A STUDY ON THE IMPACT OF RUPEE VALUE DEPRECIATION ON FOREIGN TOURIST ARRIVALS TO INDIA

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Abstract: Before 1875, gold standard was used by countries around the world for trade and commerce. After 1944, countries followed a fixed exchange rate regime and due to the inherent drawbacks of this system, flexible exchange rate system was adopted from 1973. Under this system all the currencies are pegged to the US dollar. Since then, the value of Indian rupee has been fluctuating. It has increased to an all-time high of 70.94 rupees per USD in January 2019 from 22.74 in 1991. This study tries to establish a relationship between depreciation of rupee value and the Foreign Tourist Arrivals to India. It also studies the causes of decline in the rupee value against dollar. It also highlights the major milestones in the development of tourism industry in India. The yearly time-series data from 2000 to 2017 has been used for analysis. It was found that exchange rate fluctuations of rupee have little impact on Foreign Tourist Arrivals but using Engle-Granger test it was found that these variables are highly cointegrated in the long run.

Keywords – Indian rupee depreciation, Inbound tourism, Exchange rate, Foreign Tourist Arrivals.

I. INTRODUCTION

According to Oxford Dictionary, “Rupee is the basic monetary unit of India, Pakistan, Sri Lanka, Nepal, Mauritius and the Seychelles which is equal to 100 paise in India, Pakistan and Nepal, and 100 cents in Sri Lanka, Mauritius and the Seychelles”. Depreciation of currency refers to a fall in the value of the domestic currency which is caused by the demand for foreign currency exceeding its supply in the market. (Arumugam, 2015)

Devaluation is the official decrease in the legal tender of the country initiated by the Central Bank of the country. Devaluation is arbitrary and depreciation is a market mechanism.

“Tourism is a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which imply tourism expenditure” (UNWTO, 2008)

The Indian tourism industry is one of the key drivers of economic development among various other sectors in India. Tourism industry generates employment opportunities to a great extent and is a source for foreign revenue. (IBEF, 2018)

II. REVIEW OF LITERATURE

In 1835, rupee was accepted as the unlimited legal tender of the whole of India. In 1860, paper currencies were first introduced but the fiduciary limit was set as low as Rs.40 million. The gold price of silver faced a huge fall from 1870s and this resulted in a major crisis as the foreign payments were made in gold and revenue was in rupees. The government raised taxes repetitively and held many conferences to improve the situation (Thakurdas, 1944)

Indian rupee was initially linked to British pound. Indian rupee’s value against dollar ranged around 32.55 to 33 during the period of 1973 – 2014 and has fallen to 59.93 in April 2014. Increased trade deficit, Indo-Pak war in 1965, drought were some of the reason for fall in rupee value. The Government has taken remedial measures such as increase in FII investment, raise in interest rates payable on non-resident deposits, (Rachna Yadav, 2013).

Exchange rate is the price of currency of one nation in terms of other nation’s currency. It is one of the most important variables for decision making by exporters, companies, banks, importers, tourists. The rate at which Indian rupee is exchanged for US dollar is highly volatile. It is affected directly by demand and supply. After the collapse of Bretton Woods System in 1971 there were wide fluctuations in exchange rate. (SINGH, 2014) Downward adjustments in the rupee value started since 1975, especially in the eighties. From 1980 to 1990, the value of Indian rupee depreciated by 55% against US dollars and it fell by an average of 5-6% per annum as compared to the other international currencies. From 1989-91 the rupee faced a huge downfall in its value as it decreased by an average of 10% per annum (Wishful Thinking on Devaluation, 1991)

The continuous real depreciation in the rupee value had adverse effect on the exports. India’s contribution to the total world exports and imports was on a decline and the situation worsened in 1981 in spite of the industrial sector being diversified. This can be mainly attributed to the structure of imports and the recent foreign exchange policy changes. (Verghese, 1984) India is going through a difficult phase with depreciation of rupee day by day. The decline in rupee value triggered inflation, making the imports expensive. It has adversely impacted the domestic and overseas transportation sector, aviation industry. Outbound tourism has become expensive for Indians as they have to pay more to buy US dollars for international trips. Foreign education also became expensive. The automobile companies that import components from other countries need to spend high price on royalty to the other firms which in turn increases the automobile prices. However, the pharmaceutical industry benefits from this depreciation as majority of this sector are exporters. This depreciation created an opportunity to Non-Residential Indians (NRIs). Therefore, Indian banks have triggered the rates on NRI deposits. (Deepa Divakaran,N, 2014)

Volatility of rupee also has an adverse impact on Indian companies. It makes our companies less competitive in the foreign markets and the business. The development of industrial sector is also hampered due to rise in price of capital imports. Indian companies may have to pay more consideration for foreign mergers and acquisitions. The translation risk would be higher for
Indian companies. On the other hand, it is a benefit for exporters who do not rely on imported raw materials. This fall can be used as an opportunity by the exporters to penetrate into the international markets. (Narang, 2014)

The drop in a currency’s value can influence the growth of the economy adversely. The depreciation of rupee can lead to the decrease in foreign capital inflow, costlier borrowing, rise in the price of oil while importing and increase in the subsidy bills of fertilizers. The depreciation of rupee can also lead to huge foreign exchange losses for Indian companies, amidst the increase in exports. This reduces the productivity and the profitability for the company. It is also observed that in a country like India, imports are essential. The fall in the value is due to various situations like the economic scenario of the world, spread of the deficit in the current account of the BOP Statement and the outflow of foreign investments. The Central Bank has promptly contributed to this situation by selling dollars at irregular intervals. Due to uncertainty in the global market, investors consider dollar as safe avenue for investments. This situation can be enhanced by the Government, by fostering an economic environment safe for investors. (Ayush Singh, 2016)

The decline in the rupee value has caused an impact in the inflation of the economy both directly and indirectly. This is an everlasting problem. There are many ways by which the fall in the value of the rupee strikes an impact on the domestic inflation, one of the immediate impacts is on the energy price (oil price). The fall in the rupee value needs to be closely monitored by the Government. The Reserve Bank of India (RBI) and the Government has to work in harmony for the betterment of the country. (Avhad, 2015) Depreciation of rupee against other world currencies has a positive impact on inbound tourism whereas the outbound tourism will become expensive. (Mishra, 2018)

It is to be observed that the nation’s inflation in the short period will not affect the imports, exports and the output. The domestic inflation has an impact on the exports in the long run, as it is affected by a series of factors like the cost of materials involved, cost of finished goods, demand and supply and the output, as observed under Granger Causality. It can also be seen that the change in the prices of gold can result in the increase or decrease of the production of the economy. The reason for this is that, people assume that gold can be used as an investment avenue to protect themselves from macroeconomic variables like inflation and exchange rates. Therefore, the money available for industrial production is less. (Vaibhav Patni, 2014)

Devaluation of Indian rupee helps in boosting exports and increases the cost of loans that the companies take. However, it weakens the growth of the country’s economy by resulting in a rise of interest rates. According to United Nations report, it is important to change the fiscal policy and shift to long-term fiscal and monetary sustainability. Financial consolidation should move its focus from short term to medium and long term. Devaluation can increase our foreign exchange inflows by enhancing our exports. The earnings from devaluation should be seen from a longer perspective in the Balance of Payment Statement. This will be fruitful only if the economic policies are sound, existing prior to the devaluation. The policies which can result in a better trade balance are monetary and fiscal policies and devaluation can be used as a tool to improve the economic growth of the country. (Costa, 1966)

Prior to 2011, rupee was devaluated twice: in 1966 and 1991. Being a developing country, India is prone to fluctuations in the exchange rate and international business cycle. It needs to manage its currency risk by making growth and development its priority. We have to develop into an investment driven economy that focuses on efficiency through development of infrastructure and skilled workforce and thus making benefits of investment penetrate into the different sectors. We also need to focus on research and innovation which would give us a competitive edge. The reform process would make our economy resilient to shocks and currency fluctuations. Thus effort should be taken to frame our policies in such a way that priority is given to increasing our production capacity, boosting entrepreneurship and promoting innovations. (Nandkishor Soni, 2013)

The tourism sector is one of the fastest growing industries in India. Tourism industry contributes to the Balance of Payments, Gross Domestic Product, employment in India. Its indirect contribution to GDP in 2011 is US $76.69 and direct contribution amounted to 19.6% of GDP. (Mandeep Kaur, 2011) A total of 6% of the exports of the world have been contributed by Indian tourism in 2012. It has contributed about 9% to the GDP in the year 2013 according to United Nations World Tourism Organization (UNWTO). This growth can be attributed to sound economic growth paired with increasing levels of income, better standards of living and cultural diversity. India hosted various international events, exhibitions which further increased the rate of inbound tourism. Tourism also helps in increasing employment opportunities in India for travel agents, guides, tourism agencies. (Subhash, 2015)

Devaluation of Indian rupee helps in increasing the cost of loans that the companies take. It also weakens the growth of the country’s economy by resulting in a rise of interest rates. According to United Nations report, it is important to change the fiscal policy and shift to long-term fiscal and monetary sustainability. Financial consolidation should move its focus from short term to medium and long term. (Dr Vivek Gupta, 2014)

III. RESEARCH GAP

- There has been no study conducted extensively on the impact of fall in rupee value on Tourism industry.
- There has been no study conducted related to the depreciation of the Indian rupee value during the period of 2017-18.

IV. PROBLEM STATEMENT

“A study on the impact of rupee value depreciation on foreign tourist arrivals to India”

V. OBJECTIVES

The main objectives of the study are:
- To understand the causes of decline in the rupee value against dollar.
- To study the development of tourism industry in India
- To analyse the impact of depreciation of rupee on the Foreign Tourist Arrivals

VI. HYPOTHESIS

H₀ - The fall in the value of the rupee has no impact on the Foreign Tourist Arrivals in India
H₁ - The fall in the value of the rupee has an impact on the Foreign Tourist Arrivals in India
VII. DATA COLLECTION
The type of data used in the study is secondary in nature. The data sources primarily include government websites, RBI website, newspaper articles, journals, magazines, research papers.

VIII. CAUSES OF FALL IN RUPEE VALUE AGAINST DOLLAR:
The following are the significant causes for depreciation of rupee value against dollar.

- **Trade Deficit in India:** The most important cause for rupee depreciation is excess of imports over exports, which is called trade deficit. The Indian Balance of Trade deficit has been recorded the highest at $157 billion in 2017-18. As a result, inflation increases and the value of rupee decreases. The value of Indian rupee has fallen by 12% during the period of January to September 2018.

- **Rise in crude oil prices:** The demand for fuel has increased from 93,000 barrels per day in 2017 to 1,90,000 barrels per day in 2018. This has resulted in increase in bill of imports. The Petroleum Planning and Analysis Cell predicts that the Indian crude oil imports will increase to $109 billion during 2018-19. According to the Economic Survey of 2018, for every 10 dollar increase in the price (per barrel) of crude oil, the GDP of India will reduce by 0.2% - 0.3%. (Tan, 2018)

- **Trade war of USA and China:** The United States has started a trade war with India and European nations and China and these nations struck back similarly. This has increased the discharge of dollar from India.

- **Foreign Currency Outflow:** Foreign Portfolio Investors have a tendency to withdraw their money from equity shares and invest in attractive markets around the world. This increases the demand for dollar which indirectly reduces the value of Indian rupee.

- **Political uncertainty:** The ruling power of India changes every five years. This creates a sense of fear among the foreign portfolio investors as there is uncertainty with respect to continuance of the existing policies.

IX. DEVELOPMENT OF TOURISM IN INDIA
It was during the Pre-Vedic Indus Valley civilization when tourism gained recognition. It became a platform for trade, social integration and education. The Aryans developed several learning centres in India which led to inflow of tourists to India. Another important reason for rise in tourism is traditional trade and commerce. India is rich in its heritage with the presence of numerous monuments, palaces, mountains, religious places which attract more tourists. In 1945, the Government of India set up a committee under leadership of Sir Johan Sargent with the aim to analyse the prospects of enhancing Tourist Traffic in India as it was a matter of concern at the national level. The committee in its interim report suggested the setting up of regional offices in Mumbai, Kolkata, Delhi and Chennai with the following duties:

1. “Publicity both in India and abroad.
2. Production of suitable Literature such as guide books, folders and porters, etc.
3. Provision for training of guides.
4. Liaison with other government department responsible for providing facilities required by tourists including information in regard to industries and commercial matters.
5. Liaison with the travel agencies which would necessarily remain responsible for the detailed arrangements of tourist.
6. Liaison with hotels and catering establishments.
7. Collection of tourist statistics.” (Historical Background of Tourism Industry and Tourism Policies of India, 2009)

Timeline of events which led to the formation of Ministry of Tourism are as follows:

- **1949**
  - Tourist Traffic Office was set up under the recommendation of Tourist Traffic Committee.
- **1958**
  - Ministry of Transport
- **1966**
  - India Tourism Development Corporation (ITDC) was formed by the merger of three corporations, set up under the Jha Committee.
- **1966**
  - Ministry of Tourism and Civil Aviation was formed under the Prime Minister’s Cabinet.
- **1986**
  - Ministry of Tourism was set up as an independent body.

Highlights:
- There was a significant growth in the Foreign Tourist Arrivals (FTAs) from 6.97 million in 2013 to 7.68 million in 2014. The annual growth rate in 2017 was 14.6%.
- India ranks 26th in World tourist arrivals as per 2017 statistics.
- India, with a share of 2.06%, ranks 13th in International Tourism Receipts.
X. DATA ANALYSIS

The variables considered for the study are:

1. **Foreign Tourist Arrivals (FTA) from 2000 - 2017 to India** - The tourism considered for the purpose of this study is inbound tourism. FTAs have been studied instead of foreign exchange earnings (FEEs) because of the tourism multiplier theory. This theory states that the revenue spent by the tourists in India generates revenue in more than one sector because of the circular flow in the economy. This effect continues until the currency goes out of the country in the form of imports. In addition to this, the amount of FEE is directly affected by exchange rate fluctuations and arriving at the present value of the FEEs requires an accurate discount rate which is not feasible under this study. On the other hand, FTAs are not affected by such factors.

2. **Foreign exchange rate of Indian Rupee to US Dollar from 2000 - 2017**

   The independent variable here is the exchange rate and the dependent variable is FTA. The log values of the above variables have been taken for the following reasons:
   - To overcome the problem of heteroskedasticity (it is a situation where variability of FTA is not equal across the range of data of the exchange rate)
   - It helps us to get the elasticities directly. *(Vaibhav Patni, 2014)*

   The tool used for the analysis of the data is E-Views. It is a statistical tool used for econometric analysis of time-series data which includes regression, forecasting and so on. The data consists of FTA and exchange rates ranging from 2000-2017 which is time-series in nature and therefore we have chosen E-Views.

   The tests conducted on the data are as follows:

   **Unit Root Test:**
   To check the stationarity of data, we have used the following unit root tests
   1. Augmented Dickey - Fuller (ADF) -
      - $H_{0}$: The data has unit root.
      - $H_{1}$: The data doesn’t have unit root.
      - At 95% confidence level, if the probability is less than 0.05, we accept null hypothesis. Else, we reject it.
   2. Phillips - Perron (PP) –
      - $H_{0}$: The data has unit root
      - $H_{1}$: The data doesn’t have unit root.
      - At 95% confidence level, if the probability is less than 0.05, we accept null hypothesis. Else, we reject it.
   3. Kwiatkowski - Phillips - Schmidt - Shin (KPSS) –
      - $H_{0}$: The data has unit root
      - At 95% confidence level, if the probability is more than 0.05, we accept null hypothesis. Else, we reject it.

   Stationarity of the variables was checked at level and was found to be non-stationary. As a result, Least squares regression cannot be used. Hence, first difference is taken into consideration.

   **Unit root at First Difference:**

   ```
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<th>Variables</th>
<th>ADF test</th>
<th>PP test</th>
<th>KPSS test</th>
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<td>LRUPEE</td>
<td>0.0176</td>
<td>0.0176</td>
<td>0.302505</td>
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<tr>
<td>LFTA</td>
<td>0.0057</td>
<td>0.0034</td>
<td>0.178477</td>
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   From Table No. 1, it can be inferred that the null hypothesis of the three tests is acceptable. Hence, the data is stationary at first difference. Thus, co-integration is used for further analysis.

   **Cointegration:**
   “Cointegration is a statistical property possessed by some time series data that is defined by the concept of stationarity and the order of integration of the series. In econometrics, cointegration analysis is used to estimate and test stationary linear relations, or cointegration relations, between non-stationary time series variables.” It is used when the time-series data is non-stationary at level and stationary at first difference. *(Paul)*

   **Engle Granger Test:**
   Engle Granger Test is used instead of Johansen Cointegration Test because the research involves the study of only two variables. “Engle-Granger methodology follows two-step estimations. The first step generates the residuals and the second step employs generated residuals to estimate a regression of first differenced residuals on lagged residuals. Hence, any possible error from the first step will be carried into second step.” *(Bilgili, 1998)*

   The hypotheses for Engle-Granger cointegration test are:
   - Null hypothesis - Variables are not cointegrated.
   - Alternate hypothesis - Variables are cointegrated.
According to figure 1, at 95% confidence level, the probabilities for both the variables are less than 0.05. Hence, the alternative hypothesis is accepted. Therefore, LFTA and LRUPEE are cointegrated.

Vector Error Correction Model (VECM) -
VECM is a type of VAR model used especially for non-stationary data that is cointegrated. The VECM allows the variables to merge to their cointegrating relations, while also constraining their long run behaviour and allowing for short run adjustments. Since the deviation from the long run equilibrium is corrected through a set of short run fluctuations, the term error correction arises.

According to t-statistics, at 95% confidence level the null hypothesis is rejected if the t-value obtained through the analysis is more than 1.96. From the above figure 3, it is observed that the t-value is more than 1.96 at D(LRUPEE(-2)). Hence, the alternate hypothesis is accepted. Thus it can be inferred that the rupee value has an impact on foreign tourist arrivals with a time lag of 2 years. The adjusted R-squared is 8.23% for D(LFTA), which shows that 1% change in the rupee value leads to 8.23% change in FTA.

XI. FINDINGS
From the above analysis, the following can be inferred:

● The variables, LRUPEE and LFTA are stationary at first difference.

● The variables are cointegrated as per Engle-Granger cointegration test.

● It can be interpreted that 1% change in the rupee value leads to 8.23% change in FTA.

XII. CONCLUSION
From this study we can conclude that trade deficit, foreign currency outflow, political uncertainty, rise in crude oil prices and trade war of USA and China majorly contribute towards the depreciation of rupee against the dollar. The tourism industry has its roots in the Pre-Vedic Indus Valley civilization. India stood 7th in the world in terms of contribution of tourism to GDP as of 2017. “The Government of India is working to achieve one per cent share in world's international tourist arrivals by 2020 and two per cent share by 2025.” (Indian Brand Equity Foundation, 2019). It can be concluded that the rupee value fluctuations have an impact on FTA, with a time lag of 2 years.
The findings of the study prove to be important to the policy makers for decision making purposes, since the tourism industry is a pillar of growth for a developing economy, as that of India. The Indian Government should encourage tourism in all forms to develop the status of India as a tourism haven. This can be done through rigorous investments and methodical policies for the growth of tourism.

XIII. LIMITATIONS
This study does not control the effect of extraneous variables on the foreign tourist arrivals. The depreciation of rupee has less impact on the foreign tourist visits as FTAs are affected by various other factors. Factors like seasonal changes, schemes introduced in favour of inbound tourism, per capita income of tourists, political and economic conditions of other countries also affect FTAs. This study has been narrowed down to study the impact caused by rupee fluctuations alone. There has been no bifurcation done within FTAs as leisure, medical, cultural, religious, eco, and adventure tourism. This provides a scope for further study.

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ANNEXURES:

<table>
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<tr>
<th>YEAR</th>
<th>RUPEE</th>
<th>FTA (in million)</th>
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<tbody>
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<td>2000</td>
<td>44.94</td>
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<td>47.19</td>
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</tr>
<tr>
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<td>45.31</td>
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<td>41.35</td>
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</tr>
<tr>
<td>2008</td>
<td>43.51</td>
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<td>48.41</td>
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<td>2010</td>
<td>45.73</td>
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<td>2017</td>
<td>67.79</td>
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Source: Ministry of Tourism

http://tourism.gov.in/sites/default/files/Other/english%20India%20Tourism%20Statics%2020020917.pdf

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