

**Impact of Volatility in Exchange Rate on Profitability of Insurance Sector:
A Case Study of Leading Insurance Companies in Pakistan**

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Abstract

This quantitative study examined the Pakistani insurance industry's performance indicator due to fluctuations in exchange rate. Exchange rate volatility was considered a factor as independent variable, whereas profitability was considered a factor as dependent variable. Primary data was collected from 100 respondents of sales department & 4 interviews of sales managers were also conducted. Whereas, secondary data from five insurance firms are chosen to span the years 2012 through 2021: Jubilee Life Insurance, IGI, Adamjee, EFU, and Statelife Insurance. The frequency distribution method using a mean interval scale was used to analyse the data. Findings demonstrated that decrease in exchange rate and other elements due to fluctuations in exchange rates are mainly impacting on the profitability and also exchange rate fluctuations & profitability of studied leading insurance firms of Pakistan are inversely proportional to each other. As a result, elements that could boost profitability should receive more attention if the insurance industry in Pakistan is to enhance both its operational and financial performance.

Keywords: *Profitability, Foreign Exchange rate, Exchange rate fluctuations, Insurance firms, Insurance, Pakistan.*

Introduction

Global History of Insurance Industry:

Insurance was invented in the late 17th century due to guilds and friendly societies in England, which provided financial assistance to members in times of need. In Charles Town (modern-day Charleston), South Carolina, which is where the first insurance firm in the United States was founded, fire insurance was initially offered. The first company to contribute to fire protection was Franklin's business.

History of Insurance in Pakistan:

The State Life Insurance Corp. and Postal Life Insurance were in charge of running Pakistan's 1972-nationalized life insurance industry until 1992, when the government allowed the private sector to participate. Pakistan wrote 168 million dollars' worth of life insurance policies in 2001. Pakistan's insurance industry has grown significantly over the past few decades, with Takaful and regular insurance being the only two categories. Subclasses include life insurance and insurance against non-disaster. Metropolitan areas have an especially high need for insurance, with an industry growth rate of 20-30% yearly.

Background of the Study:

The insurance industry is an important part of any country's economic development and industrialisation, as it is tasked with effectively channelling cash, utilising resources, and treating investors. It is believed that changes in exchange rates have an impact on the predicted future cash flows of multinational firms, and that changes in the currency rate have an effect on the

firm's discount rate. Measurement of foreign exchange exposure has been done, but the empirical findings are still difficult to comprehend (Pritamani, Shome, and Singal, 2004).

According to Cheechee and Herbeman (2002), economic considerations have a significant impact on the expansion of insurance businesses. Macroeconomic variables such as interest rate, GDP, exchange rate, unemployment rate, money supply, stock market, and foreign direct investment (FDI) are closely regulated by the government, businesses, and consumers. Mulwa (2013) asserts that exposure to foreign exchange rate changes typically manifests as a negative impact on the firm's holdings of real assets and net monetary assets. Demir's (2013) robustness studies suggest that currency rate volatility significantly lowers the profitability of financial enterprises. This raises the question of how exchange rate variations have affected the financial success of insurance businesses in Pakistan.

Review of Literature:

Based on stated problem statement of this research, numerous literatures have been previously proposed on this study due to the impact that exchange rate fluctuations have on the performance of the insurance sector. A few of these are: Lambe, Kemuma (2015) "Unexpected movement in exchange rate should create a negative distortion in the financial sector (bank and non-bank), if checked this can transcend into the economy (Basirat, Nasirpour & Jorjorzadeh, 2014; He et al., 2014; Lambe, 2015; Kemum. According to Onyango (2014), exchange rate stability is really one of the key elements that encourage total investment, price stability, and steady economic growth. Demir (2013) discovered in his study that manufacturing enterprises are significantly less likely to experience growth as a result of exchange rate fluctuation. In a similar vein, Musyoki et al. (2012) discovered a negative correlation between Kenyan economic

growth and exchange rate volatility. Similar to this, a research by Kituku (2014) shows that fluctuation in foreign currency rates has a considerable negative impact on the financial performance and profitability of businesses. Additionally, Khosa et al. (2015) found that, regardless of the volatility measure utilised, exchange rate volatility had a significantly negative impact on export performance. The outcome, on the other hand, was different from that of Onyango (2014), who discovered that while exchange rate volatility has a beneficial influence on economic growth; it has no impact on the growth rate. Surprisingly, Mwanza (2014) discovered that there was no substantial association between the foreign exchange rate and company performance.

Accordingly, we may conclude from the research reviewed above that exchange rate fluctuations have an impact on the development of multinational corporations and also raise the risk level for financial institutions like banks, stock exchanges, and insurance firms. On the flip hand, a stable currency rate helps businesses reduce operational risk, monitor investment performance to see whether the business is making money or losing money, and also aids in hedging.

Gap Analysis:

Based on research by Lambe, Kemuma, and Azeez et al. (2012) and Mahmood et al. (2011), a number of studies have looked at the banking sector, which has historically been at the forefront of research on exchange rate volatility. Therefore, this piqued the interest of the Naigarian researchers to look into how currency fluctuations might impact a significant non-bank financial institution, such as the insurance industry. Moreover, existing research has conflicting findings due to lack of consistent data, indicating fluctuation's impact on profitability &

investment choices, causing risk & uncertainty. These prompted Kenyan scholars to discover the precise answer to the question: What impact does currency volatility have on the Kenyan insurance industry's profitability?

As a result, the research conducted by Naigarian and Kenyan researchers left me wondering whether exchange rate fluctuations have any effect on the financial sector of the economy. Against this background, the study examined the effect of exchange rate fluctuations on the profitability of the insurance companies in Pakistan between the years 2012 and 2021.

Problem Statement:

The insurance industry is exposed to exchange rate volatility, leading to losses, reduced investments, and decreased profitability. Insurance sector offers risk management services which enable money to be raised and made accessible to other economic actors, but the performance of the industry is impacted by the risk and choice to invest in a variable exchange rate.

Objectives of Study

- To identify the relationship between exchange-rate fluctuations and profitability of insurance firms.
- To indicate performance of insurance companies of Pakistan.

Scope of Study

- Managers of insurance firms and forex dealers will gain by understanding foreign exchange rate volatility and taking steps to control losses and profits.

- This study provides new information to control exchange rate volatility and promote insurance industry profitability.
- The study will provide insight into currency fluctuations and make it easier for investors to take advantage of them.
- This study will add to what is already known about exchange rate volatility and provide a guide for further research.

Research Methodology

With the aid of methodology, which is described as "a particular set of processes or a system of methods employed in a particular area of study," *this study aims to reveal the cause and effect link between the profitability of insurance firms and changes in exchange rates.* The study's empirical and exploratory research design makes use of data on insurance profitability and exchange rates from five of Pakistan's top insurance companies that are listed on the Pakistan Stock Exchange, and it covers the years 2012 through 2021. Additionally, a questionnaire was created, filled out by 100 respondents in the sales department using a Likert scale ranging from strongly agreed to strongly disagreed, and four sales manager interviews were also conducted.

Sampling Technique & Tools:

In order to prove the impacts of exchange rate volatility on profitability of insurance firms, the data from 25 out of 5000 (total business size) sales respondents from Jubilee Life Insurance, 25 out of 5000 (total company size) sales respondents from EFU, 25 out of 1000 (total company size) sales respondents from IGI, 25 out of 1000 (total company size) sales respondents from Adamjee and 25 out of 10,000 (total company size) sales respondents from Statelife was

collected. The study used a stratified random sample approach. In addition, tally marks and frequency distribution is used in the study to analyse each respondent's response to a questionnaire consisting 10 questions and respondents are required to click (✓) in the corresponding box, using the likert scale from agreed very positively to very negatively, as shown below: *VP= Very positively P= Positively NTRL= Neutral N= Negatively VN= Very negatively* and the selected interval for VP is 2, P is 1, NTRL is 0, N is -1 & VN is -2 respectively. Furthermore, mean is used as statistical tool to determine frequencies. In contrast, one-on-one interviews with the sales managers of Jubilee, EFU, IGI & Adamjee Life insurance were also conducted in order to wrap up the research and offer pertinent suggestions for subsequent steps.

Findings

This section discusses the interpretation and presentation of the findings obtained from the field.

Data Analysis Summary:

The outcomes of this descriptive study were discussed using a stratified random sampling technique. Jubilee Life Insurance, IGI life insurance, EFU Life Insurance, Adamjee life insurance and Statelife, five insurance providers in Pakistan, were the focus of the study. The information was gathered from the ANNUAL REPORTS (2012–2022) of the Karachi Stock Exchange-listed companies, previously stated insurance firms and TRENDING ECONOMICS PAKISTAN, which provides information on Pakistani exchange rates (2012-2022). Exchange rate fluctuations as an independent variable and profitability as a dependent variable were the variables used for this study.

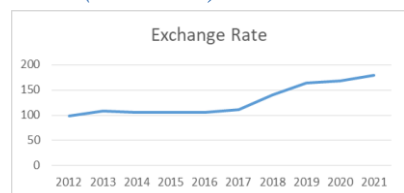
Results:

On the basis of primary data in terms of four interviews & questionnaire filled by 100 respondents of sales department of selected five insurance firms. And secondary data in terms of ten years profitability of chosen five insurance companies of Pakistan & Pakistan exchange rates of last ten years, this study interpret the following below stated results:

Trend Analysis of Exchange Rates in Pakistan; Insights from Secondary Data:

From the secondary data collected on independent variable, The Trending Economics Pakistan over the past ten years has provided insights of changes in Pakistan exchange rates which shows a slight increase of exchange

Figure 1: Pakistan exchange rates (2012-2021)



Source: Trending Economics Pakistan (2012-2021)

rate in 2013 i.e: PKR 108.58 and then decreases during 2014 to 2016 i.e: PKR 105.69, PKR 105.58 & PKR 105.38 respectively. Then it again increases in 2017 to 2020 i.e: PKR 110.66, PKR 139.85, PKR 163.75 & PKR 168.87 respectively. And finally it gets on it's peak in 2021 i.e: PKR 179.16.

Trend Analysis of Leading Insurance Firms of Pakistan; Insights from Secondary Data:

From the secondary data collected on dependent variable i.e: profitability of the insurances firms studied, it has been observed that the profitability of Jubilee life insurance gradually increases during 2012 to 2016 & it was on its peak during 2017. Whereas, exchange rates are low and

Figure 2: Studied Insurance Companies' Profitability (2012-2021)



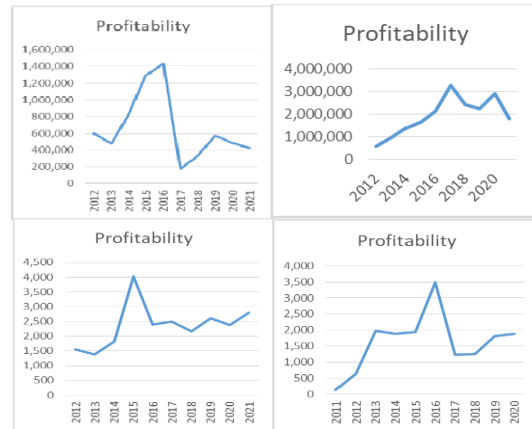
Source: IGI annual reports 2012-2021

constant during 2013 to 2015 & gets on peak during 2019 but profitability of Jubilee life insurance was reduced in 2019. Profitability of IGI life insurance gradually increases during

2013 to 2015 & it was on its peak during 2016.

Whereas, exchange rates are low and constant during 2013 to 2015 & gets on peak during 2019 but profitability of Jubilee life insurance was reduced in 2019. Profitability of EFU life insurance gradually increases

Source: EFU annual reports 2012-2021



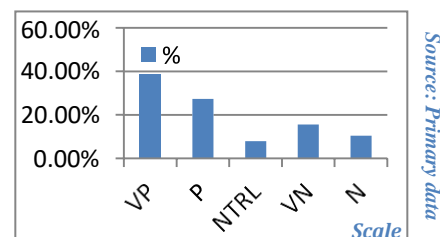
Source: State life annual reports 201-2021

during 2012 to 2014 & it was on its peak during 2015. Whereas, exchange rates are low and constant during 2012 to 2014 & gets on peak during 2019 but profitability of Jubilee life insurance was reduced in 2019. Profitability of Adamjee life insurance gradually increases during 2012 to 2015 & it was on its peak during 2016. Whereas, exchange rates are low and constant during 2012 to 2015 & gets on peak during 2019 but profitability of Jubilee life insurance was reduced in 2019. And Profitability of Statelife insurance gradually increases during 2012 to 2017 & it was on its peak during 2018. Whereas, exchange rates are low and constant during 2012 to 2017 & gets on peak during 2019 but profitability of Jubilee life insurance was reduced in 2019.

Summarized Analysis of Employees' Responses; Insights from Primary Data:

Conversely, after the descriptive analysis, primary data results derived on the basis of frequency distribution table, shows that the values of means of most of the questions are moving forward from 0.81 to 1.44 respectively i.e: decrease in exchange rate and financial

Figure 3: Percentage of Scale



Source: Primary data

risks, reduction in growth, prediction of expected cash flow, low premiums, effected firm's value & low investments due to fluctuations in exchange rate are mainly impacting on the

profitability of studied leading insurance firms of Pakistan, which shows that responses are shifting from positively to very positively agreed and according to this, frequencies indicates that 8% respondents are neutral (NTRL), 10.5% are very negatively (VN) agreed, 15.5% are negatively (N) agreed, 27.3% are positively (P) agreed. Whereas, the highest percentage of respondents i.e. 38.6% respondents very positively (VP) agreed that the fluctuations in exchange rate are positively impacting the profitability of insurance companies.

Table 1: Frequency Distribution

Please read each statement carefully & CLICK (✓) in the corresponding box, using the scale from agree Very positively to Very negatively, as shown below: **VP= Very positively P= Positively NTRL= Neutral N= Negatively VN= Very negatively.**
HOW DO YOU RATE THE FOLLOWING STATEMENTS' IMPACT ON THE "PROFITABILITY" OF YOUR INSURANCE COMPANY.

Q.NO	FACTORS	VP	P	NTRL	N	VN	FREQUENCY
1-	Increase in exchange rate.	7	14	23	37	19	100
2-	Decrease in exchange rate.	55	25	5	10	5	100
3-	Exchange rate fluctuations which leads to financial risk.	60	20	3	8	9	100
4-	Exchange rate fluctuations which leads towards reducing growth.	15	18	7	39	21	100
5-	Exchange rate stability which helps to predict expected cash flow.	47	34	8	5	6	100
6-	Descending in exchange rate when premiums are high.	52	40	4	3	1	100
7-	Ascending in exchange rate when premiums are low.	35	37	11	8	9	100
8-	Exchange rate fluctuations which effecting the firm's value.	58	30	10	2	0	100
9-	Increase in exchange rate results in low investments.	54	38	0	6	2	100
10-	Decrease in exchange rate results in high investments.	3	17	9	38	33	100
	TOTAL	386	273	80	156	105	1000
	IN %	38.60%	27.30%	8%	15.60%	10.50%	100%

Source: Primary data

Therefore, results suggest that insurance companies should focus on making such strategies under which profitability performance of insurance firms would be least affected by volatility in exchange rates so that these firms shall remain profitable without any fear of increasing or decreasing exchange rates in Pakistan.

Interpretation of Managers' Interviews; Insights from Primary Data:

To learn more about how exchange rate variations affect a company's profitability, sales managers from Jubilee, EFU, IGI, and Adamjee life insurance companies were questioned. The

interview addressed a several key areas, such as:

- The effect of exchange rate fluctuations on insurance firm profitability is determined by the positive side, such as: premiums in a foreign currency will be valued more when transferred back to the domestic currency, boosting sales and profitability. And by the negative side, such as: expenses will rise when translated back to the home currency, reducing profitability.
- Exchange rate fluctuations expose insurance companies to a variety of financial risks. Among the most significant risks are: Translation risk, Transaction risk & Contingent risk and to manage their exposure to exchange rate swings, insurance companies may employ various hedging techniques such as forward contracts, options, and swaps.
- Variations in exchange rates can result in lower revenues, higher expenses, and lower investment values for insurance firms, all of which can have an influence on the company's profitability and growth.
- Investment in insurance companies can be affected by increased exchange rates, making international investments more expensive and less appealing, leading to lower returns and harming financial health of insurance firms.
- Exchange rate stability can help insurance companies predict cash flows and manage risks more effectively, allowing them to plan and budget more effectively and retain long-term profitability. It also reduces uncertainty and volatility, making it easier for insurance companies to price their products, modifies premiums, and invests in assets denominated in foreign currencies.
- Changes in premium levels can have a significant impact on an insurance company's profitability. If premiums rise as a result of policyholders' currency depreciation, the

insurance company's profits may rise, while if premiums fall due to policyholders' appreciation, the profitability may suffer.

Conclusion

This study's goal is to determine the effects of foreign exchange rate volatility on the profitability of Pakistan's insurance companies. This study is essential in Pakistan because multiple studies on the effect of exchange rate volatility on the financial sector have always focused on the banking sector; thus, given the ambiguous nature of the Pakistani financial system and insurance business, the desire to explore what influence exchange rate volatility imposes on a crucial non-bank financial institution like insurance.

This research investigated the profitability of Pakistan's insurance companies, taking into account the elements that determine its profitability. It revealed that exchange rate volatility has a favourable influence on the profitability of the insurance industry in Pakistan, and managers and investors should be informed of this. The findings of this study apply to the entire insurance industry, and provide a direction to management to use resources and assets as efficiently as possible.

Recommendations

In carrying out this study, Regional Sales Head of Jubilee Life Insurance and Sale heads of IGI, EFU & Adamjee life Insurance were interviewed in order to come up with the positive & negative aspects of the proposed hypothesis so that better estimations and suggestions could be proposed for future actions. Under the views of them, foreign exchange losses can have a negative impact on firms' profitability, while stable and unified exchange rates can address

abnormal gains from currency variations/mispricing. It is also believed that exchange rates affect a firm's cash flows and its valuation.

Furthermore, foreign exchange rate fluctuations have a significant effect on firms' financial performance, and can lead to mispricing. Firms exposed to foreign exchange rate fluctuations, such as insurance firms, are particularly vulnerable due to an increase in foreign portfolio investment activities, which can have a negative impact on their investment performance.

Moreover, it is suggested that, Management of insurance companies in Pakistan should come up with profit risk management policies to ensure profitability even when macroeconomic variables fluctuate. The Insurance Regulatory Authority (IRA) should ensure every insurance company has strategies to react to changes in the exchange rate to avoid losses.

For reliable and the authenticity of the result, it is recommended that researchers should expand information collection and compare Pakistani industry to other countries to understand the connection between variables and determine endogenous and exogenous factors.

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