REICE
Revista Electrónica de Investigación en Ciencias Económicas
Abriendo Camino al Conocimiento
Área de Conocimiento de Ciencias Económicas y Administrativas
Universidad Nacional Autónoma de Nicaragua, Managua (UNAN-Managua)

Vol. 12, No. 23, enero – junio 2024 REICE ISSN: 2308-782X
https://revistas.unan.edu.ni/index.php/reice
revista.reice@unan.edu.ni

Managing foreign exchange risk: Strategies and techniques in international financial management

Gestión del riesgo cambiario: Estrategias y técnicas de gestión financiera internacional

Fecha de recepción: febrero 22 de 2024
Fecha de aceptación: abril 30 de 2024
DOI: https://doi.org/10.5377/reice.v12i23.18279

Chitta Shyamsunder
Symbiosis Institute of Business Management -Hyderabad, Symbiosis International (Deemed University), Lavale, Mulshi, Pune, Maharashtra 412115, India
E-mail: shyam.chitta@sibmhyd.edu.in
ORCID: https://orcid.org/0000-0002-6266-4756

Hariprasad Soni
Symbiosis Institute of Business Management, Hyderabad
Symbiosis International (Deemed University), Pune, India
E-mail: hr.soni@sibmhyd.edu.in
ORCID: https://orcid.org/0000-0001-9147-4401

Abstract

The present study examines the beliefs and practices around foreign currency risk management within a heterogeneous sample of participants. In the contemporary context of a highly interconnected global economy, the effective management of foreign exchange risk has become of utmost importance for enterprises in order to protect their financial stability and enhance their competitiveness. Using the descriptive research design study addressed the issues with a diverse set of demographic factors, such as gender, age, and educational backgrounds, providing insights into the diverse viewpoints present within the examined companies. Providing a thorough description and study of the characteristics linked to a certain event is the main goal of descriptive research; it does this without changing any factors. The data analysis was carried out using SPSS for descriptive statistics, dispersion techniques, ANOVA and Structural Equation Model Analysis using IBM AMOS to test the hypotheses. The results of the study unveil a multifaceted panorama of perceptions. The respondents exhibit predominantly unfavorable perspectives with regards to the foreign exchange risk management techniques implemented by their respective organizations. The user vehemently opposes the active implementation of hedging methods, the proficient utilization of financial instruments, and the regular evaluation of hedging plans. Nevertheless, they maintain a neutral stance when evaluating the influence of these tactics on financial outcomes. In summary, this research highlights the importance of continuous endeavors aimed at improving foreign exchange risk management within firms. Organizations may effectively traverse the intricate global financial landscape and limit the influence of currency changes on their financial performance by proactively addressing recognized difficulties and fostering a culture of continuous improvement.

Keywords: Foreign Exchange Risk, International Financial Management and SEM analysis.

Resumen

El presente estudio examina las creencias y prácticas en torno a la gestión del riesgo cambiario en una muestra heterogénea de participantes. En el contexto contemporáneo de una economía mundial altamente interconectada, la gestión eficaz del riesgo cambiario ha cobrado la máxima importancia para las empresas a fin de proteger su estabilidad financiera y mejorar su competitividad. Mediante el uso del diseño de investigación descriptivo, el estudio abordó las cuestiones con un conjunto diverso de factores demográficos, como el género, la edad y la formación académica, proporcionando información sobre los diversos puntos de vista presentes en las empresas examinadas. El principal objetivo de la investigación descriptiva es proporcionar una descripción y un estudio exhaustivos de las características vinculadas a un determinado acontecimiento, y lo hace sin modificar ningún factor. El análisis de los datos se llevó a cabo con el programa SPSS para la estadística descriptiva, técnicas de dispersión, ANOVA y análisis de modelos de ecuaciones estructurales con IBM AMOS para comprobar las hipótesis. Los resultados del estudio revelan un panorama polifacético de percepciones. Los encuestados muestran perspectivas predominantemente desfavorables con respecto a las técnicas de gestión del riesgo cambiario aplicadas por sus respectivas organizaciones. Se oponen con vehemencia a la aplicación activa de métodos de cobertura, a la utilización competente de instrumentos financieros y a la evaluación periódica de los planes de cobertura. Sin embargo, mantienen una postura neutral a la hora de evaluar la influencia de estas tácticas en los resultados financieros. En resumen, esta investigación pone de relieve la importancia de los esfuerzos continuos encaminados a mejorar la gestión del riesgo cambiario en las empresas. Las organizaciones pueden atravesar con eficacia el intrincado panorama financiero mundial y limitar la influencia de los cambios de divisas en sus resultados financieros abordando de forma proactiva las dificultades reconocidas y fomentando una cultura de mejora continua.

Palabras claves: Riesgo cambiario, gestión financiera internacional y análisis SEM.

Introduction

Within the domain of international finance, the effective handling of foreign exchange risk holds significant significance. The financial performance and stability of organizations involved in foreign activities are significantly influenced by the dynamics of global markets, which are characterized by the fluctuation of exchange values. In the pursuit of enhancing their strategies and methods for managing foreign currency risk, firms are compelled to thoroughly examine three interrelated facets of this complex issue.

It is vital to comprehend how firms view the relevance of exchange rate variations in relation to their financial performance, considering the various elements involved. The assessment of the measures implemented for the monitoring and management of this risk holds equal significance. This dimension aims to ascertain whether firms possess a thorough comprehension of exchange rate fluctuations and whether their actions are in line with the intricacies of international financial management. In the process of operating within the complexities of international markets, firms utilize a variety of methods and financial instruments to mitigate the risks associated with swings in exchange rates. The evaluation of these techniques is crucial in order to analyze their effectiveness in reducing exposure to exchange rate risk and their potential to enhance financial outcomes. The measurement of this dimension holds significant importance in assessing the capacity of firms to adapt and withstand challenges within an unpredictable global financial environment.

The barriers encompass a variety of factors, which include the presence of expertise and knowledge within organizations, the inherent challenge of accurately forecasting future exchange rate fluctuations, the economic expenses linked to hedging, and internal opposition to adopting innovative risk management strategies. Gaining an understanding of these hurdles is crucial for firms aiming to surmount challenges and formulate comprehensive strategies for efficiently managing foreign exchange risk.

The theoretical framework of this study is comprised of three dimensions, which collectively aim to analyze, appraise, and ascertain the essential elements of foreign currency risk management within the realm of international financial management.

This study seeks to enhance comprehension of how organizations can effectively manage exchange rate risk and strengthen their financial resilience in a globally interconnected economy. It aims to achieve this by examining the complex relationship between perceptions, practices, effectiveness, and barriers.

Review of literature

Aljanabi and Mazin (2007) empirically tested the risk parameters for larger foreign-exchange portfolios and to suggest real-world policies and procedures for the management of market risk with the aid of value at risk (VaR) methodology. The authors concluded In order to provide a workable framework for market risk assessment, management, and control reporting as well as to initiate a workable process for determining the best VaR limits structure, several actual case studies are completed. Both long and short proprietary trading and/or active investment positions are used to evaluate the effectiveness of risk management approaches. of variables. Mathurand Knowles(1985) examined the foreign exchange risk management strategies of US multinationals reported that the great majority of businesses were utilizing strategies like accounts payable, receivable, and remittance acceleration or deferral, as well as intra-corporate netting of corporate activities. The low use of interest arbitrage suggested that only few companies were actively engaged in foreign exchange market speculation.

Gumaro Alvarez et al., (2018) examined exchange risk exposure by applying the model of forgotten effects. The goal of the current study is to use the forgotten effects model to determine the factors that influence exposure to exchange risk. The findings demonstrate that crucial factors that have been overlooked in the detection of exchange risk exposure include a lack of knowledge, inadequate financial preparation, and an entrepreneurial mindset. Boyake et al. (2023) examined the foreign exchange return shock spillovers and network connectedness among African

countries. The study's overall conclusion was that there was little system-wide spillover connectivity among African foreign currency markets. However, there was evidence of contagion effects during the global financial crisis that followed the eurozone sovereign debt crisis, as evidenced by the increase in the total systemic spillover index. In times of crisis, this provides beneficial diversification options in the African currency market. Additionally, no substantial evidence of spillover effects among African currencies was discovered by the study. Shankar and Satir (2021). We looked at wholesale price contracts without risk hedging and wholesale price contracts where the buyer transfers risk to an options dealer as alternatives to the risk sharing contract. We assume that the buyer is headquartered in the United States and the supplier is based in either Switzerland or the United Kingdom. We then empirically apply the model to two different currencies of the provider. Our findings demonstrate that, in comparison to both the risk transfer contract and the wholesale pricing contract without risk hedging, the risk sharing contract's performance offers a significant improvement in the total expected utility of both sides to the contract.

Moffett, M. H., & Karlsen, J. K. (1994) effort to organize the examination of managing economic vulnerability. In order to connect the topic to the past and present literatures of international business in general and international finance management in particular, we have tried to make new and old terminology clear. Understanding which businesses may or may not find economic exposure management beyond diversity of production and finance (natural hedging) valuable or realistic is made easier by our recommended taxonomy of what we like to simply term economic exposure. We have also offered some fundamental guidelines that businesses must follow if they are to really explore contract hedging and be aware of its efficacy. Although there is currently little information available regarding the extent of corporate activity in economic exposure management, it is anticipated that rising levels of direct international business activity by companies combined with continued exchange rate volatility on global markets will only serve to heighten interest.

Kapila, P., & Hendrickson, C. (2001) examines the financial risk issues connected to multinational building projects from a comprehensive angle. It analyzes the risk-mitigation strategies used by construction industry experts to manage these risks for their projects and offers further risk-reduction strategies. A case study comparing borrowing tactics and forward exchange contracts is provided. The goal of the article is to provide solutions for reducing foreign currency risk and for more effectively managing foreign exchange deals.

Marshall, A. P. (2000) The purpose of this article is to concurrently examine how big multinational corporations (MNCs) in the UK, the USA, and Asia Pacific manage foreign currency risk. For the first time, a sizable sample of MNCs from the Asia Pacific region were included in the investigation to see whether foreign currency risk management procedures differ globally. There are statistically significant regional differences in the significance and goals of managing foreign exchange risk, the focus on translation and economic exposures, the internal/external techniques used to manage foreign exchange risk, and the policies used to deal with economic exposures, as evidenced by the 179 (30%) usable responses. With a few major exceptions, the strategies of UK and US MNCs are generally comparable; in contrast, Asian Pacific MNCs exhibit substantial variances. The findings are further contrasted by size, proportion of international business, and industrial sector to account for regional differences in respondent characteristics. It was discovered that the focus on translation, economic exposure, and usage of external hedging mechanisms could also be explained by the size of the responder or the industrial sector.

Michael G. Papaioannou (2006) reviews the traditional types of exchange rate risk faced by firms, namely transaction, translation and economic risks, presents the VaR approach as the currently predominant method of measuring a firm's exchange rate risk exposure, and examines the main advantages and disadvantages of various exchange rate risk management strategies, including tactical versus strategical and passive versus active hedging. In addition, it outlines a set of widely accepted best practices in managing currency risk and presents some of the main hedging

instruments in the OTC and exchange-traded markets. The paper also provides some data on the use of financial derivatives instruments, and hedging practices by U.S. firms.

Statement of problem

The study addresses critical challenges in managing foreign exchange risk within the domain of international financial management. Despite the paramount importance of exchange rate risk in the global business landscape, there is a pressing need to comprehensively assess and understand the dynamics involved in perceiving, practicing, and mitigating this risk. Organizations operating in the international market are confronted with the complex issue of exchange rate risk. The problem at hand is the ambiguity surrounding how these organizations perceive and respond to this risk. This includes an examination of whether organizations fully comprehend the extent to which exchange rate fluctuations can profoundly impact their financial performance and whether they have effective mechanisms in place to monitor, analyze, and manage this risk. Implementing robust risk management practices is often hindered by multiple obstacles. The problem under consideration is the identification and understanding of these barriers and challenges faced by organizations when striving to implement effective foreign exchange risk management. This includes the identification of issues such as the lack of specialized expertise and knowledge, difficulties in accurately predicting future exchange rate movements, the cost implications of hedging, and internal organizational resistance to embracing new and innovative risk management practices. Addressing these challenges is crucial for organizations seeking to maintain financial stability and competitiveness in the global marketplace.

Research gap

In the modern world of an increasingly interconnected global economy, businesses must manage foreign exchange risk effectively if they are to preserve their financial stability and grow more competitive. This study looks at the attitudes and behaviors of a diverse group of people on managing foreign exchange risk. The absence of

literature using a wide range of demographic data, including age, gender, and educational background, which sheds light on the many points of view that exist among the companies under investigation. Therefore, we carried out this study's and present a complex landscape of perceptions.. The majority of respondents have negative opinions about the foreign exchange risk management strategies used by their individual companies. The user is strongly against the proactive use of hedging strategies, the skillful use of financial instruments, and the ongoing review of hedging plans. However, they remain impartial while assessing how these strategies affect financial results. In conclusion, this study emphasizes the significance of ongoing initiatives targeted at enhancing foreign exchange risk management within businesses. By proactively addressing identified challenges and developing a culture of continuous improvement, organizations may efficiently navigate the complex global financial landscape and limit the impact of currency changes on their financial performance.

Objectives of the study

To assess the perceptions and practices of exchange rate risk management.

To evaluate the effectiveness of foreign exchange risk management strategies.

To identify the barriers and challenges in implementing effective risk management.

Scope of the study

The study draws upon established theories and models in the field of finance and risk management, such as the Efficient Market Hypothesis (EMH), Interest Rate Parity (IRP), and the Portfolio Balance Approach, to provide a theoretical foundation for understanding exchange rate risk.

The study delves into the theoretical underpinnings of various hedging strategies, including forward contracts, options, and swaps, to assess their theoretical effectiveness in mitigating exchange rate risk.

The Efficient Market Hypothesis (EMH) and related theories is examined to understand the theoretical implications for predicting and reacting to exchange rate movements, as well as the extent to which markets reflect all available information.

The study employs SEM as a theoretical framework for analyzing the relationships between various latent constructs, including perceptions, practices, effectiveness, and barriers, providing a statistical basis for understanding the complex interplay between these factors.

Methodology

Hypotheses

H_1: The relationship of perceived barriers to effective foreign exchange risk management is statistical significant and influence perception of hedging effectiveness

H_2: There is a statistically significant relationship between barriers to effective foreign exchange risk management and foreign exchange risk management strategies

H_3: Significant difference exists between age and dimensions of the study

Research Design:

The study used a descriptive research design. The primary objective of descriptive research is to provide a comprehensive description and analysis of the attributes and qualities associated with a particular occurrence, without engaging in the manipulation of variables.

Population and Sample:

Population: The population being examined comprises of organizations that are involved in foreign operations.

Sample Size: A sample of 150 organizations is selected for this study.

Sampling Method: The technique employed for the selection of organizations from the population is simple random sampling. Every organization within the population is assigned an equal probability of being selected for inclusion in the sample.

Data Collection: Data is gathered by means of surveys and questionnaires that are disseminated to the designated organizations. The questionnaire comprises issues pertaining to the perception of exchange rate risk, practices in risk management, the success of measures, and the barriers and problems encountered.

Data Analysis: The data collected is analyzed using various statistical and analytical tools:

a. Percentage Analysis:

The utilization of percentage analysis serves the purpose of offering a comprehensive depiction of the distribution of responses across various survey items. The utilization of data summarization techniques facilitates the identification of patterns pertaining to attitudes and practices about exchange rate risk.

b. Descriptive Statistics:

Descriptive statistics, including measures such as the mean, median, standard deviation, and range, are computed to elucidate and summarize the data, so offering a quantitative comprehension of essential characteristics.

c. One-way ANOVA (Analysis of Variance):

Unidirectional the utilization of ANOVA is employed as a statistical method to evaluate and analyze the variances in perceptions, practices, and effectiveness of risk management techniques across various types of businesses. For instance, this methodology can be employed to assess and contrast the reactions of various organizations characterized by diverse educational backgrounds or age demographics.

d. Structural Equation Modeling (SEM) Analysis:

SEM is a statistical technique employed to examine and evaluate the associations and interdependencies among various latent components inside a research investigation. This study aims to enhance comprehension of the intricate dynamics between perceptions, practices, efficacy, and barriers/challenges encountered in the realm of foreign currency risk management. SEM is a valuable tool in the field of research as it enables the testing and refinement of theoretical models, rendering it highly appropriate for the present study.

Ethical Considerations:

Ethical considerations are carefully addressed throughout the study process, encompassing key aspects such as getting informed consent from participants and safeguarding the confidentiality of their responses.

Data Interpretation and Reporting:

The results are analyzed and a comprehensive research report is generated. The study encompasses an analysis of the findings, their potential ramifications, and suggestions for both organizational application and further scholarly investigation.

In brief, this study employs a research technique that integrates quantitative and analytical methodologies to investigate the views, practices, and issues pertaining to the management of foreign exchange risk in the field of international financial management. The study employs a sample size of 150 firms and employs several statistical techniques such as simple random sampling, percentage analysis, descriptive statistics, one-way ANOVA, and SEM analysis. These methods are utilized to obtain significant insights into the crucial component of global company operations.

Results and discussion

The demographic characteristics of the study variable presented in Table 1.

Table 1. Demographic variables of the respondents

Demographic variables	Particulars	Frequency	Percent
Gender	Male	98	65.3
	Female	52	34.7
	Total	150	100
Age	20 to 30	62	41.3
	31 to 40	88	58.7
	Total	150	100
Educational background	High School	27	18
	Bachelor's Degree	57	38
	Master's Degree	44	29.3
	Ph.D. or Equivalent	21	14
	Others	1	0.7
	Total	150	100

Source: Computed data

Gender: The gender distribution of the respondents shows that the majority, constituting 65.3%, are male, while 34.7% are female. This indicates a gender imbalance in the sample, with a higher representation of males.

Age: The respondents' age distribution is divided into two categories: those aged 20 to 30 and those aged 31 to 40.

Among the respondents, 41.3% fall within the age group of 20 to 30, while a larger proportion, 58.7%, belong to the age group of 31 to 40.

This distribution suggests that the majority of the respondents are between the ages of 31 to 40, indicating a relatively mature and experienced sample.

Educational Background:

The respondents' educational background is categorized into several levels.

18% of the respondents have a high school education.

38% hold a bachelor's degree.

29.3% have completed a master's degree.

14% possess a Ph.D. or equivalent qualification.

A very small percentage, 0.7%, falls under the category of "Others."

This distribution highlights a diverse educational background among the respondents, with a substantial number having attained at least a bachelor's or master's degree, demonstrating a relatively well-educated sample. The descriptive statistics of the foreign exchange risk management strategies are presented in Table 2.

Descriptive Statistics

Table 2. Foreign Exchange Risk Management Strategies

	N	Mean	SD
Our organization actively uses hedging strategies to mitigate foreign exchange risk	150	1.98	1.026
We employ a mix of financial instruments (e.g., forward contracts, options) for hedging purposes	150	2.77	1.277
The effectiveness of our foreign exchange risk management strategies has a positive impact on our financial results	150	3.12	.866
We periodically review and adjust our hedging strategies in response to changing market conditions	150	1.95	1.310
Valid N (listwise)	150		

Source: Computed data

Based on the mean values, respondents appear to have a negative perception of their organization's foreign exchange risk management strategies. They "strongly disagree" that their organizations actively use hedging strategies, effectively employ financial instruments for hedging, and periodically review and adjust hedging strategies. However, they are "neutral" regarding the impact of these strategies on financial results. These results may indicate a potential area for improvement in foreign exchange risk management practices within the organizations represented in the sample. The Table 3 presents Mean and Standard Deviations values of perception of hedging effectiveness.

Table 3. Perception of Hedging Effectiveness

Particulars	N	Mean	SD
Our hedging strategies have successfully reduced our exposure to exchange rate fluctuations	150	2.35	1.401
The costs associated with our hedging activities are justified by the risk reduction achieved	150	2.73	1.428
Our organization's financial performance has improved due to effective hedging practices	150	2.60	.905
Valid N (listwise)	150		

Source: Computed data

Based on the mean values, respondents generally have a negative perception of the effectiveness of their organization's hedging strategies. They "disagree" that these strategies have successfully reduced exposure to exchange rate fluctuations, that the costs associated with hedging are justified, or that financial performance has improved as a result of effective hedging practices. These results suggest that there may be room for improvement or optimization in the hedging strategies and practices employed by the organizations represented in the sample. The Table 4 presents the results on barriers to effective foreign exchange risk management.

Table 4. Barriers to Effective Foreign Exchange Risk Management

	N	Mean	SD
Lack of expertise and knowledge within our organization is a barrier to effective risk management	150	2.65	1.332
We face challenges in predicting future exchange rate movements accurately	150	3.01	1.295
The cost of hedging is a significant hurdle for our organization	150	2.61	1.375
Resistance to change and reluctance to adopt new risk management practices exist within our organization	150	2.79	1.256
Valid N (listwise)	150		

Source: Computed data

Based on the mean values, respondents generally have a mixed perception of the barriers to effective foreign exchange risk management within their organizations.

They "disagree" that a lack of expertise and knowledge is a barrier, that the cost of hedging is a significant hurdle, or that there is resistance to change and reluctance to adopt new risk management practices. However, they "agree" that predicting future exchange rate movements accurately is a challenge, which can impede effective risk management. These results suggest that while some barriers are not perceived as significant, challenges in predicting exchange rate movements are recognized as a potential obstacle to effective risk management. Results are presented in Table 5.

Oneway ANOVA

Table 5. Comparison between age and dimensions of the study

H_3: Significant difference exists between age and dimensions of the study

		N	Mean	SD	F	Sig
Foreign Exchange Risk Management Strategies	20 to 30	62	2.5108	.56850	2.720	.001
	31 to 40	88	2.6818	.66265		
	Total	150	2.6111	.62917		
Perception of Hedging Effectiveness	20 to 30	62	2.5591	.86371	.991	.001
	31 to 40	88	2.5606	.77566		
	Total	150	2.5600	.81037		
Barriers to Effective Foreign Exchange Risk Management	20 to 30	62	2.7056	.59459	.348	.002
	31 to 40	88	2.8040	.65263		
	Total	150	2.7633	.62912		

Source: Computed data

The one-way ANOVA results reveal that there are significant differences in perceptions related to foreign exchange risk management strategies and barriers among respondents of different age groups. Specifically, older respondents (31 to 40) tend to have more positive perceptions of risk management strategies and perceive fewer barriers compared to younger respondents (20 to 30). However, the differences in perceptions regarding hedging effectiveness are relatively small between the age groups. Therefore H_3: Significant difference exists between age and dimensions of the study is supported.

Structural Equation Modelling

A statistical technique called structural equation modeling, or SEM, looks at many variables' correlations at once. SEM is seen as a set of related statistical procedures rather than a singular procedure. This family of analysis methods, which is

sometimes thought of as a combination of regression and factor analysis, looks at the measurement characteristics of a variable as well as the relationships between variables. When using SEM, researchers frequently adopt a confirmatory strategy in which they develop a "model" of the relationships between variables of interest and then look for evidence of the directionality and significance of those associations in the observed data. Multiple regression and SEM are extremely similar, however SEM is far more flexible in its analysis and much more robust. Multiple independent and dependent variables, error terms, interactions, and correlations can all be modeled using SEM. You may also use a SEM model to indicate which independent variables will affect dependent variables, allowing the dependent variables to function as independent variables in other connections. The foundation of structural equation modeling is the concept of modeling, or creating a model that illustrates the relationships between variables. Symbols will be used in this model to indicate variables, the relationships between variables, and even model errors. SEM starts with a hypothesis that the researcher hopes to test regarding the interrelationship between study constructs of interest. The connections are represented by a theoretical.

The based on the theories authors modeled the foreign exchange risk management strategies and perception of hedging effectiveness on barriers to effective foreign exchange risk management (Figure 1). Here the foreign exchange risk management strategies and perception of hedging effectiveness are predictor variables whereas the barriers to effective foreign exchange risk management is a dependent variable. The hypotheses were tested and results were presented.

Structural Equation Modeling (SEM) Analysis

Table 6. Impact of foreign exchange risk management strategies and perception of hedging effectiveness on barriers to effective foreign exchange risk management

Full Model	CMIN/DF	P	RMR	GFI	AGFI	IFI	CFI	RMSEA
Obtained value	1.321	0.000	0.845	0.932	0.916	0.823	0.9522	0.031
Observed value	≤ 5	<.05	<1	>0.90	>0.90	0.7-1.0	0-1	<.08
Independent variable		Dependent variable	Estimate	S.E.	C.R.		P	Label
Barriers to effective foreign exchange risk management	<---	Perception of hedging effectiveness	.123	.063	1.953		.001	S
Barriers to effective foreign exchange risk management	<---	Foreign exchange risk management strategies	.011	.081	.135		.003	S

Source: Computed data

The constructs AVE is greater than the variance among the constructs and other constructs of the model (Fornell and Larcker, 1981). The diagonal values in bold indicate greater (>) than its correlation with any other latent variable, hence the discriminant validity is met (Table 5). All the Heterotrait-Monotrait Ratio (HTMT) values are <0.90 indicating that the discriminant validity is established among the two constructs (Henseler et al., 2015).

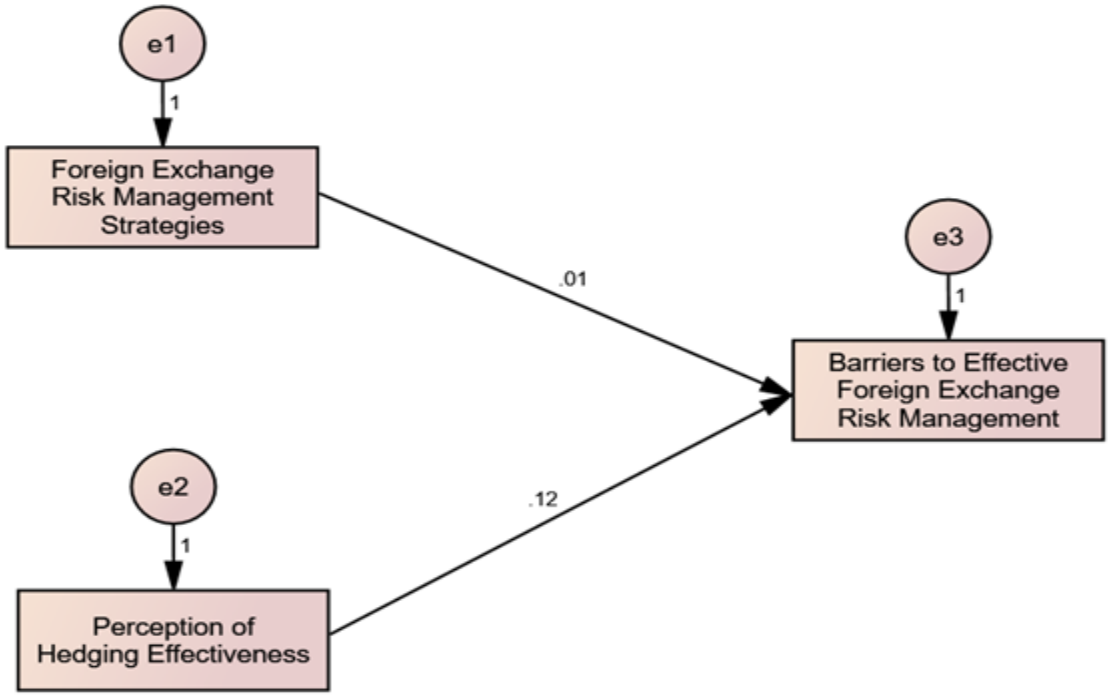
The results of the goodness-of-fit test for the sub-concept model suggest that the model exhibits a generally satisfactory match to the observed data. The model appears to effectively elucidate the associations among foreign exchange risk management strategies, perception of hedging effectiveness, and barriers to effective risk management, as indicated by the low CMIN/DF, statistically significant p-value, and values falling within the desired ranges for several fit indices (RMR, GFI, AGFI, IFI, CFI, and RMSEA). This suggests that the proposed model is a valid depiction of the underlying theoretical framework, and the observed data closely corresponds to the predictions made by the model.

Testing of hypothesis (H_1 and H_2)

The regression coefficient indicates that there is a positive relationship between "Barriers to effective foreign exchange risk management" and "Perception of hedging effectiveness." Specifically, for every unit increase in the perceived barriers to effective risk management, there is an estimated increase of 0.123 units in the perception of hedging effectiveness. The critical ratio (C.R.) of 1.953 suggests that this relationship is statistically significant (p-value = 0.001), meaning that as perceived barriers increase, the perception of hedging effectiveness tends to increase as well. Therefore H_1: The relationship of perceived barriers to effective foreign exchange risk management is statistical significant and influence perception of hedging effectiveness, and H_2: There is a statistically significant relationship between barriers to effective foreign exchange risk management and foreign exchange risk management strategies are supported.

The regression coefficient indicates that there is a positive relationship between "Barriers to effective foreign exchange risk management" and "Foreign exchange risk management strategies." However, the relationship is very weak, with an estimated increase of only 0.011 units in the perception of risk management strategies for every unit increase in perceived barriers. The critical ratio (C.R.) of 0.135 suggests that this relationship is not statistically significant at conventional significance levels (p-value = 0.003). The structural model and relationships are presented in Figure 1.

Figure 1. Structural model with relationships



Source: Computed data

Demographic Variables:

Gender: The sample is predominantly male (65.3%) with a smaller female representation (34.7%).

Age: The majority of respondents are aged 31 to 40 (58.7%), while 41.3% fall in the 20 to 30 age group.

Educational Background: Respondents exhibit a diverse educational background, with a significant proportion holding bachelor's (38%) or master's degrees (29.3%), and a small percentage having Ph.D. or equivalent qualifications (14%).

Foreign Exchange Risk Management Strategies:

Respondents generally have a negative perception of their organization's foreign exchange risk management strategies.

They "strongly disagree" that their organizations actively use hedging strategies, effectively employ financial instruments for hedging, and periodically review and adjust hedging strategies.

Respondents are "neutral" regarding the impact of these strategies on financial results.

Perception of Hedging Effectiveness:

Respondents generally have a negative perception of the effectiveness of their organization's hedging strategies.

They "disagree" that these strategies have successfully reduced exposure to exchange rate fluctuations, that the costs associated with hedging are justified, or that financial performance has improved due to effective hedging practices.

Barriers to Effective Foreign Exchange Risk Management:

Respondents have mixed perceptions of the barriers to effective foreign exchange risk management.

They "disagree" that a lack of expertise and knowledge, the cost of hedging, or resistance to change and reluctance to adopt new practices are significant barriers.

Respondents "agree" that predicting future exchange rate movements accurately is a challenge, which can impede effective risk management.

One-Way ANOVA:

Significant differences exist between different age groups (20 to 30 and 31 to 40) in their perceptions of foreign exchange risk management strategies and barriers.

Older respondents (31 to 40) tend to have more positive perceptions of risk management strategies and perceive fewer barriers compared to younger respondents (20 to 30).

Perceptions of hedging effectiveness do not vary significantly between age groups.

SEM analysis

The SEM analysis indicates that perceived barriers to effective foreign exchange risk management have a significant positive relationship with the perception of hedging effectiveness, implying that as perceived barriers increase, the perception of hedging effectiveness tends to increase. However, the relationship between perceived barriers and the perception of foreign exchange risk management strategies is weak and not statistically significant. This suggests that while perceived barriers may influence the perception of hedging effectiveness, they do not significantly impact the perception of the strategies themselves.

Suggestions

Facilitating the Development of Expertise and Facilitating the Sharing of Knowledge:

Given that respondents did not consider a lack of experience and knowledge as a significant barrier, firms may direct their efforts towards augmenting expertise and promoting information exchange among employees. The attainment of this objective can be facilitated by means of employee training initiatives, workshops, and programs aimed at fostering knowledge exchange. These endeavors are designed to provide employees with a comprehensive comprehension of concepts and tactics pertaining to the management of foreign currency risk.

Challenges associated with predicting exchange rate movements

Acknowledging the fact that survey participants have identified difficulties in accurately anticipating future fluctuations in exchange rates, it is advisable for enterprises to contemplate the allocation of resources towards the acquisition of enhanced forecasting tools and analytics. Remaining informed about worldwide economic trends and conducting thorough market study can additionally enhance the precision of exchange rate forecasts.

Enhance hedging strategies

In light of the prevailing negative attitudes around the efficiency of hedging, it is imperative for firms to undertake a thorough evaluation and enhancement of their hedging strategy. This could entail expanding the variety of financial instruments employed, revaluating the time and frequency of hedging actions, and better aligning tactics with corporate objectives.

Cost-benefit analysis of hedging activities is a crucial aspect to consider in financial decision-making.

Given the respondents' indication that the perceived costs of hedging are not justified, it is recommended that organizations undertake comprehensive cost-benefit studies of their hedging activities. This will aid in evaluating the extent to which the reduction of risk warrants the corresponding expenses and in formulating data-driven judgments pertaining to the most economically efficient methods of hedging.

Facilitating the Development of a Culture Fostering Change and Innovation:

Although there was no substantial evidence of resistance to change and unwillingness to accept new risk management methods as major obstacles, it is recommended that businesses take proactive measures to foster a culture of change and innovation. It is imperative to foster a culture that promotes receptiveness among employees towards novel ideas and techniques in the realm of risk management. Additionally, it is crucial to incentivize and acknowledge innovative efforts that result in the development of more efficacious strategies.

Age-related variations.

It is important to acknowledge that there are variations in perceptions of risk management strategies and obstacles that are influenced by age-related factors. Employees in the age range of 31 to 40 exhibit a propensity for harboring more favorable perceptions. Organizations have the opportunity to utilize the knowledge

and expertise of senior workers in mentoring and providing guidance to younger employees (aged 20 to 30) with the aim of enhancing their comprehension and proficiency in the field of risk management.

Imperative to consistently evaluate and revise established procedures.

It is imperative for organizations to have a customary procedure of periodically evaluating and revising their foreign exchange risk management strategies in light of fluctuating market conditions and advancing industry standards. The implementation of continuous improvement is necessary in order to maintain a competitive advantage in efficiently managing currency risk.

Discussion pertains to employee training and education

To ensure a comprehensive comprehension of foreign exchange risk and its management, it is advisable to allocate resources towards continuous training and educational initiatives for personnel across all hierarchical levels. This practice can facilitate the reduction of knowledge disparities and promote alignment among all members of the team.

Conclusion

In an increasingly interconnected global economy, effective foreign exchange risk management is crucial for organizations to safeguard their financial performance and competitiveness. This study explored the perceptions and practices related to foreign exchange risk management among a diverse sample of respondents. In conclusion, this study highlights the importance of ongoing efforts to enhance foreign exchange risk management practices within organizations. By addressing the identified challenges, optimizing strategies, and fostering a culture of continuous improvement, organizations can better position themselves to navigate the complexities of the global financial landscape and mitigate the impact of currency fluctuations on their financial performance. Our results are in line the with the outcomes presented by Ho et al., (2020) who examined the correlation between analyst target price projection error and foreign currency risk by utilizing firm-level

data from U.S. firms throughout the sample period of 1999-2014. We discover that a larger level of foreign exchange risk is correlated with a higher target price forecast error. Smaller businesses have a greater relationship, and financial enterprises have a less noticeable association. All things considered, the results imply that forecasters who work for companies better suited to handle foreign exchange risks commit less mistakes. Ishwarya and Preetha (2020) evaluated the importers' and exporters' knowledge of hedging tools for controlling their exposure to foreign exchange. We deduce that there is a fair level of awareness regarding the internal and external hedging tools. Forwards are the second most popular type of currency derivative after swaps. The most widely used internal hedging tools are multicurrency billing, price adjustments, and exchange risk adjustments on sales. Our study also presents the similar results in the context of hedging.

Future research directions

In the contemporary context of a highly interconnected global economy, the effective management of foreign exchange risk has become of utmost importance f The main contribution of this article is the introduction of a practical risk approach to managing foreign-exchange exposure in large proprietary trading and active investment portfolios. or enterprises in order to protect their financial stability and enhance their competitiveness. The authors recommend hedging instruments can be more discussed, researched recommended for the exporters and importers based on their sectors for their effective cash flow management. Identifying the barriers to effective foreign exchange risk management and foreign exchange risk management strategies are essential in mitigating the risk of foreign exchange management issues. We contend that business functions like purchasing, marketing, and legal can play crucial roles in assisting organizations in managing foreign exchange by creating and implementing financing, contracting, and operating strategies as part of a comprehensive supply chain risk management strategy. Our analysis of previous studies and frameworks supports our claims.

Practical implications

The establishment of a workable risk management strategy for handling foreign exchange exposure in sizable proprietary trading and active investment portfolios is the primary contribution of this paper. A model of forty diverse economies is used to study and modify important foreign-exchange risk management techniques, regulations, and processes that financial institutions, regulators, and policymakers should take into account when establishing their foreign-exchange risk management goals. The results assist businesses in redefining their action plans in order to create an effective risk management program. These findings have consequences for international portfolio investors controlling their exposure to foreign exchange risk as well as for African central banks' involvement in stabilizing their exchange rates to promote intra- and inter-African commerce. When compared to both the risk transfer contract and the wholesale pricing contract without risk hedging, the risk sharing contract's performance offers a significant improvement in the overall projected utility of both sides to the contract. Managers must gauge the risk exposure of their company and comprehend this ever-more-complex matter. A comprehensive yet approachable manual on efficient For Ex exposure management is Corporate Foreign Exchange Risk Management. According to the report, hedging tools should be better explained and suggested for importers and exporters according to their industries for their efficient.

References

Abor, J. (2005). Managing foreign exchange risk among Ghanaian firms. *The Journal of Risk Finance*, *6*(4), 306-318.

Ahmed, L. (2015). The effect of foreign exchange exposure on the financial performance of commercial banks in Kenya. International journal of scientific and research publications, 5(11), 115-120.

Al Janabi, M. A. (2007). On the use of value at risk for managing foreign-exchange exposure in large portfolios. *The Journal of risk finance*, *8*(3), 260-287.

Boakye, R. O., Mensah, L. K., Kang, S. H., & Osei, K. A. (2023). Foreign exchange market return spillovers and connectedness among African countries. *International Review of Financial Analysis*, *86*, 102505.

Bradley, K., & Moles, P. (2002). Managing strategic exchange rate exposures: evidence from UK firms. Managerial Finance, 28(11), 28-42.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research, 39-50.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43, 115–135.

Ho, T., Nguyen, Y., Parikh, B., & Vo, D. T. (2020). Does foreign exchange risk matter to equity research analysts when forecasting stock prices? Evidence from US firms. *International Review of Financial Analysis*, *72*, 101568.

Iswarya, S., & Preetha, S. (2020). Hedging instruments as a tool for cash flow among importers nad exporters. *Journal of Critical Reviews*, *7*(7).Moffett, M. H., & Karlsen, J.

K. (1994). Managing foreign exchange rate economic exposure. *Journal of International Financial Management & Accounting*, *5*(2), 157-175.

Kapila, P., & Hendrickson, C. (2001). Exchange rate risk management in international construction ventures. *Journal of Management in Engineering*, *17*(4), 186-191.

Khoury, S. J., & Chan, K. H. (1993). Hedging foreign exchange risk: selecting the optimal tool. International Financial Management, 5(1993), 134-155.

Marshall, A. P. (2000). Foreign exchange risk management in UK, USA and Asia Pacific multinational companies. *Journal of Multinational Financial Management*, *10*(2), 185-211.

Mathur, I. (1985). Managing foreign exchange risks: Organisational aspects. *Managerial Finance*, *11*(2), 1-6.

Mathur, I. (1985). Managing foreign exchange risks: strategy considerations. Managerial Finance, 11(2), 7-11.

Mathur, I., & Knowles, L. L. (1985). Foreign exchange risk management strategies of US multinationals. *Scandinavian Journal of Management Studies*, *2*(1), 41-59.

Moffett, M. H., & Karlsen, J. K. (1994). Managing foreign exchange rate economic exposure. Journal of International Financial Management & Accounting, 5(2), 157-175.

Papaioannou, Michael G., Exchange Rate Risk Measurement and Management: Issues and Approaches for Firms (November 2006). IMF Working Paper No. 06/255, Available at SSRN: https://ssrn.com/abstract=947372

Shanker, L., & Satir, A. (2021). Managing foreign exchange risk with buyer–supplier contracts. *Annals of Operations Research*, *299*, 1001-1024.

Shapiro, A. C., & Rutenberg, D. P. (1976). Managing exchange risks in a floating world. *Financial Management*, 48-58.

Solomon, J. F. (1999). Do institutional investors in the UK adopt a dual strategy for managing foreign exchange risk?. *The British Accounting Review*, *31*(2), 205-224.

Vizcarra, G. A., Gil-Lafuente, A. M., & Ochoa, E. A. (2018). Identification of the Exchange Risk Exposure by Applying the Model of Forgotten Effects. In *Applied Mathematics and Computational Intelligence 24* (pp. 381-399). Springer International Publishing.

Zsidisin, G. A., & Gaudenzi, B. (2018). Transcending beyond finance for managing foreign exchange risk. In The Routledge Companion to Risk, Crisis and Security in Business (pp. 319-327). Routledge.