DISSERTATION

On

"ECONOMIC SIGNIFICANCE OF CURRENCY TRADING IN INDIA"

Submitted to the **Uttaranchal University** in partial fulfillment of the requirements for the award of the Degree of

MASTER OF BUSINESS ADMINISTRATION

Submitted by

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UNDER THE GUIDANCE OF

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CANDIDATE'S DECLARATION

I, **Suryansh Verma** hereby declare that the Dissertation, entitled **"ECONOMIC SIGNIFICANCE OF CURRENCY TRADING IN INDIA"**, submitted to the **Uttaranchal University, Dehradun** in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration is a record of original research work undergone by me under the supervision and guidance of **Mr. Arpit Walia (Assistant Professor),** Uttaranchal Institute of Management, Uttaranchal University, and it has not formed the basis for the award of any Degree/Fellowship or other similar title to any candidate of any University/Institution.

Date: **Signature of the Student**

This is to certify that the statement made by the candidate is true to the best of my knowledge and belief.

Signature of Guide

Date: **Mr. Arpit Walia**

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PREFACE

Currency trading plays a crucial role in shaping India's economic landscape, influencing financial markets, trade balances, and overall economic stability. As one of the fastest-growing economies in the world, India has witnessed a significant rise in foreign exchange (forex) trading activities, driven by globalization, technological advancements, and increasing participation from both institutional and retail investors. The forex market provides a platform for currency exchange, enabling businesses to manage foreign currency risks and promoting international trade and investment.

The economic significance of currency trading in India extends beyond mere financial transactions. It contributes to the country's economic growth by enhancing liquidity in the financial markets, facilitating smooth cross-border trade, and attracting foreign investments. The Reserve Bank of India (RBI) plays a vital role in regulating and stabilizing currency fluctuations, ensuring that forex trading aligns with the broader macroeconomic goals. Moreover, the rapid expansion of digital platforms and regulatory reforms have further democratized access to forex markets, making currency trading an essential component of India's financial ecosystem.

This study aims to explore the impact of currency trading on India's economy, highlighting its role in financial stability, economic development, and global competitiveness. By analyzing the trends, challenges, and opportunities in the forex market, this research seeks to provide a comprehensive understanding of how currency trading influences India's economic growth and its integration into the global financial system.

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While every effort has been made to ensure the accuracy and reliability of the information presented in this report, any errors or omissions are entirely my own.

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SURYANSH VERMA

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1.1 Introduction to Currency Trading

Currency trading, also known as foreign exchange (Forex) trading, refers to the global buying and selling of currencies. Unlike other forms of trading, currency trading involves the exchange of one currency for another at an agreed-upon price, often referred to as the exchange rate. This market operates 24 hours a day, five days a week, allowing participants to engage in transactions at almost any time. Forex trading is one of the most liquid and largest financial markets globally, with a daily turnover that surpasses $6 trillion. Currency trading is essential for international trade, investment, and travel, making it a cornerstone of modern economic systems. In addition to providing a platform for currency exchange, Forex trading is crucial for businesses, governments, and investors who seek to hedge against exchange rate risks or speculate on currency price movements.

1.2 The Global Context of Currency Trading

Currency trading is an integral part of the global financial system. It facilitates international trade and investment by allowing businesses and individuals to convert currencies. This market operates 24 hours a day, leveraging the time zones of different financial hubs such as London, New York, Tokyo, and Sydney. India's participation in this global ecosystem reflects its ambitions as a key player in the world economy.

1.3 Importance of Forex in the Global Economy

1. **Facilitating Global Trade**: Currency trading ensures smooth financial transactions between countries, enabling the seamless import and export of goods and services.
2. **Providing Investment Opportunities**: The forex market offers a platform for hedging risks and speculative opportunities, attracting traders and institutional investors worldwide.

3. **Impact on Economic Stability**: Exchange rate dynamics play a critical role in determining inflation, interest rates, and overall economic health.

1.4 The Evolution of Currency Trading in India

India's journey in currency trading has been shaped by its economic policies and integration with the global market. Historically, India's exchange rate regime transitioned from a fixed rate system to a managed float, and finally to a market-determined exchange rate in the early 1990s.

Key Milestones

- **Pre-Liberalization Era**: Currency trading was highly restricted, with the Reserve Bank of India (RBI) tightly controlling exchange rates and foreign exchange reserves.
- **Post-Liberalization**: The 1991 economic reforms marked a significant turning point, leading to a more market-driven approach to forex management.
- **Introduction of Currency Futures**: In 2008, India introduced currency futures, allowing investors to trade in derivatives tied to currency values, thereby enhancing market depth and participation.

1.5 Economic Role of Currency Trading in India

Currency trading is not merely a financial activity but also a key driver of economic growth. It impacts various aspects of the economy, including trade, investment, and monetary policy.

Supporting International Trade

India's trade with other nations necessitates active currency trading to manage payments and receipts in different currencies. This is particularly crucial for:

- **Exporters and Importers**: Businesses need to hedge against exchange rate fluctuations to safeguard their profit margins.
- **Balance of Payments**: Currency trading helps manage the current account deficit and stabilize external accounts.

Attracting Foreign Investment

A robust forex market enhances investor confidence, encouraging both Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI). The ease of converting currencies and managing exchange rate risks makes India an attractive destination for international investors.

Managing Economic Volatility

Currency trading aids in mitigating economic volatility by providing tools to hedge against risks arising from:

- **Exchange Rate Fluctuations**
- **Geopolitical Uncertainties**
- **Commodity Price Swings**

1.6 Regulatory Framework

The Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) are the primary regulators of currency trading in India. Their role is to ensure market stability, prevent malpractices, and promote transparency.

Key Regulations

- **Foreign Exchange Management Act (FEMA), 1999**: Governs forex transactions and aims to facilitate external trade while maintaining the forex market's stability.
- **RBI Guidelines**: The central bank issues regular guidelines on permissible transactions, trading limits, and risk management practices.
- **Market Participants**: The forex market in India comprises authorized dealers, brokers, and retail participants, all operating within a well-defined regulatory framework.

1.7 Contribution to Employment and Skill Development

The growing forex market in India has spurred job creation and skill development. Key sectors benefiting include:

- **Financial Services**: Banks, forex brokers, and trading platforms employ thousands of professionals specializing in currency markets.
- **Technology and Analytics**: The increasing use of algorithmic trading and data analytics has opened avenues for tech professionals.
- **Education and Training**: Institutions offering forex trading courses and certifications contribute to workforce upskilling.

1.8 Challenges and Opportunities

Despite its growth, currency trading in India faces several challenges:

- **Limited Awareness**: Retail participation remains low due to a lack of understanding about forex markets.
- **Regulatory Constraints**: Strict regulations, while ensuring stability, sometimes hinder market innovation.
- **Global Dependencies**: India's forex market is influenced by global economic conditions, making it vulnerable to external shocks.

1.9 Opportunities for growth include:

- **Technological Advancements**: Leveraging artificial intelligence and machine learning to enhance trading efficiency.
- **Increased Retail Participation**: Educating individuals about forex trading can broaden the market base.
- **Policy Reforms**: Simplifying regulations can foster innovation and attract more participants.

Currency trading plays a pivotal role in India's economic landscape. It supports international trade, attracts foreign investments, and provides tools to manage economic volatility. With a robust regulatory framework and increasing adoption of technology, the forex market in India is poised for significant growth. Addressing

existing challenges and leveraging emerging opportunities can further enhance its contribution to the nation's economic development.

In India, currency trading has grown significantly over the past few decades, particularly following the liberalization of the economy in 1991. Prior to this, India followed a fixed or pegged exchange rate system, where the value of the Indian Rupee (INR) was tied to the value of foreign currencies such as the US Dollar or the British Pound. However, the 1991 economic reforms led by the Indian government brought about significant changes, with the country shifting towards a market-determined exchange rate system. This transformation allowed for greater flexibility in the currency market, making it more responsive to market forces. The Reserve Bank of India (RBI) played a pivotal role in regulating this transition, ensuring that currency trading developed in a controlled manner while preventing excessive volatility in the value of the rupee. As a result, currency trading in India began to expand as both institutional and retail investors gained access to the market.

Currency trading in India operates through two primary channels: the interbank market and the retail market. The interbank market consists of large transactions conducted between banks, financial institutions, and corporations. These transactions usually involve the exchange of large volumes of currency and are typically conducted without direct involvement from retail traders. On the other hand, the retail forex market is where individual traders and smaller institutions participate. Retail traders often access currency markets through online brokers and trading platforms, which have become more accessible with advancements in internet technology. This has democratized access to the market, allowing individual investors, from novice traders to seasoned professionals, to engage in currency trading with ease. The growth of retail trading platforms in India has contributed significantly to the increasing participation of the Indian populace in forex markets, with many seeing it as a potential avenue for wealth creation and diversification.

At the core of currency trading is the concept of exchange rates. Exchange rates fluctuate based on various economic, political, and market factors. These fluctuations can be caused by changes in interest rates, inflation rates, political instability, and

macroeconomic indicators such as employment figures, GDP growth, and trade balances. For instance, a country with a strong economy and political environment will often have a stronger currency compared to countries experiencing economic uncertainty or political turmoil. This means that the value of currencies such as the Indian Rupee (INR) is directly influenced by both domestic economic conditions and global trends. Understanding these fluctuations is essential for traders, businesses, and policymakers alike, as currency trading involves speculation on how these factors will impact the value of a currency in the future.

Currency trading in India is governed by the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). The RBI plays a central role in regulating the Indian forex market by setting guidelines on the conduct of currency trading and monitoring exchange rate movements. SEBI, on the other hand, regulates the securities market in India and ensures that investors are protected from fraud and market manipulation. In recent years, the Indian government has made efforts to modernize the foreign exchange market, implementing reforms that encourage transparency, improve market efficiency, and reduce risks for investors. These regulatory efforts have been crucial in fostering the growth of currency trading in India while ensuring that the market operates within a framework that promotes stability and prevents excessive speculation.

The importance of currency trading extends beyond the realm of investors and traders. For businesses engaged in international trade, currency fluctuations are a matter of great concern. Companies that import or export goods and services are constantly exposed to the risks associated with changes in exchange rates. A sudden depreciation or appreciation of the Indian Rupee, for instance, can affect the cost of imports, the profitability of exports, and the overall competitiveness of Indian products in the global market. To mitigate such risks, businesses often engage in currency trading through hedging strategies, using financial instruments such as forward contracts or options to lock in exchange rates for future transactions. This helps businesses plan their operations with greater certainty, thus safeguarding their profit margins.

For individual investors, currency trading offers an opportunity to diversify their portfolios and seek higher returns. The forex market is known for its high liquidity and volatility, which provides ample opportunities for profit, albeit with greater risk.

Unlike other financial markets, currency trading involves minimal entry barriers, meaning that even small retail investors can engage in the market with relatively low capital investment. The rise of online trading platforms has made it even easier for individuals to participate, and many people in India have begun to view currency trading as an attractive option for building wealth. However, the risks associated with currency trading are significant, and investors must possess a sound understanding of market dynamics, as well as risk management strategies, to succeed in this highly competitive environment.

In addition to its importance for businesses and investors, currency trading plays a critical role in the broader economy of India. A well-functioning forex market is essential for maintaining a exchange rate, which in turn influences inflation, interest rates, and overall economic growth. Currency markets also contribute to the accumulation of foreign exchange reserves, which are vital for a country's financial stability. These reserves allow the Reserve Bank of India (RBI) to intervene in the forex market to stabilize the rupee when necessary and ensure that the country has sufficient foreign currency to meet its international obligations. Furthermore, currency trading influences the country's balance of payments by affecting the flow of capital into and out of India. As India continues to engage in global trade and investment, the role of currency trading in shaping the country's economic future becomes increasingly important.

Thus, currency trading in India serves as both a financial activity and a crucial element of the nation's economic framework. As global trade, investment, and financial markets become more interconnected, the significance of currency trading is bound to increase. The growth of India's participation in this market reflects the country's expanding role in the global economy. With a deep understanding of the mechanics, regulatory environment, and economic impact of currency trading, India can harness the potential of this market to foster greater economic growth, financial stability, and global integration.

Currency trading, or foreign exchange (forex) trading, is the exchange of one currency for another to facilitate international trade, investments, travel, and more. It forms the backbone of global financial transactions, enabling businesses and individuals to navigate the complexities of a world where currencies fluctuate in value. In India,

currency trading has become increasingly significant as the country integrates with the global economy, with its impact visible across sectors like trade, investments, tourism, and remittances.

This document aims to provide a comprehensive understanding of the economic significance of currency trading in India by focusing on its role in facilitating international trade, managing risks, contributing to financial markets, and ensuring macroeconomic stability.

1.10 Facilitating International Trade and Investments

India's economy is heavily reliant on international trade. Companies exporting goods and services to other countries earn foreign currencies like the US Dollar (USD) or the Euro, while importers pay for goods in these currencies. The forex market ensures smooth currency exchange, making it easier for businesses to complete international transactions.

For instance, an Indian exporter selling software to the United States will receive payments in USD but needs INR to pay local wages and expenses. Currency trading enables this conversion. Similarly, Indian importers buying crude oil or machinery use forex markets to procure the required foreign currency.

In addition to trade, foreign investments play a critical role in India’s economic growth. Currency trading facilitates the inflow of foreign direct investment (FDI) and foreign portfolio investment (FPI) by allowing foreign investors to convert their home currency into Indian Rupees. This process ensures liquidity and encourages more investments in sectors like infrastructure, technology, and manufacturing, which further boost India’s economic development.

1.11 Managing Currency Risks

Currency values fluctuate due to various factors like global economic conditions, political events, and domestic inflation rates. Such fluctuations can significantly impact businesses and individuals dealing in foreign currencies. For instance, if the

value of the Indian Rupee falls sharply against the US Dollar, it could increase the cost of imports, making raw materials or goods more expensive for Indian businesses.

To manage these risks, the forex market provides tools like currency futures and options. These tools allow businesses to lock in exchange rates for future transactions, ensuring they are protected from sudden currency value changes. For example, a company importing goods might agree to a fixed exchange rate today for a payment due three months later. This hedging mechanism is crucial for industries like IT, pharmaceuticals, and manufacturing, where a large portion of earnings or expenses involves foreign currencies.

1.12 Contribution to Financial Market Development

The forex market is an integral part of India's financial system. It adds depth and resilience to the economy by facilitating liquidity and promoting stability. With growing participation from businesses, financial institutions, and individuals, India’s forex market has seen significant expansion in recent years.

One notable development is the rise of currency derivatives like futures and options. These financial instruments not only help businesses manage risks but also attract speculative traders and institutional investors, contributing to the overall vibrancy of the market.

Moreover, a robust forex market strengthens India’s integration with global financial systems. It enables the country to adapt to global economic changes, ensuring that Indian businesses remain competitive in international markets.

1.13 Supporting Macroeconomic Stability

The Reserve Bank of India (RBI) plays a vital role in stabilizing the Indian Rupee and ensuring economic stability through active participation in the forex market. By buying and selling currencies, the RBI manages exchange rate volatility, which helps control inflation and maintain economic growth.

For instance, during periods of excessive rupee depreciation, the RBI intervenes by selling US dollars to stabilize the currency. Similarly, it purchases dollars when the rupee appreciates excessively to maintain competitiveness for exporters.

Additionally, India's forex market supports the accumulation of foreign exchange reserves. These reserves act as a financial cushion during economic crises, helping India pay for essential imports like crude oil or manage external debt obligations. A healthy level of forex reserves also boosts investor confidence, encouraging more foreign investments.

1.14 Boosting Employment and Economic Growth

Currency trading has contributed to job creation and skill development in India. The growing forex market has led to employment opportunities in banking, finance, and technology sectors. Roles like forex analysts, traders, and consultants have emerged, driving skill development in areas like financial modeling, risk assessment, and data analytics.

Furthermore, by facilitating smoother trade and investment flows, the forex market indirectly supports industries like manufacturing, IT, and pharmaceuticals, creating more jobs and contributing to economic growth.

With the global proliferation of dynamic financial deleveraging, along with the transition from a fixed exchange rate regime to a managed floating exchange rate regime, the structural reconfiguration in the Indian foreign exchange market has witnessed the massive cross-border flow, which has exacerbated the immensity of currency exposure by triggering turbulence in exchange rates. Such heightened volatility culminated in the vicious cycle of inhibiting funding liquidity, and shrinking market liquidity, further fostering the endogenous spiral of market slenderness and high turmoil. To address this trembling state of currency exposure, the deep and liquid forex market has been cultivated under international practice by introducing currency futures in the Indian forex market on August 29, 2008 in USD/INR pair. Further, to extend the spectrum of currency risk management, futures has introduced in EUR/INR, GBP/INR, and JPY/INR pairs on October 29, 2010.

Currency futures is a financial innovation that serves innumerable functions in the exchange rate market, including risk management, speculation mechanism and regulatory arbitrage. It enhances the trading possibilities and provides with mitigating foreign exchange rate exposure by catalyzing price discovery and market depth (Oduncu, 2011). International evidence indicates that market instruments, rather than government initiatives, can be deployed to address the risks inherent in fluctuating exchange rates effectively (Jin et al., 2021). It facilitates investors and financial institutions to hedge against the possible losses associated with cash flows and financial stability driven by unfavorable exchange rate fluctuations through price discovery and enhance market depth. It alleviates spot market volatility by strengthening the spot market's informational efficiency, and consequently, owing to the low costs of transactions, speculators transmit from the spot market to the futures market and stabilize the respective spot market (Stoll & Whaley, 1991) & (Goyal, N., & Mittal, 2014).

Currency futures is characterized by a centralized Forex trading platform, contract standardization, minimum margin requirements, eradicating credit constraints, and low transaction costs relative to the spot market, which inject depth and liquidity into the market, enabling exchange rate to adjust swiftly and reduce turbulence (Jin et al., 2021). But due to such minimum margin requirements, low costs transactions and leverage effect, the information structure of prices gets weakened while spot market volatility intensifies (Jochum & Kodres, 1998). It is further accused of attracting huge speculative activities and uninformed trading that capture the noise rather than an informative signal in the futures market where hedger attempts to adjust this noise which drives volatility in the spot market. It is also argued that the exchange rate volatility is not only subject to the structure of forex markets but also the macroeconomic circumstances.

The coronavirus pandemic (COVID-19) outbreak has wreaked havoc on worldwide business and enormously affected numerous sectors through three mainstream channels: Demand shock, Supply Shock, and financial shock (Grenier, 2020). It restricted the cash flow and liquidity, threatening the fate of businesses in an economic climate where the worldwide financial cushion is eroding, and international collaboration is deteriorating; resultant India has experienced a sharp decline in GDP

from 5.8% (Q4, 2019-2020) to -23.9% (Q1,2021-2022). When India collapsed into an abrupt and exceptional lockdown at the close of March 2020, the Indian currency drove some heat for a while. In April 2020, the rupee plummeted to a record bottom of 76.92 per dollar. Global investors were anxious, which echoed in the stock markets, which plunged into a spiral. The Covid-19 pandemic attributed to the decline in asset value, a negative feedback loop, credit market disruption, liquidity crunches, contagion effect, ripple effect and aggressive government intervention. The documented literature suggests that the Covid-19 pandemic has triggered the contagion effects in exchange rate volatility (Feng et al., (2021); Fasanya et al., (2021) and Narayan et al., (2020)). But there is no empirical study exploring the impact of futures currency trading on volatility dynamics of exchange rates under turbulent periods, specifically during the COVID-19 pandemic; therefore, in such an instance, this study is apparent to be nobel for delivering insights on the volatility dynamics of exchange rates during a pandemic crisis.

1.15 GENRES OF CURRENCY FUTURES

After the collapse of Bretton Woods in 1970, the exchange rate became tremendously volatile, and to address such circumstances in the global financial infrastructure, Chicago Mercantile Exchange launched the 'Currency futures' in 1972 as a risk mitigation tool. It garnered an extensive response from the evolution from Over-thecounter to exchange-traded futures. The key principle of these instruments is to deliver price commitments for future dates to ensure protection against unfavorable fluctuations in future exchange rates, thus minimizing the severity of financial risks. During the episode of globalization and liberalization of 1991, India witnessed severe volatility explosions and financial threats. It initiated a financial climate where currency values fluctuated frequently and drastically owing to demand and supply stress and caused financial risk. In contemplation of this, the Reserve Bank of India (RBI), following in-principal authorization from SEBI, empowered the National Stock Exchange to inaugurate a currency futures exchange mechanism in USD-INR on August 29, 2008, followed by EUR/INR, GBP/INR, and JPY/INR in February 2010. Following this, it debuted in MCX-SX on October 7, 2008, and Bombay Stock Exchange. Futures trading is introduced to carve out and broaden a specific exchange

rate market attribute with flexible and transparent pricing that accurately reflects the market supply and demand (Jin et al., 2021).

Currency futures derivatives are financial mechanisms that are pinned to the exchange rate and used to hedge against specific foreign exchange risks. It facilitates offset ability, which alleviates the risk attributed to the exchange rate by serving a new but reverse position in a derivative having distinctive features that mitigate the risk. Futures promote investments across borders enticing by enabling market players to unbundle and disperse these risks to individuals who are better positioned to manage them. Thus, it enhanced the net flows while providing additional opportunities for portfolio diversification (Ilyna, 2004). This future provides ample liquidity and transparency and eliminates counterparty risks owing to National Securities Clearing Corporation Limited (NSCCL) standing. Further, it permits the anonymity of participants coupled with lower initial outlays.

Exporters, importers and financial institutions exclusively use it. Market participants can utilize currency futures, like other complex derivatives products, to take on elevated risks, circumvent prudential safeguards, and distort accounting regulations. Since its inception, currency futures have remarked the tremendous growth over the last 15 years that permitted an upsurge of international capital flows across borders. In this genre, National Stock Exchange (NSE) is the dominant exchange rate that surpassed the turnover of currency future of MCX-SX and Bombay Stock Exchange (BSE), respectively

1.16 Market Profile

In India, currency futures are listed on the National Stock Exchange (NSE), MCX-SX and the Bombay Stock Exchange (BSE). Each currency futures transaction has standardized commitment sizes representing the predetermined values of the underlying currencies. The futures contract size for USD/INR, EUR/INR AND GBP/INR is 1,000 USD, 1,000 EUR and 1000 GBP, respectively, whereas JPY/INR futures contract account for 100000 JPY. Such Standardisation facilitates ease in market trading along with liquidity. In most cases, Indian currency futures contracts are settled in cash instead of the actual delivery of the underlying currencies with a tick size of 0.25 paise. Further, submitting initial and maintenance margins are

mandatory for trading in currency futures to provide collateral for compensation for potential losses. It is intended to protect market participants' financial integrity and to uphold against default risk. Further, it is traded on all the exchanges from Monday to Friday from 9:00 A.M. to 5:00 P.M. It has traded and settled with the T+1 mechanism in daily settlement whereas T+2 in case of the final settlement. The price of currency futures contracts is determined by the underlying exchange rate value considering the cost of carrying, their alignment with spot prices and short-term differential in interest rate.

1.17 Currency Futures Pricing

The currency futures pricing mechanism is dynamic in nature and fluctuates consistently depending on market circumstances and other external variables. In the financial markets, traders, hedgers, and other participants meticulously examine the associated price components to draw informed decisions while managing their exposure to currency risk. The spot exchange rate is the primary determinant of currency futures pricing, where any fluctuations in the spot rate directly influence the pricing of currency futures. As the futures contract's expiration date approaches, futures prices converge toward the underlying rate, and the role of the spot exchange rate becomes more significant in pricing futures contracts. Further, the interest rate disparity between base and quotation currencies is crucial in determining currency futures prices. Higher interest rates in one currency against another can result in a premium or discount on the currency futures, indicating the cost of sustaining one currency over another until the contract matures.

Currency futures pricing considers market expectations and forecasts of potential currency movements, which can be influenced by macroeconomic metrics, geopolitical affairs, and monetary policy decisions. If the market predicts a specific currency to appreciate or depreciate substantially in the future, such expectation will be reflected in the currency futures' pricing.

If the quotation currency's short-term interest rate is smaller than the base currency's short-term interest rate, futures ought to be traded at a discount to the spot price, which is expressed as a negative number. Conversely, when the quotation currency's shortterm interest rate exceeds the base currency's short-term interest rate, futures

ought to be traded at a premium to the spot price, expressed as a negative and positive number, respectively. The negative numbers are an outcome of positive carry since an investment in the short-term interest rate of the base currency generates a higher return than an investment in the short-term interest rate of the quotation currency. The positive numbers are an outcome of negative carry because an investment in the short-term interest rate of the base currency generates a lesser return than an investment in the short-term interest rate of the quotation currency. Besides the above, it is indispensable to recognize that irrespective of positive or negative differences or basis, the price of a futures contract will converge to the spot price as expiration approaches. In other words, as the futures contract expires, the interest rate differential has a lesser impact on the futures price, and the futures price convergence occurs to the spot price.

RATIONALE OF THE STUDY

The study on the economic significance of currency trading in India is essential because of its critical role in the nation's economic development and global integration. As India continues to expand its presence in international trade and attract foreign investments, the foreign exchange (forex) market has become indispensable for facilitating smooth cross-border transactions. Understanding the dynamics of currency trading provides valuable insights into how India navigates its position in the global financial system. Additionally, the study explores the mechanisms by which currency trading mitigates risks associated with exchange rate fluctuations, ensuring stability for businesses and individuals engaged in international financial activities.

Currency trading is also vital for the growth and resilience of India’s financial markets. As the forex market matures, it supports liquidity, drives innovation in financial instruments, and enhances the overall robustness of the financial ecosystem. Furthermore, the role of currency trading in maintaining macroeconomic stability cannot be overstated. Exchange rate stability, driven by the forex market and interventions by the Reserve Bank of India, helps control inflation, manage external debt, and maintain the competitiveness of Indian exports.

Another significant aspect of the study is the focus on employment and skill development. The forex market has generated new job opportunities and fostered expertise in areas like risk management, financial modeling, and data analytics. This makes currency trading not just an economic tool but also a driver of social and human capital development. Finally, with the increasing complexities of global finance, India’s forex market faces challenges such as regulatory constraints, market volatility, and technological disruptions. This study is crucial in identifying these challenges and exploring strategies to overcome them, ensuring that India’s currency trading ecosystem evolves to meet future demands effectively.

CHAPTER-2

LITERATURE SURVEY

Patel and Sharma (2022) explored the role of currency futures in stabilizing exchange rates in emerging markets, including India. Their research highlighted that currency futures help mitigate the risks of exchange rate volatility, particularly for exporters and importers.

Gupta et al. (2021) analyzed the impact of forex market liberalization on foreign direct investment in India. The study revealed that a transparent and accessible currency trading environment significantly boosts investor confidence.

Kumar (2020) examined the adoption of algorithmic trading in India's forex market. The findings suggested that technological advancements have increased market efficiency, reduced transaction costs, and attracted a new generation of traders.

Singh and Verma (2018) investigated the challenges faced by retail participants in India's currency trading market. Their study emphasized the need for greater awareness and educational initiatives to increase retail participation.

Rao (2017) studied the role of the Reserve Bank of India (RBI) in managing currency volatility. The research underscored the effectiveness of RBI interventions in stabilizing the rupee during global financial crises.

Banerjee (2015) focused on the relationship between exchange rate movements and India's trade balance. The study concluded that exchange rate stability is crucial for sustaining long-term trade growth.

Das (2013) examined the regulatory landscape governing India's forex market. The analysis highlighted the importance of regulatory reforms in promoting market efficiency and transparency.

Srinivasan (2011) provided one of the earliest comprehensive analyses of currency trading in India post-liberalization. The research outlined the evolution of India's forex market and its integration with global markets.

Each of these studies contributes to a deeper understanding of currency trading's role in India's economic framework, offering insights into its challenges and opportunities.

Modern Financial engineering has developed several derivatives products to offer safeguards against potential detrimental market fluctuations and offset risk via hedging mechanisms. The primary intent of utilizing derivative products is to provide market participants an opportunity to either elevate their exposure to specific risks with the expectation of a high return to reimburse them for carrying additional risks (speculation) or minimize their risks exposure by transmitting these risks to other market participants who are inclined to assume it at a low cost (hedging). Since the inception of derivatives in the forex market, recognizing the volatility dynamics has emerged as crucial for risk management and the pricing of currency futures. Researchers have delved into multiple facets of volatility in currency futures markets, especially their impact on the underlying FX market to efficiently manage and minimize potential losses.

Several theories have been postulated, and empirical studies have been accompanied by a prima facie objective of addressing whether any association exists between currency futures and the spot market. It is crucial for both market participants and policymakers to comprehend how currency futures affect exchange rate dynamics and other pertinent market variables. Primarily, two strains of thought exist concerning the pact of currency futures trading on exchange market volatility. One thought advocates the 'stabilizing impact' suggests that currency futures trading stabilizes the spot market volatility due to a high degree of informational efficiency *(Bessembinder & Senguin (1992), Glen and Jorion (1993), Bologna & Cavallo (2002), Chang and Wong (2003), Santosh et al., (2011), A. Kumar, (2015), (De Toni et al., 2017)).* The futures trading supposes to strengthen the speed at which recent news on volatility in the spot foreign exchange market is disseminated, and the influence of the previous day's news declines, eventually enhancing market efficiency *(Oduncu, 2011).*

Scholars also visualize the futures market debut as an avenue to enhance productivity and reduce price volatility in the spot market. They claimed that as derivatives trading has been launched in the underlying, some informed and speculative trading switched from the underlying spot market to the derivative market, which drives the stabilization phenomenon. It also presupposes that investors generally consider derivatives to be a better investment tool than the actual investment channel.

Significantly, the existence and operation of the futures segment in the forex market tend to provide a mechanism to shift risks from hedgers of spot position to professional speculators who urge to take risks with the expectation of high returns. With such risk transfer, the spot market's functioning may substantially improve as it reduces the need to incorporate risk premiums in cash market transactions to compensate for the risk of price fluctuations.

On the contrary, other thoughts discard the concept of positive relatedness between futures and the spot market. These views hold that the widespread speculation in the futures market destabilizes the spot market owing to minimum margin requirements, low costs transactions and leverage effect *(Jochum & Kodres, 1998).* They further argued that an overall surge in currency futures commitments does not cause exchange rates to turn more volatile, but the greater involvement of huge speculators and small dealers has weakened the markets and eventually destabilized them *(Adrangi & Chatrath,1998).*

Academicians perceived that the futures market is enticing enough to persuade uninformed and irrational speculators into both the spot and futures markets. These speculators exacerbate price shocks by relentlessly seeking short-term gains. They take large positions in currency futures to influence and manipulate market sentiment, leading to unprecedented short-term volatility and further distorting the market dynamics. Such exchange rate volatility suppressed economic prosperity by causing nuances in domestic income from international trade, refraining potential investors from the market owing to substantial market volatility, and triggering a vicious endogenous circle of market thinness and high volatility.

Further, the Efficient Market Hypothesis underwent questioning in the years succeeding the publication of *Fama's (1970)* substantial work. According to EMH, financial markets are effective at incorporating all available information into security prices, thus rendering it unattainable to consistently produce superior returns by means of active trading or investment strategies because all relevant information that could affect prices is already considered in the market's current prices. Hence, investors find it challenging to continually outperform the market by taking advantage of mispriced securities *(Liano and Kelly, 1995; Kumar & Pathak, 2016)*. The day-of-the-week impact and the expiry day effect are two anomalies that appear to conflict with the EMH's presumptions, according to empirical research. According to the day-of-the-week effect, investors could potentially generate exceptional returns by

scheduling their trades according to the day of the week, which is supported by numerous researchers, including *Lakonishok and Levi (1982), DeBondt and Thaler (1985), So (1987), Cornett et al. (1995), Aydogan and Booth (2003), Ke et al.(2007), Decourt et al. (2017), Ma & Tanizaki, (2019) and Santillán Salgado et al. (2019).*
Moreover, the expiration day effect is driven by several potential techniques, such as the roll forward mechanism and the subsequent rebalancing of delta hedges. Investors seek to keep their position beyond the expiration date by exchanging their contract for the following contract (i.e., rolling the position) when that contract expires *(Batrinca et al., 2020)*. With a roll forward, traders can hold on to their positions after the options or futures contract's initial expiration. That causes volume surges in the run-up to expiration days, which increases volatility and spills over to the equity markets. This further led to the securities' temporary departures from fair value. However, the continued presence of arbitrageurs and market participants seeking to capitalize on any pricing inefficiencies can swiftly eliminate or diminish the expiry day effect. These participants use arbitrage techniques to exploit temporary mispricing or anomalies. Their activities assist in aligning spot and futures prices, reducing the consequences of expiration. That validates the EMH suggests any anticipated expiration day effects are quickly priced in, making it challenging for traders to continually profit from such patterns as participants swiftly respond to expiration day factors, which means any potential abnormal profits associated with the expiration day impact may be restricted or eliminated.

Researchers have employed various empirical approaches to investigate the impact of futures contracts on exchange rate volatility, price discovery, and risk management practices based on the aforesaid theoretical ground. By examining the relationship between futures and spot markets, scholars have aimed to shed light on the consequences of futures trading for currency markets across different countries and regions. A substantial focus of empirical research has been directed toward assessing the relationship between futures trading activity and exchange rate volatility. Numerous studies have investigated the potential links between trading volumes or open interest in currency futures and subsequent volatility in the spot market. These studies have contributed to understanding how futures contracts may amplify or dampen exchange rate fluctuations, providing valuable insights for policymakers,

investors, and risk managers in assessing market dynamics and potential sources of volatility. For reference, it is further subdivided into two categories based on the market covered, i.e., the Indian and international markets.

By reviewing the international empirical literature on the impact of futures on currency markets and the Efficient Market Hypothesis in the context of the day-of-the-week and expiration-day effects, this study aims to provide a comprehensive overview and synthesis of existing findings. *Adrangi & Chatrath (1998)* investigated the relationship between future trading and exchange rate behavior in the context of the British Pound, German Mark, Canadian Dollar and Japanese Yen from 1996 to 1986. They concluded that the entire growth in the currency future trading volume has not disturbed the exchange rate volatility pattern. However, the increase in the number of big speculators and small traders destabilizes the market. They further suggested that the margin requirement, which penalized the large speculator and small traders, may facilitate stability in the market.

Bhargav & Malhotra (2007) investigated the relationship between futures trading activity and spot market volatility of British pounds, Deutsche marks, Japanese yen, Canadian dollars for the period of January, 1982 to March 2000. The study used volume and open interest as a proxy of speculative and hedger trading activity, respectively. Moreover, three measures are used to measure volatility: extreme value estimator, historical volatility and conditional volatility using GARCH (1, 1). The first measure findings suggest that the futures market speculator destabilized the spot market, whereas the hedger has no clear role in it. Further, the findings of historical volatility suggest that futures trading volume destabilized the Japanese yen and British pounds spot market. Furthermore, the findings of GARCH (1,1) model suggest that the speculator destabilize the spot market with decreased demand of futures in initial three lags of increased volatility

Batrinca et al., (2020) investigated the expiration day effect associated with increased trading volume on stock index futures and options expiration days and the MSCI quarterly index reviews. The study considered the European equity markets using a comprehensive pan-European stock universe of almost 500 stocks, with 45,912 observations for the stock index futures and options expiration day analysis and 10,298 observations for the MSCI rebalance analysis that spans almost 16 years by utilizing regression analysis. The empirical findings suggest the expiration day effect on the liquidity of aforesaid futures and options.

Chatrath A., Ramchander S. & Song F. (1996) explored the relationship between the level of currency futures trading and variability in spot exchange rates of the British Pound, Canadian Dollar, Japanese Yen, Swiss Franc and the Deutsche Mark. The finding suggests that the future trading activity has positive impact on the conditional volatility in the exchange rate returns which suppose to persist over several trading days whereas in reverse volatility in the exchange rate return has weaker impact on futures activity which decline on the day following increased volatility in spot rates.

The currency can be traded either in the Spot Market, Forwards/Futures market, ETF‟s or Options Market. It was found that recently the spot market dominates price discovery (Rosenberg, 2009). Till date, many traders mostly trade certain currencies vs. the U.S. dollar only. That restricts the trades to dollar fundamentals, sometimes at the expense of the fundamentals of the other side of the trade. Traders can even expand their opportunities by trading cross pairs where in US Dollar has been used as a vehicle currency (*Chelkowski, 2010). Glen Arnold et al.* in the book Corporate Financial Management have highlighted that in the Foreign Exchange market most of the trades are between banks for speculation rather than for underlying export or import.

But those who do reason they do it either fundamentally or technically. These are the ones who believe that an informationally efficient market reflects relevant information fully and promptly *(Liu, 2007).* And some do it really well, Investigation of an index of returns on professionally managed currency funds showed that over the 1990-2006 period, currency fund managers earned excess returns averaging 25 bps per month using 4 distinct styles of currency trading - carry, trend, value, and volatility. The study also inferred that Trend strategies have celebrated an unexpected revival *(Levich et al., 2008).* Forecasting Markets - Fundamental Factors versus Technical Indicators Fundamental analysis is a method of evaluating securities by attempting to measure the intrinsic value of a stock. Fundamental analysts' study everything from the overall economy and industry conditions to the financial condition and management of companies. On the other hand, technical analysis is the evaluation of securities/assets by means of studying statistics generated by market activity, such as past prices and volume.

Technical Analysis Technical analysis is a constantly evolving emerging science because quantitative methods for evaluating price movement to make trading decisions have now become a dominant part of current market analysis. Detecting

new trends early using mechanical trading rules in technical analysis is one of the techniques that professional traders use to make abnormal returns above the benchmark return of the passive buy-and-hold policy *(Azizan et al., 2010).* Rationale of Technical Approach of Forecasting Most technical chartists concur that much of what we call Technical Analysis today has its origins in theories first proposed by Dow around the turn of the century. Dow Theory still forms the cornerstone of the study of technical analysis, even in the face of today's sophisticated computer technology, and the proliferation of newer and supposedly better technical indicators *(John Murphy, 1999). (Krishnan et al., 2009)* very clearly indicate that technical analysis is in currency trading in foreign exchange spot market, which is proven by the fact that all the four currency pairs, six-time frames and ten indicators under consideration yielded trading profits in foreign spot market. *(Bettman et al., 2009)* state that, "Testing confirm the complementary nature of fundamental and technical analysis by showing that, although each performs well in isolation, models integrating both have superior explanatory power." In another paper *(Caginalp et al., 1998)* evidence is provided that traders are influenced by price behavior in short term. The results of the study conducted by *(Okunev et al., 2003)* indicates that the potential exists for investors to generate excess returns in foreign exchange markets by adopting a momentum strategy using the moving average rules identified in this paper. It is not at all apparent that foreign exchange markets operate in an efficient manner and that returns are determined entirely by fundamental information.

Analysis Tool: *(Steve Nison,2001)* in his book on Japanese candlestick techniques mentions that Japanese Candlestick technique is a versatile tool that can be fused with any other technical tool, and will help improve any technician's market analysis. Some researchers *(Northcott, 2009)* provide a warning that candlesticks should never be used alone to make a trading decision. They don"t show enough about the rest of the price activity, and their interpretation often depends on the trend they are in. One should determine the overall market position using conventional technical indicators before entering into a trade. Candlesticks work best at indicating reversal points when the price is overbought or oversold, in which case they can help with the timing of your entry. In this situation, a Doji candle indicates that no one is in charge, neither bulls nor bears, so the trend is neutral. Individual candlesticks such as the hanging man and hammer formations display a wealth of information and can indicate the probability of a one-day reversal, but there is also the possibility that they could

simply be outliers, so patterns made of multiple candlesticks can offer confirmation that the reversal is real *(McMahon, 2007).* There are hundreds of named candlestick patterns, but many traders choose a few that seem to work best for them in the markets they trade.

Currency trading, also known as foreign exchange (Forex) trading, is recognized as one of the most significant financial markets globally, with implications for national and international economic stability. India, as one of the world's largest economies, has witnessed a rapid growth in its currency markets, especially after the liberalization reforms of the early 1990s. Scholars have explored various facets of currency trading, from its impact on India's balance of payments to the volatility it introduces into the financial markets.

According to *Reddy (2003),* the liberalization of the Indian economy in 1991 marked the beginning of a new era for currency trading in India. Prior to the reforms, India followed a controlled exchange rate system, which limited the country's integration into global currency markets. With the introduction of a more market-determined exchange rate mechanism, currency trading gained importance as India opened up to international trade and investment. *Reddy (2003)* further argues that this shift towards a flexible exchange rate system helped stabilize the rupee by allowing market forces to influence its value, although it also introduced new risks associated with currency fluctuations.

Patel (2008) also highlights the role of the Reserve Bank of India (RBI) in overseeing currency markets post-liberalization. Patel asserts that the RBI's interventionist role is essential in maintaining exchange rate stability, especially during periods of excessive volatility. The RBI, through its monetary policy tools and foreign exchange reserves, aims to smoothen the fluctuations in the Indian Rupee's value against other major currencies. *Patel (2008)* suggests that while the RBI's actions provide a safeguard against extreme currency swings, the growing significance of currency trading in India underscores the need for more robust regulatory frameworks to handle increased market participation.

The relationship between currency markets and India's macroeconomic indicators has also been examined by *Agarwal and Yadav (2011),* who explored how fluctuations in exchange rates can affect inflation, interest rates, and economic growth. They found

that a volatile exchange rate often leads to inflationary pressures, particularly in an import-dependent country like India. *Agarwal and Yadav (2011)* suggest that currency trading, when left unregulated or overly speculative, can exacerbate inflationary trends and destabilize the economy. Furthermore, the authors argue that the Indian government must enhance its forex market regulations to prevent excessive speculation and mitigate the negative effects on the economy.

One of the most discussed risks in currency trading is the effect of currency volatility on business operations, particularly for firms involved in international trade. *Chakraborty (2015)* analyzed the impact of exchange rate volatility on Indian businesses, particularly exporters and importers, and concluded that exchange rate fluctuations pose a significant risk to firms' profitability. Chakraborty's study suggests that businesses involved in cross-border trade increasingly rely on hedging mechanisms, such as forward contracts and options, to manage currency risk. The study also noted that while currency trading facilitates risk management, it can also introduce market instability if not carefully monitored. *Chakraborty (2015)* emphasizes that proper hedging strategies are crucial for firms to mitigate the adverse effects of currency volatility on their bottom line.

In the context of investor behavior, *Saxena and Gupta (2016)* conducted a study on retail traders in India, analyzing the motivations and challenges faced by individual investors in the currency market. They found that a large proportion of retail investors are drawn to currency trading due to the potential for high returns, but many lack a thorough understanding of the complexities involved. *Saxena and Gupta (2016)* suggest that the growth of online trading platforms has made currency trading more accessible to Indian investors, but it has also increased the risk of speculative trading. Their study calls for greater financial literacy programs and investor education to help individuals navigate the risks of currency trading effectively.

Furthermore, *Sharma and Kumar (2017)* examined the relationship between currency markets and stock market performance in India. Their study found that currency fluctuations have an impact on the performance of Indian stocks, particularly those of companies with significant international exposure. The authors noted that during periods of currency depreciation, companies with higher foreign debt or import-heavy operations tend to suffer, while exporters may benefit from a weaker rupee. *Sharma*

and Kumar (2017) conclude that currency trading, by influencing exchange rates, indirectly affects stock market performance and investor sentiment, thus playing a critical role in the broader financial ecosystem.

The broader economic implications of currency trading have also been explored by *Rath and Sharma (2019),* who focused on the influence of currency markets on India's balance of payments and foreign exchange reserves. They argue that a well-functioning forex market can help stabilize a country's external accounts by providing a reliable mechanism for exchange rate determination. In India, a currency market has enabled the RBI to manage its foreign exchange reserves more effectively, ensuring that the country can meet its international obligations. *Rath and Sharma (2019)* also emphasize the importance of currency trading in attracting foreign direct investment (FDI) into India, and predict exchange rate encourages investors to engage in cross-border capital flows.

Finally, *Kumar and Mehta (2021)* reviewed the role of technological advancements in the growth of currency trading in India. Their study highlights how digital platforms, mobile trading apps, and algorithmic trading systems have revolutionized the currency market, making it more accessible to a wider range of participants. They argue that technology has increased market efficiency and liquidity, but it has also introduced new challenges, including the potential for high-frequency trading to amplify market volatility. *Kumar and Mehta (2021)* suggest that while technology has democratized currency trading, it also necessitates updated regulatory frameworks to prevent market manipulation and ensure fairness.

Overall, the literature on currency trading in India reveals its growing significance in the country's economic landscape. While currency trading provides numerous benefits, such as enhancing market liquidity, supporting trade and investment, and offering risk management tools, it also introduces challenges such as market volatility and speculation. Regulatory bodies like the RBI and SEBI have played an essential role in ensuring the stability and growth of the currency market, but the evolving nature of global finance calls for continuous adaptation and innovation in both policy and market practices.

CHAPTER-3

THE OBJECTIVES OF THE STUDY

- To study how currency exchange rate fluctuations influence investment decisions of individuals.
- To analyze the role of forex markets in encouraging foreign direct investment (FDI) and foreign portfolio investment (FPI).
- To study how currency trading helps mitigate risks associated with exchange rate fluctuations.

CHAPTER-4

RESEARCH METHODOLOGY

4.1 Statement of Research Problem

The primary goal of this research is to explore the role of currency trading in India and its impact on the broader economy. Currency trading, often referred to as forex trading, is a critical component of global trade, investment, and financial transactions. As India integrates more into the global economy, understanding the significance of forex trading has become increasingly crucial. The research problem lies in examining how currency trading, specifically in the foreign exchange market, influences India's international trade, investment climate, exchange rate management, and the overall financial market ecosystem. This study will address key questions related to the economic importance of currency trading, its effects on Indian businesses, risk mitigation strategies, and how currency markets contribute to macroeconomic stability.

4.2 Research Design

The research adopts a descriptive research design. This approach is chosen because it helps in systematically investigating the current situation of forex trading in India, its mechanisms, and its impact on the economy. Descriptive research is effective in studying relationships, identifying trends, and understanding how currency trading supports businesses and financial markets. Since the researcher has prior knowledge of the key issues and the context of currency trading in India, a descriptive approach will provide a comprehensive analysis of existing data and insights on the subject.

The study will utilize the opinion survey method and secondary data analysis to gather insights. The opinion survey will provide valuable feedback from industry experts, professionals, and traders in the forex market. This feedback will help to complement the findings derived from secondary data, offering a deeper understanding of the research problem. Through this combined method, the study will generate both qualitative and quantitative data.

4.3 Sampling Design

The research will involve primary data collection through sampling, and also based on secondary data from various sources. However, when analysing secondary data, care

will be taken to include reliable and authoritative sources. Secondary data will be collected from academic journals, research papers and credible websites that provide valuable insights into the forex market and its influence on India's economy. The data will be selected based on its relevance, authenticity, and time frame, ensuring that the research findings are up-to-date and aligned with the current state of the currency market.

4.4 Data Collection Method

Primary Data

To gather primary data for this study, a structured questionnaire was designed and distributed to a sample of 100 respondents. The objective was to analyse the economic significance of currency trading in India by examining key factors such as the impact of exchange rate fluctuations on investment decisions, the role of forex markets in attracting foreign investments, and the risk mitigation strategies employed by businesses and individuals.

The collected data was systematically recorded and processed using SPSS software, a widely used statistical tool for research and data interpretation. Various statistical techniques, including descriptive analysis and t-tests, were applied to identify trends and relationships within the data.

A One-Sample t-Test was conducted to assess the significance of key factors influencing currency trading. These analyses provided valuable insights into how businesses and investors navigate currency markets, helping to better understand the financial and economic implications of currency trading in India.

Data Analysis

The data analysis process will involve synthesizing information from the collected secondary data to identify key patterns and insights regarding the impact of currency trading on India's economy. The analysis will focus on the following areas:

1. **The Role of Forex Trading in International Trade**: The study will examine how currency trading facilitates the import and export of goods and services in India, enabling businesses to transact internationally.
2. **Risk Management and Exchange Rate Fluctuations**: The research will investigate how businesses and investors use currency trading mechanisms to hedge against exchange rate risks, ensuring financial stability.

3. **Contribution to Financial Market Development**: The analysis will explore how currency trading enhances financial market efficiency, liquidity, and resilience, contributing to broader financial system development.
4. **Macroeconomic Stability**: The research will assess how currency markets influence India's macroeconomic factors such as inflation control, foreign exchange reserves, and external debt management.

By analysing these aspects, the study will generate a comprehensive understanding of the economic significance of currency trading in India. The data analysis will employ qualitative techniques to interpret trends and quantitative methods where applicable to ensure accuracy and reliability in the findings.

Secondary Data: -

The secondary data for this research has been collected from credible online resources to address the research objectives. The data has been obtained from reputable websites, research papers that provide valuable insights into the functioning and impact of the forex market.

To address the research objectives:

1. **Analysing the Role of Forex Markets in Encouraging Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI):**
    - Data has been sourced from credible financial websites that provide insights into how exchange rates influence investment trends. Websites such as financial portals and government platforms have been consulted to understand the relationship between forex markets and investment patterns.
2. **Studying How Currency Trading Helps Mitigate Risks Associated with Exchange Rate Fluctuations:**
    - Information has been gathered from trusted online resources such as:
        - *"Understanding Foreign Exchange Risk and How to Minimize It"* by Tipalti, which explains strategies for managing exposure to foreign exchange risk through hedging techniques.
        - *"How to Mitigate Exchange Rate Risk: A Complete Guide"* by Embat, which outlines various risk management methods like forward contracts and currency options.

- *"Strategies for Identifying and Mitigating Foreign Exchange Risks"* by Valley Bank, which details effective strategies for mitigating exchange rate risks using hedging tools.

These online resources provide practical insights and strategies to understand the impact of forex markets on investments and effective risk management approaches.

CHAPTER-5

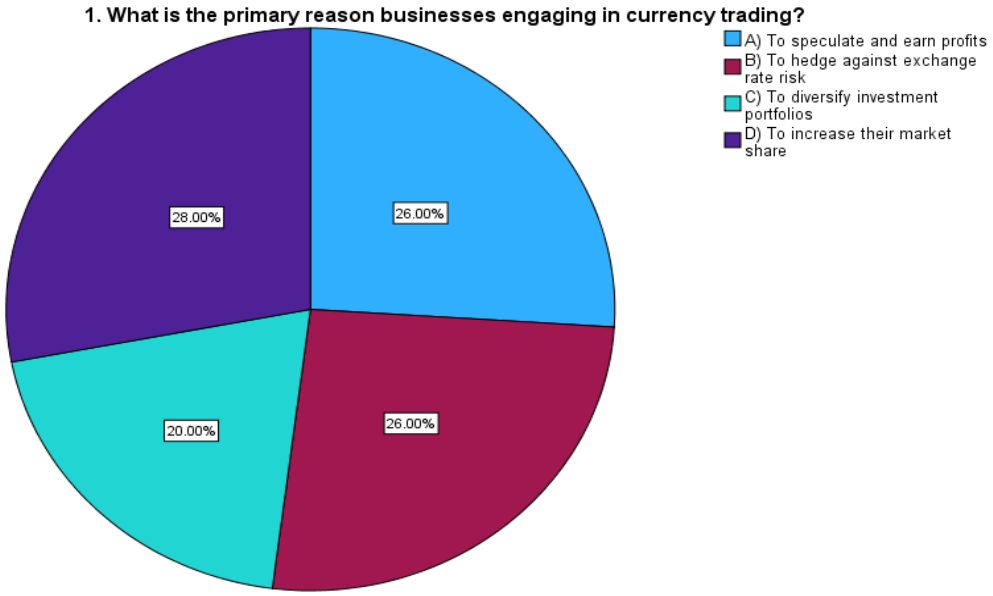
DATA ANLAYSIS AND INTERPRETATION

Table 1

1. What is the primary reason businesses engaging in currency trading?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) To speculate and earn profits	26	26.0	26.0	26.0
	B) To hedge against exchange rate risk	26	26.0	26.0	52.0
	C) To diversify investment portfolios	20	20.0	20.0	72.0
	D) To increase their market share	28	28.0	28.0	100.0
	Total	100	100.0	100.0	

Figure 1



INTERPRETATION

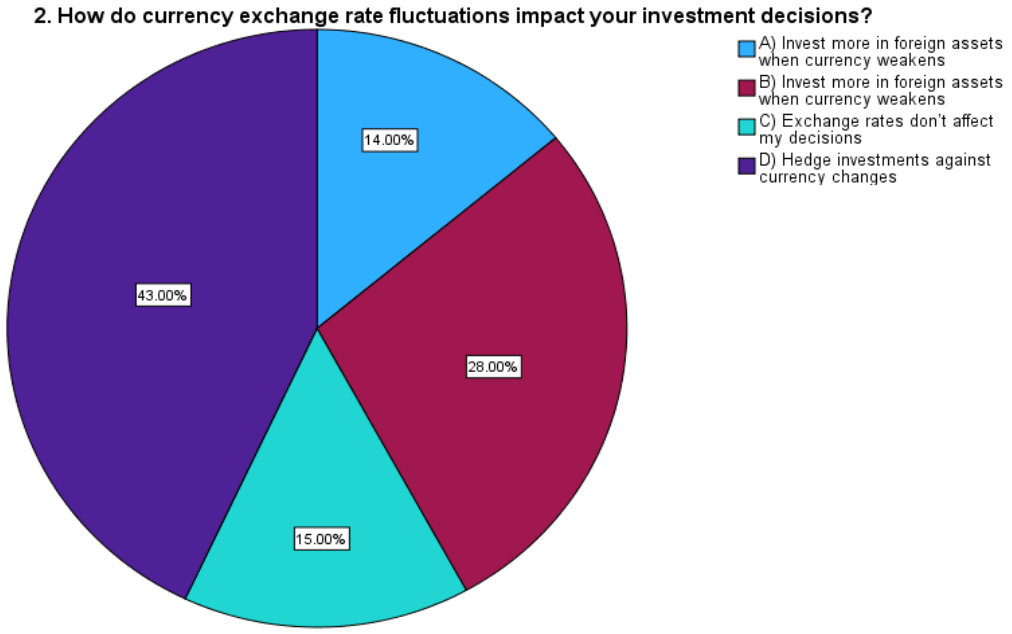
The data shows that **28%** of respondents see **market share expansion** as the main reason for currency trading. **Speculation for profit and hedging** were equally chosen at **26%**, highlighting both investment and risk management motives. **20%** cited **portfolio diversification**, indicating risk-spreading strategies. Overall, businesses engage in currency trading for multiple reasons, with a slight preference for market expansion.

Table 2

2. How do currency exchange rate fluctuations impact your investment decisions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Invest more in foreign assets when currency weakens	14	14.0	14.0	14.0
	B) Prefer domestic investments to avoid currency risk	28	28.0	28.0	42.0
	C) Exchange rates don't affect my decisions	15	15.0	15.0	57.0
	D) D) Hedge investments against currency changes	43	43.0	43.0	100.0
	Total	100	100.0	100.0	

Figure 2



INTERPRETATION

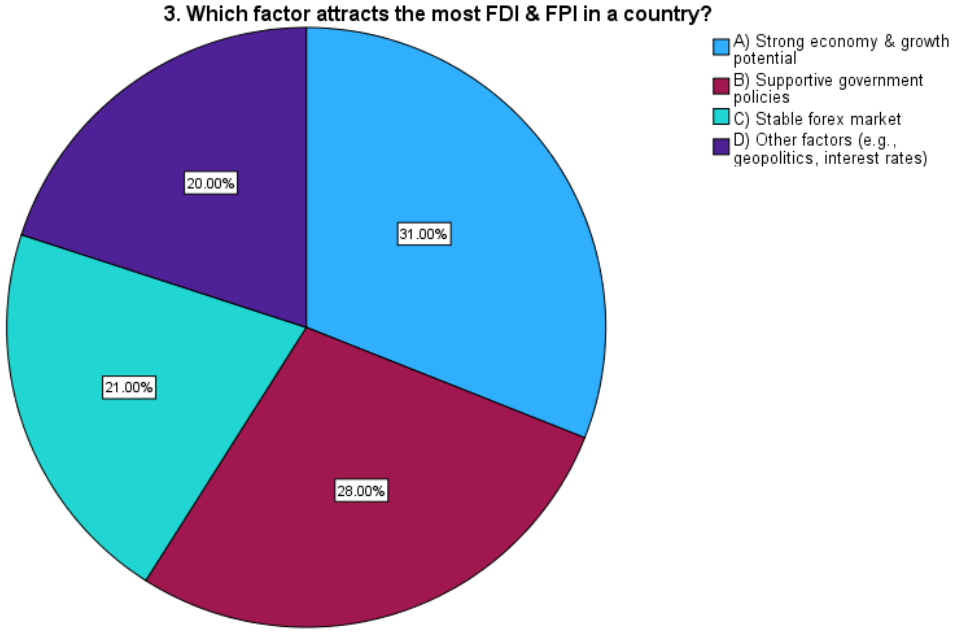
The data shows that most investors (43%) prefer to hedge their investments to manage currency risks. About 28% prefer sticking to domestic investments to avoid currency fluctuations. Only 14% take advantage of a weakening currency by investing more in foreign assets, while 15% say exchange rates don't impact their decisions. This suggests that investors are generally cautious about currency risks and prioritize stability.

Table 3

3. Which factor attracts the most FDI & FPI in a country?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Strong economy & growth potential	31	31.0	31.0	31.0
	B) Supportive government policies	28	28.0	28.0	59.0
	C) Stable forex market	21	21.0	21.0	80.0
	D) Other factors (e.g., geopolitics, interest rates)	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

Figure 3



INTERPRETATION

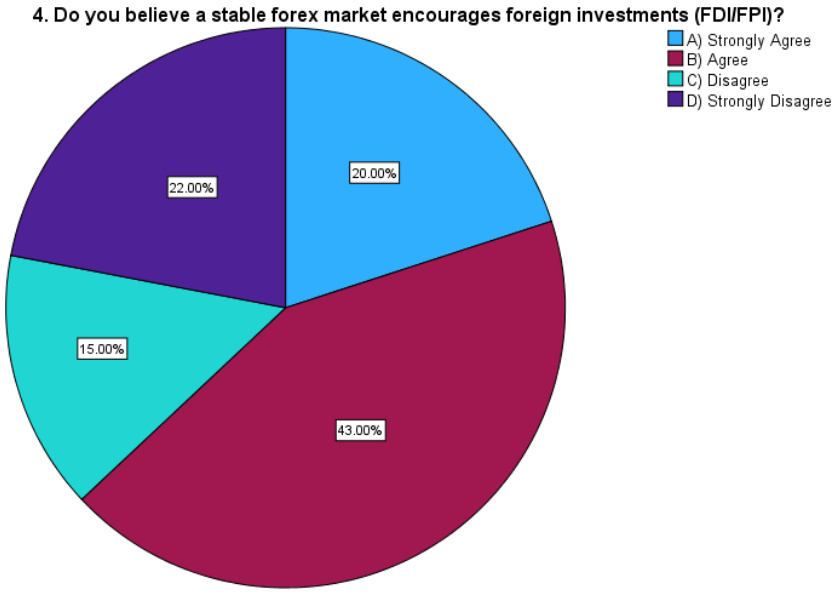
The data shows that the most significant factor attracting FDI and FPI is a **strong economy and growth potential** (31%). **Supportive government policies** follow closely at 28%. A **stable forex market** attracts 21%, while **other factors** like geopolitics and interest rates account for 20%. This indicates that investors prioritize economic strength and growth opportunities, with government support playing a crucial role as well.

Table 4

4. Do you believe a stable forex market encourages foreign investments (FDI/FPI)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Strongly Agree	20	20.0	20.0	20.0
	B) Agree	43	43.0	43.0	63.0
	C) Disagree	15	15.0	15.0	78.0
	D) Strongly Disagree	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Figure 4



INTERPRETATION

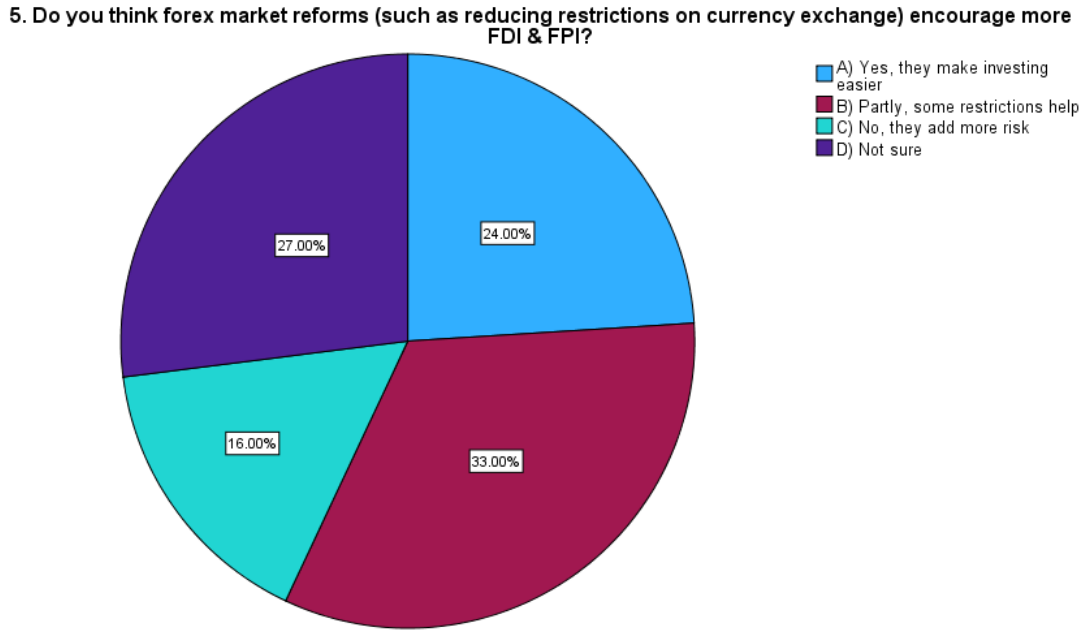
The data indicates that a majority of respondents (43%) **agree** that a stable forex market encourages foreign investments, while 20% **strongly agree**. However, a notable portion (22%) **strongly disagree**, and 15% **disagree**. This suggests that while many believe forex stability positively impacts foreign investments, a significant minority holds a contrasting view.

Table 5

5. Do you think forex market reforms (such as reducing restrictions on currency exchange) encourage more FDI & FPI?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Yes, they make investing easier	24	24.0	24.0	24.0
	B) Partly, some restrictions help	33	33.0	33.0	57.0
	C) No, they add more risk	16	16.0	16.0	73.0
	D) Not sure	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

Figure 5



INTERPRETATION

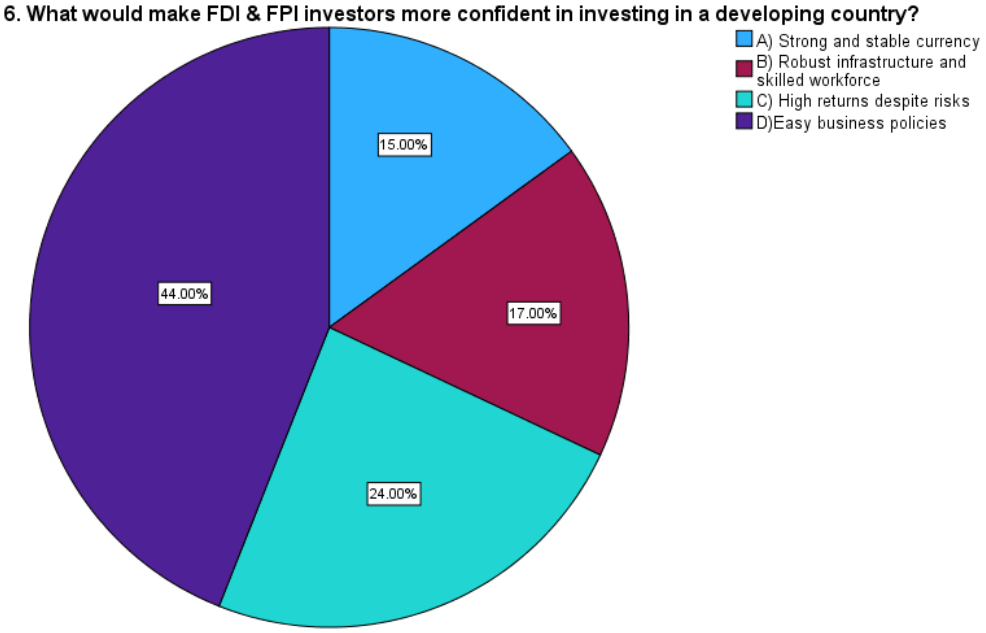
The data shows that **33%** of respondents believe forex market reforms are beneficial but think some restrictions are still necessary. **24%** feel such reforms make investing easier, while **16%** believe they increase risk. Additionally, **27%** are **unsure** about the impact. This suggests mixed views, with many recognizing the potential benefits but also expressing concerns about risks and uncertainties.

Table 6

6. What would make FDI & FPI investors more confident in investing in a developing country?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Strong and stable currency	15	15.0	15.0	15.0
	B) Robust infrastructure and skilled workforce	17	17.0	17.0	32.0
	C) High returns despite risks	24	24.0	24.0	56.0
	D) Easy business policies	44	44.0	44.0	100.0
	Total	100	100.0	100.0	

Figure 6



INTERPRETATION

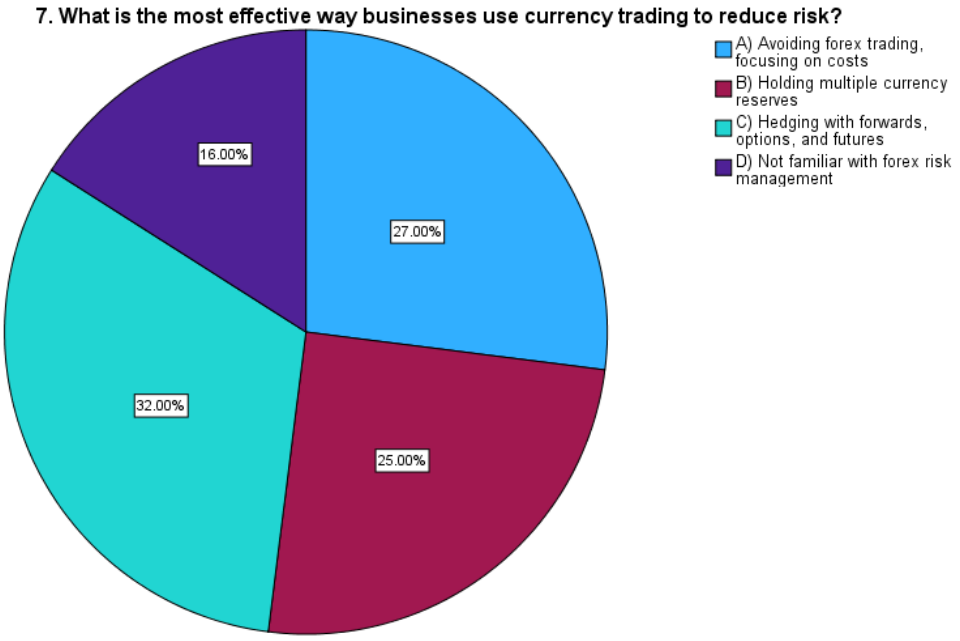
The data reveals that the most significant factor boosting investor confidence in a developing country is **easy business policies** (44%). **High returns despite risks** attract 24%, while **robust infrastructure and a skilled workforce** account for 17%. Only **15%** prioritize a **strong and stable currency**. This indicates that investors value a business-friendly environment and attractive returns more than currency stability or infrastructure alone.

Table 7

7. What is the most effective way businesses use currency trading to reduce risk?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Avoiding forex trading, focusing on costs	27	27.0	27.0	27.0
	B) Holding multiple currency reserves	25	25.0	25.0	52.0
	C) Hedging with forwards, options, and futures	32	32.0	32.0	84.0
	D) Not familiar with forex risk management	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Figure 7



INTERPRETATION

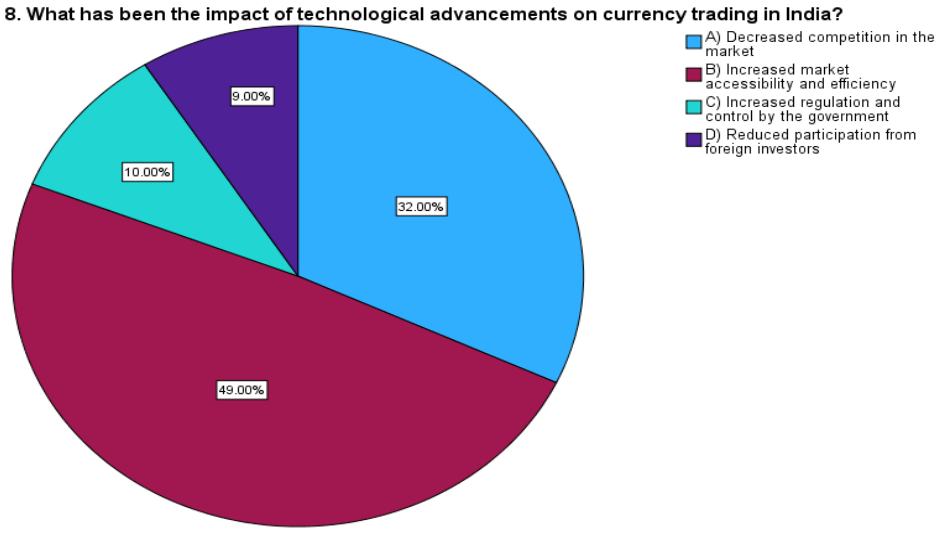
The data shows that the most effective way businesses manage currency risk is through **hedging with forwards, options, and futures** (32%). **Avoiding forex trading and focusing on costs** follows at 27%, while **holding multiple currency reserves** accounts for 25%. Notably, **16%** are **unfamiliar** with forex risk management. This indicates that while hedging strategies are preferred, some businesses focus on cost control or diversifying currency reserves to mitigate risks.

Table 8

8. What has been the impact of technological advancements on currency trading in India?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Decreased competition in the market	32	32.0	32.0	32.0
	B) Increased market accessibility and efficiency	49	49.0	49.0	81.0
	C) Increased regulation and control by the government	10	10.0	10.0	91.0
	D) Reduced participation from foreign investors	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

Figure 8



INTERPRETATION

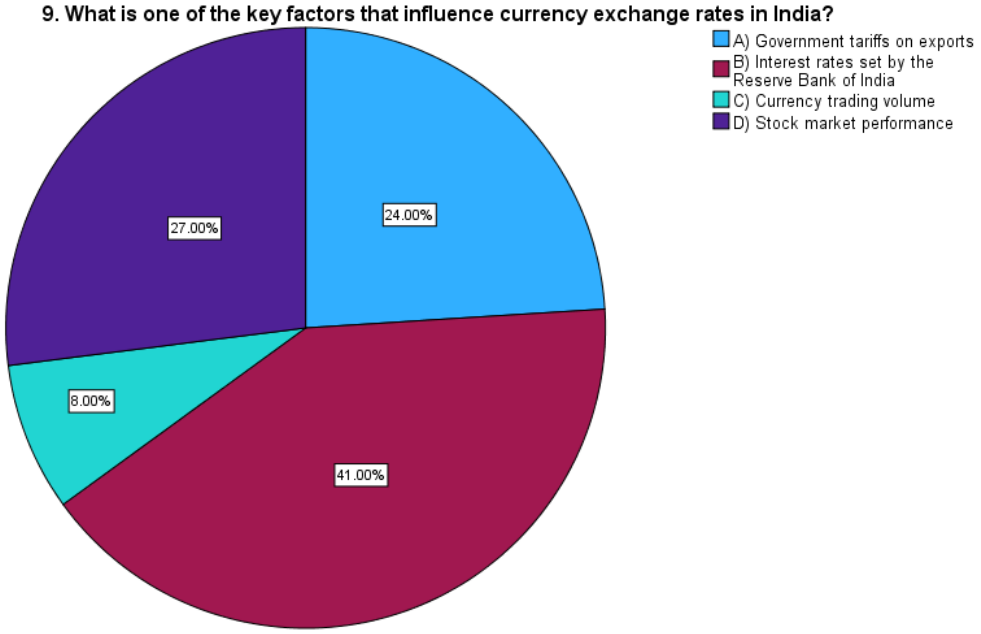
The data shows that **49%** of respondents believe technological advancements have **increased market accessibility and efficiency** in India's currency trading. **32%** feel it has **decreased competition**, while **10%** think it has led to **increased regulation and control**. Only **9%** believe it has **reduced foreign investor participation**. This suggests that technology is largely seen as a positive force, improving access and efficiency in the currency trading market.

Table 9

9 What is one of the key factors that influence currency exchange rates in India?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) Government tariffs on exports	24	24.0	24.0	24.0
	B) Interest rates set by the Reserve Bank of India	41	41.0	41.0	65.0
	C) Currency trading volume	8	8.0	8.0	73.0
	D) Stock market performance	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

Figure 9



INTERPRETATION

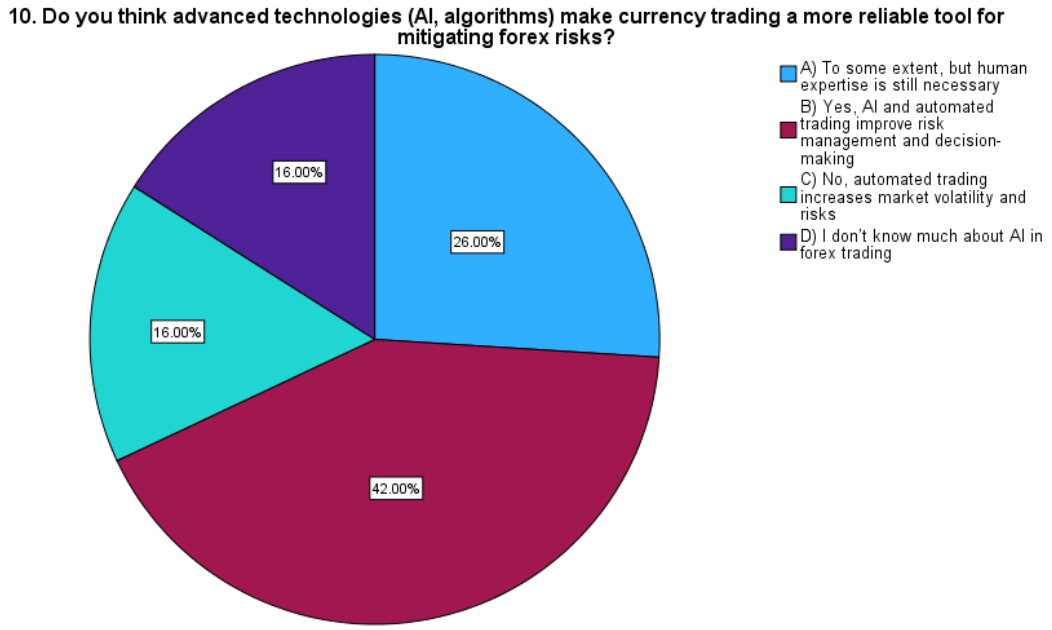
The data reveals that the most recognized factor influencing currency exchange rates in India is **interest rates set by the Reserve Bank of India (RBI)**, with **41%** of respondents identifying it as key. **Stock market performance** follows at **27%**, while **government tariffs on exports** account for **24%**. Only **8%** believe **currency trading volume** plays a major role. This suggests that monetary policy is seen as the most impactful factor in shaping exchange rates.

Table 10

10. Do you think advanced technologies (AI, algorithms) make currency trading a more reliable tool for mitigating forex risks?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A) To some extent, but human expertise is still necessary	26	26.0	26.0	26.0
	B) Yes, AI and automated trading improve risk management and decision-making	42	42.0	42.0	68.0
	C) No, automated trading increases market volatility and risks	16	16.0	16.0	84.0
	D) I don't know much about AI in forex trading	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Figure 10



INTERPRETATION

The data shows that **42%** of respondents believe **AI and automated trading improve risk management and decision-making**, indicating strong confidence in

technology's role in forex trading. **26%** feel that while technology helps, **human expertise is still necessary**. Meanwhile, **16%** believe automated trading **increases market volatility and risks**, and another **16%** are **unfamiliar** with AI in forex trading. This suggests that while AI is widely seen as beneficial, some remain cautious or uncertain about its impact.

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1. What is the primary reason businesses engaging in currency trading?	100	1.00	4.00	2.5000	1.15907
2. How do currency exchange rate fluctuations impact your investment decisions?	100	1.00	4.00	2.8700	1.12506
3. Which factor attracts the most FDI & FPI in a country?	100	1.00	4.00	2.3000	1.11464
4. Do you believe a stable forex market encourages foreign investments (FDI/FPI)?	100	1.00	4.00	2.3900	1.04345
5. Do you think forex market reforms (such as reducing restrictions on currency exchange) encourage more FDI & FPI?	100	1.00	4.00	2.4600	1.13191
6. What would make FDI & FPI investors more confident in investing in a developing country?	100	1.00	4.00	2.9700	1.10513

7. What is the most effective way businesses use currency trading to reduce risk?	100	1.00	4.00	2.3700	1.05078
8. What has been the impact of technological advancements on currency trading in India?	100	1.00	4.00	1.9600	.88671
9. What is one of the key factors that influence currency exchange rates in India?	100	1.00	4.00	2.3800	1.12618
10. Do you think advanced technologies (AI, algorithms) make currency trading a more reliable tool for mitigating forex risks?	100	1.00	4.00	2.2200	1.01085
Valid N (listwise)	100				

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
1. What is the primary reason businesses engaging in currency trading?	100	2.5000	1.15907	.11591
2. How do currency exchange rate fluctuations impact your investment decisions?	100	2.8700	1.12506	.11251

INTERPRETATION

The one-sample statistics provide key insights into the responses for the two questions. The mean response for "What is the primary reason businesses engage in currency trading?" is 2.50 with a standard deviation of 1.15907, indicating some variability in responses. Similarly, for "How do currency exchange rate fluctuations impact your investment decisions?", the mean is slightly higher at 2.87, with a standard deviation of 1.12506. The standard error mean values (0.11591 and 0.11251, respectively) suggest that the sample means are stable estimates of the population means. These statistics provide a basis for further hypothesis testing to determine whether these mean values significantly differ from a hypothesized value, such as zero or a neutral midpoint.

One-Sample Test

	Test Value = 0						
			Significance			95% Confidence Interval of the Difference	
	t	df	One-Sided p	Two-Sided p	Mean Difference	Lower	Upper
1. What is the primary reason businesses engaging in currency trading?	21.569	99	.000	.000	2.50000	2.2700	2.7300
2. How do currency exchange rate fluctuations impact your investment decisions?	25.510	99	.000	.000	2.87000	2.6468	3.0932

INTERPRETATION

The one-sample test results indicate statistically significant findings for both questions. For "What is the primary reason businesses engage in currency trading?", the t-value is 21.569 with 99 degrees of freedom (df), and a two-sided p-value of 0.000, suggesting a highly significant difference from the test value (0). The mean difference is 2.50, with a 95% confidence interval ranging from 2.27 to 2.73, indicating that the true population mean is likely within this range.

Similarly, for "How do currency exchange rate fluctuations impact your investment decisions?", the t-value is 25.510, also with 99 degrees of freedom and a two-sided p-value of 0.000, confirming strong statistical significance. The mean difference is 2.87, with a 95% confidence interval of 2.6468 to 3.0932, reinforcing that the true mean is well above the hypothesized value of 0.

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
1. What is the primary reason businesses engaging in currency trading?	Cohen's d	1.15907	2.157	1.797	2.513
	Hedges' correction	1.16794	2.141	1.783	2.494
2. How do currency exchange rate fluctuations impact your investment decisions?	Cohen's d	1.12506	2.551	2.144	2.955
	Hedges' correction	1.13367	2.532	2.128	2.932

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation.

Hedges' correction uses the sample standard deviation, plus a correction factor.

INTERPRETATION

The one-sample effect sizes provide further insight into the significance of the findings.

For "What is the primary reason businesses engage in currency trading?", Cohen’s d is 1.15907, indicating a large effect size, suggesting that the mean response differs substantially from the test value. The 95% confidence interval for Cohen’s d ranges from 1.797 to 2.513, reinforcing the strong effect. Hedges’ correction, which adjusts for small sample bias, is 1.16794, with a similar confidence interval of 1.783 to 2.494.

For "How do currency exchange rate fluctuations impact your investment decisions?", Cohen’s d is 1.12506, also indicating a large effect size. The 95% confidence interval

for Cohen's d ranges from 2.144 to 2.955, suggesting strong evidence that responses significantly differ from zero. Hedges' correction is 1.13367, with a confidence interval of 2.128 to 2.932, further supporting the robustness of the effect.

CONCLUSIONS

Currency trading is a cornerstone of economic activity, playing a vital role in supporting global trade, investment flows, and economic stability. In India, the growth and evolution of the forex market reflect the country's increasing integration with the global economy. This section draws conclusions from the preceding analysis, emphasizing the significance, challenges, and future potential of currency trading in India.

The forex market has emerged as a crucial component of India's financial system, facilitating international trade and attracting foreign investment. Its role in providing businesses with tools to hedge against exchange rate volatility has contributed significantly to economic resilience. The adoption of currency derivatives, in particular, has enabled exporters and importers to mitigate risks, ensuring smoother financial operations and fostering global trade partnerships.

Currency trading plays a pivotal role in managing macroeconomic stability. By providing mechanisms to address exchange rate fluctuations, it helps maintain price stability and supports monetary policy objectives. The Reserve Bank of India's proactive interventions in the forex market have proven effective in mitigating economic shocks, particularly during periods of global financial turmoil.

The expansion of the forex market has created diverse opportunities for employment and skill enhancement. Financial institutions, technology firms, and educational entities have benefitted from the growing demand for expertise in forex trading and analytics. The rise of algorithmic trading and artificial intelligence in forex markets further underscores the need for a highly skilled workforce.

Despite its growth, India's forex market faces several challenges that need to be addressed. These include:

- **Limited Retail Participation**: Many individuals remain unaware of the benefits and opportunities in forex trading. Increased education and awareness campaigns are necessary to expand retail involvement.

- **Regulatory Constraints**: While regulation ensures market stability, overly stringent measures can stifle innovation and growth. A balanced approach is essential to maintain transparency while encouraging innovation.
- **Global Dependencies**: India's forex market is significantly influenced by global economic conditions. External shocks, such as geopolitical tensions or commodity price fluctuations, can impact market dynamics.

Looking ahead, India's forex market is poised for significant advancements. Technological innovations, such as blockchain and machine learning, are likely to revolutionize currency trading, enhancing efficiency and transparency. Additionally, policy reforms aimed at simplifying regulations and encouraging foreign participation can further boost market growth.

The journey of currency trading in India is a testament to the nation's economic progress and resilience. By addressing existing challenges and leveraging emerging opportunities, India can unlock the full potential of its forex market, positioning itself as a major player in the global financial ecosystem. The continued collaboration between regulators, market participants, and technology providers will be key to ensuring the sustainable growth of this dynamic sector.

RECOMMENDATIONS

To enhance the effectiveness and growth of currency trading in India, several strategic measures can be undertaken. These recommendations aim to address existing challenges, foster market development, and ensure the forex market's alignment with global standards.

1. Promoting Retail Participation

There is a significant need to educate and involve retail investors in currency trading. Awareness campaigns and educational initiatives can help demystify forex trading, making it more accessible to individuals. Financial literacy programs focusing on the benefits and risks of forex markets should be integrated into broader economic education strategies.

2. Simplifying Regulatory Frameworks

While regulatory oversight is crucial for maintaining market stability, simplifying the regulatory framework can encourage innovation and participation. Policymakers should aim to strike a balance between ensuring transparency and providing flexibility to market participants. Streamlining approval processes and reducing compliance burdens can attract more domestic and foreign investors

3. Leveraging Technology

The adoption of advanced technologies such as blockchain, artificial intelligence, and machine learning can revolutionize currency trading in India. Encouraging the development and deployment of these technologies will enhance market efficiency, reduce transaction costs, and improve risk management capabilities.

4. Expanding Product Offerings

Introducing new financial instruments, such as exotic currency derivatives and cross-currency futures, can diversify market offerings and attract a broader range of participants. Expanding product options will also enable businesses to manage currency risks more effectively.

5. Strengthening Risk Management Practices

To ensure the forex market's sustainability, it is essential to promote robust risk management practices. Providing guidelines and training on risk mitigation strategies, such as hedging, can help participants safeguard their investments and maintain market confidence.

6. Enhancing Global Integration

India should continue to integrate its forex market with global financial systems. Encouraging foreign participation, aligning with international best practices, and fostering partnerships with global institutions can enhance India's position in the global forex market.

7. Supporting Skill Development

Building a skilled workforce is critical to the forex market's growth. Investment in professional training programs, certifications, and workshops can equip individuals with the knowledge and skills required for successful participation in currency trading.

8. Encouraging Research and Innovation

Supporting academic and industry-led research can lead to innovations that address market challenges. Establishing collaborations between financial institutions, universities, and think tanks can foster a culture of continuous improvement and discovery in forex trading.

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QUESTIONNAIRE

Q1. What is the primary reason businesses engaging in currency trading?

A) To speculate and earn profits
B) To hedge against exchange rate risk
C) To diversify investment portfolios
D) To increase their market share

Q2. How do currency exchange rate fluctuations impact your investment decisions?

A) Invest more in foreign assets when currency weakens
B) Prefer domestic investments to avoid currency risk
C) Exchange rates don’t affect my decisions
D) Hedge investments against currency changes

Q3. Which factor attracts the most FDI & FPI in a country?

A) Strong economy & growth potential
B) Supportive government policies
C) Stable forex market
D) Other factors (e.g., geopolitics, interest rates)

Q4. Do you believe a stable forex market encourages foreign investments (FDI/FPI)?

A) Strongly Agree
B) Agree
C) Disagree
D) Strongly Disagree

Q5. Do you think forex market reforms (such as reducing restrictions on currency exchange) encourage more FDI & FPI?

A) Yes, they make investing easier
B) Partly, some restrictions help
C) No, they add more risk
D) Not sure

Q6. What would make FDI & FPI investors more confident in investing in a developing country?

A) Strong and stable currency
B) Robust infrastructure and skilled workforce
C) High returns despite risks
D) Easy business policies

Q7. What is the most effective way businesses use currency trading to reduce risk?

A) Avoiding forex trading, focusing on costs
B) Holding multiple currency reserves
C) Hedging with forwards, options, and futures
D) Not familiar with forex risk management

Q8. What has been the impact of technological advancements on currency trading in India?

A) Decreased competition in the market
B) Increased market accessibility and efficiency
C) Increased regulation and control by the government
D) Reduced participation from foreign investors

Q9. What is one of the key factors that influence currency exchange rates in India?

A) Government tariffs on exports
B) Interest rates set by the Reserve Bank of India
C) Currency trading volume
D) Stock market performance

Q10. Do you think advanced technologies (AI, algorithms) make currency trading a more reliable tool for mitigating forex risks?

A) To some extent, but human expertise is still necessary
B) Yes, AI and automated trading improve risk management and decision-making
C) No, automated trading increases market volatility and risks
D) I don’t know much about AI in forex trading