Changes in Exchange Rates and its implications on India

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Abstract

The relationship between the values of local currencies in terms of foreign currencies and the export competitiveness of any country is very complex. This relationship will become more complex if there is a heavy dependence on imported resources and low capabilities to export locally produced resources. During the last ten months (since Jan. 2022), the Indian Rupee (INR) has weakened many times and reached a level of INR 80.75 per dollar in Sept. 2022. Indian economy which already suffered from a large fiscal and current account deficit adversely affected by relative exchange rate pressure. This paper attempts to explore the effects of the exchange rate movement in India and its impact on Indian trade and economy. The circumstances which have been created for the economy due to the depreciation of the rupee against the dollar reveal that there has been a strong and significant negative impact of this currency volatility on many sectors.

Keywords: International Trade Pattern of India, India's Exchange Rate Regime, Impact of Rupee Appreciation on Trade, Economic Growth, and Exchange Rate

1. Introduction

Understanding the Exchange Rate Concept

In simple terms, the exchange rate is nothing but the value of one country's currency in terms of another currency. The exchange rate between two currencies is the rate at which one currency will be exchanged with another currency. It is also known as a foreign-exchange rate or forex rate.

Numerous basic and technical aspects affect how one currency is valued relative to another. These include the two currencies' respective supply and demand, the economy's performance, the likelihood of inflation, interest rate differences, capital flows, technical support and resistance levels, and more. Currency values change from one moment to the next because these factors are typically in constant fluctuation. Although the underlying economy is generally intended to determine a currency's level, this is frequently not the case because significant changes in a currency can drastically affect the direction of the economy. Currency swings are a predictable byproduct of the floating exchange rate regime that prevails in the majority of developed economies(Singh et al, 2016) [1].

In the context of international trade, an exchange rate (also known as a foreign-exchange rate), is the value of one country's currency in terms of another currency. E.g., an interbank exchange rate of 76 Indian Rupees (INR) to the United States Dollar (USD) means that (Indian Rupee) INR 76 will be exchanged for each USD 1 or that USD 1 will be exchanged for each INR 76. In this case, it is said that the price of a dollar in terms of rupee is INR 76, or equivalently that the price of a rupee in terms of dollars is USD 1/76.

There are two types of exchange rates: fixed and variable. Usually, it is the procedure that the financial regulators (or the central banks) of a nation are the authorities to set the fixed exchange rates. The floating exchange rates are controlled and determined by the market forces such as (the nature of) supply and demand(Grewal, 2013) [2].

Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers, and where currency trading is continuous: 24 hours a day except on weekends. The spot exchange rate refers to the current exchange rate. The forward exchange rate refers to an exchange rate that is quoted and traded today but for delivery and payment on a specific future date(Sumanjeet, 2007) [3].

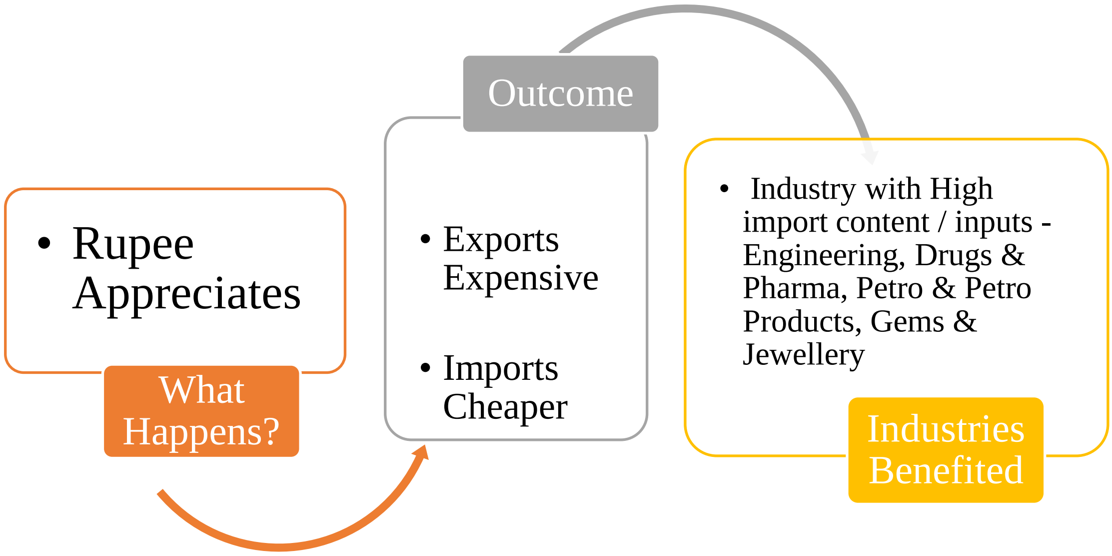
In both rich and developing countries, investors in foreign exchange, exporters, importers, bankers, businesses, financial institutions, and tourists all make decisions based on the exchange rate. The value of international reserves, the competitiveness of exports and imports, the value of the currency used to settle debts, and the cost to travellers due to the value of their currency are all impacted by exchange rate swings(Coric and Pugh, 2010) [4].

Thus, changes in exchange rates have a significant impact on the business cycle, trade, and capital flows of the economy and are essential to comprehending financial developments and changes in economic policy.

Indian Rupee Movement

In the recent past, it may be observed that there are fluctuations in the value of the Indian Rupee against the US Dollar. There are changes in the INR prices and the variations are there quite often. Depending on the external market conditions, it is likely that at times, more rupees may be required to buy one unit of foreign currency; whereas, at some times, we need fewer rupees to buy one unit of foreign currency. This change may be termed the depreciation of the rupee or its appreciation. INR appreciation is when the value of the rupee increases (becomes expensive) and fewer rupees can buy one unit of foreign currency. This is also known as the strengthening of the rupee as now INR is worth more than foreign currency. Suppose the exchange rate changes to 1 USD = INR 74 from the earlier 1 USD = INR 76, it may be said that the rupee has appreciated as 1$ can buy fewer INR.Conversely, INR depreciation is when the rupee value decreases (becomes less expensive) and more rupees can buy one unit of foreign currency. This is also known as the weakening of the rupee as now INR worth is less than foreign currency. If the exchange rate changes to 1 USD = INR 78, it may be said that the rupee has depreciated as 1$ can buy more INR(Rakesh et al., 2016) [5]. Currency price is always stated about another currency. So, when one currency's value increases then the value of the other currency decreases.

Exhibit 1 indicates the effects of exchange rate changes (either positive or negative) in general.



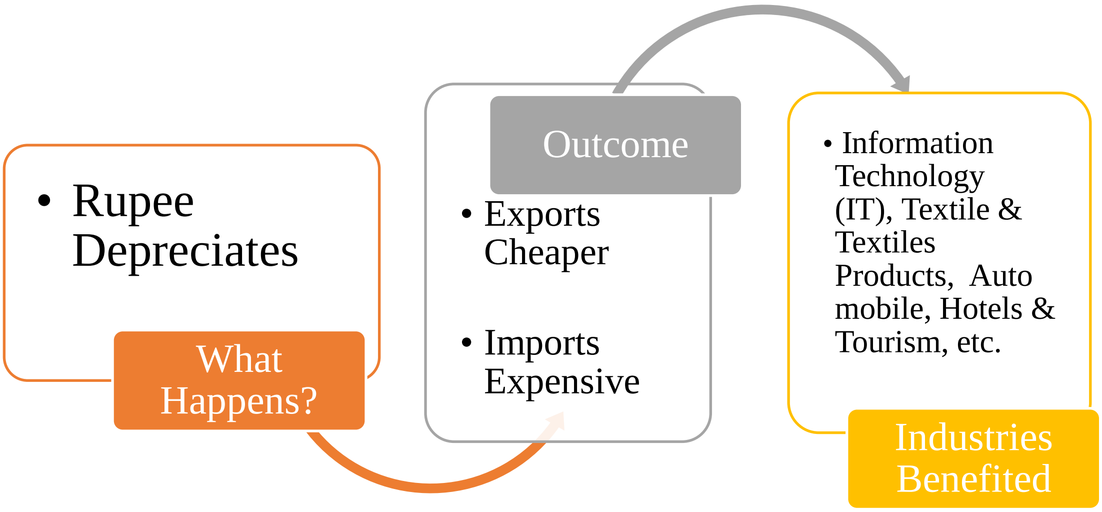


Exhibit 1: Effects of exchange rate changes in general (Rakesh et al., 2016)[5]

2. Literature Review

The findings of the study (Gurusamy, 2013) [6] confirm that the changes in the exchange rate, gross domestic product, and foreign economic activity are all cointegrated with real exports and imports. According to their study findings, higher exchange rate fluctuation tends to reduce real exports in India, implying that the changes or variations in the exchange rate have a significant negative impact on real exports (and imports).

In their study, (Shaik and Rao, 2020) [7], believe that the exchange rate is a key factor in each nation's economic activities in the current global economy. One of the endogenous factors in this situation that can impact a country's economic performance is the exchange rate policy. A major aspect of international economic interactions is the exchange rate since different factor endowments prevent any nation from remaining independent. Changes in the exchange rate have repercussions for other areas of economic expansion.

In the context of the Turkish economy, a study (Karhan, 2020) [8] stated that there is a reverse correlation between economic growth and the exchange rate. The study results showed that there is a negative causal association between these two variables (as claimed by fundamental/basic economists).

According to the study (Bhat and Bhat, 2021) [9], currency depreciation improves the trade balance while short-term currency appreciation decreases it. Again, a similar effect or pattern can be seen for a long time. However, the impact of currency depreciation is statistically more significant in this instance. The trade balance will be significantly worse off as a result of rising domestic demand than it will be better off as a result of falling domestic demand. Lastly, when viewed statistically, an increase in foreign demand is likely to significantly improve the trade balance.

The price of one country's currency represented in terms of the currency of another is referred to as the exchange rate. One of the key shifts in recent economic developments is the current condition of heightened exchange rate volatility (Jyoti, 2021) [10]. Researchers and policymakers are debating exchange rate volatility and their effects on global trade and macroeconomic performance more and more since the Bretton Woods fixed exchange rate system collapsed.

In his study (Pramanik, 2021) [11] introduced the concept of RER (real exchange rate) to study the relationship between economic growth and exchange rates. The said study believes that competitive real exchange rates also known as RER has a positive impact on economic growth.

In the current global economic environment, the exchange rate is a crucial factor in every nation's economic and foreign trade activities. Here, the policy about exchange rates and its regulations is distinguished as one of the endogenous variables that can either decidedly or adversely influence a country's monetary exhibition and benefit. These trade rates assume a key part in global monetary exchange markets because no country can balance out in confinement because of shifting elements of financing (Equitypandit, 2022) [12].

According to an article by Groww.in, changes in exchange rates have an impact on foreign investors. In this context, investments in a country can be affected positively or negatively by changes in the exchange rate. The exchange rates and the strength of the economy are directly correlated. This indicates that when a nation's economy is doing better, its currency strengthens, and international investors are more likely to invest in its stock market. Hence, foreign investors (such as unfamiliar financial backers) purchase resources named in the specific asset of the country (Groww, 2022) [13].

Economists and researchers are bringing in new terms. One such term is the “Exchange Rate Pass-Through (ERPT).” It can be defined as the responsiveness of prices to changes in the exchange rate (Suryavanshi, 2022) [14]. The said article stated that the deviations in the exchange rate can influence import prices and thereby the domestic price level in the country.

In recent years, the world economy has experienced some turmoil; the year 2023 is probably not going to be any different. Given that the forex market is susceptible to changes in the economic environment, the effect of economic headwinds on foreign currency prices is of special relevance (Zachariah, 2023) [15].

3. Objective

The objective of this research paper is to provide an overview of changes in India’s currency exchange rates and some of the effects of such currency changes on trade, (with select partner countries).

4. Analysis

India is considered an import-sensitive economy with more imports than exports. This is resulting in a trade deficit over the years. Thus, any kind of variations in the currency i.e. Indian Rupee is bound to affect the export-import scenario.

India's Trading Partners in International Trade

International trade is characterized by imports and exports between countries. At present India's top four trading partners are the US, China, UAE, and Saudi Arabia. (Trade1, 2022) [16]. (See Table 1)

Table 1: India's Top 4 Trading Partners from 2017-18 to 2021-22

	Total Merchandise Trade (In US $ Billion)				
Country	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**
United States	74.5	88.0	88.9	80.5	119.4
China	89.7	87.1	81.8	86.4	115.5
UAE	49.9	59.9	59.1	43.3	72.9
Saudi Arabia	27.5	34.0	33.1	22.0	42.9

Source: Government/Commerce Department

With the US as one of its largest trading partners of India, it has increased its trade surplusin 2021-22. (Trade1, 2022) [16]. (See Table 2)

Table 2: India's Merchandise Trade with the US in 2021-22 and 2021-22

Total Merchandise Trade with the US (In US $ Billion)			
Description	**2020-21**	**2021-22**	**% Chane**
Merchandise Exports	51.6	76.1	47.5%
Merchandise Imports	28.9	43.3	49.8%
Trade Surplus	22.7	32.8	

Source: Government/Commerce Department

With China as one of its largest trading partnerswithIndia, it has increased the trade deficit in 2021-22. (Trade1, 2022) [16].(See Table 3)

Table 3: India's Merchandise Trade with China in 2021-22 and 2021-22

Total Merchandise Trade with China (In US $ Billion)			
Description	**2020-21**	**2021-22**	**% Chane**
Merchandise Exports	21.2	21.3	0.5%
Merchandise Imports	65.2	94.2	44.5%
Trade Deficit	-44.0	-72.9	

Source: Government/Commerce Department

Indian Rupee Movement Against US Dollar and Chinese Yuan Renminbi

Exhibit 2 indicates the past five-year chart for Indian Rupee against US Dollar.

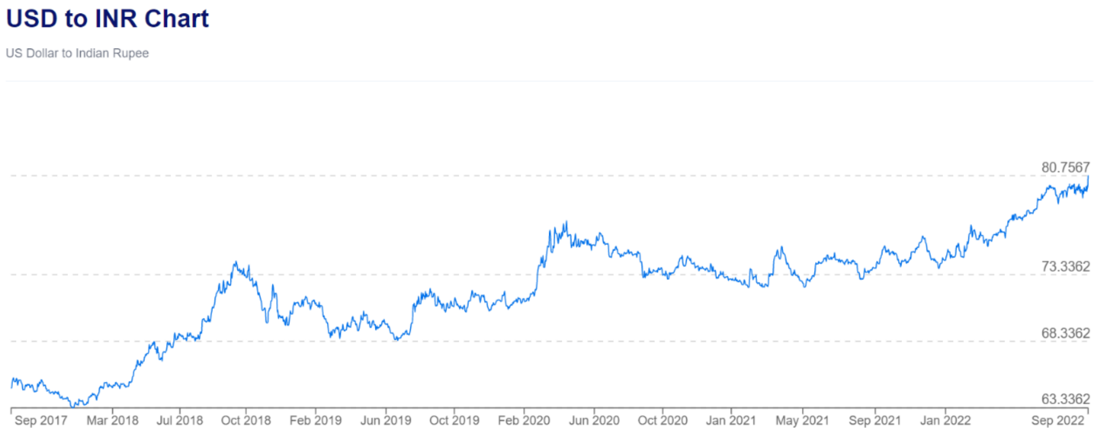


Exhibit 2: Past five-year chart for Indian Rupee against US Dollar (XE1, 2022) [17]

From the above chart, it was observed that the value of the Indian Rupee against the US Dollar has grown from 65.22 in Sept. 2017 to 80.75 in Sept. 2022. This indicates that INR is depreciated over the last five years.

Exhibit 3 indicates the past five-year chart for Indian Rupee against the Chinese Yuan Renminbi.

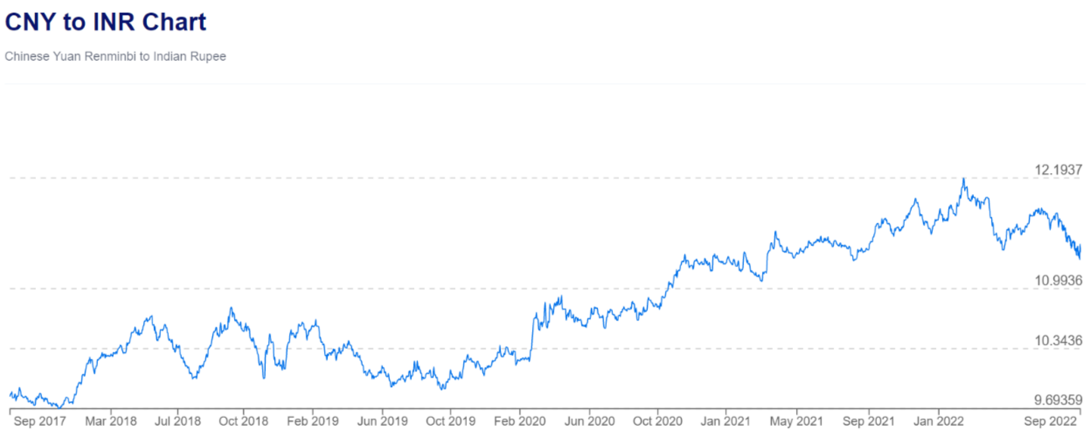


Exhibit 3: Past five-year chart for Indian Rupee against the Chinese Renminbi (XE2, 2022) [18]

From the above chart, it was observed that the value of the Indian Rupee against the Chinese Yuan has grown from 9.87 in Sept. 2017 to 11.34 in Sept. 2022. This indicates that INR is depreciated over the last five years.

5. Discussion

Effects of Exchange Rate Changes on Trade and Economy

Whether it is a developed economy, developing or underdeveloped economy, the effects of exchange rate are experienced by all. These effects have a direct impact on the following aspects of the economy:

- Merchandise Trade.
- Capital Flows.
- Economic Growth.
- Inflation.
- Interest Rates.
- Unemployment Scenario.

These are described subsequently.

Merchandise Trade (Singh et al, 2016) [1]

As mentioned earlier, this refers to the country's international trade or its imports and exports. In general, a volatile currency boosts exports and makes imports more expensive. This reduces the country's trade deficit (or increases its surplus) over time. Suppose you are a US exporter and two years ago he sold 1 million items to a European buyer for $10 each at an exchange rate of 1 euro = $1.70. The European buyer's cost was therefore €5.88 per item. Buyers are now negotiating better prices for bulk orders, down to $1.80 per euro, so we can afford to discount buyers and free up at least $10 per widget. Even if the new price is 5.55 euros, it is a 5.61% discount compared to the previous price. The devaluation of the domestic currency is the main reason export businesses remain competitive in international markets. Conversely, a significantly more stable currency means exports are more expensive, exports are less competitive, and imports are cheaper. This could now lead to a widening trade deficit. Note the growing trade deficit associated with India's commodity trade over the years, as mentioned earlier.

Capital Flows (Effect1) [19]

Capital Flows are nothing but the foreign funds attracted by countries that have stable governance mechanisms (in place), progressive economies, and steady currencies. A country is required to maintain a relatively steady currency to attract more external investments such as foreign investors. Otherwise, the likelihood of investment loss occurring due to currency downgrading may become a deterrent to external investments. Capital flows may be divided into categories viz. FDI (Foreign Direct Investment) and foreign portfolio investment.

- FDI (Foreign Direct Investment): In this case, external investors have stakes in existing organizations and/or the creation of new facilities overseas.

- FPI (Foreign Portfolio Investment): In this case, capital inflows are coming in the form of overseas securities (by external investors).

It is observed that the flow of FDI into emerging markets (like China, and India) may be seen as an indication or a basis for taking go or no-go investment-related decisions. Here, it may be noted that if such investments are not feasible, they may affect their growth.

Any country or governing authority tends to prefer FDI as compared to foreign portfolio investments since the latter is often akin to "hot money" that can run off the country when the business hits a rough ride. This fact is commonly referred to as "capital flight". This may be initiated due to any unwanted causes such as planned or anticipated depreciation of the currency.

Economic Growth (Investopedia) [20]

Economic Growth: The basic formula for an economy's GDP (Gross Domestic Product) is C + I + G + (X – M) where:
C = Consumption or consumer spending, the biggest component of an economy
I = Capital investment by businesses and households
G = Government spending and
(X – M) = Exports minus imports, or net exports

From the above, it is evident that the more the value of net exports, the more the country's GDP.

Inflation (Effect2) [21]

Inflation: Another effect of a devalued currency is "invited" inflation. This is "introduced" inflation for countries that depend on imports (to a larger extent). The exchange rate affects the rate of inflation in several direct and indirect ways:

- Changes in the prices of imported goods and services – this has a direct effect on the consumer price index. For example, an appreciation of the exchange rate usually reduces the price of imported consumer goods and durables, raw materials, and capital types of equipment.
- Commodity prices: Many commodities are priced in dollars – so a change in the Rupee-Dollar exchange rates has a direct impact on the Indian price of commodities such as petroleum-based products and engineering goods. A stronger dollar makes it more expensive for India to import these items.

Interest Rates (Bagella et al., 2006) [22]

As mentioned earlier, the exchange rate point is a key aspect for most central banks in the context of the formulation of monetary policy. A stable domestic currency exerts a drag on the economy, achieving the same result as tighter monetary policy (i.e., higher interest rates).

Unemployment Scenario (UNCTAD, 2020) [23]

The exchange rate affects the unemployment scenario in many ways:

- Some industries are more exposed than others to currency fluctuations – e.g., sectors wherein a large proportion of total output is exported and where demand is more price-sensitive (price-elastic).
- An exchange rate appreciation may lead to the slow economic growth of real GDP because of a reduction in net exports (i.e., decreased inflows). Due to this, there may be a rise in the demand for imports (an increased leakage in the circular flow).
- A reduction in demand and output may cause job reduction as organizations seek cost control. Some job reductions are provisional – indicating short-term variations in export demand and import penetration. Others may be enduring in nature when an import constitutes a major part of the domestic market. Thus, a higher exchange rate can have a negative multiplier effect on the economy.

To summarize, there exist many reasons for an economy to take the rough path. It may be possible that such critical situations may arise in the economy and grab more attention of RBI and the Indian govt. towards this scenario. It may be noted that numerous factors may cause currency depreciation, i.e., economic, political, corruption, etc., but some factors require greater attention and should be analyzed more objectively than others.

6. Conclusion

Based onIndia's Trading Partners in International Trade(Trade1, 2022) [16]

It was observed that during 2017-18 to 2021-22, India's merchandise trade partners remained the same. The US has beaten China to emerge as India's largest trading partner in 2021-22. This is the position that the US has occupied during three of the last five years.

During the period from 2017-18 to 2021-22, India with its trade partner the US has increased its trade surplus. During the period from 2017-18 to 2021-22, India with its trade partner China has increased the trade deficit.

It may be noted that this trade surplus or trade deficit occurring in international trade (comprising imports and exports) is further influenced by several factors. One of them is changes in the exchange rates referred to as "currency fluctuations."

Other Conclusions

In a conclusion, we may state that some country-specific factors may be impacted by currency exchange rates. Trade in goods, economic expansion, capital formation, inflation, and interest rates are a few of these (Segal, 2021) [24].

Many monetary development indicators are significantly impacted by the decline in the value of the currency (Grewal, 2013) [2].

The best result of the rupee's decline is an increase in exports and a decline in imports, which worsens the current account deficit (Singh et al., 2016) [1].

For nations like India, imports are an imperative necessity in the framework of trade. High price increases, a widening current account deficit, and a surge in FII investments have all contributed to this decline (Bagella et al., 2006) [22].

In any case, investors favour the USD as a safe bet during global turbulence. RBI can loosen capital requirements to attract more investments by permitting larger limits for ECBs and extending FII investment restrictions on corporate and government debt instruments (Investopedia) [20].

The country's currency will become weaker with the greater inflation rate. The purchasing power of the rupee is declining right now since India is going through a time of growing inflation. As a result, we can observe the rupee's depreciation against the dollar. Additionally connected are interest rates and inflation (Rawell, 2022) [25]

It is quite likely that when exchange rates fluctuate, the prices of imported items will likewise vary with their worth. This also includes homegrown goods that depend on imported components and raw materials (Picardo, 2021) [26]. In this context, the depreciation of the rupee reduces the influx of foreign capital, causes a growth in external indebtedness, and raises India's obligation to pay for oil and fertilizer subsidies.

In any case, Indian organizations are reporting massive foreign currency deficits as a result of the devaluation of the Indian rupee, even after the surge in exports and earnings during the current era. This might have decreased these firms' overall output.

The Reserve Bank of India (RBI) has reacted with convenient intercessions by selling dollars discontinuously.

Government can make a stable political and financial condition. However, a lot depends on the global economic outlook and the future of the Eurozone which will determine the prospect of INR.Hence, the global economic scenario, as well as the domestic economic conditions together, will decide what is the future of the Indian currency.

7. Implications

Their study (Shaik and Rao, 2020) [7], suggests that all areas of the Indian economy should adopt new technology and that excessive and excessive budgetary inflation and implementation should be reduced to the absolute minimum to avoid the ideal of external borrowing, which invariably leads to external debt and services.

In terms of the policy implications, a study (Karhan, 2020) [8] stated that “In terms of policy implications, it can be argued that, even under the inflation-targeting regime in Turkey, both price and exchange rate stability should be provided together.”

Although exchange rate fluctuation adds risk, it also presents business and investment opportunities. As we obtain a better understanding of the global currency market for gains and losses as well as the economic impact of changes in foreign exchange, policies for forecasting and responding to exchange rate fluctuations are currently being developed. Discussing exchange rate volatility becomes crucial when concentrating on the global currency market because it has an impact there (Jyoti, 2021) [10].

In his article, George Zachariah concluded that 2023's foreign exchange rates are probably going to be significantly impacted by the current economic difficulties. The Covid-19 pandemic's aftereffects, inflation, trade tensions, and the trend toward renewable energy are just a few of the reasons that are expected to have an impact on variations in the exchange rates in the upcoming year (Zachariah, 2023) [15].

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