains to the possibility that the financial standing of a company, including its profitability, net cash flow, and market value, may experience fluctuations as an outcome of changes in exchange rates, is a pivotal measure that financial managers must take into account when deliberating on their decision-making processes. It is of utmost importance for financial managers to precisely gauge the impact of foreign exchange exposure and to undertake proactive measures to manage it in a way that would optimize the firm's profitability, net cash flow, and market value. The weight of this responsibility cannot be overstated, given that the long-term triumph of the firm heavily relies on the capability of its financial managers to effectively navigate the intricacies of foreign exchange exposure (Arize et al., 2018). Foreign exchange exposure is also a phenomenon that is closely linked to a company's net cash flow and profitability. Exchange rate fluctuations can cause substantial changes in market value. As such, foreign exchange exposure is an essential consideration in assessing a company's profitability and net cash flow.

Exchange rate changes can significantly impact market value, and it is assertively important that companies take this into account when making business decisions. The possibility of danger arising from deviations in exchange rates is not overtly stated to denote that a business entity is faced with the circumstance of being unhidden to foreign currency, as elucidated by Eun and Resnick (2014). Modern-day businesses also face heightened exposure to foreign exchange risk, due to the globalization of national economies, floating foreign exchange rate regimes, and international trade. The assessment of whether a firm encounters this exposure can be measured and expressed by the extent of reactivity of the company's assets, liabilities, and cash flows to the vacillations in exchange rates, as expounded by Morina et al. (2020). Companies that

engage in business activities across multiple currencies are particularly susceptible to foreign exchange risk. It is imperative to note down that a company's financial performance may be adversely affected as a result of this risk. To elaborate, if the domestic currency depreciates, then the cost of importing goods may increase, as well as the cost of paying off foreign debt and making international investments.

Conversely, if the home currency appreciates, exports may become less competitive on foreign markets. Furthermore, the worth of foreign investments, export revenue, overseas subsidiaries, and foreign income may all decrease when converted into the residential home currency. This may result in a negative impact on profitability and the overall value of the company (Muiru et al., 2018). The examination of a company's exposure to foreign exchange can be influenced by a multitude of factors that can be categorized into two primary classifications. In the first instance, the level of internationalization of a company can have a substantial impact on its exposure to foreign currencies. Geogiadis and Zhu (2020) has noted that multinational corporations that are more extensively internationalized are more susceptible to experiencing a higher degree of foreign exchange exposure. This is primarily due to the reason that these corporations conduct transactions in a diverse range of currencies, thereby leading to a greater number of assets and liabilities that are denominated in currencies other than their domestic currency.

Secondly, the industry in which a company operates can also significantly affect its exposure to foreign exchange. In particular, businesses in export-oriented sectors tend to experience higher levels of foreign exchange exposure than those in domestically-focused sectors. This phenomenon can be attributed to the reason that export-oriented businesses frequently invoice their goods in foreign currencies, thereby increasing their transaction risk (Geogiadis & Zhu, 2020).

Types of Foreign Exchange Exposure

Establishments operating internationally may be subjected to a number of foreign exchange exposures which can be classified into transaction exposure, economic exposure and translational exposure. These categories, each distinct in their nature, poses a unique set of challenges that necessitate a meticulous approach to their management in order to mitigate the adverse effects that foreign exchange exposure may have on the financial performance of the company in question. Therefore, it is crucial for companies, especially those operating internationally, to effectively address the complexities and intricacies of foreign exchange risk management.

Transactional Exposure: In accordance with the research conducted by Wang (2020), transaction exposure refers to the likelihood of the exchange rate fluctuating between the point of agreeing to the transaction and its actual completion. The barter of goods and services is the principal contributory factor to this particular exposure. In the event that a business exports goods at a higher rate than the one agreed upon during the transaction, it is inevitable that there will be financial loss incurred. However, if the currency rate surges during that time frame, the business may also benefit from the transaction (Wang, 2020). Transaction exposure has the attribute to impact the cash flows of any organization, hence why proactive businesses opt to insure against it (Pradita et al., 2019).

The magnitude of the transaction, the estimated completion timeframe, and the anticipated exchange rate volatility are some of the factors that can be utilized to determine the level of a particular institution's exposure to transaction exposure. Generally, companies have a risk management plan in place to mitigate the hazards associated with transaction exposure. It is merit noting that many companies operating internationally suffers greatly in nations with variable exchange rates, and many end up going out of business (Wang, 2020).

Economic Exposure: In contrast to transaction exposure which merely evaluates the effects of cash flows on a corporation in the short term, economic exposure takes both short- and long-term implications of modifications in exchange rates on the market value of a company into account (Pranata et al., 2022).

Pradita et al. (2019) asserts that economic exposure measures how changes in exchange rates affect the current value of future after-tax cash flows. Economic exposure can directly or indirectly affect businesses. When the main currency of an organization appreciates in value relative to that of its international rivals, the cost of their products may escalate, leading to a decline in profit margins (Yuxin, 2020). This, in turn, can lead to clients avoiding the premium-priced product and foreign rivals gaining a competitive edge because of the strengthening of the national currency.

If a company's exchange rate with the market is greater than that of its rivals, it is indirectly exposed to economic exposure (Yuxin, 2020). For instance, imaginary corporations A and B, along with the nation C, can be used as examples of this peril. If firms A and B offer a specific product to customers in country C, and company B's currency depreciates relative to the market currency, company A runs the risk of having to charge clients in Country C more for its goods since Company B would be selling cheaper items. Even if the currency rate between their country and the market is fixed, companies are still subject to this exposure.

It is challenging to monitor and insure against economic risk because multinational corporations must take numerous elements into account. Risk managers must consider the locations of sales, production facilities, raw supplies, and finance. Businesses that have spread out where these determinants are located would have probably significantly reduced the impact of economic risk (Van Greuning et al., 2020). Variables used to measure economic exposure include Cash Flows, Exchange Rate Volatility, Market Share and Pricing Flexibility. For the purpose of this study, Exchange Rate Volatility is considered to measure the Economic Exposure. Exchange Rate Volatility is the measure of the historical and expected volatility of exchange rates over a given period.

Translation Exposure: Companies operating internationally encounter the peril of translation, which alludes to the conversion of financial statements of their foreign-based subsidiaries that may be denominated in a distinct currency from that of the parent company's currency (Van Greuning et al., 2020). This poses a substantial concern since changes in the exchange rates may have a substantial influence on the actual value of the translated financial statement when amalgamated with the group's financial statement. The performance of the foreign subsidiaries is reported in writing, unlike that of the parent company's currency, and any unflinching changes in the exchange rate between the subsidiaries and the main company would affect the actual performance of the group (Pradita et al., 2019). Unless the risk managers of the group are confident that the risk exposure would lead to a loss, translation risks are usually not hedged.

The foreign subsidiary has the option to purchase forward contracts from the forward market as a measure to externally hedge against the risk related to translation risk. This involves agreeing upon a definite future date and rate when trading currencies on the forward market, as highlighted by Pradita et al. (2019). Another external measure that could be taken is to borrow the subsidiary's currency as a hedge until the cash flows from the real business transactions are generated, as suggested by Van Greuning et al. (2020). This would involve the business returning the borrowed currency for its main currency after the transaction is completed. Subsidiaries could also make use of futures contracts to transact in foreign currency. As tradable, standard-sized hedging instruments, currency purchases can be made using futures contracts, which have set maturity dates and prices, in contrast to forward contracts which require discussions between parties, as pointed out by Pradita et al. (2019) and Ogel et al. (2020). Variables for measuring translation exposure include Foreign Assets and Liabilities, Exchange Rate Changes and Net Investment. For the purpose of this research, Exchange Rate Changes is considered to measure the Translational Exposure. Exchange Rate Changes is the variabilities in exchange rates between the reporting and functional currencies of the company.

Determinants of Foreign Exchange Exposure

According to the research currently in publication, a firm's exposure to foreign exchange is influenced by a

number of elements pertaining to its industry, nation, and characteristics. In order to assess the impact of macroeconomic factors on the exposure to stock index returns in a particular nation, Patro et al. (2002) undertook a research. They discovered that imports, exports, credit ratings, and tax receipts all had a major impact on currency risk. According to De Jong et al. (2006), currency rate swings affect a considerable percentage of Dutch enterprises, especially in open economies such as the Netherlands. Hutson and Stevenson (2010) found a significant correlation between a company's susceptibility to changes in currency rates and the openness or creditor protection of its nation. Numerous studies have demonstrated that exposure to foreign currencies varies greatly between various industrial sectors.

According to Bodnar and Gentry's (1993) analysis of the foreign exchange exposure of US, Canadian, and Japanese businesses, the degree of foreign transaction activity is a significant factor in determining the vulnerability of industry sectors. Williamson (2001) presented comparable conclusions from the viewpoints of the US and Japanese car industries. According to Bodnar et al. (2002), industry competition affects a firm's capacity to pass on higher costs or prices to its consumers, which in turn affects the firm's susceptibility to exchange rate swings. The important impact of industry competitiveness on firm-level exposure was noted by Marston (2001). According to Dominguez and Tesar (2001), trade measures taken at the industry level have very little effect on how exposed individual enterprises are to currency rates. According to their results, businesses are more likely to hedge in industries where there are more overseas transactions.

Assessing exposure to foreign exchange involves a number of intricate considerations, including how these factors interact with one another. A developing nation like Rwanda can evaluate the possible effects of exchange rate variations on different economic elements and stakeholders by utilizing quantitative models, scenario analysis, and stress tests. Firm characteristics, including international operations, hedging actions, size, leverage, liquidity, and growth potential, impact foreign exchange risk exposure in addition to macroeconomic factors and sector competitiveness.

Methods for Managing Foreign Risk Exposure

In order to manage and reduce the impact of exchange risk, organizations may opt to utilize various foreign exchange hedging techniques. According to Döhring (2008), as cited in Muiru et al. (2018), foreign exchange risk hedging strategies can be sorted into two main approaches based on financial statement classifications and hedging literature. The hedging literature divides these tactics into two categories: financial and operational. Financial hedging strategies may involve the use of financial derivatives such as forwards, futures, money market hedge, swaps, options, and foreign currency loans (Shapiro, 2013). Conversely, operational hedging tactics comprise methods such as operational matching of revenues and costs, leads and lags, and currency choice in invoicing, as well as revenue and expenditure diversification among nations. However, these techniques are divided into two groups according to financial statement classifications: derivative and natural hedges. Natural hedges include operational and foreign exchange debt hedges, whereas derivative hedges include "Forwards, Futures, Swaps, and Options."

Forwards and Futures: A forward contract is an arrangement between two parties that calls for the delivery of an underlying asset at a certain delivery price on a specific future date. This underlying asset might be foreign exchange or a commodity. Forward contracts are privately negotiated between two parties and may not necessarily have uniform contract size and maturity (Liu, 2007; Muiru et al., 2018). Conversely, futures contracts are the same as forward contracts with the exception that they are standardized and traded on a regulated exchange. Originally designed to be used for commodity trading, futures contracts were expanded to include exchange currencies as a "commodity" as the market evolved (Liu, 2007). Currently, the most popular financial derivative used by foreign investors are currency futures contracts.

Currency Swaps and Options: In order to protect the value of the home currency from the foreign

currency cash flow, money market hedges require simultaneous borrowing and lending activities to be conducted in two different currencies (Shapiro, 2013). Concurrently engaging in loan and borrowing operations allows a business to create a customized forward contract. It is noteworthy that the money market and the forward market are indistinguishable due to the persistence of interest rate parity (Liu, 2007 as cited in Muiru et al., 2018). However, currency swaps are contractual agreements executed by two parties with the aim of exchanging specific cash flows that are denominated in different currencies at predetermined intervals. As posited by Sundaram and Das (2010), cited in Muiru et al. (2018), currency options are contractual arrangements that bestow upon the holder the right, but not the obligation, to purchase or sell a specific amount of foreign currency at a fixed price for a stipulated period of time.

Foreign Currency Hedge and Operational Hedges: “Natural hedging,” or the use of different financial products that tend to counteract each other’s performance, is one of the strategies that may be used to reduce exchange risk. Diversification among countries, matching costs and revenues, selecting the invoicing currency, pricing changes, netting inter-firm foreign cash flows, leading and trailing, and price adjustments are examples of natural hedging tactics that are often used. A company can transfer, share, or diversify its foreign exchange risks by choosing the invoicing currency. It is important to remember, nonetheless, that in order to totally remove transaction risk, a business may decide to invoice all transactions in the local currency (Muiru et al., 2018). However, neither party can share or transfer the currency risk if the importer’s and exporter’s currencies are unsuitable for settling international commerce. Pricing adjustment procedures are used to maximize the benefits of exchange rate changes. For example, in the event that a company’s home currency declines, the subsidiary may choose to offset the decrease by raising export pricing. This strategy is difficult to execute, though, as it necessitates timing and informing of currency rate fluctuations, and a business cannot arbitrarily alter prices without considering the actions of rivals (Muiru et al., 2018).

Leading and lagging is a natural hedging strategy that is frequently used by businesses to reduce transaction exposure. The approach of leading entails settling foreign currency payables before their due date if there is an anticipation that the currency in question will appreciate. Conversely, if a currency is expected to decline, the lagging method involves paying bills after they are due. Leading means paying bills on time and collecting receivables, while lagging is deferring payments until after the due date. Typically, businesses adopt the approach of leading for soft currency receivables and lagging for hard currency receivables to minimize financial losses in occasion of a soft currency depreciation and maximize gains in instance of a hard currency appreciation (Muiru et al., 2018). Another one is exposure netting and it involves the collection and combination of all foreign currency cash flows from subsidiaries to offset outflows of the same currency (Muiru et al., 2018). The company then hedges the remaining exposure. The choice of hedging techniques for exchange risk is influenced by various factors, such as the firm’s size, R&D spending, exposure in foreign sales and trade, liquidity, ownership arrangement, amongst others. Research indicates that foreign exchange risk is more significant for large enterprises, which are believed to actively manage this risk. It is also worth noting that broader firms that rely on export sales have less exposure to exchange rate risk (Shapiro, 2013).

Financial Performance

The measure of the degree to which an enterprise is satisfying its financial objectives is widely referred to as financial performance. Angima and Aluoch (2023) assert that financial performance is the extent to which a bank, corporation or organization attains its objectives through an evaluation of its financial practices and strategies. It is an essential tool used to oversee the management of financial risks. Moosa and Bhatti (2018) cited in Musyimi and Kisung’u (2019) affirm that financial performance is a crucial component of management that enterprises must prioritize since it is crucial to their ability to remain operational. The reason for this is that a bank’s sound financial position instills confidence in customers, stakeholders, staff members and the economy at large. Financial Performance also refers to a technique employed in evaluating a company’s policies and financial operations aspects. It is utilized to appraise the financial wellbeing of a

firm over a specific period and may also be useful in comparing similar organizations operating in the same industry (Vogiazas & Nikolaidou, 2016). As noted by Ngumo (2018) cited in Angima and Aluocho (2023) profitability is primarily a metric used to assess the performance of a financial institution. It is also used to compare how successfully an organization's management has allocated its entire capital to riskier scenarios, such as loan loss or any other type of loss that might result from an interest rate that fluctuates erratically. Consequently, in order for the banking sector to turn a profit, it needs to be able to withstand negative shock waves and preserve the stability of the financial systems.

Financial performance is a crucial aspect of a company's operations that assesses the extent to which it achieves its financial objectives. In order to gauge the financial performance of a company, several techniques are employed, including those based on the stock market and accounting. However, Hillman & Keim (2001) cited in Muiru, (2018) have pointed out that these metrics have numerous academic implications and may be predisposed to bias in certain respects. Return on total assets (ROA) is the largely widely applied accounting metric, which effectively measures the management's ability to transform assets into net earnings. As the ROA rises, the performance of the business improves. Conversely, market-based metrics focus on a company's capacity to create future economic earnings while concurrently evaluating its long-term financial performance. "Tobins Q" and "market return" are two examples of popular market-based metrics, which are less prone to accounting manipulations and varying accounting procedures. Both market-based and accounting-based metrics are typically regarded as dependable indicators of financial performance of a company (Gentry & Shen 2010). In this study, Tobins Q was employed as a surrogate for financial performance drawing on earlier research by Wolfe and Sawaia (2003), Li, Visaltanachoti and Luo (2014), as cited in Muiru (2018).

Experts in the field of business and strategic management hold a firm appreciation for the financial performance of multinational corporations. The magnitude of this subject matter cannot be understated, as it is of vital relevance to business experts across all industries. This is due to the intimate relationship between the financial condition of a company and its prospects for long-term survival. All parties involved in a firm, including managers and shareholders, share a common goal of increasing the stock price, which is only achievable if the business is generating more revenue. Managers are more inclined to work overtime as they are deeply concerned about the hereafter of the business. Moreover, both present and potential shareholders place a high value on a company's historical track record of consistently paying capital dividends, as reported by Valentin, Daniela and Veronel (2013).

Overall, financial performance is a crucial aspect of management that is employed to evaluate the financial wellbeing of an organization. It plays a significant role in instilling confidence in stakeholders and customers, thereby ensuring the continued operation of a business. By employing financial performance techniques, companies can compare their financial practices with those of other similar organizations and determine areas that require improvement. Profitability is another critical metric used in evaluating the financial performance of an organization, and it is instrumental in assessing the effectiveness of the management's investment of capital in risky situations. Therefore, it is vitally important for the banking industry to maintain financial stability to guarantee profitability and withstand negative shocks.

Empirical Review

Nada and El-Din (2017) in their research titled "An Empirical Study: Determinants of Foreign Exchange Exposure of EGX30 Companies," sought to determine the significance of FXE for EGX30 enterprises from 2000 to 2016. The study deals with the issue of fluctuating foreign exchange (FX) rates in Egypt, which have a significant impact on the financial success of EGX30 enterprises. The study assesses FXE using the Fama-French (FF) model, as was done in earlier studies by Aggarwal R. (2010), Lee (2011), and Sam Agyei-Ampomah (2012). According to the findings, 70% of EGX30 enterprises are significantly exposed to foreign exchange, and this finding holds true regardless of the model design used.

The research conducted by Akabom and Ejabu (2018) aimed to scrutinize the performance of multinational corporations in Nigeria in relation to international regulations and thin capitalization. The 17 international companies listed on the Nigerian stock exchange included 10 samples that the researchers chose, and they used an expo-facto design that covered the years 2012–2016. The multiple regressions approach was used to do the analysis. The study's conclusions demonstrated that thin capitalization is a revenue-stripping tactic that significantly affects foreign companies' operations in Nigeria. In a recent research, Otuya and Omoye (2021) examined the performance of multinational corporations (MNCs) in Nigeria, the impact of thin capitalization, and the effective tax rate. The researchers analyzed a sample of global firms' financial filings from 2014 to 2018 to collect secondary data. Descriptive statistics, correlation, and regression analysis all confirmed the study's conclusion that thin capitalization, interest cost rate, effective tax rate, and capital intensity had a positive but insignificant link with the financial performance of MNCs in Nigeria.

The success of hedging strategies, according to Bae et al. (2018), depends on several factors, including the expected currency rate exposure and the risk associated with the company. Consequently, firms may experience one of two possible results. Depending on the company's health, two different outcomes can result from this. Risk increases when a company's expected exposure is negative, while it decreases when it is positive. Companies can fall into either category, and one crucial statistic for assessing the effectiveness of their hedging strategies is the direction of their exchange rate exposure.

Luo and Wang (2018) delved into investigating how currency derivative hedging strategies affect a firm's value. The study examined the use of currency derivatives in relation to the firm's size, profitability, and investment potential, as well as the macro-environmental influence. The findings indicated that foreign currency derivatives could increase a company's value. Leasing and commercial services (78%), technical and scientific services (50.5%), and agriculture, animal husbandry, and fisheries (45.6%) were the industries that contributed the most to value creation. The study demonstrates that companies can adjust their hedging strategies to meet their specific needs and proactively adapt to changes in the macro-environment to increase their value.

Su (2018) conducted a comparative analysis of foreign exchange risk management practices among Chinese multinational corporations (MNEs) and their US and UK counterparts. The study utilized annual reports to collect data on foreign exchange risk measurement, management, hedging determinations, and hedging procedures, whether they were hedging or not, for 14 MNEs from each country. Based on the study's findings and empirical data multinational enterprises in the US and UK were found to be more involved in hedging than their Chinese counterparts. Furthermore, contrary to most of the earlier research, a significant proportion of Chinese MNEs did not specify how they estimate foreign exchange risk, and some large-scale Chinese MNEs did not hedge. Consistent with other empirical studies, reduced centralization in Chinese enterprises was also linked to a smaller proportion of foreign exchange risk hedging. However, foreign exchange risk management objectives and the methods used for external hedging were comparable in the USA, the UK, and China, and there was little variation in the proportion of business conducted abroad and hedging. Finally, the study offered valuable recommendations for further research, including foreign exchange management, business size, centralization, and hedging approaches.

Relationship between Foreign Exchange Exposure and Financial Performance

The correlation between foreign exchange exposure and the financial performance of an organization is a subject of paramount importance in academic research. Under the present global system of fluctuating foreign exchange rates, diverse currencies tend to exhibit erratic behaviour over brief time frames. A plethora of empirical studies have brought to light the significant impact of foreign exchange exposure on the financial performance of companies. Moreover, Saunders and Cornett (2008) have astutely observed that investors have been confronted with substantial real and volatility in earnings due to relative fluctuations in

foreign exchange rates under the existing system of floating exchange rates. It is noteworthy that most researchers have widely employed market capitalization to evaluate the impact of changes in foreign exchange rates. Periods of significant foreign exchange movements bring about substantial alterations in stock market capitalization. The employment of foreign exchange management strategies leads to a reduction in foreign exchange exposure, thereby minimizing losses.

Charles (2006) asserts that fluctuations in exchange rates may have a significant impact on a company's expected future and current cash flows, and in turn, its stock values. The company's corporate hedging policy dictates whether the company uses financial and operational hedges to manage currency risk and the composition of its foreign exchange cash flows. This strategy also determines the direction and magnitude of changes in the exchange rate on the firm's value. Prior research that was conducted by Merikas (1999) had posited that the implementation of foreign exchange exposure management would likely and plausibly yield advantageous and beneficial outcomes for companies. Through the management of risk, the potential impact and effect of foreign exchange risk volatility on companies could be mitigated and managed in a potentially beneficial manner. Thus, foreign exchange exposure management has the potential and capacity to generate and engender positive and constructive effects and outcomes for stakeholders. Torcher's investigation of United States companies in 2005 revealed and highlighted that foreign exchange exposure management significantly and sizably contributes and adds to their value and worth.

It was found and discovered that foreign exchange exposure management exhibits and demonstrates a positive and affirmative correlation and linkage with foreign exchange risk. It is worth noting and highlighting that organizations adopt and take on a diverse, wide-ranging, and extensive range and set of strategies and products to manage and handle foreign exchange risk. The strategies and approaches that are commonly and frequently employed and utilized to manage and handle this type and form of risk often and frequently involve and entail the utilization, usage, and deployment of financial derivatives. These financial instruments and tools derive and obtain their value, quality, and characteristics from underlying securities and assets. The most dominant, prevalent, and widespread types and forms of derivatives include forward contracts, future contracts, options, and swaps. It is important and noteworthy to observe and take note that these derivatives are extensively and widely traded and transacted among and between financial institutions and on organized and structured exchange platforms, as noted and highlighted by Torcher (2005). In light of these multifarious and complex factors, it is clear that a comprehensive and nuanced understanding of the relationship between Foreign Exchange Exposure and Financial Performance is essential for firms to effectively manage currency risk and optimize their financial outcomes.

Theoretical Framework

Interest Rate Parity Theory

The concept of "Interest Rate Parity" (IRP), first introduced by Melvin et al. (2017), is a theoretical framework that examines the relationship between the "current spot exchange rate" and the projected future spot rate (forward exchange rate) of two currencies, while also accounting for the current interest rates. According to this idea, the "forward exchange rate" is equivalent to the spot exchange rate multiplied by the interest rate of the first nation and divided by the interest rate of the second country. According to Altuntaş (2021), the idea behind IRP is that the difference between the forward and spot exchange prices is equal to the fluctuation in interest rates between two countries. In accordance with the IRP theory, it is implausible to generate profits exclusively by borrowing funds, converting them into a foreign currency, and subsequently reverting them back to the original legal tender at a later time.

In the event that IRP is deemed invalid, it is feasible to secure a profit via an arbitrage technique, as noted by Mogensen and colleagues (2020). To leverage pricing inefficiencies, arbitrage entails the simultaneous purchase and sale of the same currency pairs. For example, if there is a discrepancy between the forward

and spot exchange rates. According to Cho et al. (2019), if the real forward exchange rate is greater than the IRP forward exchange rate, borrowing money, exchanging it at the spot rate, and investing it at the foreign interest rate prior to locking in the forward contract might result in an arbitrage gain. The borrowed funds can then be returned upon the expiration of the forward contract by converting the funds back into the original currency of the first country. The amount required for repayment would be less than the available funds if the forward price surpassed the IRP equilibrium forward price. In essence, risk-free money has been produced exclusively via borrowed funds.

The utilization of a forward contract to satisfy a no-arbitrage clause, which is a contractual provision aimed at preventing investors from exploiting market inefficiencies, is commonly referred to as a covered Interest Rate Parity (IRP) in the contemporary literature (Cho et al., 2019). Covered IRP, as posited by Keller (2021), is essentially a financial strategy that entails the use of forward contracts under no-arbitrage conditions to safeguard against currency risk. Conversely, uncovered IRP is a scenario in which the no-arbitrage condition is met without the use of forward contracts to hedge against foreign exchange risk. However, the IRP theory has been criticized for its underlying presumptions, which may not always be valid in the real world. For instance, the covered model of the theory assumes, somewhat unrealistically, that there are infinite funds available for currency arbitrage. As highlighted by Anisimova (2018), the uncovered model has no practical utility in actual real-world scenarios where there are no futures or forward contracts available for use as a hedge.

International Fisher Effect Theory

The International Fisher Effect (IFE) theory, as articulated in Irving Fisher's seminal work, *The Theory of Interest* from 1930, posits a connection between changes in the nominal interest rates of two nations and changes in the exchange rates of their respective currencies at any given time (Cherutich et al., 2019). IFE looks at interest rates related to present and future risk-free assets, such as Treasuries, in contrast to other theories and methods that exclusively utilize inflation to predict and evaluate changes in exchange rates. IFE bases its operations on the premise that countries with lower interest rates will also have lower rates of inflation, which may lead to a rise in the country's real currency value relative to other nations. As Lim et al. (2020) suggest nations with higher interest rates will invariably have lower currency values than other countries. The "International Fisher Effect theory" gained acceptance on the premise that interest rates are independent of other monetary factors and serve as a reliable indicator of a nation's currency health. The theory posits that changes in inflation have no impact on real interest rates, given that they are essentially the nominal rate minus inflation (Lim et al., 2020). The theory further posits that nominal interest rates, which are influenced by inflation rates and reflect predicted inflation rates and currency exchange rate changes, are proportional to the difference between the nominal interest rates of the two countries (Almahmood et al., 2018).

Empirical examinations of the validity of the "International Fisher Effect" (IFE) theory by scholars have resulted in mixed outcomes, indicating that other factors may also impact exchange rate fluctuations (Hossin et al., 2020). According to Nazlioglu et al. (2021), the IFE theory remains valid in instances where interest rates exhibit significant fluctuations based on prior observations. Typically, industrialized countries exhibit low rates of inflation expectations and nominal interest rates, leading to minimal fluctuations in interest rates. Consequently, Consumer Price Indices (CPI), a direct measure of inflation rates, are often employed to forecast anticipated changes in currency exchange rates in these nations. Conversely, in developing nations where inflation and nominal interest rates are high, the IFE theory may prove useful in predicting fluctuations in exchange rates (Hossin et al., 2020). Overall, the IFE theory provides a more comprehensive understanding of a particular currency's performance in the international market.

METHODOLOGY

A cross-sectional research design was used in the study. The target population for the study is 50 multinational companies in Rwanda that trades in fast-moving goods, especially in agribusiness, beverages and alcoholic beverages, and telecommunications, some of which are listed on the Rwandan Stock Exchange. The investigation is conducted by utilizing the financial data of the MNCs registered in Rwanda and covered a time span of five years, ranging from 2018-2022. The research considered a number of financial performance indicators, such as net profit margin. Furthermore, to establish the correlation between the variables, a multiple regression analysis has been conducted. The analysis was carried out by means of SPSS version 22.0, E-Views and Ms. Excel 2013.

The following mathematical models were developed to analyse the relationship between foreign exchange exposure and financial performance multinational companies in Rwanda using Exchange rate per \$1 (ERP), Exchange rate Volatility (ERV), Exchange Rate Changes (ERC) are the “independent variables” and regressed against the “dependent variables” Net Profit Margin (NPM) and used as proxies for financial performance. This study utilized the model specified below:

$$Y_{it} = \alpha_{it} + \beta_1 ERP + \beta_2 ERV + \beta_3 ERC + \varepsilon_{it} \dots \dots \dots 3.1$$

Where:

Y represents the financial performance of firms in Rwanda measured by NPM

α = the “constant” term

ε = Error Term

Independent Variable

ERP = Exchange rate per \$1

ERV = Exchange rate Volatility

ERC = Exchange Rate Changes

Dependent Variable

NPM = Net Profit Margin

RESULTS

The information gathered about the research from the respondents “The role of foreign exchange exposure on financial performance of Multinational companies in Rwanda” were presented and analysed. To test the hypotheses of this dissertation, descriptive statistics and “Ordinary Least Square” (OLS) Regression Analysis was used. This is deemed as suitable due to the distinct nature of the variables which are continuous rather than dichotomous categorical variables. The data were extracted from selected Multinational companies in Rwanda annual reports for the period of 5 years (2018-2022).

Table 1: Descriptive Statistics

	ROA	ROE	NPM	ERP	ERV	ERC
Mean	0.005862	0.158000	9.709091	970.8860	4.854000	45.14280
Median	0.025400	0.150000	15.00000	972.4800	4.940000	43.41700
Maximum	0.150500	0.420000	45.00000	1070.710	6.050000	61.09000
Minimum	-0.396300	0.000000	-136.0000	879.1000	3.820000	34.10400
Std. Dev.	0.101685	0.094132	37.97498	67.29537	0.843155	9.746105
Skewness	-2.885535	0.970638	-2.849929	0.112275	0.085015	0.511955
Kurtosis	11.22274	4.044704	10.42040	1.800685	1.531626	1.935347
Jarque-Bera	231.2721	11.13740	200.6370	3.411788	5.007365	5.000143
Probability	0.000000	0.003815	0.000000	0.181610	0.081783	0.082079
Sum	0.322400	8.690000	534.0000	53398.73	266.9700	2482.854
Sum Sq. Dev.	0.558355	0.478480	77873.35	244548.0	38.38912	5129.274
Observations	55	55	55	55	55	55

Source: Author’s Computation, 2023 (E-view, version 9.0)

The mean of a series is the average value obtained by dividing the total value of the series by the number of observations. According to the table above, the mean values for ROA, ROE, NPM, RPA, ERV, and ERC are 0.005862, 0.158000, 9.709091, 970.8860, 4.854000, and 45.14280, respectively. When the data are sorted in ascending order, the median is the middle value in the series. The median values for ROA, ROE, NPM, RPA, ERV, and ERC are 0.025400, 0.150000, 15.00000, 972.4800, 4.940000, and 43.41700, respectively, according to the table. Maximum and minimum are the maximum and minimum values in the current sample’s series. ROA, ROE, NPM, RPA, ERV, and ERC have maximum and minimum values of 0.150500 & -0.396300, 0.420000 & 0.000000, 45.00000 & -136.0000, 1070.710 & 879.1000, 6.050000 & 3.820000, and 61.09000 & 34.10400, respectively.

The standard deviation of a series is a measure of its spread or dispersion. ROA, ROE, NPM, RPA, ERV, and ERC have standard deviations of 0.101685, 0.094132, 37.97498, 67.29537, 0.843155, and 9.746105, respectively. Skewness is a measure of the asymmetry of the series’ distribution around its mean. A normal distribution has no skewness. Positive skewness indicates that the distribution has a long right tail, whereas negative skewness indicates a long left tail. ROE, NPM, RPA, ERV, and ERC have positive skewness, indicating a long right tail, but ROA has negative skewness, indicating a long left tail.

Kurtosis evaluates the peakedness or flatness of the series distribution. If the kurtosis is more than three, the distribution is peaked or leptokurtic relative to the normal; if it is less than three, the distribution is flat or platykurtic. Table 1 shows that, the variables are peaked or leptokurtic relative to the norm (Kurtosis) since ROE, RPA, ERV, and ERC are fewer than three, while ROA and NPM are larger than three. The normal distribution of the series is ascertained using the test statistic known as Jarque-bera. It makes a comparison between the series’ skewness and kurtosis and those of a normal distribution. The Jarque-bera for ROA, ROE, NPM, RPA, ERV, and ERC are 231.2721, 11.13740, 200.6370, 3.411788, 5.007365, and 5.000143, respectively, according to the table above.

Test of Hypotheses

Correlations Analysis

Measuring the degree or intensity of linear relationship between variables is the main goal of correlation analysis. The linear link between two variables is examined for strength and direction using the correlation coefficient. The correlation coefficient has a range of -1 to +1; the greater the association between the variables, the bigger the coefficient's absolute value. No link between two variables is indicated by a zero (0). The relationship's symbol gives insight into its future course.

If the p-value is less than or equal to the significance threshold, we may infer that the correlation is distinct from 0. $P\text{-value} \leq \beta$: The correlation is statistically significant.

$P\text{-value} > \beta$: The correlation is not statistically significant; you cannot infer that the correlation is different from 0 if the p-value is higher than the significance level.

As such the following table shows the correlation between independent variables of foreign exchange exposure (Exchange rate per \$1, Exchange Rate Volatility and Exchange Rate Changes) and the dependent variable of financial performance of Multinational companies in Rwanda (Net Profit Margin).

		Exchange rate per \$1	Exchange Rate Volatility	Exchange Rate Changes	Net Profit Margin
Exchange rate per \$1	Pearson Correlation	1	.541**	.741**	.158
	Sig. (2-tailed)		.000	.000	.251
	N	55	55	55	55
Exchange Rate Volatility	Pearson Correlation	.541**	1	.964**	.122
	Sig. (2-tailed)	.000		.000	.376
	N	55	55	55	55
Exchange Rate Changes	Pearson Correlation	.741**	.964**	1	.148
	Sig. (2-tailed)	.000	.000		.280
	N	55	55	55	55
Net Profit Margin	Pearson Correlation	.158	.122	.148	1
	Sig. (2-tailed)	.251	.376	.280	
	N	55	55	55	55

** . Correlation is significant at the 0.05 level (2-tailed).

From the above correlation table 2, we can see that most of the independent constructed variables were not correlated with Net Profit Margin. Among the variables, the correlation coefficient was found between Exchange rate per \$1 and Net Profit Margin (0.251), between Exchange Rate Volatility and Net Profit Margin (0.376) and followed by variables between Exchange Rate Changes and Net Profit Margin (0.280).

Therefore, from the above table we can conclude that Exchange rate per \$1, Exchange Rate Volatility and Exchange Rate Changes constructed variables have positive correlation and insignificant with Net Profit

Margin because the p (sig) value is greater than $\beta=0.05$ level.

Multiple Regression Analysis

Multiple regressions were used to test the model and ideas. The R2 provides information about the significance of the factors that were included in the model, in addition to indicating how much of the variance in the dependent variable or the Net Profit Margin is explained by the constructed variables. Based on the four variables used in this inquiry, hypothesis statements were created to arrive at the findings.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.172 ^a	.030	-.028	38.494	.542

a. Predictors: (Constant), Exchange Rate Changes, Exchange rate per \$1, Ex Rate Volatility
 b. Dependent Variable: Net Profit Margin

The coefficient of determination (R2), or R2, indicates 3%. This shows that up to 3% of the dependent variable (Net Profit Margin) has been explained cumulatively by the independent variables (Exchange Rate Changes, Exchange Rate per \$1, and Ex Rate Volatility), with the remaining 97% being explained by other factors. This suggests that the explanatory variables were chosen adequately, but the study’s model is inadequate. Nonetheless, this is supported by the modified R2 3% value, which remains negligible even after accounting for other irregularities. The Adjusted R Square of 0.028 indicates that 2.8% of the variances in Net Profit Margin are explained by the variances in (Exchange Rate Changes, Exchange rate per \$1, Ex Rate Volatility) the linear model. Result review that (Exchange Rate Changes, Exchange rate per \$1, Ex Rate Volatility) are statistically insignificant in explaining Net Profit Margin. The Durbin Watson (DW) value of 0.542 indicates that residual autocorrelation will not compromise the validity of the study’s statistical conclusions.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2302.948	3	767.649	.518	.672 ^b
	Residual	75570.398	51	1481.773		
	Total	77873.345	54			

a. Dependent Variable: Net Profit Margin
 b. Predictors: (Constant), Exchange Rate Changes, Exchange rate per, Ex Rate Volatility

Table 4 of ANOVA results showed that the regression model is a weak predictor of the relationship between the variables and is not statistically significant. This is because, at the 5% level of significance, the F statistics value of 0.518 is not significant because the P value of 0.672 > 0.05. This implies that Exchange Rate Changes, Exchange rate per \$1, Ex Rate Volatility have positively, weakly and insignificantly influence with Net Profit Margin.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	129.636	526.499		.246	.806
	Exchange rate per	-.137	.550	-.243	-.250	.804
	Ex Rate Volatility	-40.846	111.440	-.907	-.367	.715

Exchange Rate Changes	4.688	12.075	1.203	.388	.699
a. Dependent Variable: Net Profit Margin					

Following the demonstration of the regression’s validity and the identification of no equation errors, the OLS regression is utilized to determine the role of foreign exchange exposure on financial performance of Multinational companies in Rwanda. The model below is then produced using the OLS estimator using the information from the Coefficient Table above as a basis:

$$NPM = \beta_0 + \beta_1 * ERP + \beta_2 * ERV + \beta_3 * ERC + \mu$$

The estimated relationship for the model is:

$$NPM = 129.636 - 0.137 * ERP - 40.846 * ERV + 4.688 * ERC$$

Table 6: Summary Table Showing the Result of Test of Hypothesesf

S/N	Null Hypotheses	Results
1.	There is no significant influence of transactional exposure on the net profit margin of Multinational companies in Rwanda.	Accepted
2.	There is no significant influence of economic exposure on the net profit margin of Multinational companies in Rwanda.	Accepted
3.	There is no significant influence of translational exposure on the net profit margin of Multinational companies in Rwanda.	Accepted

DISCUSSIONS

It has been revealed that there is no significant influence of transactional exposure on the net profit margin of Multinational companies in Rwanda. The results of this survey are in opposition to those of Omagwa (2015), who found that although the majority of banks consider credit/default risk to be the most important financial risk overall, for most businesses, foreign exchange risk is the most important risk. Rules set at the corporate level (highly centralized foreign exchange risk management systems) governed the majority of banks’ foreign currency risk management systems. All banks, no matter their size, made considerable use of the majority of traditional hedging instruments. Most banks deemed transaction exposure to be the most important factor, when weighed against translation and financial performance. This also goes against the findings of Madura’s (2017) study, which asserts that translation exposure is related to assets or income from offshore businesses and arises from currency mismatch.

It has been revealed in the findings of the study that, there is no significant influence of economic exposure on the net profit margin of Multinational companies in Rwanda. These results run counter to those of Ahmed (2017), who found that since assets and liabilities have a positive correlation with risk management in microfinance, microfinance institutions need to create varied reserves to handle a range of risks arising from the structure of their assets and liabilities. A number of opinions and theories contend that risk management has become increasingly important recently and will do so in the future. An increasing number of competitors in the market and the introduction of new technology highlight how important risk management is to banks. Economic exposure is the term used to describe the adverse effect that an abrupt and unanticipated shift in exchange rates has on entity income from both domestic and foreign operations.

Muller and Verschoor (2016) discovered that the sales and earnings of both domestic and foreign businesses were impacted by fluctuating currency rates. Businesses incur foreign currency costs (such as labor, taxes, and materials) due to the prevalence of outsourcing activities to other countries, and corporate finance

managers need to be aware of the extent of this exposure (Abor 2015). Furthermore, because of competition from international rivals, competing multinational corporations, and macroeconomic variables, businesses not involved in outsourcing or foreign exchange trading are vulnerable to fluctuating exchange rates.

It has been revealed in the study that, there is no notable influence of translational exposure on the net profit margin of Multinational companies in Rwanda. These findings are unrelated to Siraji's (2014) discovery that translation exposure was the most prevalent among the commercial banks under examination. Every item on the income statement is translated using either the rate that was in force at the time the different revenues, costs, profits, and losses were recorded, or an acceptable average exchange rate. All assets and liabilities are translated using the current rate technique at the rate that is in force on the balance sheet date. Translation risk arises from foreign currency assets and liabilities for companies even in the absence of a foreign affiliate.

CONCLUSION

The main purpose of this research was to examine the effect of foreign exchange exposure on financial performance of Multinational companies in Rwanda. The result showed that transactional exposure had a positive and minimal relationship with financial performance (ROA). Hence, the increase in transactional exposure (exchange rate) will reduced the return on asset. This study found that economic exposure (Exchange Rate Volatility) had a positive and insignificant relationship with return of equity (ROE). The Exchange Rate Volatility was positive and insignificant indicated that larger multinational companies achieve a higher profitability level. At both the business and industry levels, the US dollar proved to be the most prominent source of exchange rate exposure.

Foreign currency risk arising from the hard currencies of international commerce, especially the US dollar, the British pound, the euro, and the Japanese yen, severely affects most multinational corporations listed on the Rwanda Stock currency. This led to the conclusion that the financial performance of multinational corporations in Rwanda relative to other nations worldwide is unaffected by fluctuations in exchange rates.

RECOMMENDATIONS

Based on the above, it was recommended that:

1. Multinational companies should have a solid foreign exchange risk management framework that clearly outlines their currency risk assessment methodologies and foreign exchange risk management plan implementation.
2. These tactics should be frequently examined and changed. Companies should stress the use of currency risk transfer measures such as hedging, insurance, and currency diversity. Currency futures markets, forward markets, and currency swaps are all typical hedging tactics.
3. Multinational companies should look for ways to improve their capacity for managing foreign exchange exposure, such as holding regular exchange exposure management trainings. This can be accomplished by providing short-term training to top finance managers on methods for recognizing, assessing, and managing foreign exchange exposure.
4. The training should not just discuss currency risk management; however, it should also address real issues confronting multinational corporations with worldwide ventures.
5. In accordance with the findings of this study, exchange exposure is a substantial component of company risk. As a result, multinational companies in Rwanda must carefully manage their risk in order to limit their

foreign exchange exposure. Domestic firms, their suppliers, and their consumers are not immune to the effects of worldwide economic cycles, currency fluctuations, and global rivalry in an increasingly globalizing economy.

AUTHOR'S BIOGRAPHY

Grace Oluwafolahanmi Adegbite is a seasoned Senior Accountant boasting over a decade of expertise in financial management and reporting. With a commendable history of delivering precise and punctual financial reports, she excels both independently and collaboratively. Currently pursuing an M.Sc. in Finance at the University of Kigali, Rwanda, Grace earned her First Degree in Accounting from the University of Ilorin, Kwara State, Nigeria, in 2012. Her key areas of focus include financial management, auditing, and taxation. Proficient in the latest accounting regulations, she offers clients valuable and informed financial advice.

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