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SFIMAR RESEARCH REVIEW (SRR)

Journal of St. Francis Institute of Management and Research

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Editorial...

We are pleased to announce the publication of Volume 19, Issue 1 of the SFIMAR Research Review. This biannual journal, with ISSN number 0975-895X, aims to disseminate knowledge with practical applications across various segments of management. We believe this publication fosters and promotes indigenous management research and serves as a platform for sharing ideas, perspectives, and experiences of management practitioners, researchers, and academicians at both national and international levels.

The current issue contains five insightful papers:

Ms. Sujata Salvi and Ms. Ruth S. provide a comprehensive analysis of the foreign exchange (forex) market, tracing its historical evolution and exploring various exchange rate regimes, including the gold standard, the Bretton Woods system, and the modern floating exchange rate system.

Ms. Merin Joseph and Ms. Sandhya Vishwakarma investigate how teacher preparation influences the effectiveness of financial education programs. Their study lays the foundation for future research into different dimensions of teacher training and its impact on student financial literacy.

Mr. Paul Alukal and Ms. Verena Vaz explore the impact of mentoring on behavioral, attitudinal, motivational, relational, and career outcomes. Their study compares cross-gender mentoring with same-gender mentoring, concluding that the gender of the mentor does not significantly affect these outcomes for mentees.

Ms. Minal Parekh and Mr. Ebrahim Abrar Shaikh examine the role and impact of bank guarantees in domestic business transactions within the Steel Authority of India Limited (SAIL). Their research highlights the importance of bank guarantees as critical financial instruments that reduce risk and ensure the fulfillment of contractual obligations.

Ms. Sujata Salvi and Ms. Jyortika Raut explore the role of gamification in enhancing employee learning and development. Their research also delves into the potential of gamification to improve employee engagement.

We hope that readers will find the content of this issue insightful and valuable. I extend my gratitude to all the scholars and support personnel who made this publication possible, and I encourage everyone to continue supporting the journal's uninterrupted publication.

Prof. Dr. Sulbha S. Raorane.

Chief Editor

RISK MANAGEMENT STRATEGY IN FX: SPOT VS FORWARD WHAT WILL BE FAVOURABLE FOR IMPORTER AND EXPORTER

***Ms. Sujata Salvi, **Ms. Ruth Sequeira**

ABSTRACT

The document provides a comprehensive analysis of the foreign exchange (forex) market, tracing its historical evolution and detailing various exchange rate regimes, including the gold standard, Bretton Woods system, and the modern floating exchange rate system. The study underscores the importance of the forex market in international trade, particularly for countries like India, whose exporters and importers are significantly impacted by currency fluctuations. Despite India's improved position among global merchandise exporters, the document highlights the challenges faced by Indian businesses in managing forex risks, especially due to the country's volatile currency market.

The research specifically highlights the forward and spot markets, analyzing their implications for both importers and exporters. It provides a detailed comparison of these markets, offering insights into which would be more favorable for mitigating risks in different scenarios. For instance, the spot market is emphasized as being advantageous for immediate transactions, while the forward market is recommended for businesses looking to hedge against future currency fluctuations. The study emphasizes the need for Indian exporters and importers to utilize these hedging instruments effectively to protect their financial interests. Additionally, the document explores different types of forex markets, such as futures, options, and swaps markets, providing insights into their functioning and relevance in global finance.

Keywords: *Foreign Exchange Market; Currency Fluctuation; Hedging Instrument; Exchange Rate Regimes; International Trade; Importer; Exporter; Spot Market; Forward Market; Forex Risk.*

Introduction:

Global trade in goods and services has been a cornerstone of economic interaction between nations for centuries. The evolution from barter trade to currency transactions has greatly facilitated the complexity and scale of international commerce. India, with its rich history of trade, has been an integral part of this global economic network. Initially, India operated under a fixed exchange rate regime, where the Reserve Bank of India (RBI) utilized the British pound as the intervention currency. This system persisted until the dramatic shifts in the global economy necessitated a transition to more flexible exchange rate mechanisms.

The establishment of various exchange rate regimes globally, including the gold standard and the Bretton Woods system, has influenced the dynamics of international trade. The move towards a floating exchange rate system in the 1970s marked a significant shift in how currencies were valued, directly impacting India's economic policies and trade practices.

The foreign exchange market is a dynamic and integral component of global trade, facilitating the exchange of

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currencies necessary for international transactions. Participants in this market include central banks, government agencies, commercial banks, financial institutions, businesses, and individual investors. Central banks, such as the Reserve Bank of India (RBI), often intervene in the forex market to stabilize or influence the value of their national currency. Commercial banks and financial institutions act as intermediaries, conducting transactions on behalf of their clients or for their own trading purposes. Businesses, particularly exporters and importers, engage in the forex market to convert currencies for settling international transactions. Additionally, investors and speculators participate in the market, seeking to profit from fluctuations in currency values.

To manage the risks associated with currency fluctuations, various derivative instruments are employed in the foreign exchange market. Spot markets involve the immediate exchange of currencies at the prevailing exchange rate, making them the simplest form of currency trading. Forward contracts, which are customized agreements to buy or sell an asset at a future date, allow businesses to hedge against the risk of currency depreciation or appreciation. Futures contracts, though similar to forward contracts, are standardized and traded on exchanges, offering less flexibility but greater regulatory oversight. Options provide buyers the right, but not the obligation, to purchase or sell an asset at a predetermined price before the contract's expiration, offering flexibility for hedging against adverse currency movements. Currency swaps involve the exchange of principal and interest in one currency for the same in another, typically used by companies to manage cross-currency cash flows over the long term.

India's engagement in the global market has seen significant growth over the years, particularly in its export and import activities. In recent times, India's position among the world's top merchandise exporters has improved, moving from the 19th to the 17th place. This is reflective of India's strategic diversification and expansion into 115 out of 238 global markets. Key export destinations include the United States, United Arab Emirates, Netherlands, China, and the United Kingdom.

Despite the positive trends, Indian exporters and importers face substantial challenges due to the volatility of the forex market. The Reserve Bank of India (RBI) has played an active role in managing this volatility, yet the use of hedging instruments such as forward contracts remains underutilized, with only few of merchandise traders employing these tools. This underutilization leaves Indian businesses vulnerable to potential financial losses due to unforeseen currency fluctuations.

Spot rates represent the current exchange rate at which currencies can be bought or sold for immediate settlement. These rates fluctuate rapidly due to factors such as interest rates, inflation, and geopolitical events. Spot transactions are straightforward and provide flexibility, allowing businesses to capitalize on favorable market conditions. However, they also expose companies to the risk of exchange rate volatility, which can impact profitability if the currency value shifts unfavorably between the time of the transaction and settlement.

On the other hand, forward contracts allow businesses to lock in an exchange rate for a future date, offering protection against adverse currency movements. By fixing the exchange rate in advance, forward contracts provide certainty and stability, enabling better financial planning and budgeting. This is particularly beneficial for companies involved in significant purchases or long-term obligations. However, forward contracts can involve additional costs, such as fees or margin requirements, and they may lead to missed opportunities if the exchange rate moves favorably after the contract is established.

For exporters and importers, the choice between using spot rates or forward contracts depends on their risk tolerance and market outlook. Exporters, who benefit from a depreciating domestic currency, might prefer forward contracts to secure a favorable exchange rate and protect against potential appreciation of their currency, which could reduce their earnings when converted back to domestic currency. Importers, on the other hand, who gain from a stronger domestic currency, might use forward contracts to lock in an advantageous rate, shielding themselves from the risk of currency depreciation that would increase their costs.

Ultimately, forward contracts offer a more stable and predictable hedging strategy, which can be especially advantageous in a volatile market environment. However, businesses must weigh the certainty provided by forward contracts against the flexibility and potential cost savings that spot rates can offer, particularly when dealing with smaller transactions or when market conditions are favorable. Each company's decision will depend on its specific circumstances, including the size of the transaction, market conditions, and overall risk management strategy.

Factors affecting the rupee exchange rate:

The rupee's exchange rate is influenced by several factors, including India's relative inflation, movements in foreign currencies, fiscal deficit, and the political environment. Inflation impacts the rupee's value by affecting purchasing power and competitiveness. Exchange rates of major currencies like the US dollar also influence the rupee due to India's trade relationships. Fiscal deficits and political stability play roles in investor confidence and economic growth, affecting the rupee's strength.

Other factors include investment outlook, unexpected events (like natural disasters or terrorist attacks), bond issues, and the Balance of Payments, which reflects the country's import-export balance. Commodity prices, especially oil, capital flows in the stock market, and foreign exchange reserves held by the RBI also impact the rupee. Global financial crises and random shocks can cause sudden fluctuations, while fundamental economic indicators and RBI monetary policy decisions play crucial roles in determining the rupee's exchange rate.

Need of the study:

The study emphasizes the importance of understanding foreign exchange in the context of global trade and investment, which has become increasingly interconnected across nations. As international relations foster cross-national migration, countries exchange currencies, creating a complex foreign exchange market. This market involves various transactions, such as imports, exports, remittances, and international investments, which require nations to manage foreign currency reserves. Multinational corporations, which operate across borders, are particularly vulnerable to risks associated with fluctuations in interest rates, inflation, and exchange rates. Therefore, the study highlights the need to comprehend foreign exchange mechanisms, the risks involved, and strategies to mitigate these risks, making it crucial for global business operations.

Problem Statement:

- **Impact of Exchange Rate Shifts:** Currency fluctuations significantly affect the financial performance, competitiveness, and operations of importers and exporters, but the specific mechanisms of these impacts are not well understood.
- **Challenges in Implementing Risk Management:** Importers and exporters often struggle with implementing risk management strategies due to limited access to financial tools, a lack of understanding of hedging strategies, and concerns over the cost and complexity of these approaches.
- **Varying Exposure to Currency Risk:** Different industries and geographical areas expose importers and exporters to varying levels of currency risk, making it difficult to develop tailored risk management strategies that suit their specific needs and market conditions.

Review of Literature:

- Hagelin, N., & Söderlind, P. (2023): Explored the challenges faced by SMEs in managing currency risk and suggested the use of simple forward contracts as a practical solution to hedge against foreign exchange risks.
- Aloosh, A., & Bekaert, G. (2022): Examined how geopolitical risks impact currency markets, increasing volatility, and emphasized using forward contracts as a hedge to manage these risks in international finance. Geopolitical Risk and Currency Returns" explores how geopolitical risks like conflicts and political instability affect currency markets, leading to increased volatility. They emphasize the role of forward contracts as a hedging tool to mitigate these risks by locking in exchange rates, highlighting the importance of managing geopolitical risks in international finance.
- Clark, E., & Judge, A. (2021): Conducted an in-depth analysis of currency risk management within the context of international business. Their work explores contemporary strategies that companies can employ to mitigate currency-related risks, particularly through financial instruments such as forward contracts and options. They emphasize that effective currency risk management is not a one-size-

fits-all approach; instead, it requires a nuanced understanding of a company's unique needs and the specific market conditions it faces. The study underscores the necessity for businesses to carefully tailor their risk management strategies to align with their operational and financial objectives, ensuring they are well-positioned to navigate the complexities of global markets.

- Bae, S. C., & Kwon, T. H. (2021): Investigated the effectiveness of financial derivatives, including forward contracts, in managing currency risk during economic downturns, highlighting their importance in risk management.

- Rozsa Attila (2014): the study studies the objective and comes up with various methods for decreasing exchange risks of foreign currency transactions. In international trade due to the growth of the number of currency loans the significance of managing financial risks coming from the changes in exchange rates has increased. One of its tools is the currency-based booking, which may make the effect of the change more predictable.

- Lingxiu Donga, Panos Kouvelisa, Ping Sub (2014): Investigated how operational flexibility affects firms' economic exposure to currency fluctuations, comparing "natural hedges" and capacity pooling strategies to derive managerial insights.

- Yin-Wong Cheung and Rajeswari Sengupta (2013): The study studies the objective and comes up with the end result that strong and significant negative impact from currency appreciation and currency volatility on market shares of India's exporting firms. Indian firms with smaller export shares tend to respond more strongly to both REER change and volatility than those with larger export shares. Services exporters are impacted more strongly by exchange rate fluctuations than firms exporting goods.

- Pahuja Anurag (2012): Analyzed investor perceptions in India regarding currency derivatives as a hedging tool, finding that most investors view them as particularly useful for hedging.

- Bal Gyan Ranjan (2013): attempted to evaluate the various alternatives available to the Indian corporate for hedging financial risks. In the study of selected companies it was observed that IOCL had a large proportion of unhedged foreign currency exposure. The greatest hindrances to Indian companies are legal restraints by various regulatory authorities within as well as outside the country. The study stressed the need to increase the efficiency in managing the foreign exchange exposure by Indian companies.

- Vij Madhu (2009): Explored the understanding of Indian CFOs regarding different types of currency exposure and found that a minority hedged against translation and economic exposure, with forward exchange contracts being the most popular hedging technique.

Objective:

- To understand the factors affecting foreign exchange especially USD/INR pair.
- To evaluate how hedging derivatives, particularly forward contracts, can be used to mitigate FX risk for exporters and importers.
- To examine the efficiency of forward and spot contracts in protecting profits.
- To analyze the effect of FX fluctuations and examine their effect on profitability.

Research Methodology:

This research employs a descriptive approach to compare spot and forward contracts in FX markets through hypothetical case studies based on real case study to mimic real-world situations for importers and exporters. These case studies will show how using spot versus forward contracts can affect businesses under different market conditions, allowing to make detailed comparisons.

Data Collection Tools and Type of Data:

- Using secondary data from academic journals, industry reports, and historical exchange rates, the study analyzes quantitative and qualitative factors affecting importers and exporters.

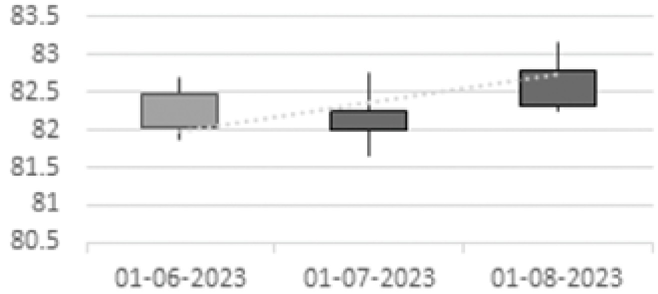
Data Collection Tools:

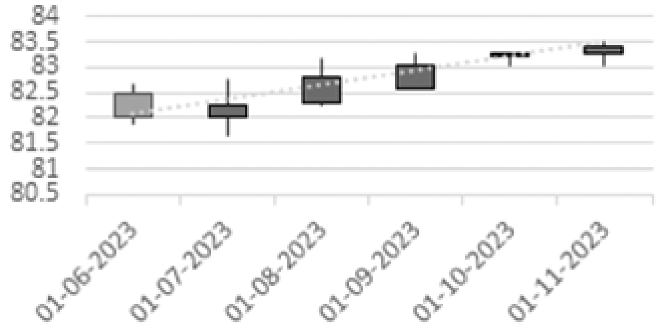
- Regression Analysis & Correlation Analysis: This was used to analyze the various factors affecting the USD/INR pair and how major events have a correlation in the price movement in the pair.

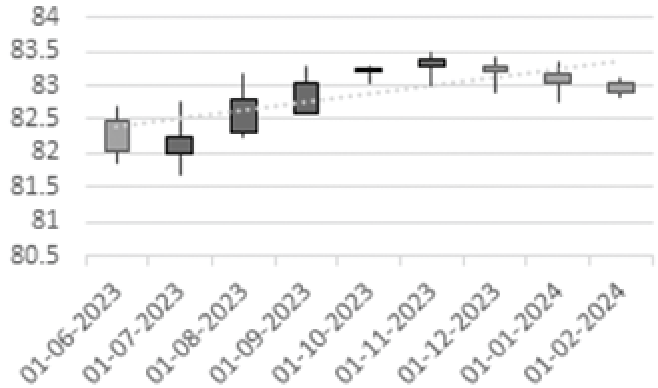
Period of Data Collection:

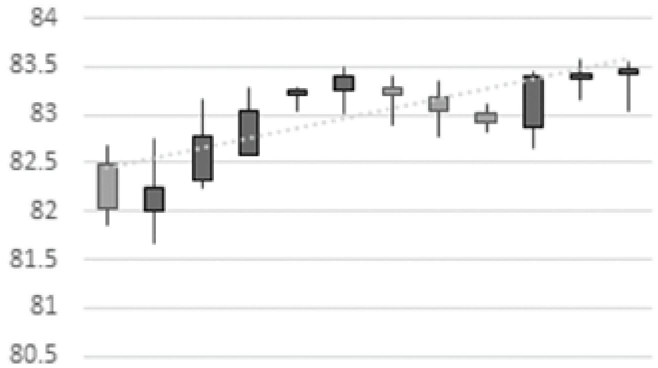
- Use of historical data from 1st August 2023 to 31st July 2024. This will give us a robust dataset for analyzing trends and drawing meaningful conclusions.

Data Analysis And Interpretation: *Case Study 1 – Covering On Spot.*









1st PERIOD: 3 Months (June 2023 - August 2023)

In June 2023, the U.S. Federal Reserve's interest rate hike strengthened the USD against the INR. Despite a brief INR rise after India's August GDP growth announcement, the USD appreciated by 30.75 pips. This led to importers facing a 30,750 cost increase per $100,000 imported, while exporters saw a 30,750 revenue boost per $100,000 exported. The events demonstrate how global economic decisions impact trade and financial outcomes for Indian businesses.

2nd PERIOD: 6 Months (June 2023 - November 2023)

From June to November 2023, the USD strengthened against the INR, rising from 82.4775 to 83.395. Key events include U.S. inflation data in July and India's monetary policy review in October. This change led to a 91.75 pip increase, resulting in a 91,750 cost increase for importers and a 91,750 revenue boost for exporters on $100,000 exposures. Despite the RBI's steady interest rates stabilizing the INR, they couldn't counteract the USD's gains. This underscores how global economic events significantly affect trade costs and revenues.

3rd PERIOD: 9 Months (June 2023 - February 2024)

From June 30, 2023, to February 29, 2024, the USD appreciated against the INR, rising from 82.4775 to 82.9138, a 43.63 pip increase. This was influenced by strong U.S. Non-Farm Payrolls data in September 2023 and India's Union Budget announcement in January 2024. Importers saw a cost increase of 43.63 pips, while exporters experienced a corresponding revenue gain. The USD's appreciation led to higher expenses for importers and boosted revenue for exporters, highlighting the impact of major economic events and policy decisions on exchange rates and trade outcomes.

4th PERIOD: 12 Months (June 2023 - May 2024)

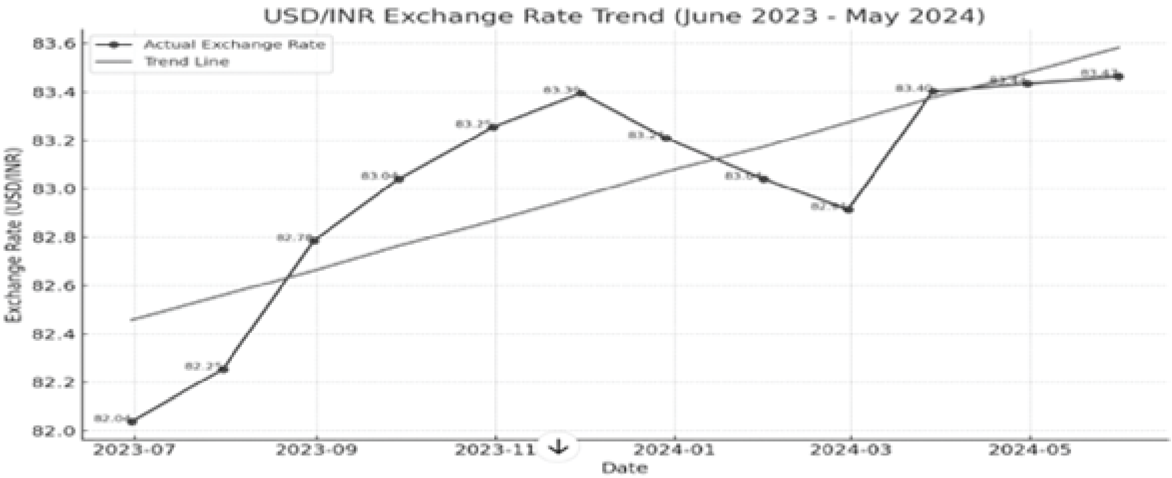
From June 2023 to May 2024, the USD strengthened against the INR, with the exchange rate rising from 82.4775 to 83.4650, a 98.75 pip increase. Key drivers included the U.S. Federal Reserve's positive economic outlook and uncertainty from India's general elections. Importers experienced higher costs due to this rise, while exporters saw increased revenue. Major events influencing this trend were the Fed's year-end outlook in December 2023 and India's elections in March 2024.

The above case study assesses the currency risk faced by Indian importers and exporters dealing in US dollars. It will analyze how major global events impact these businesses over different time periods (3, 6, 9, and 12 months) between June 2023 and May 2024. The analysis will focus on transactions made at the month end closing spot exchange rate for a transaction value of $100,000 for each individual leg.

Date	Open	High	Low	Close
6/30/2023	82.4775	82.6862	81.865	82.04
7/31/2023	82.0112	82.7562	81.6712	82.2538
8/31/2023	82.3125	83.1625	82.255	82.785
9/29/2023	82.5775	83.2738	82.5775	83.04
10/31/2023	83.21	83.2912	83.035	83.255
11/30/2023	83.2637	83.5	83.015	83.395
12/29/2023	83.2738	83.4088	82.9075	83.21
1/31/2024	83.1837	83.3512	82.77	83.0412
2/29/2024	83.025	83.12	82.8275	82.9138
3/29/2024	82.865	83.4538	82.6462	83.4037
4/30/2024	83.375	83.575	83.1563	83.4362
5/31/2024	83.42	83.535	83.03	83.465

(Source: Bloomberg)

Overall Analysis:



- Trend: There is a clear upward trend in the USD/INR exchange rate over the analyzed period. This means that, on average, the exchange rate has been increasing.
- Rate of Increase: The exchange rate has been increasing at a rate of about 0.102 per month. This is the slope of the regression line, indicating the average monthly increase.
- Statistical Significance: The relationship between time (months) and the exchange rate is statistically significant, with a p-value of 0.002. This means that the observed trend is very unlikely to be due to random chance.
- Strength of the Relationship: The R-squared value of 0.794 indicates that about 79.4% of the variation in the exchange rate can be explained by the passage of time. This suggests a strong relationship between time and the exchange rate.

Negative Correlation with Major Events:

- There is a negative correlation (-0.450) between the timing of major economic events and the exchange rate. This means that during the months when significant economic events occurred, the exchange rate tended to decrease.

We can see that the negative changes occurred in **December 2023 and January 2024:**

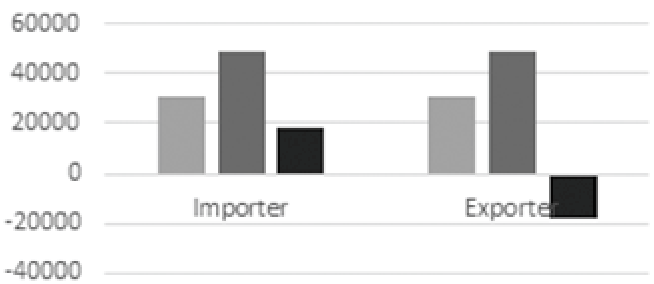
- **December 2023:** U.S. Federal Reserve's year-end economic outlook.
- **January 2024:** India's Union Budget announcement.

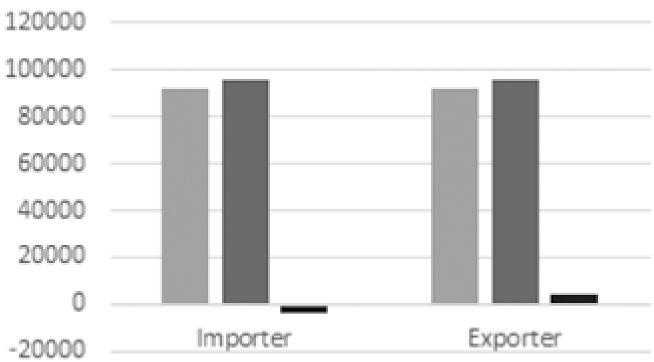
Data Interpretation

Importers and Exporters

Given the trends and correlation observed:

1. **Importers:**
    - o **Short-term (3 months):** As the exchange rate increased slightly, importers might face higher costs. Covering on the spot might be beneficial if further increases are expected.
    - o **Medium-term (6 months):** The steady increase suggests that importers should consider hedging against future rate increases.
    - o **Long-term (9-12 months):** The consistent upward trend suggests that long-term contracts or hedging strategies should be considered to mitigate the risk of rising costs.
2. **Exporters:**
    - o **Short-term (3 months):** Exporters benefit from a weaker USD (higher exchange rate). They might delay covering to take advantage of the favorable rates.
    - o **Medium-term (6 months):** Exporters should monitor for peak rates to maximize profits.
    - o **Long-term (9-12 months):** Exporters should plan for potential rate drops due to major events and may benefit from forward contracts to lock in favorable rates.





Case Study 2: Covering on Forward

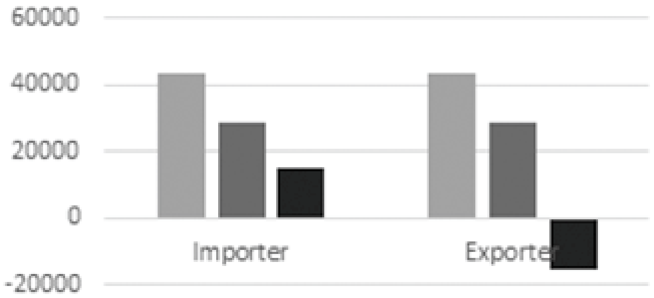
This study will analyze how importers and exporters can manage currency risk when trading in USD/INR using forward contracts. It will examine different contract durations (3, 6, 9, and 12 months) between June 2023 and May 2024 to determine the best way to protect against potential losses from exchange rate fluctuations. The analysis will focus on $100,000 transactions covered on day 1 forward and is compared with the spot rate at the end of each leg with respect to closing rate on that day.

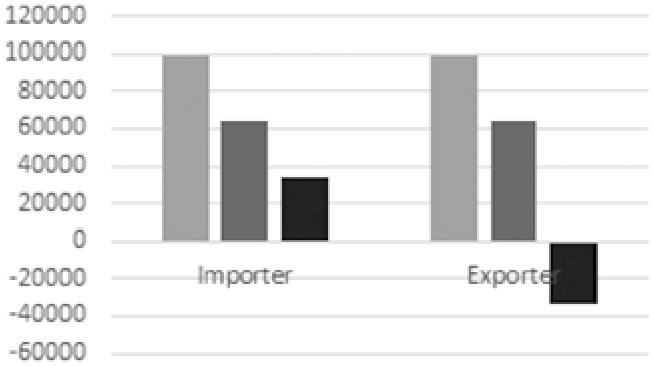
1st PERIOD: 3 Months (June 2023 - August 2023)

Importers benefit from using the forward rate as it allows them to secure a lower rate than the expected future spot rate, resulting in a net gain of 18,440. Conversely, exporters face a net loss of 18,440 by using the forward rate, as it locks them into a lower rate compared to the expected future spot rate, which would have been more favorable if they had waited to sell on the spot market.

2nd PERIOD: 6 Months (June 2023 - November 2023)

Importers incur a higher loss when using forward contracts due to the forward premium, while exporters experience a higher gain. The forward premium makes securing a forward rate more costly than the spot rate, leading to greater losses for importers and higher gains for exporters when compared to using the spot rate. This highlights that covering with the forward rate is more expensive for importers and more beneficial for exporters.





3rd PERIOD: 9 Months (June 2023 - February 2024)

Importers benefit from using the forward rate, resulting in a net gain of 15,340 because they lock in a lower rate than the expected future spot rate. Conversely, exporters experience a net loss of 15,340 because they lock in a rate lower than the expected future spot rate, missing the opportunity to gain more by selling on the spot market later.

4th PERIOD: 12 Months (June 2023 - May 2024)

For both an importer and an exporter, covering on the spot in May 2024 leads to an opportunity loss of 98,750 pips due to the difference in the spot rate. Using a 12-month forward contract from day 1 results in a net gain/loss of 0.6474% of the spot rate. The forward rate of 82.8176 is lower than the spot rate of 83.465 on May 31, 2024. For the importer, this leads to a gain that offsets the opportunity loss, while for the exporter, it results in a loss that counterbalances the opportunity loss.

Findings of The Study:

Trend

The analysis reveals a consistent upward trend in the USD/INR exchange rate from June 2023 to May 2024. This suggests that the value of the US dollar has been increasing relative to the Indian rupee over this period.

Impact of Major Events

There is a negative correlation (-0.450) between major economic events and the exchange rate, indicating that these significant events generally led to a decrease in the exchange rate during this specific timeframe. It's essential to note that this observation is particular to the period analyzed (June 2023 to May 2024). The outcome of regression analysis might vary for different periods depending on the events and variables at play.

- **Importers:**

Short-term:

For importers dealing with immediate transactions, it might be advantageous to cover on the spot. This is because if the current trend continues, further increases in the exchange rate are expected, which would raise the cost of importing goods.

Medium-term:

For those with a medium-term horizon, it's wise to consider hedging strategies. This could involve locking in current exchange rates through forward contracts or other financial instruments to protect against the anticipated rise in costs due to future rate increases.

Long-term:

Long-term planning should involve more robust strategies, such as entering into long-term contracts or utilizing various hedging mechanisms. These steps can help mitigate the risk of rising import costs due to a continually increasing exchange rate.

- **Exporters:**

Short-term:

Exporters, on the other hand, might benefit from delaying their covering. If the exchange rate is expected to continue its upward trend, holding off could mean more favorable rates in the near future, thus maximizing their returns when they convert foreign earnings back to INR.

Medium-term:

In the medium term, exporters should closely monitor the market to identify peak exchange rates. By timing their transactions to coincide with these peaks, they can maximize their profits.

Long-term:

For long-term planning, exporters should prepare for potential rate drops that might coincide with major economic events. Utilizing forward contracts to lock in favorable rates can be an effective strategy to ensure they remain profitable even if the exchange rate decreases due to unforeseen events.

Conclusion:

Managing foreign exchange (FX) risks is essential for importers and exporters operating in volatile currency markets, as effective risk management strategies can greatly influence profitability and financial stability. Importers, who are particularly susceptible to rising costs due to unfavorable currency movements, should prioritize forward contracts to lock in exchange rates for future transactions. This approach offers a safeguard against potential cost increases, providing more predictable and stable pricing for goods and services, especially in medium to long-term transactions where forward contracts mitigate the risk of escalating costs.

Exporters, in contrast, can benefit from closely monitoring short-term exchange rate movements and strategically timing their market entries. While taking advantage of favorable rates in the spot market can enhance short-term profit margins, forward contracts offer the stability and predictability needed for long-term planning. By locking in favorable rates through forward contracts, exporters can ensure financial certainty and reduce exposure to market volatility.

To maximize profitability and minimize risk, companies should regularly analyze the impact of FX fluctuations by simulating different exchange rate scenarios. Historical data can guide these simulations, helping businesses anticipate and prepare for future market conditions. Implementing a robust risk management framework is also crucial. This framework should include regular monitoring, stress testing, and contingency planning for adverse FX movements, ensuring that companies can respond swiftly and effectively to market changes.

Periodic reviews of hedging strategies are essential to align them with the company's financial goals and the evolving market landscape. Continuous assessment and strategic adjustments ensure that the risk management approach remains relevant and effective.

In conclusion, effective FX risk management is vital for importers and exporters to stay competitive and profitable in a fluctuating market. By leveraging a combination of spot and forward transactions, seeking professional guidance, and considering advanced hedging strategies, businesses can optimize their FX risk management practices. Regular reviews and strategic adjustments will enable them to navigate the complexities of the FX market successfully, ensuring long-term financial stability and growth.

Recommendations:

- **Combine Spot and Forward Strategies:** By utilizing both spot and forward contracts, companies can manage foreign exchange (FX) risks while still allowing for flexibility in seizing market opportunities. This combination helps stabilize financial outcomes, offering a balanced approach to FX risk management.
- **Importance of Pips:** In the context of large trades, even minor variations in pips (the smallest price move in a currency pair) can have significant financial implications. Therefore, thorough market analysis and expert advice are essential to navigate these nuances and make informed trading decisions.
- **Seek Professional Guidance:** Small and medium-sized enterprises (SMEs) should consult with FX experts to develop tailored risk management strategies, gain insights into market trends, and receive regular updates. Professional guidance can help SMEs navigate the complexities of FX risk more effectively.
- **Advanced Hedging Strategies:**
    - Range Forward Contracts: These contracts allow for some flexibility by providing a range within which exchange rates can fluctuate, offering more adaptability compared to standard forward contracts.
    - Calendar Spreads: This strategy enables importers to manage their forward positions more efficiently by spreading their exposure over different dates, reducing the risk of adverse market movements.
- **Consider Futures and Options:** Futures and options provide additional hedging tools, but they come with higher risks and reduced flexibility compared to spot and forward contracts. Careful evaluation and expert consultation are necessary to determine if these instruments are suitable for a company's risk profile.

Suggestions

To effectively manage foreign exchange (FX) risks, companies must adopt a proactive and informed approach. Monitoring trends in exchange rates and other relevant market factors is essential. By regularly tracking these variables and using historical data, companies can make timely adjustments to their FX strategies. Staying informed about market conditions enables businesses to anticipate changes and respond proactively, thereby minimizing potential risks.

Hedging approaches should be tailored to the specific needs of importers and exporters. Importers, who are often exposed to the risk of rising costs due to unfavorable currency movements, should primarily rely on forward contracts. These contracts allow them to lock in exchange rates for future transactions, providing a safeguard against adverse fluctuations. Exporters, on the other hand, can benefit from a combination of spot and forward contracts. Spot contracts enable them to capitalize on favorable short-term rate movements, while forward contracts offer stability for longer-term transactions. Customizing these strategies based on different time horizons ensures that risks are managed effectively across various scenarios.

A cost-benefit analysis is crucial in refining FX risk management strategies. Companies should regularly compare the costs of using forward contracts with the potential gains from engaging in the spot market. By employing performance metrics and scenario analysis, businesses can evaluate the effectiveness of their strategies and make necessary adjustments to ensure they remain cost-effective.

Understanding the profitability impact of FX rate changes is another key element of risk management. Companies should simulate various exchange rate scenarios to assess how changes might affect their costs and revenues. This simulation, coupled with a robust risk management framework, helps businesses anticipate potential impacts and adjust their strategies accordingly.

Finally, utilizing a natural hedge can be an effective way to minimize FX risk. By aligning revenues and expenses in the same currency, companies can reduce their exposure to currency fluctuations, thereby decreasing the need for additional hedging instruments.

Scope of Further Research

- Emerging Markets:
  - o Characteristics of Emerging Markets: Emerging markets are often characterized by higher growth potential, economic volatility, and evolving regulatory environments. These factors can significantly influence the decision-making process for managing FX risks.
  - o Spot vs. Forward Contracts: In emerging markets, where currency volatility can be more pronounced, understanding how importers and exporters choose between spot and forward contracts is crucial. Spot contracts may offer immediate flexibility, while forward contracts can provide stability amidst unpredictable currency movements.
  - o Decision-Making Process: Research could delve into how companies operating in these markets weigh the trade-offs between the immediate cost-effectiveness of spot transactions and the long-term security of forward contracts. This could include assessing the influence of factors like market liquidity, regulatory changes, and economic forecasts.
  - o Impact on Profitability: Investigating how different FX strategies impact profitability in emerging markets could provide insights into best practices, helping businesses navigate the unique challenges of these environments.
- Technology in FX Management:
  - o Role of Artificial Intelligence (AI): AI and machine learning are revolutionizing financial markets by providing advanced analytics and predictive modeling. In FX management, AI can enhance decision-making by analyzing vast amounts of market data to forecast currency movements with greater accuracy.
  - o Automation and Efficiency: Technology can automate routine tasks, such as monitoring exchange rates and executing trades, allowing businesses to respond to market changes in real-time. This can reduce human error and increase operational efficiency in FX risk management.

- o Customized Strategies: AI can tailor FX risk management strategies to the specific needs of a business, considering factors like transaction volume, exposure levels, and risk tolerance. This personalized approach could lead to more effective hedging strategies.
- o Continuous Learning: AI systems can continuously learn from new data, adapting strategies over time. Research could explore how businesses can integrate these technologies into their existing FX management frameworks to enhance decision-making and mitigate risks.

- **Global Trade Policies:**
  - o Impact of Policy Changes: Global trade policies, including tariffs, trade agreements, and currency regulations, can have a significant impact on FX markets. Research could analyze how these changes affect the use of spot and forward contracts for managing FX risk.
  - o Adaptation Strategies: Companies may need to adjust their FX strategies in response to shifting trade dynamics. For instance, a new trade agreement might alter currency flows, necessitating a re-evaluation of existing hedging strategies.
  - o Case Studies: Examining past instances where trade policies have impacted FX markets could provide valuable lessons for businesses. These case studies could highlight how companies successfully adapted their strategies to mitigate risks and capitalize on new opportunities.
  - o Policy Forecasting: Research could also explore how predictive analytics and scenario planning can help businesses anticipate future policy changes and prepare their FX strategies accordingly.

- **Market Volatility Case Studies:**
  - o Extreme Volatility Scenarios: Analyzing cases of extreme market volatility, such as during financial crises or geopolitical events, can provide insights into the effectiveness of spot and forward contracts in managing FX risk.
  - o Comparative Analysis: Comparing the outcomes of businesses that used spot versus forward contracts during volatile periods can reveal which strategies were most effective in minimizing losses and maintaining financial stability.
  - o Lessons Learned: These case studies can offer practical lessons for businesses, helping them to develop more resilient FX risk management strategies. Understanding how different companies responded to volatility can inform future decision-making processes.
  - o Best Practices: Research could identify best practices for managing FX risk in highly volatile markets, providing guidelines for businesses to follow when navigating uncertain economic conditions. This could include recommendations on the appropriate mix of spot and forward contracts, timing strategies, and contingency planning.

Limitations of the Study

1. **Limited Data Range**

- Timeframe Restriction: The study relies on data collected between June 2023 and May 2024, a period of just one year. This narrow timeframe limits the study's ability to capture long-term trends that are essential for understanding the broader impacts of foreign exchange (FX) risk management.
- Seasonal Variations: One year of data may not adequately account for seasonal variations that can significantly influence currency movements. For instance, certain industries experience cyclical demand, which can affect the supply and demand for foreign currencies, leading to price fluctuations that may not be evident in a shorter study period.
- Rare Events: The timeframe might also miss out on rare or extreme events (such as geopolitical crises or major economic shifts) that could have a profound impact on FX markets. These events, while infrequent, can create substantial volatility and risk, which are crucial to understanding in comprehensive FX risk management.
- Reduced Robustness: Due to the limited data range, the findings of the study might lack

robustness. Conclusions drawn from a short period may not be reliable when applied to longer timeframes, potentially leading to strategies that are less effective in different market conditions.

2. **Hypothetical Scenarios**

- Constructed Simulations: The study uses hypothetical scenarios to simulate potential outcomes of FX risk. While useful for illustrating possible risks and strategies, these scenarios may not fully encapsulate the complexities and unpredictability of real-world conditions.
- Lack of Real-World Variables: Real-world FX markets are influenced by numerous unpredictable factors, such as unexpected economic shifts, sudden changes in government policies, and global events like pandemics or wars. These variables are challenging to accurately model in constructed scenarios, which could result in an oversimplification of the risks involved.
- Applicability Concerns: Because hypothetical scenarios might not reflect real-world dynamics, the applicability of the study's conclusions could be limited. The strategies and risk assessments derived from these scenarios may not perform as expected in actual market situations, reducing their practical utility.

3. **India-Specific Focus**

- Geographical Limitation: The study focuses specifically on the Indian market, analyzing FX risks and management strategies within this context. While this provides valuable insights for businesses operating in India, it does limit the applicability of the findings to other regions.
- Regional Differences: Different countries have varying economic environments, regulatory frameworks, and market dynamics. Strategies that are effective in India may not translate well to other markets, particularly in regions with distinct financial systems, currency behaviors, or economic conditions.
- Generalizability Issue: The focus on India restricts the generalizability of the study's results. Companies operating outside India may find the recommendations less relevant or effective in their own contexts, thus limiting the broader impact of the study.

4. **Modeling Assumptions**

- Assumed Consistency: The study's models are based on assumptions of consistent policies and stable market conditions. However, the real-world FX market is subject to numerous unforeseen factors, including political instability, regulatory shifts, and economic turbulence.
- Complex Market Dynamics: FX markets are influenced by a complex interplay of global factors, many of which are unpredictable. Modeling assumptions that do not account for these complexities may lead to conclusions that are overly simplistic or not fully reflective of actual market behavior.
- Accuracy and Relevance: As a result, the conclusions drawn from these models might not accurately represent real-world outcomes. This could affect the relevance and effectiveness of the recommended strategies, making them less applicable in dynamic and unpredictable market conditions.

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UNDERSTANDING THE CRITICAL ROLE OF TEACHER TRAINING IN EFFECTIVE FINANCIAL EDUCATION DELIVERY

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ABSTRACT

This research project, titled "Understanding the Critical Role of Teacher Training in Effective Financial Education Delivery," investigates how teacher preparation impacts the effectiveness of financial education programs. The study seeks to lay the groundwork for future research into various dimensions of teacher training and its influence on student financial literacy. Future inquiries may explore how well-trained teachers incorporate financial concepts into existing curricula and analyze the correlation between teacher training and student financial literacy outcomes. Additionally, the effectiveness of diverse professional development programs and the role of technology in enhancing teacher training will be examined to provide valuable insights. By evaluating how differences in teacher training affect educational equity and the long-term implications for students' financial behaviors, this research will underscore the necessity of comprehensive teacher preparation. Ultimately, these findings aim to inform policy changes and resource allocation, enhancing the quality and accessibility of financial education in schools.

Keywords: *Teacher Training, Financial Education, Student Financial Literacy, Professional Development, Educational Equity, Curriculum Integration.*

Introduction :

In today's fast-paced and increasingly complex financial environment, financial literacy has become more important than ever. With the rise of sophisticated financial products, digital payment systems, and evolving economic conditions, individuals are required to make informed decisions about personal finances, savings, investments, and debt management. Financial literacy refers to the ability to understand, evaluate, and manage financial resources effectively, enabling individuals to make sound decisions about their financial futures.

In this context, financial literacy is not just a personal asset but a necessity for economic stability and individual well-being. Individuals equipped with strong financial knowledge are better prepared to navigate financial challenges, avoid debt, and plan for retirement, which collectively contributes to broader economic stability. On the other hand, financial illiteracy can lead to poor financial decisions, causing economic strain both on a personal and societal level.

Schools play a critical role in imparting financial literacy from a young age. Embedding financial education in school curricula ensures that students acquire essential life skills early on, helping them build a foundation for responsible financial behaviors in adulthood. By exposing students to concepts such as budgeting, saving, investing, and credit management, schools can empower the next generation to make informed financial decisions.

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However, the effectiveness of financial education largely depends on how well it is delivered, and this is where the role of teachers becomes paramount. Teachers serve as the primary medium through which financial education reaches students. For financial literacy programs to be successful, teachers must not only be knowledgeable about financial concepts but also skilled in conveying these concepts in a manner that is engaging, relevant, and accessible to students. Without adequate teacher training, even well-designed financial education programs may fail to have the desired impact.

Research Problem

Despite the recognized importance of financial literacy, there exists a significant gap between the current state of teacher training and the needs for effective financial education delivery. A major issue is that many teachers themselves may lack the necessary financial knowledge or feel unprepared to teach financial concepts. Unlike core subjects such as mathematics or science, financial literacy is a relatively new field in formal education, and many teachers may not have received training in this area during their teacher education programs.

The lack of preparedness among teachers poses a critical challenge to the effective implementation of financial literacy programs. Without the necessary training and confidence, teachers may struggle to deliver the curriculum in an engaging and comprehensible way. This can lead to financial education being treated as an afterthought or covered in a superficial manner, preventing students from fully grasping essential financial concepts.

Moreover, financial literacy curricula are often fragmented and inconsistent across educational systems. In some schools, financial literacy is integrated into subjects like mathematics or social studies, while in others, it may be treated as a stand-alone subject or offered as an elective. This fragmentation can result in a lack of continuity in financial education, leaving students with gaps in their knowledge. Furthermore, financial literacy programs may not always reflect current economic trends or real-world financial challenges, making the content less relevant and engaging for students.

The gap between teacher preparedness and the needs for comprehensive financial education highlights a critical research problem. This research seeks to explore the role of teacher training in bridging this gap and improving the delivery of financial literacy programs in schools. Understanding the key challenges and areas for improvement in teacher training can help inform the development of more effective financial education programs that better equip students with the skills they need to succeed financially.

Significance of the Study

The significance of this study lies in its potential to contribute to both educational practices and broader economic outcomes by focusing on the critical role of teacher training in financial literacy. Teacher training is a crucial component of educational success, particularly in specialized areas such as financial education. Well-trained teachers are better able to translate complex financial concepts into lessons that resonate with students, making the material relevant to their daily lives and future financial decisions.

First, the study highlights how improving teacher training can directly influence student financial outcomes. When teachers are adequately prepared to teach financial literacy, they can foster a deeper understanding of financial principles among students. This results in students being more financially informed and capable of making responsible financial choices. Students who receive effective financial education are more likely to practice sound financial behaviors, such as budgeting, saving, and investing, which can significantly reduce their risk of financial distress in the future.

Second, the study underscores the broader economic implications of enhancing financial education through teacher training. A population that is financially literate contributes to economic growth by making informed decisions that improve financial stability at both the individual and national levels. Financially literate individuals are better equipped to manage debt, save for retirement, and invest in ways that contribute to economic development. Additionally, financial literacy can help reduce inequality by providing individuals from all socio-economic backgrounds with the knowledge and tools to improve their financial circumstances.

By exploring the relationship between teacher training and financial literacy outcomes, this study also provides valuable insights for policymakers, educational institutions, and curriculum developers. The findings can help inform policy changes that prioritize investment in teacher training programs and resource allocation for financial education. As more schools adopt comprehensive financial literacy programs, the need for highly qualified and trained teachers becomes even more pressing. Ultimately, the study aims to contribute to the development of effective financial literacy programs that are accessible to all students, equipping future generations with the skills and knowledge to navigate an increasingly complex financial landscape.

Literature Review

Way and Holden (2009) emphasized that teacher preparedness is key to delivering financial literacy. Their research showed that teachers who received targeted professional development in financial literacy reported increased confidence, leading to higher student engagement and better learning outcomes.

Brown and Lee (2020) found that continuous professional development (CPD) significantly improves teachers' financial literacy knowledge, enabling them to deliver more effective lessons. This underscores the importance of CPD in keeping teachers up-to-date with financial trends and concepts.

Lusardi and Mitchell (2014) stressed the importance of teacher competence in financial literacy, showing that well-trained teachers led to better retention and understanding of financial concepts among students. This emphasizes the need for comprehensive teacher training.

Aprea and Tondini (2021) highlighted the challenges in delivering financial education, noting that the lack of teacher preparedness and fragmented curricula hinder the effectiveness of financial literacy programs.

Kirstein and Huynh (2021) discussed the integration of gamification in teacher training, finding that gamified elements in training programs enhance teachers' ability to teach complex financial concepts.

Wilson and Harris (2022) conducted a meta-analysis of teacher training programs, concluding that ongoing professional development and practical applications in training consistently improve financial literacy outcomes.

Objectives:

1. To Evaluate the Current State of Teacher Training Programs in Financial Education
2. To Identify the Shortcomings of the Present Content Delivery of Financial Education program.
3. To Assess the Impact of Teacher Training on Student Outcomes in Financial Education.

Research Methodology

Research Design

This study adopts a mixed-methods approach, utilizing both quantitative and qualitative data. A structured questionnaire was distributed to 86 teachers to gather primary data on their perceptions of financial education training. Secondary data was collected through a review of relevant literature, providing context for the findings.

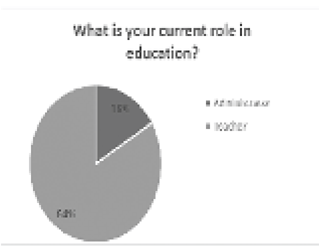
Sampling

Purposive sampling was used to target teachers actively involved in delivering financial education. The study gathered data from a diverse range of teachers, including those with varying levels of experience, ensuring a comprehensive view of teacher training in financial education.

Data Analysis and Findings

Overview of Respondent Demographics:

This study surveyed 86 educators, mostly classroom teachers (70%), with the remaining 30% comprising administrators, curriculum developers, and support staff. Teaching experience varied, with 40% of respondents having less than 5 years of experience, 35% having 5-10 years, and 25% over 10 years. This mix of experience levels provides insights into how financial education training programs are perceived by educators at different career stages.



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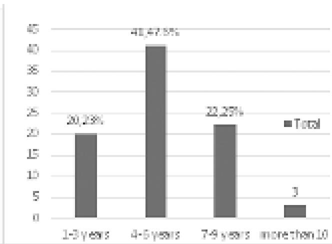


Teachers Experience

Coverage and Relevance of Financial Education Training:

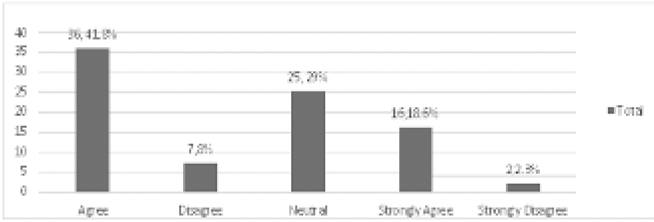
The training programs covered a range of financial topics, with budgeting and saving (85%), debt management (78%), and investment basics (65%) being the most frequently addressed. Less common areas included taxation (45%) and retirement planning (35%), suggesting that while the programs offer broad coverage, critical areas like retirement planning may need more focus. Regarding content relevance, 60% of respondents found the training highly relevant, 30% moderately relevant, and 10% felt it was not aligned with real-world needs. This reflects overall satisfaction, though improvements could be made to enhance real-life applicability for students.

Frequency and Timeliness of Program Updates:

Consistency in updating training programs varied, with 50% of respondents indicating annual updates, 30% citing updates every two years, and 20% reporting infrequent or irregular updates. The lack of regular updates could affect the relevance of financial education, as content may not stay aligned with current financial trends. This inconsistency points to the need for more frequent program revisions to maintain effectiveness.

Adequacy of Training and Access to Resources:

When asked about the adequacy of current training programs, over 60% of educators felt the programs sufficiently prepared them to teach financial literacy, while 25% believed the training was somewhat adequate. However, 15% found it inadequate, suggesting gaps in content or delivery methods. Regarding training methods and resources, digital tools were the most common (75%), followed by printed manuals (65%) and collaborative workshops (50%). Despite the increasing reliance on digital tools, traditional resources still play a vital role. About 55% of educators reported sufficient access to teaching materials, but 30% had limited access, and 15% lacked the necessary resources, which could hinder the quality of financial education.



Collaboration and Continuous Improvement:

Collaboration among teachers was also explored, with 40% of respondents frequently collaborating to improve financial education delivery, and another 40% collaborating occasionally. However, 20% reported rare or no collaboration. This suggests room for improvement in fostering structured peer collaboration, which could enhance teaching effectiveness and resource sharing.

Comparative Analysis

The comparative analysis will involve comparing different teacher training programs and competency models to highlight best practices and successful approaches. This analysis will focus on the following areas:

Training Program Effectiveness: Comparing the effectiveness of various teacher training programs in improving financial literacy outcomes. This will involve analyzing data from different programs to determine which approaches have been most successful in enhancing teacher competencies and student learning outcomes.

Competency Models: Comparing different competency models to identify commonalities and differences. This will include analyzing frameworks from various sources to determine the essential competencies required for teachers to effectively deliver financial literacy education.

Best Practices: Identifying best practices from successful teacher training programs. This will involve analyzing case studies and reports to highlight the key elements of effective training programs and the strategies that have been most successful in improving teacher competencies and student outcomes.

Training Methodologies: Comparing different training methodologies to determine their effectiveness. This will include analyzing the strengths and weaknesses of various approaches, such as workshops, online courses, and experiential learning, to identify the most effective methods for training teachers in financial literacy education.

International Perspectives: Comparing teacher training programs and competency models from different countries to identify global best practices. This will involve analyzing data from international organizations and studies to determine the most effective approaches used in different regions and their impact on financial literacy education.

Discussion

The findings of this research underline the significant role of teacher training in financial education delivery. While most teachers feel moderately prepared, gaps remain in the relevance of training content and the frequency of updates. The inclusion of real-world financial scenarios and more frequent training program revisions could improve the overall effectiveness of financial education.

The mixed feedback on the adequacy of teacher training also suggests that while some teachers benefit from existing programs, others require more robust support, particularly in the form of practical tools and continuous professional development.

Limitations

- **Self-Reported Data Bias:** The study relies on self-reported survey data, which may be influenced by biases like social desirability or inaccurate self-assessment, potentially impacting data reliability and validity.
- **Limited Sample Representativeness:** The sample is restricted to a specific group of teachers and administrators, which may not fully represent the broader population of educators, limiting the generalizability of the findings.
- **Variations in Training Programs:** Differences in training content and delivery methods across institutions are not fully captured, making it difficult to assess the overall effectiveness of financial education programs.
- **Dynamic Nature of Financial Education:** The evolving nature of financial trends and teaching methodologies may affect the long-term relevance of the study's findings, as educational needs continue to change.
- **External Influences:** Institutional support and resource availability for financial education training may influence results, but these factors are not consistently controlled for in the study, impacting overall conclusions

Scope of Further research

- **New Pedagogical Approaches and Tools:** Future research could explore the impact of integrating experiential learning and digital tools on the effectiveness of financial education. Understanding how these approaches enhance teacher training could improve the delivery of financial literacy programs.
- **Demographic and Setting-Based Outcomes:** Studies could investigate how teacher training influences student financial literacy outcomes across various demographics and educational settings, offering insights into program effectiveness and highlighting areas for improvement.
- **Training Delivery Methods:** Research on different training formats, such as online courses, seminars, and workshops, could determine which methods best enhance teacher preparedness and student engagement. Comparative studies could also evaluate the impact of practical versus theoretical content on teaching effectiveness.
- **Behavioral and Collaborative Factors:** Exploring the role of teacher attitudes, motivation, and collaboration in training effectiveness could offer valuable insights. Research on peer support and advanced evaluation techniques would help measure the long-term sustainability and impact of financial literacy education programs

Conclusion and Recommendations

Conclusion

Teacher training plays a pivotal role in the successful delivery of financial education. While teachers generally feel confident in their ability to deliver financial literacy lessons, the variability in content relevance and program updates reveals areas for improvement. Comprehensive and frequently updated training programs are essential to keep educators well-prepared to meet the demands of financial education.

Beyond basic financial concepts, teachers must be equipped with the skills to integrate real-world financial challenges into their lessons. This helps students connect theoretical knowledge with practical applications, enhancing their ability to manage personal finances effectively. Moreover, training should address emerging financial trends, such as digital currencies, online banking, and financial technologies, ensuring that educators remain relevant in an ever-evolving landscape.

Collaborative learning and professional development opportunities should also be emphasized, allowing teachers to exchange ideas and best practices. Peer-to-peer engagement can enhance teaching methodologies and make the learning experience more dynamic for students. Additionally, offering a range of training delivery methods, such as online courses, workshops, and interactive simulations, can cater to diverse learning styles, making the training more accessible and engaging for educators. Ultimately, a robust and adaptable teacher training program is crucial for fostering financially literate future generations.

Recommendations

Enhanced Professional Development: Teachers should engage in regular, updated professional development programs to stay current with financial trends.

1. **Incorporate Real-World Financial Scenarios:** Training programs should include more practical, real-world scenarios to enhance relevance.
2. **Collaboration and Knowledge Sharing:** Teachers should be encouraged to collaborate with peers and share best practices in delivering financial education.

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EFFECTS OF MENTORING: A STUDY ON ACADEMIC INSTITUTIONS

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ABSTRACT

The research was carried out with 2 main objectives: To understand the impact/effect of mentoring on behavioural, attitudinal, motivational, relational, and career outcomes. To make a comparison between Cross-gender Mentoring and Same-gender Mentoring. Having a same-gender or a cross-gender mentor does not affect the (Behaviour, Motivation, Relational, Career Development, Attitude) outcomes that the mentees would get from the mentoring program. 'Mentoring has helped me get industry-based knowledge', has the highest weighted average of 4.08 in PG and a comparatively lower weighted average of 3.53 in UG. In this statement the focus variable was 'career development'. The two lowest weighted averages were seen in the case of 'Mentoring has helped bring a positive change in my behavior', having a weighted average score of 3.18 in PG and 3.06 in UG, and 'Mentoring has helped me cultivate a positive attitude', having a weighted average score of 3.28 in PG and 3.24 in UG. The variables in these statements were 'behavior' and 'attitude', respectively.

The gender of the mentor and the mentee is usually seen as an important factor when it comes to measuring the effect of mentoring. This has been discussed in many research articles which highlight the problems faced in Cross-Gender Mentoring due to the difficulty in opening up to a mentor of a different gender. But the study conducted by the researchers outlined no significant difference between outcomes received from Cross-gender and Same-gender Mentoring. This could be due to the study being conducted in Academic Institutions which is something that has not been explored much with regards to Mentoring.

Keywords: *Effects of Mentoring, Academic Institutions, Cross-gender mentoring, Same-gender mentoring, Undergraduate mentoring programs, Postgraduate mentoring programs, Behavioural outcomes, Attitudinal outcomes, Career outcomes, Motivational outcomes, Relational outcomes.*

Introduction :

Over the past 20 years, there has been a smooth advancement of research focusing on mentoring. Mentoring functions including career support, psychosocial support and role modelling strongly provide positive effects on receivers' career success (Kwan et al., 2008). Further, Pytel (2017) adds that mentoring aids in skill development, transition & socialization, bonding across generations, diversity management, and health & well-being. Besides, mentoring can be looked at from two perspectives, informal as well as formal.

Informal mentoring is the natural meeting of a mentor and mentee. This is performed in comradeship, through a personal as well as a professional regard or admiration of each other. It is typically a long-term relationship (Nemanick, 2000). Cotton and Ragins (1999) found that informal organizational mentoring is more favourable compared to formal mentoring. Informal mentors provided a smoother career trajectory

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in terms of career development functions, such as coaching, providing challenging assignments or increasing mentees' exposure and visibility.

Formal mentoring differs from informal mentoring, as the organization develops a process and procedure for mentoring programs to adhere by. The relationship is typically short-term (one year) formally, with the expectation that it will develop informally in the long run. Mentors preferably, should come forth willingly, but most of the times are chosen by the organization. In formal mentoring, the mentees are allotted or strongly encouraged to take part. The mentor and mentee may or may not willingly select each other (Cotton et al., 2000).

In recent academic works, mentoring is looked at in a positive light, as being a positive catalyst for achieving mentee satisfaction both in academic institutions as well as organizations. Moreover, (Casado-Lumbreras et al., 2011) argues that mentoring fosters dyadic relationships which flourish and benefit both the mentor as well as the mentee.

Literature Review

This section will provide a roadmap of previous literary works drawn under four subcategories, namely - a) mentoring b) outcomes related to mentoring c) the flip side of mentoring and d) the future of mentoring.

This section will commence with an understanding of mentoring presented through an evolutionary gaze, then will delve into understanding the factors that affect and shape mentoring; followed by discourses that will look at mentoring from a critical lens (focusing on the cons of mentoring).

Evolution of mentoring

Mentoring, for the longest time, was recognized as one of the most ancient ways of knowledge transfer. The notion of mentoring traces back to Greek mythology and dates to a period between 1193 BC-1183 BC (Casado-Lumbreras et al., 2015). Legend has it that the word **'mentor'** has its roots in an era of Homer's Odyssey, where Odysseus, prior to his departure on a ten-year journey, to fight in the Trojan War, gave charge to his old, trusted friend Mentor, to take care of his home as well as to educate and develop his son, Telemachus (Inzer, 2005).

Jacobson and Kaye (1996) opined that mentoring is an ongoing process. The notion of mentoring being a dyadic relationship between the mentor, an experienced, senior person on the one hand and the mentee, a novice, on the other was put forth by Inzer (2005). His idea of mentoring relates to guidance, advice and emotional support provided by the senior mentor to enable, support, teach and encourage the mentee.

With the advent of the 19th century, mentoring was looked at as a relationship fostering support, empathy, wisdom, and knowledge between colleagues (peers). Also, a mentor and a leader were seen to have the same traits of helping their team grow, develop, and show positive improvement over a period. A mentor was deemed as someone who helped mentees learn through a hand-held approach, ensuring full support without making them feel alone or insecure. Jacobson and Kaye (1996) assessed mentoring successes and failures as lessons to be learnt from the past and enhancers of new learning opportunities. They identified that a successful mentor's role would look into (a) promoting intentional learning which would develop people's capabilities through instructing, coaching, modelling and advising, as well as providing stretching exercises (b) sharing failures as well as successes through discussing and analyzing the realities of the organization (c) storytelling as a means of sharing their real-life stories and in this way improve the learning curve of the employees and finally (d) a joint venture of sharing responsibilities for learning. Further, The U.S. Department of Transportation Mentoring Handbook (2004) states that a successful mentor is characterized as supportive, patient, and respected, a person who wants to share their experiences, and who facilitates personal and professional growth in the protégé. On the surface the protégé is the person mentoring is geared towards. But notably, a mentoring relationship can be as much for the mentor as the mentee.

Middle and later half of the 19th century witnessed youth and academic mentoring as being vital shaping tools instrumental in moulding and developing the life of protégés. **Youth mentoring** on the one hand presents those relationships which are supportive in nature aid in psychological, cognitive, emotional and personal growth and long-term development. On the other hand, **academic mentoring** sheds light on the idea that faculty share their knowledge and expertise with students by providing support, guidance on academic as well as non-academic discourses. This type of mentoring paves the way for developing a sense of direction and fostering an understanding of professional essence (Eby, 2007).

Outcomes related to mentoring (Eby et al., 2008).

The spectrum of favourable outcomes related to mentoring include behavioural outcomes, attitudinal outcomes, health-related outcomes, relational outcomes, motivational outcomes as well as career outcomes.

Behavioural outcomes help to dwindle unfavourable outcomes, while simultaneously encouraging favourable outcomes.

Attitudinal outcomes assist mentees in developing a positive attitude towards the activities they engage in with their mentors. Further, mentors may help foster psychological attachment to the context in which the relationship is in. (E.g., Job satisfaction).

Health-related outcomes offer emotional and health-related support to the mentee by the mentor.

Relational outcomes highlight the phenomenon of trust building. E.g.: satisfaction with coworkers, peer (colleague) support, supervisor support, relationship quality.

Motivational outcomes help the mentees create and achieve S.M.A.R.T (Specific, Measurable, Achievable, Relevant, and Time-Bound) goals. Further, Clayton P. Alderfer's ERG (Existence, Relatedness and Growth) theory, a condensation of Maslow's Hierarchy of Needs, emphasizes that all three needs must be satisfied simultaneously for the mentee to feel motivated.

Career Outcomes demonstrates that Mentors can kindle specific knowledge and expertise which facilitates learning and skill development. For example, socialization, communication skills, work knowledge, problem-solving skills as well as goal setting ability.

Challenges for mentoring:

This section delves into understanding the challenges or the cons that stem out of mentoring. It also investigates factors that pose as potential threats to this dyadic relationship.

A. Mentor and mentee issues

- Mentor issues

Adeyemi (2020) argues that 'lack of adequate time invested in developing the mentee - by the mentor', both in academic spheres as well as workplaces, was in essence the biggest downside of mentoring. He further adds that the attitude of the mentor, whether positive or negative, is detrimental and influential in sculpting the learning curve of the mentee. The positive attitude of the mentor mirrors an optimistic change in the mentee and vice-versa. While on the other hand, a mentor that constantly critiques or criticizes the work and effort put in by the mentee, kills the zeal, motivation as well as spirit of the mentee to persist and perform (excel). In such a case, instead of the mentee transforming and developing over the course of the mentorship, he/she will rather deteriorate and go backwards, into their shell.

- Mentee issues

Meanwhile, mentees too need to be open to feedback and intrinsically want to improve. Good communication is a vital aspect, and a communication gap indicates a failure in the relationship between the mentor and mentee. When the mentorship happens in a hostile environment, the mentee finds it difficult to communicate, thereby, this ends up diluting the essence of the entire mentorship program, missing the objective it initially set out to achieve. (Adeyemi, et al., 2020).

Future of mentoring:

Today, technology has given a boost to organizations to maximize their mentoring programs, unlike before. Mentoring tools have facilitated the automation of the process, making it less manual and more effective, scalable, and measurable.

Mentoring tools can contribute to the success of the mentoring programs, but these tools alone, by themselves cannot assure success. Steps must be followed, and important decisions must be thought through by the organization to ensure that the value of the power of mentoring is maximized (Pytel, 2017).

Need for study

"A mentor is someone who allows you to see the hope inside yourself." - Oprah Winfrey.

Mentoring as a process is relevant in today's time and age. Successful mentorships are known to make notable differences in building a better workforce (career) for tomorrow. When one finds themselves stuck at a crossroad of either a crucial academic or a career decision, a mentor could be sought out as a powerful solution. Mentors are regarded as guiding lights or advisors that help give fruitful insights that people may not recognize by themselves.

Through this study the researchers want to explore the effects or impact of mentoring in academic institutions. The researchers also want to understand the differences that emerge in mentoring in terms of behavioural, attitudinal, motivational, relational and career outcomes through a comparative study between academic mentoring and workplace mentoring. Further, to investigate the academic institutions, the researchers will be exploring mentoring taking place from the formal and informal lens as well as from the lens of faculty mentoring students and students mentoring their peers. This study will help to throw light on the importance of Mentoring when it comes to Academic Institutions.

Research Objectives

1. To understand the impact/effect of mentoring on behavioural, attitudinal, motivational, relational and career outcomes.
2. To do a comparison between Cross-gender Mentoring and Same-gender Mentoring.

Research Methodology

Research Design : Descriptive study.

Sample Size : 156 respondents from the academic institutions.

• Data collection from Jan 7th till 28th Feb, 2023

Table: 1. Region wise distribution of Respondents

Location	No. of Respondents
Bangalore	19
Delhi	5
Goa	20
Mangalore	2
Mumbai	105
Rajasthan	5
Total	**156**

Scope: The study is focused on academic (educational) institutions.

Table: 2. Scope of the study

PG	Masters	Respondents were from 9 colleges
UG	Diploma	Respondents were from 2 colleges
	Degree	Respondents were from 25 colleges

Research Instrument: A structured questionnaire circulated virtually, via Google Forms will be used for conducting the study.

Data Analysis Techniques: Statistical Measures (z-Test) will be used as per the objectives and questionnaire for looking into and analyzing the data collected.

Sampling Technique Convenience sampling coupled with Snowball sampling technique. (The Google form will be first shared with a known person and then 'forwarded' to their contacts to add their perspectives to this study).

Data Analysis

Academic Institutions

- 156 respondents in total
- 130 respondents have mentoring in their current Institution
  - o 90 respondents are from UG Diploma & Degree)
  - o 40 respondents are from PG (Masters)
- 26 respondents do not have mentoring in their current Institution

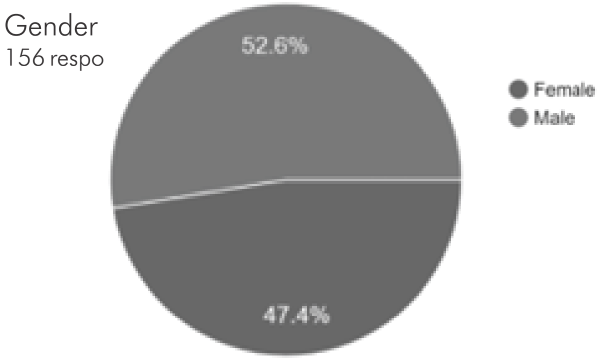


Fig.:1. Gender of Respondents

Out of 156 respondents, 52.6% are male and 47.4% are female.

Age
156 responses

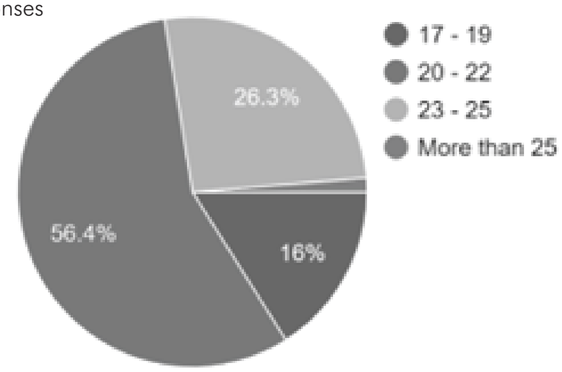


Fig.:2. Age of Respondents

56.4% of the respondents out of 156 respondents are between 20 – 22 years of age.

Responses were collected from students across 36 colleges studying in Degree, Diploma and Masters Programs

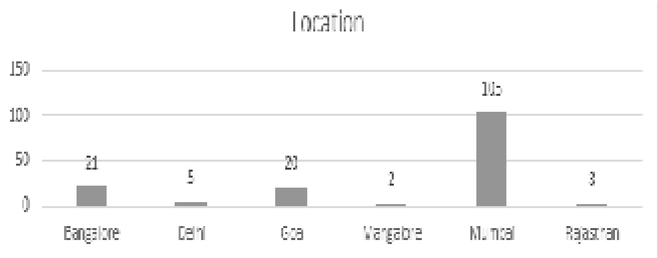


Fig.: 3. Location of Respondents

Out of the total 156 respondents, most of the respondents, that is 105 respondents were from Mumbai. While 20 respondents were from Goa and 21 respondents were from Bangalore.

Qualification
156 responses

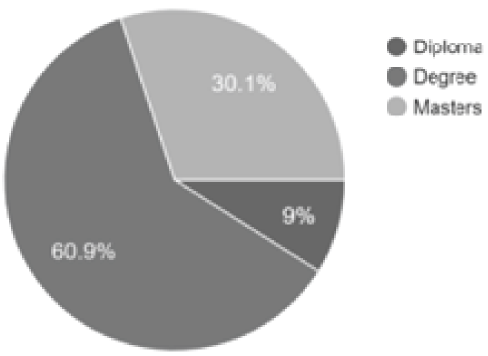


Fig.: 4. Qualification of Respondents

60.9% of the total 156 respondents are perusing degrees.

Are you aware of the concept of mentoring?
156 responses

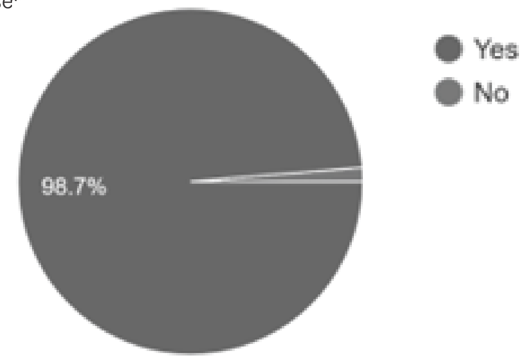


Fig.: 5. Awareness about Mentoring

Out of 156 respondents, 98.7% of the respondent are aware of the concept of mentoring.

Have you ever had a chance to be a mentee in your current Academic Institution?

156 responses

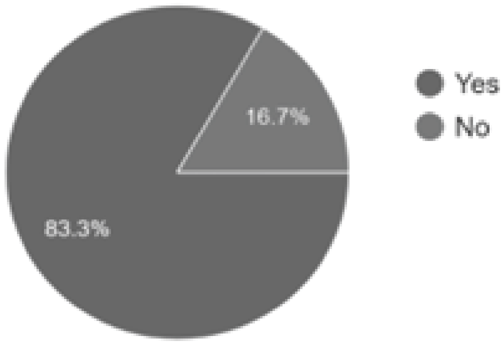


Fig.: 6. Exposure to Mentoring

83.3% (130 respondents) out of the 156 respondents have had the opportunity to be a mentee in their current Academic Institution.

Type of Mentoring program

130 responses

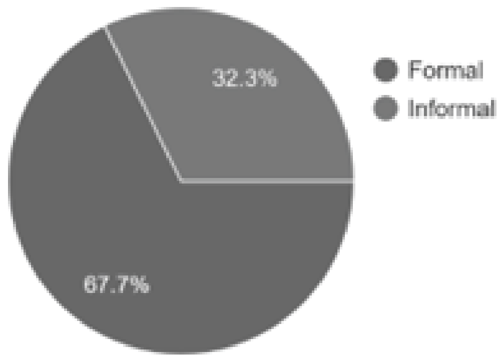


Fig.: 7. Type of Mentoring Program

Out of 130 respondents, 67.7% enjoy a formal mentoring program.

Gender of the mentor
130 responses

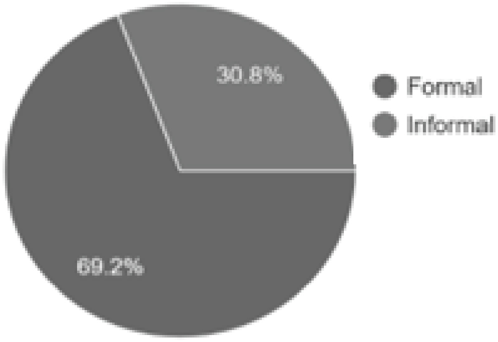


Fig.: 8. Gender of Mentor

Out of the 131 respondents, 69.5% are female and 30.5% are male.

Mentor
130 responses

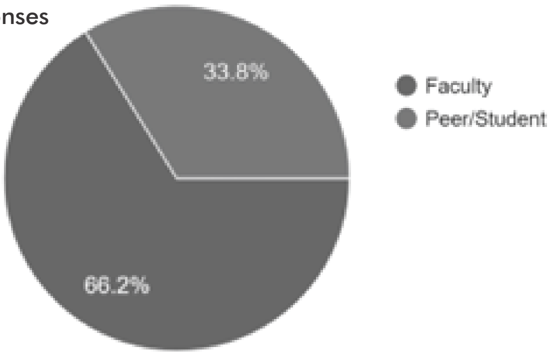


Fig.:9. Designation/Position of Mentor

Out of 130 respondents, 66.2% have a faculty as their mentor.

Frequency of mentoring
130 responses

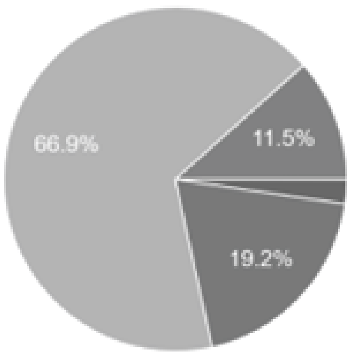


Fig.: 10. Frequency of Mentoring

66.9% of the respondents out of 130 respondents have stated that the mentoring sessions happen once a month.

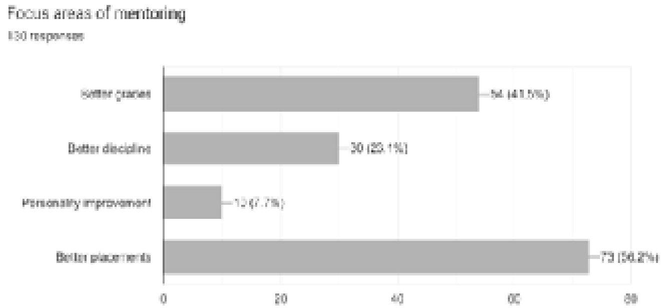


Fig.: 11. Focus areas of Mentoring

(For Fig. 11, respondents were asked to choose more than one option)

56.2% of the respondents mentioned that Better Placements was the Focus area of Mentoring while 41.5% mentioned Better Grades

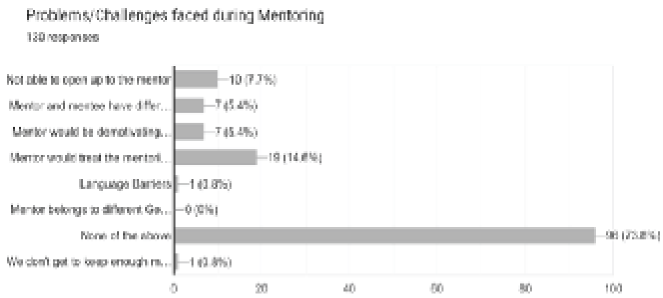


Fig.: 12. Problems/challenges faced during Mentoring

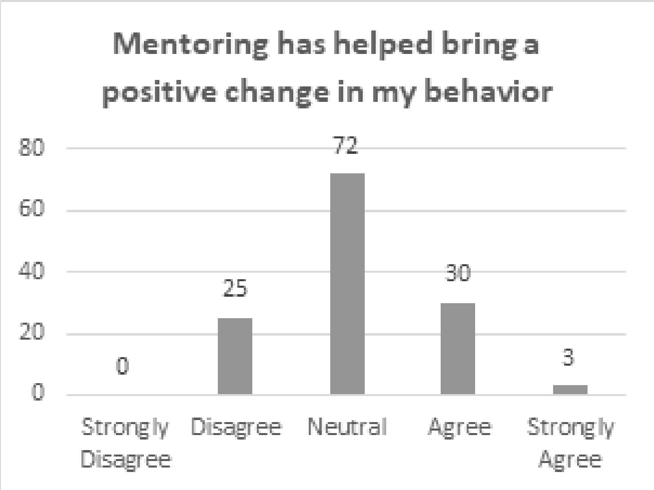
For Fig. 12, respondents were asked to choose more than one option)

96 respondents out of the total 130 respondents have stated that they did not face any problems/challenges during their mentoring program. 19 respondents stated that their Mentors would treat the mentoring session like an eyewash. While 10 respondents felt that they were not able to open up to their mentors in the mentoring sessions.

Out of the 130 respondents, 7 respondents stated they had differing opinions and personality types from their mentors and another 7 respondents opined that their mentors were demotivating.

Lastly, 1 respondent out of 130 respondents stated that language barriers were an area of concern, while another stated that not having enough time to meet was a problem faced during the mentoring sessions.

(For Fig. 13 to Fig. 17, candidates had to give their level of agreement for the below statements)



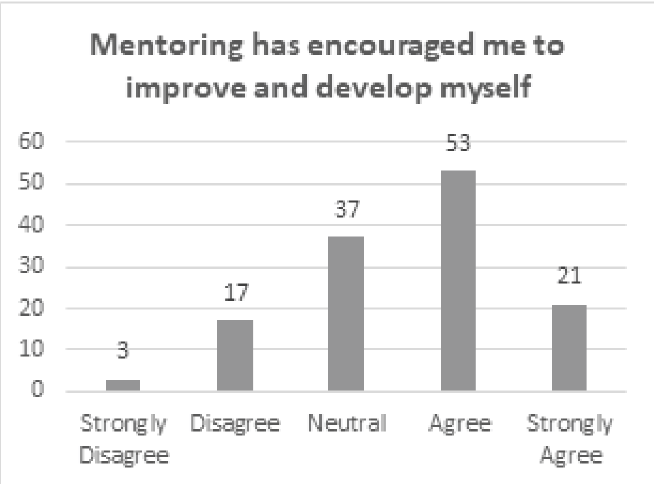
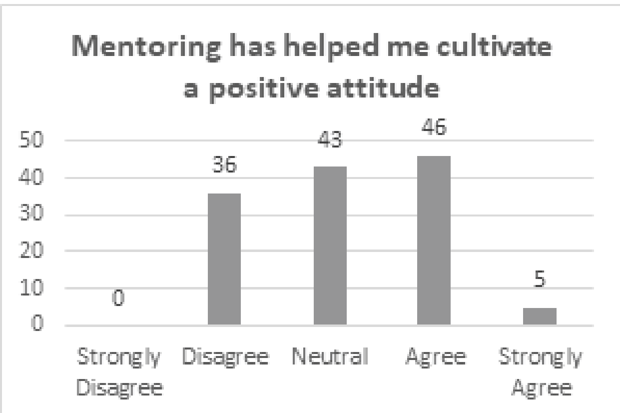


Fig.: 13. Level of Agreement – Behavioural Outcomes

The clustered columns represent the following statements:

1) Mentoring has helped bring a positive change in my behavior.
2) Mentoring has encouraged me to improve and develop myself.



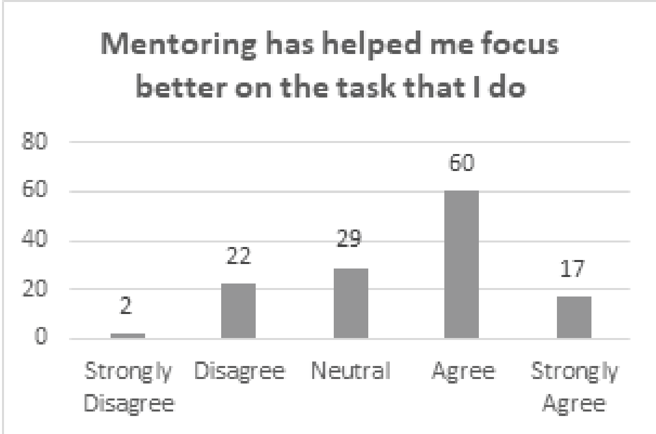


Fig.: 14. Level of Agreement-Attitude Outcomes

The clustered columns represent the following statements:

3) Mentoring has helped me cultivate a positive attitude
4) Mentoring has helped me focus better on the task that I do.

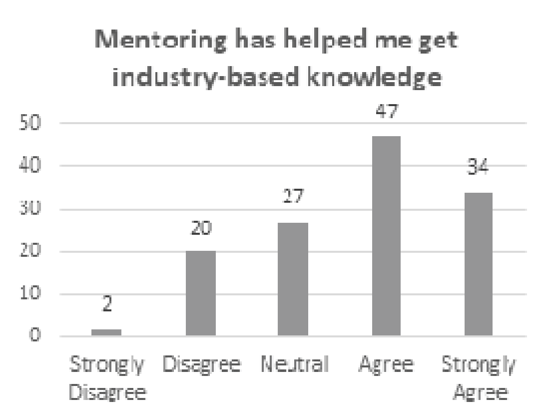


Fig.: 15. Level of Agreement – Career Development Outcomes

The clustered columns represent the following statements:

5) Mentoring has helped me get industry-based knowledge.

6) Mentoring has helped me hone my skills.

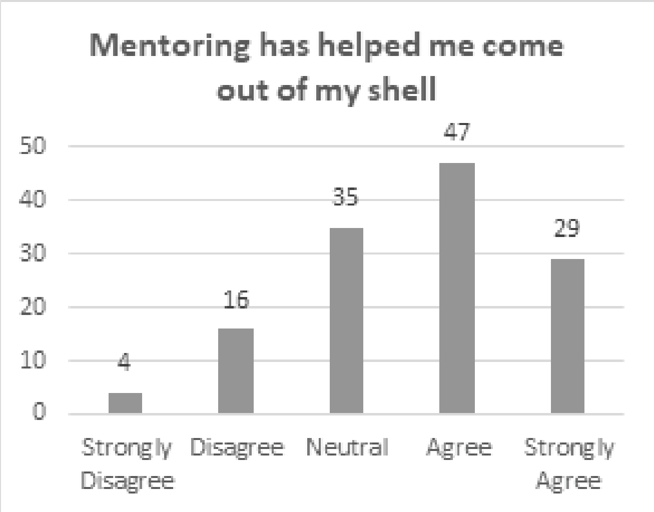


Fig.: 16. Level of Agreement – Relational Outcomes

The clustered columns represent the following statements:

7) Mentoring has helped me come out of my shell.

8) Mentoring has helped me deal with interpersonal relations with others.

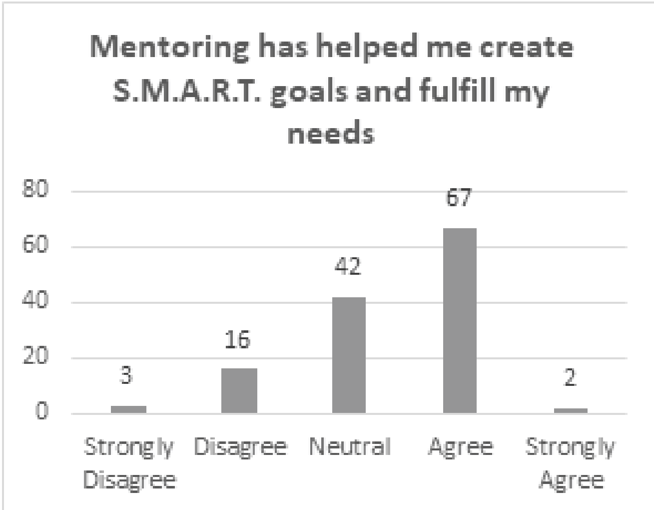


Fig.: 17. Level of Agreement – Motivation Outcomes

The clustered columns represent the following statements:

9) Mentoring has helped me boost my self-confidence

10) Mentoring has helped me create S.M.A.R.T. goals and fulfil my needs

Descriptive statistics of the level of agreement scale.

- *PG (Postgraduates – consists of Masters)*
- *UG (Under Graduates – consists of a combination of Diploma and Degree)*

Table: 3. Descriptive statistics of the level of agreement scale

Variables	Questions/Scale	Weighted Average	Weighted Avg. PG	Weighted Avg. UG
Motivation	[Mentoring has helped me boost my self-confidence.]	3.88	3.87	3.88
Career Development	[Mentoring has helped me get industry-based knowledge]	3.70	4.08	3.53
Career Development	[Mentoring has helped me hone my skills.]	3.66	.78	3.61
Relational	[Mentoring has helped me deal with interpersonal relations with others.]	3.66	45	3.76
Relational	[Mentoring has helped me come out of my shell]	3.61	3.45	3.68
Behaviour	[Mentoring has encouraged me to improve and develop myself]	3.54	.38	3.61
Attitude	[Mentoring has helped me focus better on the task that I do.]	3.52	3.35	3.60
Motivation	[Mentoring has helped me create S.M.A.R.T. goals and fulfill my needs]	3.41	3.15	3.53
Attitude	[Mentoring has helped me cultivate a positive attitude]	3.25	3.28	3.24
Behaviour	[Mentoring has helped bring a positive change in my behavior]	3.09	3.18	3.06
	Total respondents who are mentees	**130**	**40**	**90**
	Total respondents who are not mentees	26		
	Total responses	**156**		

Comparison between Cross-gender Mentoring and Same-gender Mentoring

Table: 4. Comparison between Cross-gender Mentoring and Same-gender Mentoring

	Same - Gender	Cross- Gender	Total
Total	68	62	130
UG	46	44	90
PG	22	18	40

- **Cross-gender Mentoring**

Table: 5. Cross-gender Mentoring

Cross-gender Mentoring				
Variables	**Questions/Scale**	**Weighted Average**	**Weighted Avg. PG**	**Weighted Avg. UG**
Motivation	[Mentoring has helped me boost my self-confidence.]	3.99	4.12	3.96
Relational	[Mentoring has helped me deal with interpersonal relations with others.]	3.69	3.78	3.60
Career Development	[Mentoring has helped me get industry-based knowledge]	3.64	3.90	3.52
Relational	[Mentoring has helped me come out of my shell]	3.57	3.61	3.57
Career Development	[Mentoring has helped me hone my skills.]	3.56	3.61	3.71
Behaviour	[Mentoring has encouraged me to improve and develop myself]	3.54	3.59	3.49
Attitude	[Mentoring has helped me focus better on the task that I do.]	3.44	3.47	3.42
Motivation	[Mentoring has helped me create S.M.A.R.T. goals and fulfill my needs]	3.37	3.42	3.36
Attitude	[Mentoring has helped me cultivate a positive attitude]	3.26	3.30	3.24
Behaviour	[Mentoring has helped bring a positive change in my behavior]	3.00	3.07	2.97

- **Same-gender Mentoring**

Table:6. Same-gender Mentoring

Same-gender Mentoring				
Variables	**Questions/Scale**	**Weighted Average**	**Weighted Avg. PG**	**Weighted Avg. UG**
Behaviour	[Mentoring has encouraged me to improve and develop myself]	3.78	3.36	3.61
Career Development	[Mentoring has helped me hone my skills.]	3.77	3.86	3.65
Career Development	[Mentoring has helped me get industry-based knowledge]	3.75	4.18	3.54
Relational	[Mentoring has helped me come out of my shell]	3.65	3.47	3.74
Relational	[Mentoring has helped me deal with interpersonal relations with others.]	3.60	3.45	3.70

Motivation	[Mentoring has helped me boost my self-confidence.]	3.58	2.95	3.74
Attitude	[Mentoring has helped me focus better on the task that I do.]	3.54	3.50	3.72
Motivation	[Mentoring has helped me create S.M.A.R.T. goals and fulfill my needs]	3.43	3.13	3.58
Attitude	[Mentoring has helped me cultivate a positive attitude]	3.26	3.27	3.22
Behaviour	[Mentoring has helped bring a positive change in my behavior]	3.17	3.27	3.12

- Behaviour

H1: There is significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring in terms of Behavioral Outcomes

z- Test For UG and PG:

Table: 7. z- Test For UG and PG (Behaviour)

z-Test: Two Sample for Means for **UG & PG**				
	Average (Behaviour) for Cross-gender mentoring		*Average (Behaviour) for Same-gender mentoring*	
Qualification	**UG**	**PG**	**UG**	**PG**
Mean	3.306818182	3.22222222	3.3586956	3.3181818
Known Variance	0.445	0.8672	0.4854	0.5578
Observations	44	18	46	22
Hypothesized Mean Difference	0	0		
z	-0.360871489	-0.35387449		
P(Z<=z) one-tail	0.359097759	0.36171647		
z Critical one-tail	1.644853627	1.64485367		
P(Z<=z) two-tail	0.718195518	0.72343293		
z Critical two-tail	1.959963985	1.95996398		

Table: 8. Interpretation (Behaviour)

Qualification	P-Value	Hypothesis Testing	Conclusion	Interpretation
UG	0.71	P-Value>0.05 Accept Null	There is no significant difference.	Therefore, at the UG level, having a same-gender or a cross-gender mentor does not affect the behavior outcomes that the mentees would get out of the mentoring program.
PG	0.72	P-Value>0.05 Accept Null	There is no significant difference	Therefore, at the PG level, having a same-gender or a cross-gender mentor does not affect the behavior outcomes that the mentees would get out of the mentoring program

- **Motivation**

H2: There is significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring in terms of Motivation Outcomes

z- Test For UG and PG:

Table: 9. z- Test For UG and PG (Motivation)

z-Test: Two Sample for Means for **UG & PG**				
	Average (Motivatopm) for Cross-gender mentoring		*Average (Motivation) for Same-gender mentoring*	
Qualification	**UG**	**PG**	**UG**	**PG**
Mean	3.76136363	3.527777778	3.6630434	3.5
Known Variance	0.607	0.7355	0.566	0.5869
Observations	44	18	46	22
Hypothesized Mean Difference	0	0		
z	0.60858880	0.107816139		
P(Z<=z) one-tail	0.27139851	0.45707077		
z Critical one-tail	1.64485362	1.644853627		
P(Z<=z) two-tail	0.54279702	0.914141541		
z Critical two-tail	1.95996398	1.959963985		

Table: 10. Interpretation (Motivation)

Qualification	P-Value	Hypothesis Testing	Conclusion	Interpretation
UG	0.54	P-Value>0.05 Accept Null	There is no significant difference	Therefore, at the UG level, having a same -gender or a cross-gender mentor does not affect the motivation outcomes that the mentees would get out of the mentoring program.
PG	0.91	P-Value>0.05 Accept Null	There is no significant	Therefore, at the PG level, having a same-gender or a cross-gender mentor does not affect the motivation outcomes that the mentees would get out of the mentoring program.

- Relational

H3: There is significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring in terms of Relational Outcomes

z- Test For UG and PG:

Table: 11. z- Test For UG and PG (Relational)

z-Test: Two Sample for Means for **UG & PG**				
	Average (Relational) for Cross-gender mentoring		Average (Relational) for Same-gender mentoring	
Qualification	**UG**	**PG**	**UG**	**PG**
Mean	3.727272727	3.33686669	3.717391304	3.44444444
Known Variance	0.698	1.2191	0.9727	0.74793
Observations	44	18	46	22
Hypothesized Mean Difference	0	0		
z	0.051364625	0.34984679		
P(Z<=z) one-tail	0.479517486	0.363226841		
z Critical one-tail	1.644853627	1.644853627		
P(Z<=z) two-tail	0.959034973	0.726453682		
z Critical two-tail	1.959963985	1.959963985		

Table: 12. Interpretation (Relational)

Qualification	P-Value	Hypothesis Testing	Conclusion	Interpretation
UG	0.95	P-Value>0.05 Accept Null	There is no significant difference.	Therefore, in the case of UG, having a same-gender or a cross-gender mentor does not affect the relational outcomes that the mentees would get out of the mentoring program
PG	0.72	P-Value>0.05 Accept Null	There is no significant difference	Therefore, in the case of PG, having a same-gender or a cross-gender mentor does not affect the relational outcomes that the mentees would get out of the mentoring program

- **Career Development**

H4: There is significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring in terms of Behavioral Outcomes

z- Test For UG and PG:

Table: 13. z- Test For UG and PG (Career Development)

z-Test: Two Sample for Means for **UG & PG**				
	Average (Career Development) for Cross-gender mentoring		Average (Career Development) for Same-gender mentoring	
Qualification	**UG**	**PG**	**UG**	**PG**
Mean	3.54545454	3.92222871	3.59782608	3.75
Known Variance	0.734	1.0069	0.907	0.7113
Observations	44	18	46	22
Hypothesized Mean Difference	0	0		
z	-0.27450444	-0.596755282		
P(Z<=z) one-tail	0.39184849	0.275335389		
z Critical one-tail	1.64485362	1.644853627		
P(Z<=z) two-tail	0.78369698	0.550670778		
z Critical two-tail	1.95996398	1.959963985		

Table:14. Interpretation (Career Development)

Qualification	P-Value	Hypothesis Testing	Conclusion	Interpretation
UG	0.78	P-Value>0.05 Accept Null	There is no significant	Therefore, at the UG level, having a same -gender or a cross-gender mentor does not affect the career development outcomes that the mentees would get out of the mentoring program.
PG	0.55	P-Value>0.05	There is no significant difference.	Therefore, at the PG level, having a same-gender or a cross-gender mentor does not affect the career development outcomes that the mentees would get out of the mentoring program.

- Attitude

H5: There is significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring in terms of Attitude Outcomes

z-Test: Two Sample for Means for UG & PG

Table:15. z- Test For UG and PG (Attitude)er Development)

	Average (Attitude) for Cross-gender mentoring		Average (Attitude) for Same-gender mentoring	
Qualification	**UG**	**PG**	**UG**	**PG**
Qualification	UG	PG	UG	PG
Mean	3.420454545	3.222222222	3.4204545	3.27463618
Known Variance	0.4766	0.7839	0.7605	0.8166
Observations	44	18	46	22
Hypothesized Mean Difference	0	0		
z	-0.020968853	-0.186416396		
P(Z<=z) one-tail	0.491635251	0.426059118		
z Critical one-tail	1.644853627	1.644853627		
P(Z<=z) two-tail	0.983270502	0.852118236		
z Critical two-tail	1.959963985	1.959963985		

Table: 16. Interpretation (Attitude)

Qualifications	P-Value	Hypothesis Testing	Conclusion	Interpretation
UG	0.98	P-Value>0.05 Accept Null	There is no significant	Therefore, in the case of UG, having a same-gender or a cross-gender mentor does not affect the attitude outcomes that the mentees would get out of the mentoring program.
PG	0.85	P-Value>0.05 Accept Null	There is no significant difference.	Therefore, at the PG level, having a same-gender or a cross-gender mentor does not affect the attitude outcomes that the mentees would get out of the mentoring program.

Findings

- The statement: 'Mentoring has helped me boost my self-confidence', has a similar weighted average of 3.87 in PG and 3.88 in UG.

  o In this statement the focus variable was 'motivation'.

- 'Mentoring has helped me get industry-based knowledge', has the highest weighted average of 4.08 in PG and a comparatively lower weighted average of 3.53 in UG.

  o In this statement the focus variable was 'career development'.

- The two lowest weighted averages were seen in the case of 'Mentoring has helped bring a positive change in my behavior', having a weighted average score of 3.18 in PG and 3.06 in UG, and 'Mentoring has helped me cultivate a positive attitude', having a weighted average score of 3.28 in PG and 3.24 in UG.

  o The variables in these statements were 'behavior' and 'attitude', respectively.

- A z-Test was carried out in this research. The test results show that the P-Value>0.05. This indicates that having a same-gender or a cross-gender mentor does not affect the (Behaviour, Motivation, Relational, Career Development, Attitude) outcomes that the mentees would get out of the mentoring program.

Recommendations

Based on the three lowest outcomes, the following suggestions can be given.

In the statement, mentoring has helped me create SMART goals and fulfil my needs, the weighted average is 3.41 (3.15 in PG and 3.53 in UG). The suggestion here can be that, more actionable goal setting is implemented, which can be easily understood and executed by the mentee to achieve the desired results.

In the statement, mentoring has helped me cultivate a positive attitude, the weighted average is 3.09 (3.18 in PG and 3.06 in UG). So, the Mentor along with the Mentee can take up few activities through which conscious effort can be made to monitor the Attitude of the Mentee over a period of time and ensure that positive changes come about.

Further, valuable suggestions given by the respondents can also be taken into consideration. Some of the suggestions are listed below.

o Mentoring can be more frequent, regular, and organized.

o A formal mentoring program is favourable, to initiate the mentoring program.

o There needs to be a system in place to check whether the mentoring is happening or not. Further, there needs to be a system to check the contributions of both the mentor as well as the mentee.

Limitations

The sample size is skewed towards Mumbai Region. The study could have given more representative results if the sample size collected from each region was similar. The study is Cross-sectional in nature. A longitudinal study would have given a better understanding of the impact of Mentoring on the chosen outcomes.

Future Scope

Similar study can be carried out to see the effect of Mentoring in Corporate Workspaces. Also, a study can be conducted to compare the effects of Mentoring in Academic Institutions and Corporate Workspaces.

Conclusion

Mentoring is typically perceived as a dyadic relationship between a mentor and a mentee. This relation can either be formal or informal in nature. For mentoring to be effective, career support and emotional support are fundamental outcomes.

Through this study the researchers were able to understand the effects or impact of mentoring in academic institutions at the UG and PG level with respect to mentoring in terms of behavioural, attitudinal, motivational, relational and career outcomes. The z-Test was the statistical measure used to analyze the data collected. The results highlighted that there was no significant difference between the Cross-Gender Mentoring and Same-Gender Mentoring.

Therefore, this concludes that in an Academic Institution, whether a mentee has a cross-gender or a same gender mentor, the career and emotional support the mentee will receive from the mentorship in the form of the behavioural, attitudinal, motivational, relational and career development outcomes, is not impacted.

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IMPACT OF BANK GUARANTEES ON DOMESTIC COMMERCE: A STUDY ON SAIL'S BUSINESS PRACTICES

***Ms. Minal Parekh, **Mr. Ebrahim Abrar Shaikh**

ABSTRACT

This research investigates the role and impact of bank guarantees in domestic business transactions within the Steel Authority of India Limited (SAIL). Bank guarantees are pivotal financial instruments that reduce risk and ensure the fulfilment of contractual obligations. This study aims to understand their significance in improving business confidence and facilitating smoother operations within the Indian business ecosystem. Data collected from SAIL's financial transactions over five years highlights the operational challenges and benefits of using bank guarantees. The findings suggest that while bank guarantees enhance financial security, operational inefficiencies, regulatory hurdles, and risk management practices need attention for optimal performance.

Keywords: *Bank Guarantee, Domestic Business Transactions, Credit Assurance*

Introduction :

In the dynamic landscape of business transactions, financial instruments play a crucial role in facilitating trust and mitigating risks. Among these instruments, bank guarantees stand out as vital tools that enhance the credibility of commercial dealings. A bank guarantee serves as a promise by a financial institution to assume the financial liability of a client in the event of default, thereby ensuring that contractual obligations are met. This mechanism not only bolsters the financial integrity of transactions but also fosters a sense of security among stakeholders.

The Steel Authority of India Limited (SAIL), one of the largest state-owned steel producers in India, exemplifies the significance of bank guarantees in its domestic business transactions. As a key player in the steel industry, SAIL engages in numerous contracts that require a high level of trust and assurance between parties. The reliance on bank guarantees can influence procurement processes, credit arrangements, and supplier relationships, ultimately impacting operational efficiency and business growth.

This research paper aims to explore the role and impact of bank guarantees on the domestic business transactions of SAIL. It will investigate how bank guarantees affect various aspects of business operations, including risk management, negotiation dynamics, and supplier confidence. By analyzing case studies and empirical data, the study seeks to provide insights into the effectiveness of bank guarantees in enhancing transaction reliability and supporting the overall business ecosystem within which SAIL operates.

In doing so, this paper will contribute to the existing literature on financial instruments in business transactions, offering valuable recommendations for industry stakeholders on optimizing the use of bank guarantees to drive growth and innovation.

Literature Review:

Bank guarantees have been widely studied for their role in enhancing business credibility and managing risks in domestic and international trade. **Vincent and Sivakumar (2019)** highlight that in emerging economies like India, bank guarantees are integral to

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mitigating risks in contracts involving large capital outlays. **Ashok Luhar (2014) and Sankalp Jain (2014)** focus on the comparative analysis between bank guarantees and letters of credit, showing that both instruments serve distinct purposes in ensuring financial stability. The judicial framework for addressing fraud in bank guarantees, as discussed by **Jus Corpus L.J. (2021-2022)**, also underscores the importance of transparency and legal oversight. Additionally, **Naveen Kumar Maini (2019)** emphasizes the relevance of bank guarantees in promoting small and medium enterprise (SME) growth through secured credit transactions.

About Bank Guarantees on Domestic Commerce

Bank guarantees are financial instruments issued by banks that provide assurance to a third party (usually a seller or service provider) that the bank will fulfill the payment obligations of the buyer (the bank's client) in case the buyer defaults on their contractual commitments. In domestic commerce, bank guarantees play a pivotal role in facilitating trust and reducing the perceived risk in business transactions.

Key Aspects of Bank Guarantees in Domestic Commerce

1. **Risk Mitigation:**

- Bank guarantees act as a safety net, ensuring that sellers or service providers will receive payment or compensation even if the buyer fails to fulfill their contractual obligations. This reduces the risk of non-payment and encourages businesses to enter into contracts with more confidence.

2. **Enhancing Trust:**

- In domestic commerce, where parties may not have established relationships or sufficient trust, a bank guarantee serves as a third-party assurance. This helps to build trust between buyers and sellers, enabling smoother negotiations and transactions.

3. **Facilitating Large Contracts:**

- Large-scale contracts often involve significant financial commitments. Bank guarantees are essential in such cases, as they reassure the seller that they will be compensated, encouraging them to undertake projects or deliver goods without upfront payment.

4. **Credit Support:**

- For buyers, a bank guarantee can serve as a form of credit support. It allows businesses to secure goods or services without immediate cash outflow, which can be particularly valuable in managing cash flow and liquidity.

5. **Legal and Regulatory Compliance:**

- In many industries, the use of bank guarantees is mandated by regulatory bodies or contractual requirements. This ensures that all parties adhere to legal standards, further protecting against defaults and breaches.

6. **Impact on Business Relationships:**

- The availability of a bank guarantee can strengthen business relationships by providing a clear framework for accountability and financial responsibility. This can lead to long-term partnerships and repeated business engagements.

Types of Bank Guarantees in Domestic Commerce

1. **Performance Guarantee:**

- Ensures that the buyer meets their obligations regarding the performance of the contract, such as delivering goods or completing a project.

2. **Financial Guarantee:**

- Covers the financial obligations of the buyer, ensuring that the seller receives payment even if the buyer is unable to pay.

3. **Advance Payment Guarantee:**

- Protects the buyer by guaranteeing the return of advance payments made to the seller if the seller fails to meet their obligations.

4. **Bid Bond Guarantee:**

- Used in tender processes, ensuring that the winning bidder will undertake the contract under the terms agreed upon, or the bank will cover the financial loss incurred by the buyer.

Company Profile

Overview:

Steel Authority of India Limited (SAIL) is one of India’s leading steel producers and a major player in the global steel industry. Established in 1973 and operating under the Ministry of Steel, Government of India, SAIL has become a cornerstone of India's industrial sector. The company operates five integrated steel plants and three special steel plants across various states in India, employing approximately 62,000 people. SAIL's commitment to innovation, sustainability, and modernization underscores its pivotal role in driving the nation's industrial growth.

History and Timelines:

The history of SAIL is rooted in the establishment of Hindustan Steel Limited (HSL) in 1954. In 1973, SAIL was formed through the amalgamation of several steel plants under government ownership, marking a significant milestone in India's steel industry. Key events in SAIL's history include major expansions in the 1980s, the launch of its IPO in 1995, and various joint ventures with global steel giants such as ArcelorMittal, Kobe Steel, and Posco. These milestones reflect SAIL's continuous efforts to enhance its production capacity, technological capabilities, and market presence.

Leadership:

- **Amarendu Prakash** - Chairman
- **V S Chakravarthy** - Director (Commercial)
- **Anil Kumar Tulsiani** - Director (Finance)
- **S Jawed Ahmed** - Executive Director (Operations)

Products Provided by SAIL:

SAIL offers a wide range of steel products, categorized into Flat Products, Long Products, Special Steels, and Value-Added Products. These include Hot Rolled Coils, Rebars, Alloy Steels, and Plates, among others. Each product category caters to specific industrial sectors, ranging from construction and automotive to food processing and energy.

SAIL's International Trade Division:

SAIL's International Trade Division (ITD), accredited with ISO 9001:2000 certification, plays a crucial role in exporting Mild Steel products and Pig Iron. ITD has successfully expanded SAIL's global footprint, supplying high-quality steel products to markets across Asia, Europe, the Americas, and Africa. The division ensures that SAIL products meet stringent international standards, reinforcing the company's reputation as a reliable global steel supplier.

Services Provided by SAIL:

SAIL Consultancy Division (SAILCON) offers a wide array of engineering, technological, and management consultancy services globally. Certified with ISO 9001:2008, SAILCON leverages its extensive expertise to provide design and engineering services, technical and management services, and comprehensive project management. SAILCON's achievements include successfully executing projects in multiple countries, underscoring its capability to deliver complex solutions in the steel manufacturing sector.

SAIL's Approach to Risk Profiling and Utilization of Bank Guarantees:

SAIL employs a rigorous risk management approach, particularly in credit assessment and collateral requirements. Customers undergo thorough credit evaluations, and bank guarantees are often required as collateral to mitigate risks associated with credit exposure. SAIL adjusts pricing and terms based on the customer's risk profile and continuously monitors payment patterns to detect early signs of potential default.

Hypothetical Case Study: A medium-sized steel manufacturer, Customer A, with a moderate credit rating, is provided with a credit limit of 50 crore. To mitigate risk, SAIL requires a bank guarantee of 10 crore and closely monitors Customer A's financial health and payment patterns, adjusting credit terms as necessary.

Significance of the Study:

This study is significant as it explores the vital role bank guarantees play in ensuring financial stability and fostering trust in domestic business transactions, particularly in large-scale sectors such as infrastructure, construction, and manufacturing. By examining the practical applications of bank guarantees within Steel Authority of India Limited (SAIL), the research provides insights into how these financial instruments mitigate risk, enhance liquidity, and improve working capital management. As India moves towards greater economic integration and development, understanding the strategic importance of bank guarantees is crucial for businesses aiming to engage in high-value contracts and manage their financial obligations effectively. Moreover, the study highlights the operational challenges and regulatory complexities that may hinder the optimal use of bank guarantees, providing a foundation for future policy reforms and improved financial practices. The insights from this study are not only beneficial for large enterprises but also for small and medium-sized enterprises (SMEs), which can leverage bank guarantees to secure credit and expand their operations. Ultimately, this research contributes to a broader understanding of how bank guarantees support economic growth, secure transactions, and facilitate smooth business operations in India.

Problem Statement:

Despite the evident benefits of bank guarantees in securing transactions and reducing risks, several challenges impede their effective utilization in India's business landscape. Businesses, especially small and medium enterprises, often lack awareness and understanding of the full potential of bank guarantees, leading to underutilization or improper application. Additionally, the evolving regulatory environment introduces complexities in the issuance and management of these guarantees, making compliance difficult and increasing the risk of legal issues. Furthermore, the operational processes involved in obtaining and managing bank guarantees can be time-consuming and cumbersome, leading to delays in transactions and missed opportunities. Lastly, the impact of fluctuating economic conditions, such as those brought on by the COVID-19 pandemic, has added pressure to businesses reliant on bank guarantees, altering demand and exposing inefficiencies in risk management practices. These challenges highlight the need for a comprehensive analysis of how bank guarantees can be better utilized and managed to support business growth and stability in the dynamic economic environment of India.

Objectives of the Study

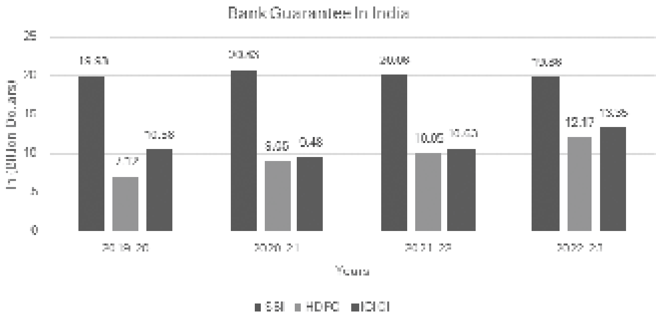
- To Investigate trends and patterns in the issuance and usage of bank guarantees from 2019 to 2023
- To study the impact of Bank Guarantees on SAIL's Working Capital (2018-2023).

Research Methodology

This research is based on a quantitative approach, utilizing secondary data from SAIL's financial reports and performance metrics over five years. The data includes financial statements, credit assessment records, and bank guarantee issuance reports. Key indicators such as working capital, inventory turnover, and cash flow were analyzed to determine the impact of bank guarantees on operational efficiency. The study employs case study analysis to explore the practical application and outcomes of bank guarantees in various business transactions within SAIL. No direct sampling was required, as the data comes from organizational records and secondary sources.

Data Analysis and Interpretation

Following is the Trend of Bank Guarantee in India (2019-2023) (Top 3 Banks)



Economic Context and Impact

1. Economic Slowdown and Recovery (2019-2021):

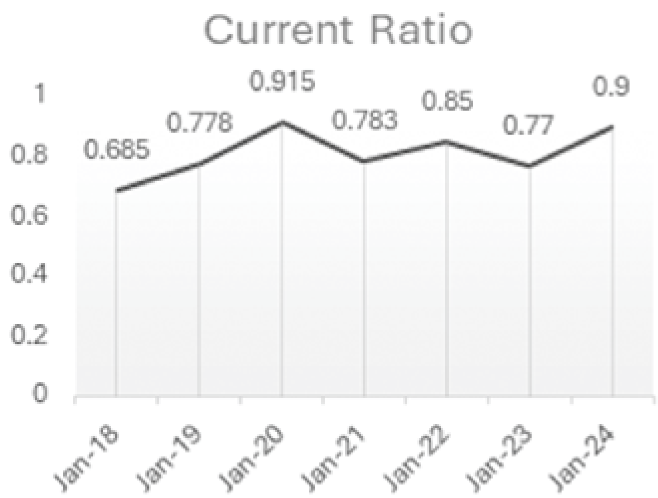
- **Pre-Pandemic Period (2019):** The Indian economy was experiencing steady growth, with bank guarantees playing a crucial role in facilitating business transactions, particularly in sectors like construction and infrastructure.
- **COVID-19 Pandemic (2020-2021):** The pandemic led to economic disruptions, impacting businesses' ability to fulfill contractual obligations. In response, the demand for bank guarantees increased as businesses sought to mitigate risks and secure liquidity. Financial institutions adapted by offering more flexible guarantee structures and extended support to affected sectors.

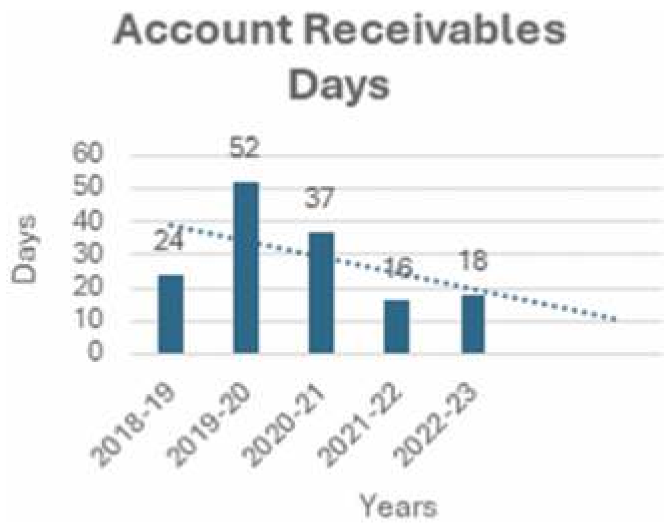
2. Post-Pandemic Recovery (2022-2023):

- **Economic Rebound:** As the economy began to recover from the pandemic, the usage of bank guarantees saw a resurgence. The recovery phase was marked by a renewed focus on infrastructure development and increased investment activities, driving the demand for guarantees.
- **Digital Transformation:** The adoption of digital technologies in banking led to the introduction of electronic bank guarantees (e-BGs), streamlining processes and reducing turnaround times.

Impact of Bank Guarantees on SAIL's Working Capital (2018-2023)

Overview: This analysis evaluates the impact of bank guarantees on Steel Authority of India Limited's (SAIL) working capital over five years, focusing on key metrics such as inventory turnover, accounts receivable days, current ratio, and quick ratio. Bank guarantees play a critical role in SAIL's financial strategy, influencing its working capital management by providing financial security and facilitating credit arrangements.





1. **Inventory Turnover:**

- **2018-2020:** The inventory turnover ratio declined, potentially due to overstocking driven by bank guarantees used to secure bulk purchases or favorable terms. This period also saw challenges in cash flow management, impacting inventory efficiency.
- **2020-2022:** A recovery phase where SAIL likely optimized its use of bank guarantees to manage inventory more effectively, balancing stock levels with sales growth.
- **2022-2023:** Stability in inventory turnover indicates that SAIL achieved a balance in inventory management, possibly due to the consistent use of bank guarantees to maintain optimal stock levels.

2. Accounts Receivable Days:

- **2018-2020:** An initial increase in receivables days suggests that SAIL extended more favorable credit terms, possibly backed by bank guarantees, leading to slower collections.
- **2020-2022:** A consistent decrease in receivables days reflects improved credit management, with bank guarantees likely used to secure quicker payments, reducing credit risk.
- **2022-2023:** The trend indicates that SAIL managed to enhance liquidity through better receivables management, supported by strategic use of bank guarantees.

3. Current Ratio:

- **2018-2020:** An early improvement in the current ratio suggests that SAIL effectively used bank guarantees to boost liquidity.
- **2020-2021:** Fluctuations indicate challenges in maintaining liquidity, possibly due to changing working capital needs or external factors.
- **2021-2023:** Stabilization in the current ratio points to optimized use of financial tools, including bank guarantees, to maintain liquidity.

4. Quick Ratio:

- **Fluctuations (2021-2023):** Significant fluctuations in the quick ratio highlight liquidity challenges, particularly in Jan-23, indicating that SAIL may have struggled to meet short-term obligations despite using bank guarantees.
- **Potential for Improvement:** SAIL needs to focus on enhancing its liquidity position by optimizing current assets and liabilities, including more efficient use of bank guarantees.

Limitations

- **Reliance on Secondary Data:** The study's reliance on secondary data may affect the relevance and accuracy of findings, as the information used might not be current or entirely relevant to the specific context.
- **Case Study Generalizability:** While providing valuable insights, case studies may not be representative of all business scenarios, potentially limiting the generalizability of the results.
- **Isolating the Impact of Bank Guarantees:** It may be challenging to isolate the exact impact of bank guarantees from other variables affecting working capital. The interpretation of metrics can be subjective and vary across businesses.
- **Regulatory and Economic Changes:** Changes in the regulatory environment or economic conditions, such as those influenced by the COVID-19 pandemic, may affect the relevance of historical data and the applicability of case study findings to current situations.

Scope for Further Study

- **Sector-Specific Analysis:** Further research could examine the impact of bank guarantees within specific sectors, such as government procurement, construction, or export-import transactions.
- **Macroeconomic Correlations:** Investigating the correlation between bank guarantee utilization and macroeconomic indicators like economic growth, credit risk, and financial stability would contribute to a more comprehensive understanding.
- **Comparative Studies:** Conducting comparative studies across different jurisdictions could help identify best practices and areas for regulatory or procedural improvements in the realm of bank

Recommendations

1. **Enhance Liquidity Management:** Utilize dynamic bank guarantees that can be adjusted based on liquidity needs. Regularly monitor key financial ratios (current and quick ratios) to ensure alignment with liquidity goals.
2. **Focus on Digital Transformation:** Implement electronic bank guarantees (e-BGs) to streamline processes and reduce turnaround times. Integrate these digital tools with ERP systems for real-time visibility into working capital and guarantee utilization.
3. **Enhance Collaboration with Financial Institutions:** Negotiate more favorable terms for bank guarantees, including lower fees and greater flexibility. Leverage banks' expertise to structure innovative guarantee solutions tailored to specific needs.

4. **Educate and Train Internal Teams:** Provide ongoing training on best practices for managing bank guarantees and their impact on working capital. Implement a centralized guarantee management system for real-time tracking and insights.

5. **Impact Assessment:** Evaluate how legal principles and precedents influence the effectiveness of bank guarantees in domestic business transactions. Consider the benefits and limitations of relying on bank guarantees for securing business dealings.

6. **Policy and Practice:** Develop recommendations for businesses and banks to enhance the use of bank guarantees, including best practices for ensuring compliance and minimizing disputes.

7. **Optimize Accounts Receivable Management:** Incorporate performance-based guarantees to incentivize quicker payment terms. Strengthen credit risk assessment before issuing guarantees to minimize delayed payments.

Conclusion

This research highlights the evolving role of bank guarantees in India from 2019 to 2023, particularly in the context of SAIL's working capital management. Initially vital for facilitating transactions, especially in infrastructure, bank guarantees became even more critical during the COVID-19 pandemic as businesses sought financial security. The introduction of electronic bank guarantees (e-BGs) post-pandemic marked a significant development, streamlining processes and improving efficiency.

Despite the supportive role of bank guarantees, the analysis of SAIL's financial data over five years reveals persistent liquidity challenges. Bank guarantees helped stabilize inventory levels and facilitate transactions during periods of economic disruption and recovery, yet SAIL faced ongoing issues in liquidity, as reflected in fluctuating current and quick ratios. The improvements in accounts receivable days indicate more effective credit management, but the overall impact on working capital remains mixed. Bank guarantees have provided necessary support but have not fully transformed SAIL's working capital management.

The legal framework governing bank guarantees ensures their enforceability and provides recourse in case of disputes. Recent regulatory updates have adapted to the evolving business environment, with electronic bank guarantees (e-BGs) marking a significant advancement. The pandemic underscored the importance of flexible risk management tools like bank guarantees, accelerating the adoption of digital solutions. Businesses must understand their advantages and limitations, comply with legal requirements, and embrace best practices and technological advancements to maximize the benefits of bank guarantees.

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THE ROLE OF GAMIFICATION ON EMPLOYEE'S LEARNING AND DEVELOPMENT AT KIRANA FRIENDS

***Ms. Sujata Salvi, **Ms. Jyortika Raut**

ABSTRACT

In today's rapidly evolving workplace, employee learning and development (L&D) are crucial for maintaining a competitive edge. Traditional L&D methods can be time consuming, monotonous, and often fail to engage learners. Gamification, the application of game-like elements in non-game contexts, has emerged as a promising approach to enhance employee L&D. Gamification, the application of game-design elements in non-game contexts, has gained substantial traction in the field of human resource development. This research paper examines the impact of gamification on employee learning and development. This research paper explores the potential of gamification in improving employee engagement.

Key words: Gamification, Employee Learning and Development, Employee Engagement, Training

Introduction :

The business landscape is constantly changing, demanding a workforce that is adaptable, skilled, and continuously learning. Organizations invest heavily in L&D programs to equip their employees with the knowledge and skills necessary to excel in their roles. However, traditional L&D methods, such as lectures and online courses, can be passive and fail to capture learner interest. Effective employee L&D programs are crucial for ensuring employees possess the necessary knowledge and skills to perform their jobs effectively. Gamification presents a novel approach to address these challenges. By incorporating game mechanics like points, badges, leader boards, and challenges, gamification injects a sense of fun, competition, and accomplishment into the learning process. Gamification offers an innovative approach to address these challenges by incorporating elements of play into learning activities. This paper investigates the mechanisms through which gamification influences learning and development and assesses its effectiveness compared to traditional methods. This paper investigates the impact of gamification on employee L&D, exploring its benefits.

Gamification:

Definition:

Gamification is the process of incorporating game-design elements and game principles in non-game contexts to enhance user engagement, motivation, and participation. Gamification leverages elements commonly found in games, such as points, badges, leader boards, levels, and challenges, to create a more engaging and interactive experience. The goal is to tap into the intrinsic motivations that games naturally evoke, such as the desire for mastery, competition, and social interaction. By applying these elements to areas like education, marketing, health, and corporate training, gamification aims to improve user engagement and drive desired behaviours. For instance, in a learning environment, gamification might involve awarding points for completing modules, providing badges for achieving certain milestones, or incorporating leader boards to encourage competition among participants.

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Features of Gamification:

1. Leader boards-

Leader boards are a real-time ranking system that showcase employee performance within your learning system. They grant your learners a sense of perspective that they might otherwise lack.

As a result, your learners can understand their progress, set new goals and supercharge their motivation levels.

Indeed, research shows that competitive environments typically lead to improved performance and faster reaction times.

Of course, leader boards do have their detractors. For instance, they can be demoralising for new starters or those who have fallen behind.

To counteract this, we recommend introducing a 'most improved' leader board, or resetting your rankings every six months.

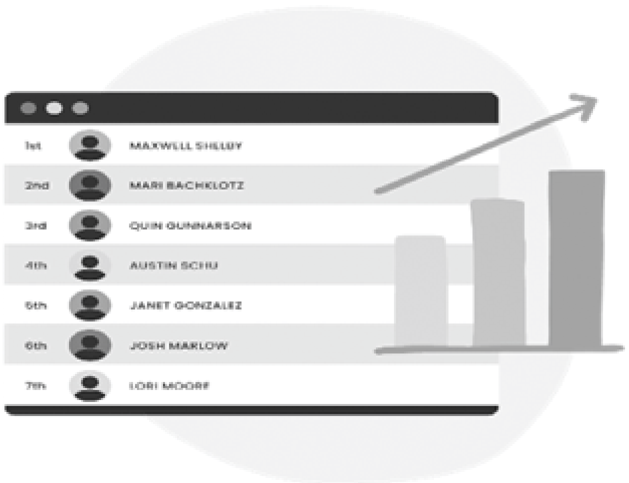

Figure 1 Leader board chart

2. Badges

Badges aren't just for birthdays. These digital accolades incentivise and reward actions that take place within your learning environment. Each badge typically has the following: A trigger: the user action that releases the badge. An image: the visual representation of the badge.And a description: the explanation of how the badge was earned. This recognition feels good. For many, badges are a source of genuine pride. Perhaps that's why 76% of business units agree that badges help to motivate employees to develop their skills.

After all, badges give your learners something to aim for. They also appeal to the collector within us all. This encourages learners to pursue their objectives and overcome any obstacles in their way.

Figure 2 Digital Badges

3. Levels

Nothing motivates people more like levels. These gamification initiatives show that the user has reached a specific point. Mobile apps use levels as a point threshold, automatically upgrading based on a particular engagement. The user can see the stage of their achievements.

With game-based learning, levels can help you set unique parameters. For example, learners can level up after completing a specific requirement or receiving a high score in a subject. This player-centred design is a valuable indicator that can help track the user's performance.

Figure 3 Levels of achievement

Gamification- Virtual and Augmented Reality (VR/AR)-

Virtual Reality (VR) -

A computer-generated environment known as virtual reality (VR) gives users the impression that they are fully immersed in their surroundings by simulating real-world scenes and objects. A virtual reality headset, helmet, or other equipment is used to view this environment.

Augmented Reality (AR)-

An improved representation of the real world is known as augmented reality (AR), which is made possible by the use of digital data produced by computers. They consist of auditory, visual, and other sensory components. Augmented Reality (AR) integrates digital content with the physical world through computer gear and software, including apps, consoles, screens, and projections.

Gamification- Proposed gamification flow model:

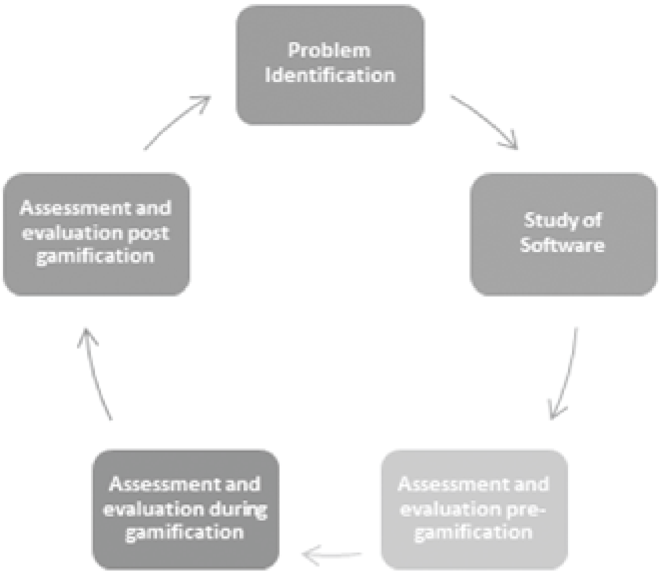

Figure 4 Gamification Process model

Businesses can first identify the issue and then choose a specialised gamification module rather than acquiring any software at random being aware of its effects and outcomes.

Problem Identification: Determine the specific challenges or issues that the gamification initiative aims to address within the organization or system.

Study of Software: Analyse existing software tools and platforms that could support or be integrated into the gamification process, identifying their strengths and limitations.

Assessment and Evaluation Pre-Gamification: Conduct a baseline assessment to measure current performance metrics, user engagement, and overall effectiveness before implementing gamification strategies.

Assessment and Evaluation During Gamification: Monitor and evaluate user interactions, engagement levels, and performance improvements while the gamification elements are being actively applied.

Assessment and Evaluation Post-Gamification: Measure the long-term impact and sustainability of gamification on user behaviour and organizational outcomes, comparing them with pre-gamification data.

Employee Learning and Development:

Definition:

Employee Learning and Development (L&D) refers to the systematic process of improving employees' skills, knowledge, and competencies to enhance their performance and support organizational goals.

L&D encompasses a wide range of activities designed to help employees acquire new skills and knowledge, adapt to changes in the workplace, and achieve their career goals.

This can include formal training programs, such as workshops and seminars, as well as informal learning opportunities, like mentorship and on-the-job training. Development activities may also involve career planning and personal growth initiatives, aimed at fostering leadership capabilities and preparing employees for future roles. Effective L&D programs align with the strategic objectives of the organization, ensuring that the workforce is capable, adaptable, and ready to meet current and future challenges. The ultimate goal is to create a culture of continuous improvement, where learning is integrated into everyday work life.

Employee Engagement:

Definition:

Employee engagement refers to the emotional commitment and level of enthusiasm employees have towards their work, their team, and their organization, which influences their willingness to go above and beyond their job responsibilities.

Engaged employees are those who are deeply connected to their work and feel a strong sense of purpose and involvement in their organization's mission and values. They are more likely to be motivated, productive, and loyal, often displaying higher levels of creativity, innovation, and discretionary effort. Engagement is influenced by various factors, including the quality of leadership, the work environment, opportunities for growth and development, recognition and rewards, and the overall organizational culture. Measuring and fostering engagement is critical for organizations as it directly impacts employee retention, performance, and overall business success. High levels of engagement are associated with better job satisfaction, lower absenteeism, and a positive work atmosphere.

Training:

Definition:

Training is the process of teaching or developing specific skills, knowledge, or competencies in employees to improve their current job performance and prepare them for future roles. Training is an essential component of employee development that focuses on equipping employees with the necessary skills and knowledge to perform their tasks effectively. It can take various forms, including on-the-job training, classroom-based instruction, e-learning modules, simulations, and workshops. Training programs are typically designed to address specific gaps in skills or knowledge, enhance productivity, ensure compliance with standards, and support the introduction of new technologies or processes. Effective training involves clear objectives, relevant content, practical application, and evaluation of outcomes to ensure that learning is transferred to the workplace. Training not only helps in improving individual performance but also contributes to organisational efficiency and competitiveness.

Employee Training methods:

Employee development can take place on the job, with a manager or an experienced coworker directing the activity in the context of the actual work environment. Other types of development take place in training facilities or other places. Organisations are increasingly using online techniques to train their personnel.

ON-THE-JOB TRAINING	OFF-THE-JOB TRAINING
Job instruction training (JIT)	Vestibule training
Coaching	Role playing
mentoring	Lecture method
Job rotation	Programmed instruction
Apprenticeship training	Behaviourally experienced training
Committee assignment	

Case Studies on Gamification used by various organizations in the industry.

Case 1 : CISCO

Cisco employs gamification in several significant initiatives. Our social media Training

Program is one programme where we've used gamification tactics extensively. Cisco's Global Social Media Team has been investing in our Social Media Training Program for the past two years. This programme provides a one-of-a-kind chance for Cisco workers and contractors to hone their social media skills. And the possibilities for putting the talents they learn to use are endless. Sales account managers, for example, learn to use Twitter to communicate with clients, while human resources staff learn to use LinkedIn to communicate with potential applicants. Many other professional categories, such as marketing (of course!) and product development, also benefit from social media. There are various social networks out there, and different methods to use social media in a corporate setting, therefore the skills linked to social media are diverse.

The programme includes over 46 courses, including Social Media Security & Privacy and Getting social media Buy-in. What is the best place for a beginner to start? Levels of Progression This is where the concept of gamification comes into play. There are three levels of certification in the Social Media Training Program: Specialist, Strategist, and Master. Players must demonstrate growing degrees of social media proficiency at each level of certification. Players must complete 15 courses to get the Specialist level.

Players must complete an extra 13 courses and write a blog post to get the Strategist level. At the Master level, players must complete ten courses and create a case study that demonstrates an integrated social media effort or a social media strategy. There are also four sub-specializations to choose from Social Media for HR Social Media for Sales Social Media for Executive Communication Managers Social Media for Internal Partner Teams Individuals in specific job functions might benefit from these specialities by learning social media skills that are directly pertinent to their profession. Team Challenges add some fun to the mix. Furthermore, the programme includes team tasks in which participants can work together in small groups or as a full company to obtain the certification.

This is a good approach for employees in a company to learn new skills together. Completing team challenges also earns players badges. Getting things going Motivation Learning is frequently an action that is naturally driven. The challenge of mastering new talents appeals to many people. And learning new professional skills can help them advance in their careers. And, when you combine the intrinsic motivation with gamification techniques, this further encourages participation and engagement.

- The Social Media Training program and the use of Gamification drive engagement through: Exploration: Players have fun exploring social media topics. There are many courses available, and participants can learn about the different aspects of social media through the courses.

- Progression Loops: Players can go through several stages of study with three levels of certification, four sub-specializations, and midway level successes. Each class finished represents a little accomplishment. Each level of certification presents a greater challenge. For the core learning track, the purpose of the game is to progress from Specialist to Master.

- Teamwork: Humans are social creatures. In addition, the team challenges allow players to work together and compete against one another. It can be enjoyable to work as a group to attain a common goal. Over 650 people have been certified, with over 13,000 courses completed. And the number is increasing by the day. At Cisco, we're only at the beginning of our gamification adventure. At Cisco, gamification is used in a variety of ways, including the Social Media Training Program. Our team's challenge is to continue to develop new gamification use cases to increase engagement.

Case 2 - Xerox

Xerox uses game aspects in a number of contexts, including management training. For instance, in the Stepping Up program, the user is needed to use acquired abilities in practical work-related tasks referred to as quests. Often, quests are completed with players, encouraging interpersonal relationships. Users' On the Yammer website, advancement is recognized as an outcome of the integration, providing an additional level of social communication.

Case 3 - IBM

Apps like IBM Connections, which is shown below, employ Kudos Badges. Users can view the names of the most valuable contributors throughout all of Connections by visiting the Kudos Badges Leaderboard. Users can increase their rank by sharing files, changing their status, beginning a blog, and getting recommendations for your material. The top 10 Kudos Leaderboard can be viewed by users on the entire platform or within specific sections like Connections' Activities, Blogs, and Profiles. Additionally, IBM Connections is integrating Bunchball's Nitro. It is recommended that recently signed up IBM Connections users acquaint themselves with Nitro's gamification features.

REVIEW OF LITERATURE

The use of games, also called gamification, is an innovative approach in contemporary human resource management. The aim of this research is to assess whether gamification, if used in HR processes, can increase engagement and job satisfaction among employees, as well as to identify which HR processes respond better to gamification (Erle, Daiga Ludviga, Iveta 2018)

With increasing competition and technology, employers worldwide are beginning to realise that employees are their most precious assets. The study is undertaken by researchers to get an insight into how gamification of business processes of an organization may help them harness employee loyalty and build a stronger employer employee relationship. This paper also looks at the emerging trends and techniques in the area of gamification across organizations (Dr. Shachi Yadav, 2018).

Gamification, which involves incorporating game-like elements in non-game contexts, has quickly become one of the most popular persuasive technologies. Its goal is to encourage users to change their behaviour for the better. However, it still has empirical and theoretical challenges to overcome to show the benefits of its use and solidify the guiding principles for effective gamification designs. The goal of the current study is to synthesise and intellectualise, through a systematic literature review (SLR), the current state of gamification knowledge in human resource management, providing a road map for future research recommendations for both academics and practitioners (Sattwik Mohanty,2024)

Gamification has become increasingly common in employee training. Simultaneously, our scientific understanding of gamified learning has grown. However, there are few resources that provide specific recommendations for science-based gamification in employee training to address the research–practice gap. Thus, the purpose of this paper is to describe our current scientific understanding of gamification as it can be used to realistically improve web-based employee training. First, because gamification is commonly misunderstood, we explain what gamification is in the context of training. Second, because gamification is commonly misapplied, research on the effectiveness of gamified learning as related to training design is reviewed. Finally, to provide a clear roadmap for training design, we describe a formal process for gamifying web-based training in a scientifically supported way (Michael B,2018).

Until a few years ago gamification, that is, the use of game-based techniques in a non-gaming activity to increase engagement, was considered to be a fad earmarked for Web 2.0 start-ups and the e-learning industry. This chapter documents the shift of gamification as an engagement driver into the mainstream. The concept is presented as a modern alternative to previous motivation techniques such as "employee of the month" awards and employee recognition programs. The authors detail the psychology behind gamification and how organizations can draw upon gaming mechanics to create meaningful gamified interventions to improve learning, retention and application of knowledge, and overall motivation in organizations (Hazel Grünewald, 2019).

Gamification is the use of game elements in different contexts. It is also a tool with potential application in several areas, including training and development. From this reference, this study has a main objective to identify a perception of efficiency and the measurable results in the process of gamification in training and development actions. The quantitative stage of the research sought to investigate the perception of efficiency of professionals who have already undergone gamified training, collected through an online form with responses on a Likert scale and treated with the Minitab Statistical Software. The qualitative stage, on the other hand, identifies the perception of results through classification with professionals who develop gamified training, with the results found in the content analysis techniques (meia Azevedo Santos, 2021).

This paper aims to develop a concept of incentive gamification for organizations in the digital era. Incentive gamification is an incentive-based policy using the game pattern. This policy aims to improve performance of employee who works in the marketing department of such e-commerce as an online marketer. The results show that there was a significant positive effect between personal dexterity on learning experience and individual performance. Furthermore, incentive gamification was also proven to moderate the relationship between personal dexterity, learning experience and also employee performance. Theoretical and managerial implication, as well as future research directions are also discussed (Ardian Adhimata,2021).

Nowadays, gamification is used to improve the enterprises' relationship with customers and employees. Employee engagement as one of the significant achievements of gamification is a major factor for increasing organizational productivity. In this paper we try to theorize the role of gamification in the enterprises from the employee perspective. The main objective of this research is to identify the major role of gamification as a new facilitating technology and organizational capability through examining the nomological network of influences. We highlight the strong interactions among three organizational capabilities in the form of mechanic options, dynamics, and positive emotions and their mediating role between gamification competence and enterprise's performance (Mohammad Fath. 2020).

The competition in the business field is increasing continuously. The COVID-19 pandemic brings more challenges for organizations. The human resource managers in the organizations face challenges of retention of employees, maintaining mental peace, handling anxiety, fulfilling job demands, and handling the motivation level of the employees. Daily new challenges are coming to the surface. Creativity and innovation have been the need of the hour for since long. COVID-19 pandemic is demanding more creativity and innovations from the organizations and their HR managers. A detailed literature review has been done by taking into cognizance various aspects of gamification as applicable to the Human Resource domain. The objectives of this research are to understand the role of creativity and innovation in the organization's success and identify HR managers' problems during Covid-19 (Anuj Kumar, 2022).

Gamification integrates game components into contexts such as workplace learning and performance. A decade of research has shown that gamification is prevalent in various settings such as education, healthcare, and business. Recently, gamification has been applied and studied in interventions and contexts related to the field of human resource development (HRD). Given the emerging use of gamification in HRD, this paper undertakes a systematic literature review (SLR) to synthesize existing research on gamification in HRD (Nibu John Thoma,2022).

Work competencies can be defined as learned abilities to adequately perform a task, role or mission (Roe 2002). In the workplace context, work-integrated learning approaches are particularly promising approaches for developing work competencies while ensuring transfer and relevance for practice (Sonntag and Stegmaier 2007). However, apart from developing competencies, it is also important that newly acquired competencies are actually applied in the workplace. Hereby motivation plays an essential role. Work environments, which support feelings of competence, autonomy and relatedness, are the foundation for maintaining motivation (Ryan and Deci 2000).

Gamification grows interests in many fields, becoming a prevalent issue in corporate training. Policymakers and trainers have to pay attention to the importance of training in organizations because employee training plays a crucial role in organizations' growth. However, some organizations have a hard time training newly hired employee. This paper proposed that gamification can be helpful to address job training issues because gamification can help people assess all training aspects with a holistic look at their complicated work processes. The characteristics and elements, design plan, benefits, and challenges of gamification are presented in the paper, which aimed to help training designers develop a suitable training program for a target institution (Fu-Ling-Chung April 2022).

NEED FOR STUDY

The need for a study on the role of gamification in employees' learning and development stems from the evolving landscape of workplace training and the imperative for organizations to continually adapt to the changing needs of their workforce. Ultimately, a better understanding of the role of gamification in employees' learning and development can help organizations optimize their training strategies, foster a culture of continuous learning, and empower employees to thrive in an increasingly dynamic and competitive business environment.

OBJECTIVES

1. To examine the role of gamification plays in employee engagement and employee motivation.
2. To study effective gaming elements used in learning development.
3. To understand gamification and its impact on job performance of employees.

RESEARCH METHODOLOGY

Type of research Exploratory research

Research Design Exploratory attempt to gain detailed information about the issues for the responder using both qualitative and quantitative approaches.

Data Primary data and Secondary data

Primary data It is gathered by using google forms to create a structured questionnaire

Secondary data Secondary data is gathered via pursuing websites, articles and survey questions.

The project consisted of finding out the factor of gamification in employee's learning and development.

The research survey was descriptive research as it helps to describe the characteristics of a small sample of employees with regards to their Learning and Development in the organisation.

The project consisted of the following:-

1. Gathering information and inputs to frame the necessary questions for the survey

2. Collecting data by using the survey method, by getting the sample employees to fill the questionnaire.

3. Analysing and interpreting the primary data collected from the survey responses.

DATA ANALYSIS AND INTERPRETATION

Demographic Variables

Gender

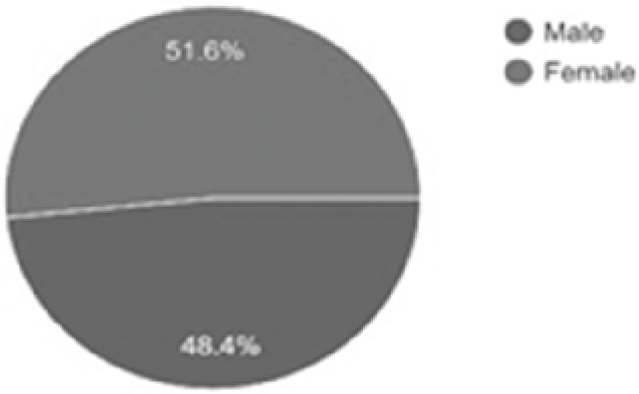

Figure 5 Gender differentiation

Data Interpretation: According to the survey, 51.6% of the respondents are female employees and 48.4% of the respondents are male.

Age Distribution

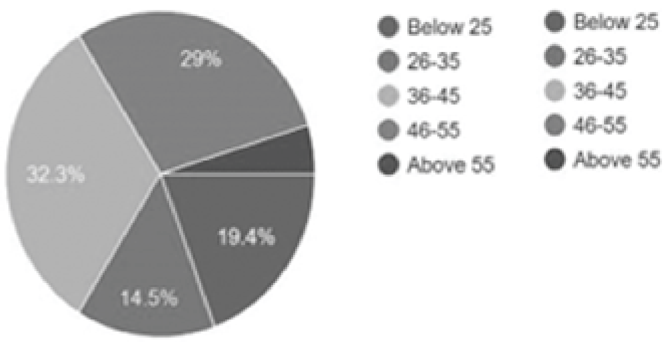

Figure 6 Age Distribution

Data Interpretation:

The pie chart illustrates the age distribution of 62 respondents. The largest age group is 36-45, comprising 32.3% of respondents. The second largest group is below 25, accounting for 29% of respondents. The remaining age groups (26-35, 46-55, and above 55) represent smaller proportions of the sample.

Years of Experience in years

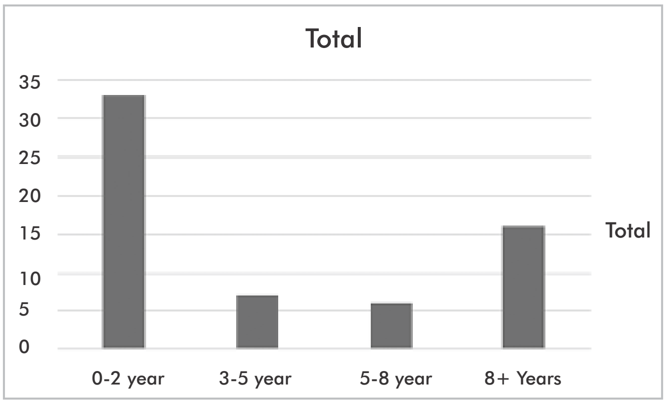

Figure 7 Number of Experience in years

Data Interpretation:

The bar chart illustrates the distribution of experience levels among a group of respondents. The majority of respondents have 0-2 years of experience, represented by the tallest bar in the chart. A significantly smaller portion has 3-5 years of experience. The 5-8 years and 8+ years' experience categories have the lowest representation.

The gamification elements in our L&D programs increase my engagement.

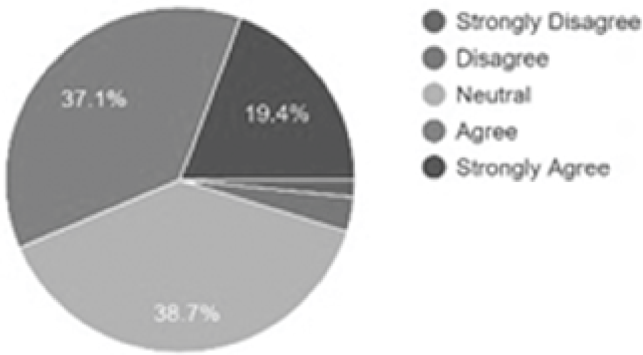

Figure 8 Gamification and employee engagement

Data Interpretation:

The pie chart illustrates the responses to the statement "The gamification elements in our L&D programs increase my engagement" based on 62 respondents. A majority (38.7%) of respondents strongly agree that gamification elements enhance their engagement in L&D programs. Another significant portion (37.1%) simply agree with the statement. Neutral responses account for 19.4% of the sample. Disagreement with the statement is relatively low, with 1.6% strongly disagreeing and 3.2% disagreeing.

Employees feel more motivated to participate in L&D programs that use gamification.

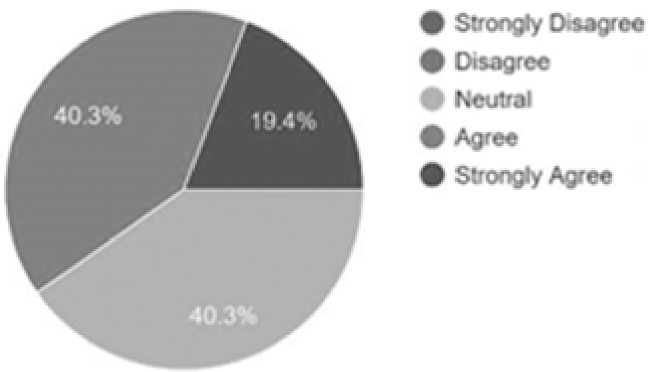

Figure 9 Gamification and employee motivation

Data Interpretation- A majority (40.3%) of respondents agree that gamification elements increase their motivation to participate in L&D programs. Another significant portion (40.3%) strongly agree with the statement. Neutral responses account for 19.4% of the sample. Disagreement with the statement is minimal, with 0% strongly disagreeing and 0% disagreeing.

Gamification makes the learning process more enjoyable and interesting.

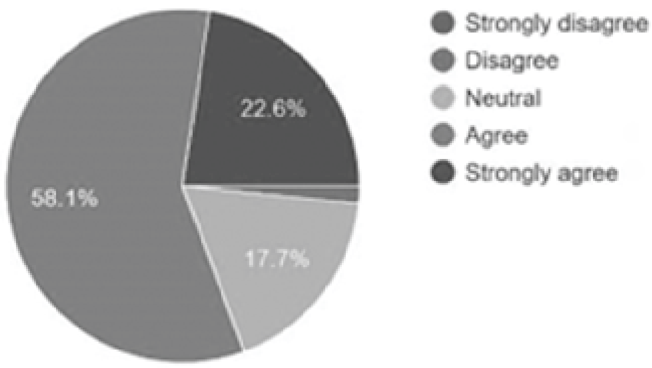

Figure 10 Gamification and employee interest

Data interpretation- A large majority (58.1%) of respondents agree that gamification enhances the enjoyment and interest of the learning process. Another significant portion (22.6%) strongly agree with the statement. Neutral responses account for 17.7% of the sample. Disagreement with the statement is minimal, with 0% strongly disagreeing and 0% disagreeing.

Employees are more likely to complete L&D programs that incorporate gamification.

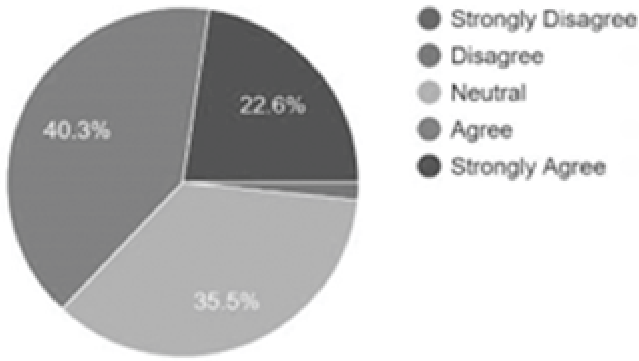

Figure 11 Gamification incorporation

Data interpretation- A majority (40.3%) of respondents agree that gamification increases their likelihood of completing L&D programs. Another significant portion (22.6%) strongly agree with the statement. Neutral responses account for 5.5% of the sample.

Gamification elements in L&D programs make me feel more connected with my colleagues.

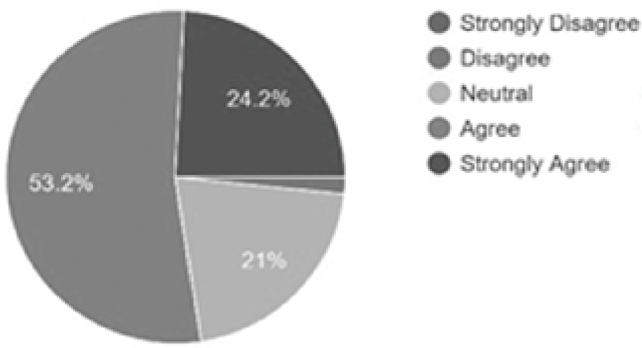

Figure 12 Gamification and employee connect

Data Interpretation- A majority (53.2%) of respondents agree that gamification enhances their connection with colleagues. Another significant portion (21%) strongly agree with the statement. Neutral responses account for 24.2% of the sample.

Employees find the gamification elements in L&D programs to be relevant to my learning needs.

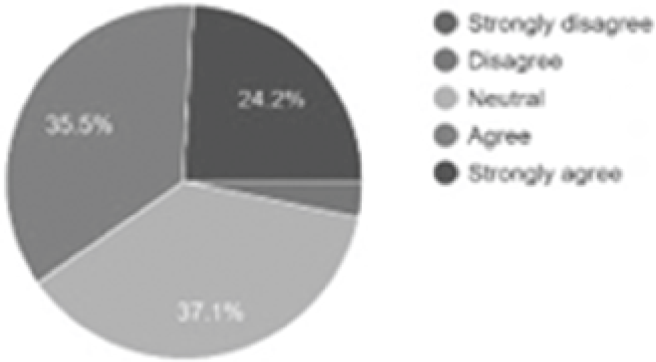

Figure 13 Gamification elements

Data Interpretation- A majority (35.5%) of respondents agree that gamification elements are relevant to their learning needs. Another significant portion (37.1%) neutral about the statement. The remaining portion (24.2%) strongly agree with the statement.

The gamification features used in our L&D programs are easy to understand and use.

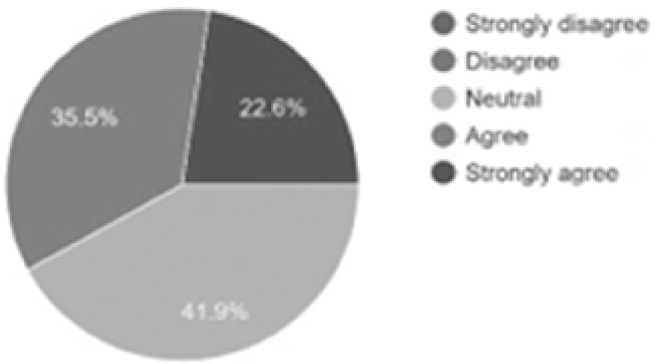

Figure 14 Gamification features

Data interpretation- A majority (41.9%) of respondents agree that the gamification features are easy to understand and use. Another significant portion (35.5%) strongly agree with the statement. Neutral responses account for 22.6% of the sample. Disagreement with the statement is minimal, with 0% strongly disagreeing and 0% disagreeing.

Points and rewards motivate me to engage more in L&D activities.

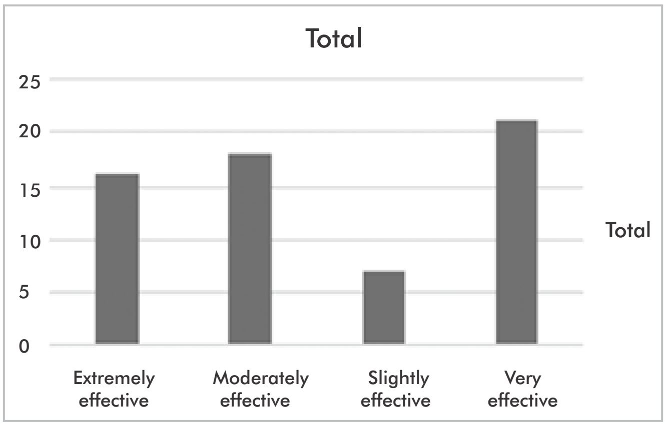

Figure 15 Gamification and employee motivation

Data Interpretation

A majority of respondents (20) find points and rewards to be "Very Effective" in motivating them to engage in L&D activities. A smaller group (18) finds them "Moderately Effective.

Badges and certificates awarded through gamification are important to me.

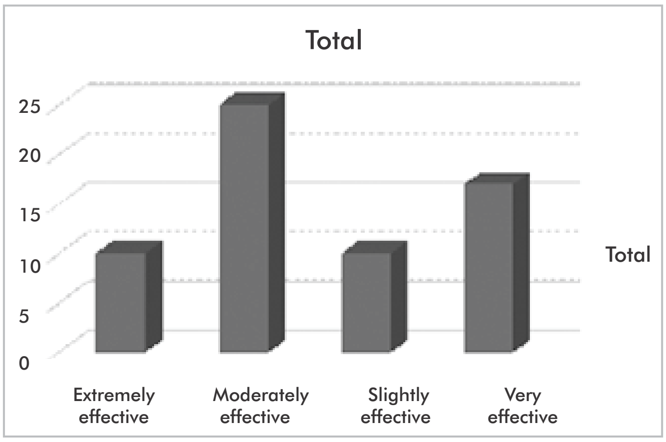

Figure 16 badges and certificates

Data Interpretation

A significant majority of respondents (25) find badges and certificates to be "Moderately Effective" in motivating their engagement in L&D activities. A smaller group (12) finds them "Very Effective." Even smaller groups find them "Extremely Effective" (5) or "Slightly Effective" (10)

Leader boards encourage employee to perform better in L&D programs.

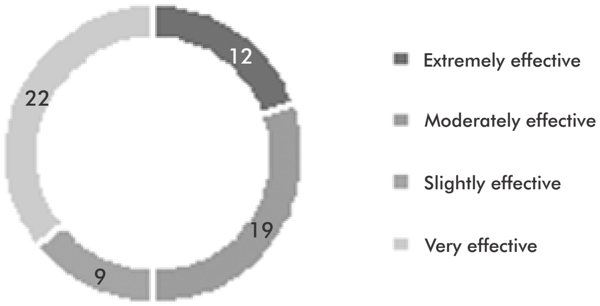

Figure 17 Leaderboards

Data Interpretation- A majority of respondents (22) find leaderboards to be "Moderately Effective." A smaller group (19) finds them "Very Effective." Even smaller groups find them "Extremely Effective" (12) or "Slightly Effective" (9)

Challenges and quests in gamified L&D programs enhance employees learning experience.

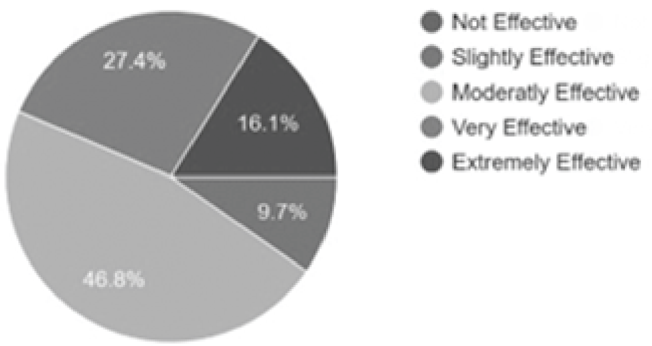

Figure 18 Challenges and quests

Data Interpretation- The majority of respondents (46.8%) find challenges and quests to be "Moderately Effective" in enhancing their learning experience. A significant portion (27.4%) finds them "Slightly Effective." Smaller groups find them "Very Effective" (16.1%), "Extremely Effective" (9.7%), or "Not Effective" (0%).

Timed quizzes and competitions improve employee participation in L&D activities.

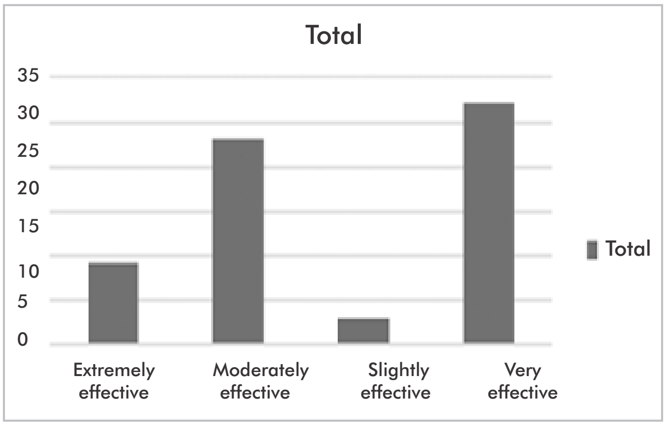

Figure 19 Time quizzes and competitions

Data Interpretation- A significant portion of respondents (25) find timed quizzes and competitions to be "Very Effective." A smaller group (20) finds them "Moderately Effective. "Even smaller groups find them "Extremely Effective" (10) or "Slightly Effective" (5).

The skills I acquire through gamified L&D programs improve my job performance.

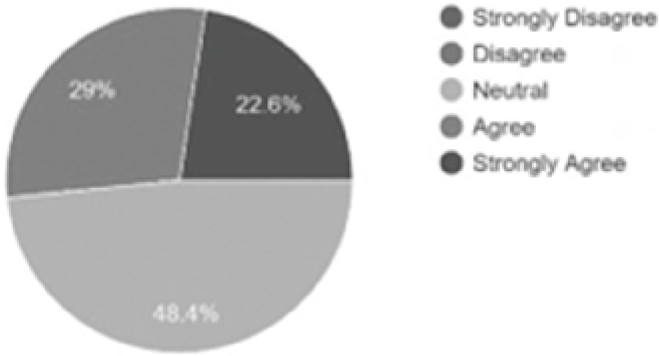

Figure 20 Employee job performance

A majority (48.4%) of respondents agree that gamified L&D programs improve their job performance. Another significant portion (22.6%) strongly agree with the statement. Neutral responses account for 29% of the sample. Disagreement with the statement is minimal, with 0% strongly disagreeing and 0% disagreeing.

Gamification in L&D programs helps me apply what I have learned to my job tasks.

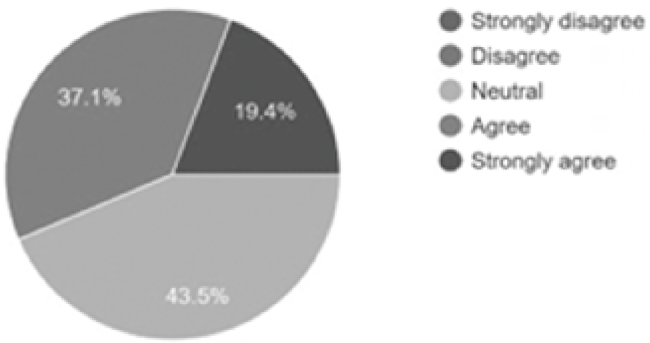

Figure 21 Gamification learning

Data Interpretation - A significant majority (43.5%) strongly agree that gamification helps them apply learned knowledge to their job tasks. Another 37.1% agree with the statement. A smaller portion (19.4%) are neutral about the impact of gamification on knowledge application. No respondents disagreed or strongly disagreed.

Employees have noticed a positive change in my productivity due to gamified L&D programs.

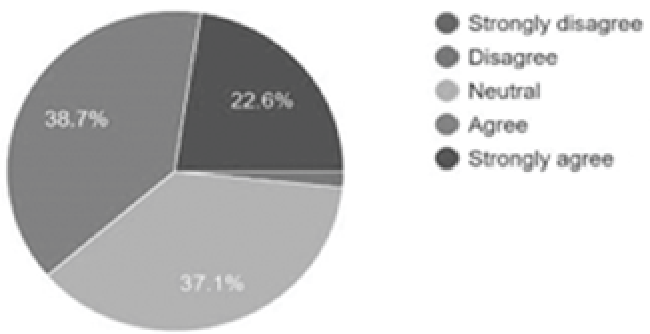

Figure 22 employee productivity

Data Interpretation - A significant majority (65.8%) of employees have noticed a positive change in their productivity due to gamified L&D programs (combining "Agree" and "Strongly Agree" categories). A smaller portion (34.2%) are either neutral or did not notice a significant change in productivity. No one strongly disagreed or disagreed with the statement.

Gamified L&D programs contribute to employees overall professional development.

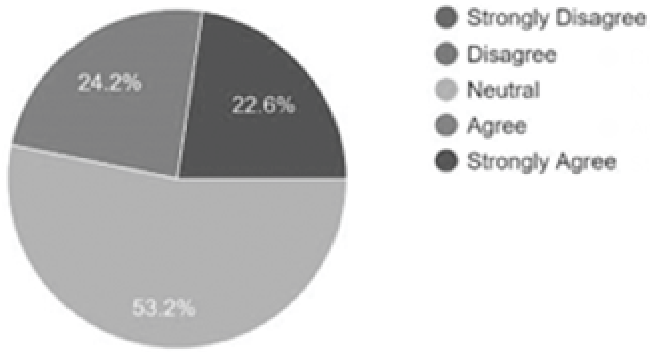

Figure 23 Employee development

Data Interpretation- A significant majority (53.2%) strongly agree that gamified L&D programs contribute to their overall professional development. Another 24.2% agree with the statement.

Gamified L&D programs help employee retain knowledge better than traditional methods.

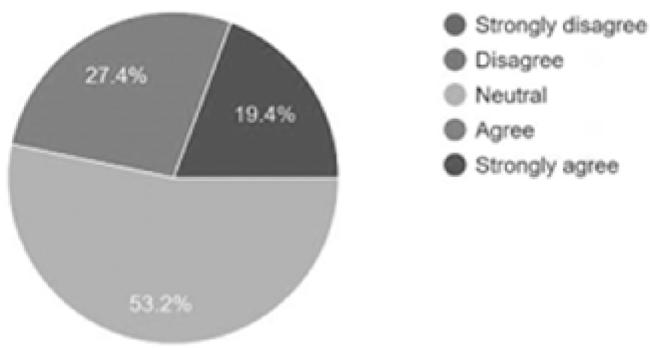

Figure 24 Employee knowledge retention

Data Interpretation- A significant majority (53.2%) strongly agree that gamified L&D programs help them retain knowledge better than traditional methods. Another 19.4% agree with the statement.

Employee can recall information learned through gamified L&D programs more easily.

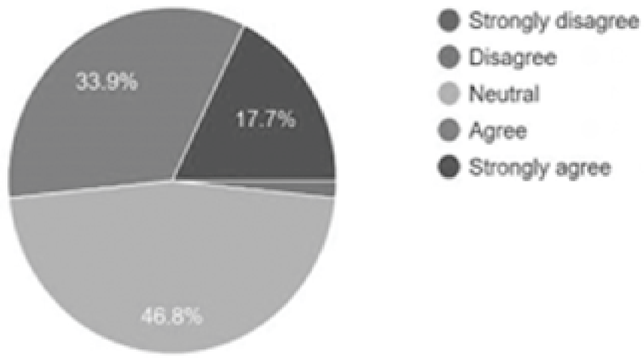

Figure 25 Recall Information

Data Interpretation- A significant majority (46.8%) strongly agree that they can recall information learned through gamified L&D programs more easily. Another 17.7% agree with the statement. A smaller portion (33.9%) disagree or strongly disagree. Only 11.6% are neutral about the ease of recalling information through gamified L&D programs.

The interactive nature of gamified L&D programs aids in employee memory retention.

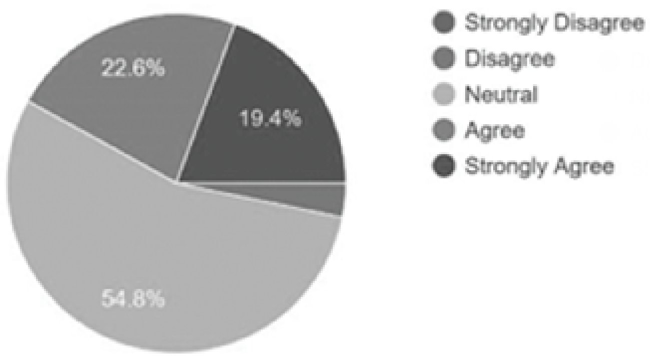

Figure 26 Employee memory retention

Data Interpretation- A majority (54.8%) of respondents strongly agree that the interactive nature of gamified L&D programs enhances their memory retention. Another significant portion (19.4%) agree with the statement. Neutral responses account for 19.4% of the sample. Disagreement with the statement is minimal, with 22.6% disagreeing and 0% strongly disagreeing.

FINDINGS OF THIS STUDY

A large majority (58.1%) of respondents agree that Gamification enhances the enjoyment and interest of the learning process. A majority of (41.9%) of respondents agree that the Gamification elements are easy to understand and use. A significant majority (43.5%) strongly agree that Gamification helps them apply learned knowledge to their job tasks. Overall, these findings suggest that Gamification can be powerful tool in improving both development and performance.

CONCLUSION

Gamification shows promise as a powerful tool for transforming training and development for staff members. Employee motivation, engagement, and retention are greatly increased by turning learning into an interesting and participatory experience. The study's data highlights the beneficial effects of gamification on a range of worker performance metrics, including increased productivity and job performance. Although the results are encouraging, more studies with bigger sample sizes are required to confirm if the findings are broadly applicable. However, the data clearly indicates that companies may gain a great deal by deliberately introducing gamification into their learning and development programs.

SUGGESTIONS / RECOMMENDATIONS

- Integrate gamification into the overall L&D strategy to maximize its impact.
- Align gamification elements with organizational goals and performance metrics.
- Develop engaging storylines and challenges to enhance learner immersion.
- Utilize interactive elements like simulations, role-playing, and virtual reality.

Scope for Further Research

- Gamification will continue to drive employee engagement by making learning experiences more interactive and motivating.
- Future gamified platforms will offer more tailored learning experiences, adapting challenges to individual skill levels and learning paces.

- Gamification will be increasingly used to improve long-term retention of skills through repetitive and engaging training modules.
- The role of gamification in providing instant feedback will expand, helping employees to track progress and areas of improvement immediately.
- As the workforce becomes more diverse, gamification will serve as a tool that resonates across different age groups, making learning accessible and enjoyable for all.

LIMITATIONS

- Concentration on specific gamification strategies rather than general learning techniques.
- Results may vary depending on the organizational culture and employee demographics.
- Quantifying the impact of gamification on learning outcomes can be difficult.
- Implementing gamification may require significant time, technology, and financial investment.

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