

An exploratory study of impacts of currency fluctuation and other economic factors on the Indian automobile industry.



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Ireland**

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ABSTRACT

This study aims to analyze the impacts of currency fluctuation and other economic factors on the Indian Automobile Industry. In this advancing world, there are many things which have an effect on each other in some or the other way. The effects of these economic changes are seen in the overall economic growth of a country. The previous studies give us an insight of the economic changes which took place in the Indian economy.

This dissertation aims to provide an explanatory report of the various microeconomic and macroeconomic factors which have an impact on the economy of India with regards to the changing value of the Indian Rupee.

In order to explain this in a better way the researcher has developed the literature around some economic concepts which describe the situation in simpler terms. The researcher conducts this study by explaining the journey of the Indian rupee since its independence in 1947 up to the recent times and analysis the impacts of various factors on the economy.

This dissertation is based on data collection from various participants from the Indian automobile industry. It was a necessary for the researcher to conduct qualitative research methods by conducting semi-structured interviews an approach for this research. Hence, these interviews were conducted through an inductive approach as the design to analysis the aims and objective of the research. therefore, the researcher examines these semi-structured interviews by using thematic analysis to extract the gathered data.

The study explains the outcomes of the effects of various economic factors on the Indian automobile industry and the manufacturing sector of India.

Keywords — Currency Fluctuation, Automobile Industry, Gross Domestic Product, Foreign Direct Investments, Depreciation and Devaluation.

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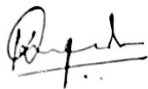
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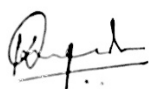
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List of Abbreviations:

Abbreviation	Description
GDP	Gross Domestic Product
FDI	Foreign Direct Investment
FII	Foreign Institutional Investments
REER	Real Effect Exchange Rate
SIAM	Society of Indian Automobile Manufacturers
IMF	International Monetary Fund
RBI	Reserve Bank of India
OPEC	Organization of Petroleum Exporting Countries
LPG	Liberalization, Privatization, Globalization

Chapter 1: Introduction

1.1. Research Background:

For a developing economy like India it is very important to have a stable value of their currency for the economic development. The vulnerability plays a vital role in the international and the domestic trade market of countries and their growth of the economies. The recent global financial crisis, debt crises, etc. have increased the exchange rate volatility. Since then, numerous studies have been exploring these impacts on their respective economies, but their findings are mixed and depend on the region and the period under estimation as well as data and methodology used (Kumar and Sudarsan, 2015). Further the authors have pointed out that the massive exchange rate fluctuation has an inverse impact on the country's economic growth. In the globalized world, international trade and investment decisions have become more difficult due to high risk resulting from exchange rate volatility. In case of the Indian economy there has been a constant change in the value of its currency but the Gross Domestic Product (GDP) has grown consistently over time. Which is huge part of the study. It is important for the researcher the following explanations of the different factors affecting currency changes.

The value of a currency in relation to another currency is known as the exchange rate which plays a vital role for an open economy in the global market. This affects the overall economic stability and growth of the economy (Khera and Singh, 2015). The relationship between the value of currency which causes the fluctuations in the value, carry a higher degree of importance of any developing economy.

Moving from fixed to flexible exchange rates has also had a major impact in the Indian economy since its independence in 1947. In the early 1970s, researchers and policy makers have shown great interest in studying exchange rate volatility and its impact on macroeconomic variables.

The revaluation and devaluation of currencies which occur as a result of these changes impact quite dramatically on the economic growth of the countries and government are obliged to react to these changes as we can see in the case of

the Indian economy. According to Khera and Singh (2015), “Devaluation means decreasing the value of a nation's currency relative to gold or currencies of other nations. Devaluation is usually undertaken as a means of correcting a deficit in the balance of payments, Inflation and economic growth of a nation”. However, there are usually many other underlined factors affecting the economy when devaluation occurs.

Economic growth is considered as one of the most crucial indicators of a country's economic health. India being an emerging economy and the second most populated country with a strong domestic market, it is still facing some problems during in international trade. This results in having a huge impact on the Indian economy in respect to international trade. It has been pointed out that developing and enhancing the economic growth is the top priority for any nation (Bartashuk and Neverova 2013). It is also affected quite dramatically by the value of the Indian Rupee on the international market.

Overall one of the major macroeconomic factors which plays a crucial role in the development of any economy is the Gross Domestic Product (GDP). According to International Encyclopedia of the Social & Behavioral Sciences (2015), GDP can be defined as the sum of the gross values added of all the enterprises resident of an economy. Usually currency fluctuation which give an indication of the strength of the growth in the GDP. This can simplify as the complete economic output of a country. The GDP represents a country's overall economic output, the currency value of all final goods and services produced over a period within a nation's domestic boundaries. In my study I hope to examine this process and its effect on the development of the automobile industry of India.

Since 1947, when India got its Independence the Indian economy initiated a series of structural reforms in the foreign exchange market. The main reforms which took place in 1991 were the liberalization, globalization and the privatization which opened the Indian economy to the global market. These reforms were meant to gain investor's confidence and boost domestic competitiveness.

As mentioned above this study is related the automobile sector of India and how has it affected due to change in the value of the Indian rupee. India is a huge

economy and the manufacturing sector plays a vital role in growing the economy further. India is the second largest car manufacturing economy in the world.

After the 1992 liberalization reforms, huge multinational automobile makes entered the Indian market with collaborations with some domestic companies. These new policies helped the economy to grow helped many new entrants into the automobile manufacturing industry. There was a slow export growth as the multinational corporations were not much competitive as the local manufacturers were in full force. The government of India imposed an 125% import duty which encouraged the local manufacturers to boom the industry.

India has the fourth largest economy in the world and is the second largest car manufacturing industry in the globe with a subsequent manufacturing sector and a strong domestic market. However, the manufacturing sector which employees a large population is however depended on the imports and the exports and are consequently affected by the fluctuations in the currency market. This study which is concentrating on the automobile industry is particularly affected. Many developing countries regard the automobile industry as an economically strategic sector “in the context of its contribution to national production, employment and technology, reinforced through magnitude of upstream and downstream activities (Audet and Vangrasstek, 1997).

This research discusses about the impacts of these currency changes and other economic factors on the Indian economy and specific about the automobile manufacturing industry of India. First, we need to see that different era’s in which the journey of Indian Rupee began. The following paper will give you an insight of the major incidents since the independence of India, and the economic repercussions following the devaluations of Indian rupee over time and the current impacts faced by the automobile manufacturing industry in India.

1.2. Dissertation Structure:

Chapter one “Introduction” will give the detail background of the topic which the researchers has opted to study. This part will cover the main economic concepts such as the devaluation of a currency, depreciation of a currency, economic growth of a nation, the Gross Domestic Product (GDP), etc. This will give the readers a brief idea that how an economy is affected due to various changes in

the political as well as the economic structure of a country. This chapter covers the importance of this study and the need for it.

Chapter two “Literature Review” is divided into many parts proving in-depth knowledge of the study which is done by previous researchers. This chapter will cover the different era’s of the Indian economy and their effect on the nation’s economic growth which described by various authors.

Chapter three describes the “Scope of Research, Research Aim and Research Question”. In this section the researcher has defined his aim and the need to conduct this study. The main research questions are mentioned to give the readers an insight to the exact area of the study.

Chapter four describes the “Methodology”. In this part the researchers discuss the methodology used for assembling and analyzing the data which is completed by conduction semi-structured interviews of with key management staff, technical head, team managers, staff from manufacturing departments, marketing team, operational managers etc. within the concerned sector.

Chapter five gives the insights to the “Research Findings” which are the results of the primary data collected by the researcher after analyzing the interviews. This gathered information aims at answering the objectives of the study. Analyzing primary data is one of the vital parts of the research for better understanding of the aims and objectives of the study.

The final chapter ends the dissertation by displaying the conclusions and the recommendations for further academic researchers. This part of the study also summaries the consequences of the research.

Chapter 2: Literature Review

As discussed above the researchers has studies the previous literatures regarding similar topics and has review it below. The researcher has divided the chapter in five different parts explaining each era of the Indian economy regarding the impacts on the automobile industry of India.

2.1. Independence Era (1947 to 1966):

The era when India got independence in the 1947 was when India became the member of International Monetary Fund. Bhandari (2014) explains to us that on August 28th, 2013 when rupee closed at a low of 68.80 against the American dollar. In other words, we can say that the value of the Indian Rupee was low against the US dollar.

In 1944 India joined the International Monetary Fund (IMF). The IMF is an organization whose primary purpose is to ensure stability of monetary systems (<https://www.imf.org/en/About>). This was long way since the independence of the nation in 1947 when its threat was Rs.4.76 to US Dollar. According to (Currentaffairsindia.info, 2019), the rupee was pegged at 4.7 under the International Monetary Fund against the American dollar between 1948 to 1966. There were no foreign borrowings on India's balance sheet. Prior to that time Rupee was tied to Pound. In 1949 the Pound devalued where the Rupee still maintained its value against the US Dollar. As the years went by in 1966 the Rupee was devalued by 36.5% from Rs. 4.76 = \$1, after devaluation it became Rs. 7.57 = \$1. This was the first instance where the Indian currency faced devaluation. Two consecutive wars, one with China in 1962 and another one with Pakistan in 1965; resulted in a huge deficit on India's budget, forcing the government to devalue the currency to 7.57 against the dollar. This devaluation was not just to correct the balance the payments deficit but, to increase the domestic production scenario, Indian government needed to attract Foreign Direct investments in the economy, to curtail inflation and to open the Indian economy to international trade.

2.2. The Era from 1967 to 1980: (Political Instability)

According to the statistics of Currentaffairsindia.info, (2019), in 1967 the UK Pound devalued but the Rupee did not. This affected the import markets as imports got expensive resulting in rise in inflation (Pettinger 2017). The author further explains the that as the value of Pound was decreasing the exports boosted, but there was a low wage growth resulting in the damage of economic growth.

In August 1971 due the financial crisis when the United States of America left the gold standard and floated its currency. But the Indian Rupee continued to peg its currency with the US dollar. In 1971-1979 the Rupee was overvalued due to India's policy of import substitution. Oil shock of 1973 caused when the Organization of

Arab Petroleum Exporting Countries (OAPEC) decided to cut the crude oil production which further increased the oil import bill. Crude oil being one of the major components for the manufacturing industry the sector had a huge impact because of this incident.

In India the oil crisis occurred in June 1975 was proclaimed after a court decision that Indira Gandhi won her government position by abusing open resources. With the suspension of strong government, various disastrous incidences were taken place for the progress of the economy. These government changes shook the Indian economy until the 1980's.

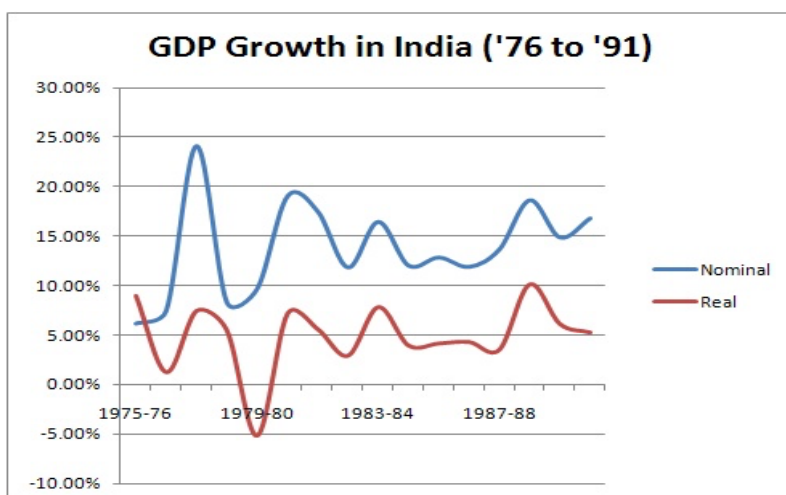
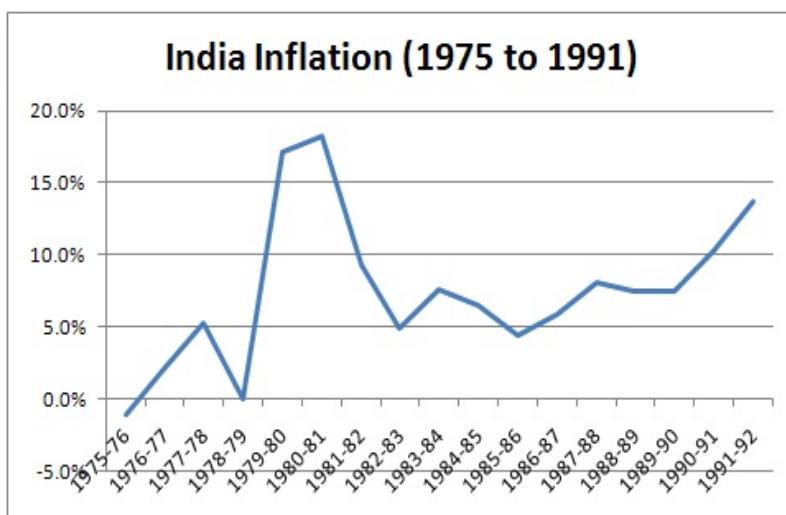
2.3. The Era from 1980 to 1990:

(George, 2019) explained that the start of 1980 saw a huge depression in India's macroeconomic performance after the crisis was formally pronounced in 1977. However, during the period from 1980-90 the economy started to get, and the pace of development expanded to 5.8 percent of the GDP and was surpassed by just 8 out of 113 nations. Simply after the development during the 1980s, was there a noteworthy descending pattern in neediness. A point to note here, in any case, was that even though GDP development picked up by just about 6 percent during the 1980s. However, again at the end of the 1980's it was a growing balance of payments deficit that forced the Indian economy to call on the International Monetary Fund (IMF) to bail out its economy. It was this balance of payments crisis that forced India to procure a \$1.8 billion IMF loan that led to the adoption of a major reform package and acted as a "tipping point" in India's economic history.

Before the economic reforms of 1991 the Indian economy was improving gradually in the 1980's. According to the (CIA World, 2017) the rate of growth improved in the 1980s. From financial year 1980 to 1989, the Indian economy grew at an annual rate of 5.5% or 3.3% on a per capita basis. Many industries grew at an annual rate of 6.6 percent and agriculture at a rate of 3.6 percent. A high rate of investment was a major factor in improved economic growth. Investment went from about 19 percent of GDP in the early 1970s to nearly 25 percent in the early 1980s. India, however, required a higher rate of investment to attain comparable economic growth than did most other low-income developing countries, indicating a lower rate of return on investments. Part of the adverse Indian experience was explained by investment in large, long-gestating, capital-intensive projects, such

as electric power, irrigation, and infrastructure. However, delayed completions, cost overruns, and under-use of capacity were contributing factors. Private savings financed most of India's investment, but by the mid-1980s further growth in private savings was difficult because they were already at quite a high level. As a result, during the late 1980s India relied increasingly on borrowing from foreign sources. This trend led to a balance of payments crisis in 1990; in order to receive new loans, the government had no choice but to agree to further measures of economic liberalization.

Figure 1.1



Source: Reforms shape India's economy (1980-90) by Natalia George.

2.4. 1991 Reforms Liberalization, Privatization & Globalization (LPG):

This commitment to economic reform was reaffirmed by the government that came to power in June 1991. The Indian economy shifted to floating exchange rate system after the macroeconomic changes implemented in 1991 (Balaga and Padhi, 2017). This basket of currencies was altered until the 1991 devaluation. The Indian economy faced a balance of payment crisis in 1991 which resulted in the devaluation of the Indian rupee.

Malhotra and Sinharay (2013), explains the expansion of the automobile industry in India. Till the 1980's, the automobile industry in India was in control of the state policy. The vehicle production was monitored by an industrial licensing system that controlled the output, prices etc. There were two main players and top manufacturers viz. Premier Automobiles Limited and Hindustan Motors Limited. However, the Indian market got transformed after 1983 following the relaxation of the licensing policy and the entry of Maruti Udyog Limited (MUL) into the car market. Maruti Suzuki India Limited (MSIL) is engaged in the manufacturing and distribution of passenger cars and spare parts. It is a subsidiary of Suzuki Motor Corporation (SMC) of Japan.

(Khan and Banerji, 2014) explained in their study that in 1991 India still had a fixed exchange rate system, where the rupee was pegged to the value of a basket of currencies of major trading partners. At the end of 1990, the Government of India found itself in serious economic trouble. The government was close to default and its foreign exchange reserves had dried up to the point that India could barely finance three weeks' worth of imports. In 1991, India faced a serious balance of payment crisis and was forced to sharply devalue its currency. The government also changed its trade policy from its highly restrictive form to a system of freely tradable EXIM scrips which allowed exporters to import 30% of the value of their exports.

After the 1991 liberalization reforms huge multinational automobile makes entered the Indian market with collaborations with some domestic companies. These new policies helped the economy to grow helped many new entrants into the automobile manufacturing industry. Indian economy has adopted the floating exchange rate after the 1991 monetary changes. We can say that this type of exchange rate can be beneficial for some developing economies such an India as

the market forces determine the value of the currency. This gave a huge boost to the manufacturing industry and particularly the automobile sector of the Indian economy.

(Khan and Banerji, 2014) put forth in their studies that in 1991, Indian government deregulated the economy and began implementing a series of measures to shift the controlled and regulated economy to market oriented economy. Moreover, the liberalization steps, such as, relaxation of the foreign exchange and equity regulations, reduction of tariffs on imports, and refining the banking policies initiated by the Government of India, have played an equally important role in bringing the Indian Automobile Industry to great heights. The growth of automobile demand has also been augmented by the government's tax policies that largely favored automobile sector in India. Economic reform and subsequent increases in income have been associated with changing patterns of spending on goods and services and emergence of consumerism in India. These reforms contributed to growth that the Indian automobile industry has witnessed is a result of a major factor namely, the improvement in the living standard of the middle class and an increase in their disposable incomes (Patra and Rao, 2017). This was particularly beneficial for the domestic market. The domestic market became more stronger which is an indicator for a developing economy as it boosts the overall economic growth of the country.

As we look at the strength of the Indian rupee after the 1991 reforms, we can see that there was a constant change in the value of currency. After the economic reforms the value of Indian rupee had many changes. In 1991 1\$ = Rs. 25.79. this was a great difference in the value of the Indian Rupee. The changes in the reforms of liberalization, privatizations and globalization as known as the LPG reforms had a huge impact on the economy. The market opened its door to the new firms which started investing in a developing economy like India. As we talk about the new firms coming in the economy this was a boom for many sectors like the technological sector. But on the other hand, the manufacturing sector was suffering few troubles. In 1992 - 1993 when the value of the Indian Rupee depreciated from Rs 31.44 per dollar this impacted the manufacturing sectors as the imports were getting costlier. For the next few following years the value of the Indian currency was not volatile but was changing continuously. This was because

of the opening of new horizons in various sectors. This impacted the economy which reduced the inflow of foreign capital and increased the external debt pressure. The most positive impact was in the decrease in the value of Indian rupee is the increase in exports and decrease in the imports, thus improving the currency deficit. Liberalizing the currency regime led to a sharp jump in foreign investment inflows and boosted the economic growth.

India is an emerging economy with a Gross Domestic Products (GDP) growth plays a vital role in the progress of the economy. This is inversely related to the purchasing power of an individual. The economic growth of the nation improved due to high rate of foreign investments which proved to be a vital factor. As from the above figures we can see that the because of the foreign and the new domestic investments the Gross Domestic Product (GDP) went from 19% in 1970's to 25% in early 1980's. However, the Indian economy needed much more higher investments as compared to other developing nations resulting in low rate of returns on investments (ROI). GDP grew at the annual rate of 7.6 percent from 1988—89 to 1990—91. Exports, which had grown annually at a paltry 1.2 percent rate during 1980—85, registered a hefty annual growth of 14.4 percent during 1985—90.

The Indian automobile industry is growing remarkably after 1991 following India's growing openness, income of the people, the arrival of new and existing models, easy availability of finance at relatively low rate of interest, and price discounts offered by the dealers and manufacturers.

2.5. The Globalization Era (1991 - 2000):

Prior to the 1990's India was one of the low developing economies in the world. The 1991 reforms opened the horizons for new entrants and saw the economy entering a new phase. This era is known as the globalization era. The Indian economy for the first time went under a fundamental shift from its socialist ideologies. Swaminathan (2011), explains the era of globalization and how it impacted the Indian economy in different sectors. The Prime Minister announced the new Industrial Policy. The reforms in the 1990s were more systematic and they gave rise to a decidedly more stable and sustainable growth from 1992. It

also ended public sector monopoly in many sectors and initiated a policy of automatic approval for foreign direct investment up to 51 per cent. The increased international trade, freer economy, technological improvements prompted by tremendous growth in information technology combined to show the positive effects from 1994. The value of the Indian Rupee depreciated in this era. As the new investors were entering the economy the value of rupee became volatile.

We can see the changes in the value of Indian rupee. Singh (2016), explains that there was a continuous change in the Indian rupee. The economy saw few changes in the globalization era. According to the Economic Times 1993 was one of the important years in the Indian economy. Due to the free flow in the market the exchange rate was freed and was determined by the market with provisions of intervention by the central bank under the extreme volatility. The rupee was much more depreciated to Rs. 31.37 against the US dollar. There was a sustainable growth in the GDP by 6% in these years. An open economy ensured more Foreign Direct Investments (FDI) and the Foreign Investment Institutions (FII) entered the market and the middle-class domestic consumption increased. Swaminathan (2011), puts both that the total foreign investment in India grew from \$132 million 1991-1992 to \$5.3 billion In 1995-1996. This was a huge boom for the Indian economy in all the sectors including the automobile manufacturing sector. Along with that advancement in the technology was a helping hand to the automobile industry. After the 1991 liberalization the Indian economy embraced the reform agenda and implemented many measures to open the markets to new players targeting the foreign exchange market and tradable sectors.

Malhotra and Sinharay (2013), further explain that the rise in the industrial output had an indirect effect on the Indian automobile industry. This changes which took place in 1991 after the LPG reforms helped the overall economy and increase the Gross Domestic Product (GDP). This increased the sales of automobiles in the domestic and the commercial market with an intensive growth. Now we can observe the effect the reforms which took place in 1991 and see the upward trend in following graph.

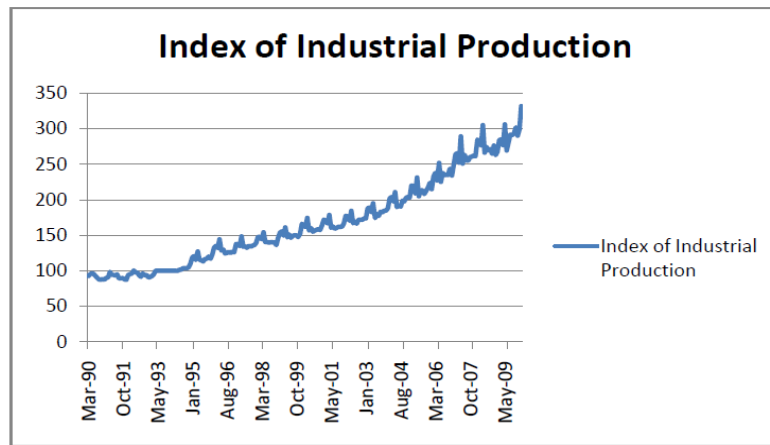


Figure 1.2.

Source: Centre for Monitoring Indian Economy Pvt. Ltd. (CMIE)

The following graph is of the per capita GDP of India from 1990 to 2008. Here, we can observe that there is a massive growth in the per capita GDP which indicated that the standard of living has expanded intensely over the following years. Which contributed to the domestic growth of the local automobile market which in turn contributed to the evolution of the international automobile market.

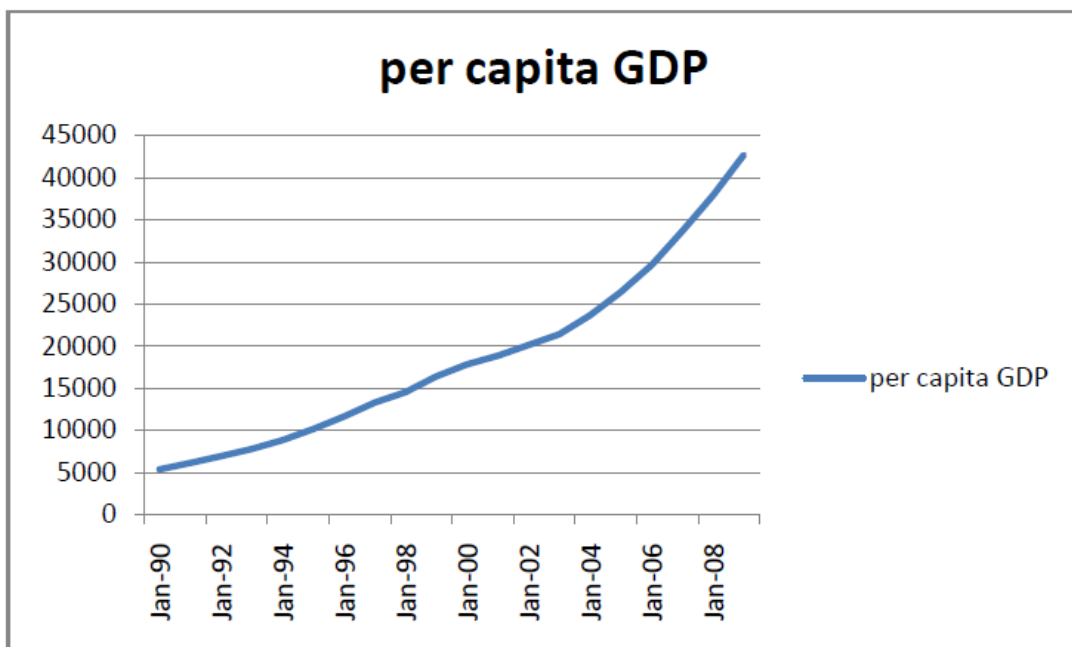


Figure 1.3.

Source: Centre for Monitoring Indian Economy Pvt. Ltd. (CMIE)

2.6. The Era from 2001 to 2013:

After having recorded a strong volume growth over the last two decades, the automobile industry in India was slowdown during 2008-09 due to global economic crisis leading to moderation in growth contributed by firming up of commodity prices, rising fuel costs and interest rates. During the global economic crisis, the rupee depreciated at a record low of Rs. 52.73 against the dollar. This was the phase when the Indian currency was under great pressure from the investors paring their exposure to Asia's third largest economy back then. This created a huge impact on the overall worries of the domestic market (Patra and Rao, 2017)

Singh (2013) pointed out the current scenario in the Indian markets that, it is perceived that total impact of a few national and global elements, including the Eurozone emergency, for the debasement of the Indian rupee, which had hit a record low of 56.40 against the dollar. There are various reasons which oversee the vacillation in the estimation of the rupee. The unpredictability in the oil costs and the vulnerability in Europe have brought about a circumstance where numerous specialists are putting their surplus in the United States of America which is viewed as a place of refuge. The decrease in prices and increment in imports, and the financial deficiency has expanded as likewise current record shortfall which additionally have had their impact. It has been seen that there is decline of Indian products in European market for the decrease in fares and financial recuperation is poor and delicate. As the Indian currency is weak in today's commercial world the economy is facing major issues in the imports and the exports of the country.

As the GDP increases the economy gets strong. According to Cheung and Sengupta (2013), India's economy has become increasingly integrated with the rest of the world, and now has a considerable presence as an exporter in the global economy. The annual growth rate of India's exports of goods and services increased from 16% in 1999-2000 to around 33% in 2010-2011. The contribution of exports to the Gross Domestic Product (GDP) went up from 6% in 1990 to 12%

in 2000 and to 23% in 2010. Simultaneously, India's overall share of total world trade (which includes trade in both goods and services) increased from 0.5% in 1990 to about 1.4% in 2010. As a result, India moved up seven places between 1999 and 2009, securing a ranking as the world's 14th largest trading center. During the period 2000-2010, growth in exports of commercial services (an average of 23% per year) outstripped the export of goods (18% per year).

Cheung and Sengupta (2013) further explain that India also adopted a more market-oriented exchange rate regime in the first half of 1990s. Since 1991 deregulation, the rupee's exchange rate has mostly been in a managed floating regime¹ under which the Reserve Bank of India (RBI) intervenes from time to time to stabilize the nominal exchange rate². It is striking that the high export growth occurred despite an appreciation of about 1.4% in India's real effective exchange rate (REER) over the period from 2000 to 2010 (except for the post-crisis period of 2009 when there was a sharp depreciation). The fact that Indian exports grew rapidly after 2000 despite REER appreciation does not necessarily imply that REER appreciation had no adverse impact on exports. The growth rate of exports might have been higher without REER appreciation.

Compared with other firms, exporting firms are usually associated with higher levels of productivity and profitability. Moreover, a strong export sector might generate positive effects for other sectors that promote overall economic growth. India has witnessed strong economic performance coupled with a strong export sector in the past decade. Thus, it is quite conceivable that export-promoting policies are conducive to economic growth. Against this background, we explore how fluctuations in the exchange rate affects decisions of Indian exporting firms, and whether the data suggests a weakening of the link between REER and exports (Cheung and Sengupta, 2013). However, it also impacts on the currency fluctuations and the need for the exports to remain competitive. This is an advantage for an economy whose currency may be vulnerable.

Automotive sector in India is one of the core industries of Indian economy, whose prospect is reflective of the economic resilience of the country. The economic contribution of this sector is immense, with significant linkages to the

manufacturing and services sectors (Ministry of Heavy Industries and Public Enterprises, 2006). In recent times the Indian manufacturing sector has seen a lot of growth. As the value of the Indian rupee is getting stronger it is helping the economy to grow rapidly. The passenger vehicle market with consists of the 80 per cent automobile sales has grown substantially in 2008 (Shinde and Dubey, 2011). According to Gaddam (2016), the statistics explain that in 2008, Hyundai Motors alone exported 2,40,000 cars made in India. Whereas Nissan Motors plans to export 2,50,000 vehicles manufactured in its India plant by 2011. Further the author puts forth similarly, General Motors announced its plans to export about 50,000 cars manufactured in India by 2011. This rapid grow in the exports indicate that the domestic market has become more sustainable which increases the GDP of the nation.

2.7. Relationship Between Crude Oil and Rupee Fluctuation:

India is the third largest importer of crude oil in the world. Crude oil is the second highest source of India's energy consumption with 23% of the share after Coal. As crude oil is a major component in the manufacturing sector and mainly all the transactions are pegged with the US dollar. The recent scenario of Indian crude oil segment is not appreciable. On one hand where crude oil consumption is increasing, on the other hand, the production is declining. It results in more import expenses. Sadorsky (1999) has argued that there is an inverse connection between the crude oil and the economy. The author explains that there is an effect on the economic activities of a nation when the price of crude oil changes. According to the researcher, both the fluctuations in crude oil price and changes in economic activities have an impact on each other. The oil price shocks over the last four decades have been driven by several causes and that deconstructed the international oil market. India is one of the major imports of crude oil. Soni (2014) has reported few shocks along with their possible reasons. According to the author, the restriction imposed by Arab countries and formation of OPEC is responsible for early 1970's shocks. Formation of OPEC brought control mechanism over the production to regulate the crude oil prices. India's intensive import dependency on crude oil brings several international factors into the consideration. Frequent price fluctuations and price hike of international crude oil can enhance the import bill of India which will lead to a hike on trade deficit

affecting the Indian economy. But on the other hand, it imports major components like the crude oil, technology and some spare parts which enable the smooth function of the industry. The major drawback for the Indian automobile sector is that of importing crude oil as it determines the currency value. India being a developing economy its currency is quite vulnerable and has an adverse effect on the economy because of oil price hike etc.

2.8. Conclusion:

Gaddam (2016), explains in his study that as growth of India as a global player now, the manufacturing sector will be producing cars for the domestic market as well as the export market. The researcher adds that the automobile industry since the nineties has led to robust growth of the auto component sector in the country. In tandem with the industry trends, the Indian component sector has shown great advances in recent years in terms of growth, spread, absorption of new technologies and flexibility. Hence, we can see that the Indian automobile industry is a huge exporter of passenger cars. Although the automobile demand depends on number factors, but this study attempts to explore the interactions between India's automobile sales and the hike in fuel prices, lending rate, and GDP per capita in the automobile industry in India. The existence of this very important modern sector is evidence of India's modernization and growing importance in the global economy.

The above revised literature gives the readers the detailed analysis of the studies done on the history of the Indian Rupee and its journey since the independence back in 1947. This study explains us importance of fluctuation of currency in the automobile sector of India. There not much literature in recent times that how has the automobile industry of India has an impact when the value of currency change. Most of the previous studies are based on one factor. This research will give the academic reader an insight into the automobile sector of India and the manufacturing industry faces problems and its consequences on the Gross Domestic Product (GDP), the inflation rate and the overall economic growth of the nation. Therefore, there is a scope for such an empirical study where the impacts of currency fluctuation on the Indian automobile industry can be found out.

Chapter 3: Scope of Research, Research Aim and Research Question.

As we see there has been considerable rise in the growth of the automobile manufacturing sector in India, but there are some limitations when it comes to currency fluctuation. As the researcher has seen that there're many other economic factors which contribute to currency fluctuation which have an impact on the automobile sector of India. The import transactions take place in foreign currency which have a direct or an indirect relation with the fluctuation of the price of the currency. The literature from the previous studies indicate how the Indian Rupee has devalued and depreciated because of its volatility since its independence in 1947. In this study the challenge faced by the research is to prove the relationship between the Indian rupee and the foreign currencies regarding the impact on the automobile industry in India. Taking in to consideration the previous literature, is necessary to conduct a more depth study for knowing the awareness of the rise in the value of the Indian rupee which would have an impact especially on the automobile manufacturing sector.

The objective of this research is to study the fluctuation of currency and its impact on the Indian automobile sector and to have an insight of the overall economic growth of the nation. This research will analyze the effects on the automobile industry after the changing policies in the economy. This research also aims to find out the impact of Foreign Direct Investment (FDI) which plays an important role in shaping the growth of the economy and will this impact the automobile manufacturing sector?

Based on the objectives of the research questions are drafted as below.

Q1 : “Exploring the perspective in working in the automobile industry.”

Q2: “What is the effect of currency fluctuation and other economic factors on the automobile manufacturing sector in India”?

Q3: “What are the challenges faced by the automobile manufacturing sector India”?

Chapter 4: Methodology

4.1. Introduction:

The aim of the research is to determine the impact of currency fluctuation on the Indian automobile Industry. The study tries to achieve this by carrying out experimental analysis and securing the current gaps in the literature which would be recognized by conducting a literature review. The primary goal of this research is to understand the changes in the currency market taking the Indian rupee into consideration and relating it to the automobile sector of India. Whereas, the auxiliary objective of this study is to find out the link between the direct currencies which are associated with the Indian rupee and their effect on the automobile sector on its fluctuation in their value. To achieve these aims, the mentioned research questions have been designed.

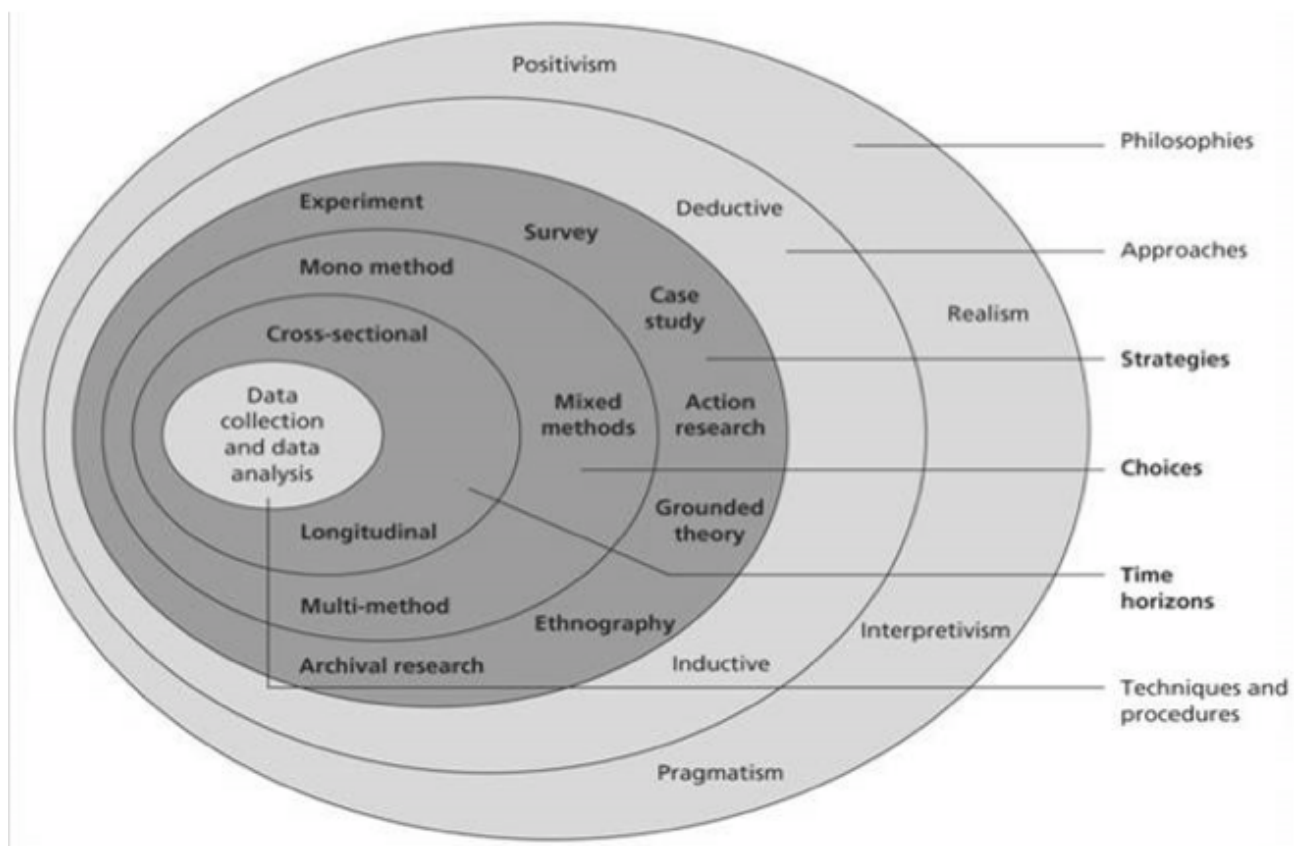


Figure 1.4: Research Onion

Source: Saunders, Lewis and Thornhill (2009, p.108)

4.2. Research Philosophy:

The research Philosophy is the first layer of this research onion. According to Saunders *et al.* (2009), the research philosophy relates to the “development of knowledge and the nature of that knowledge in relation to research”. The chosen philosophy consists of vital expectations about the way in which the researcher sees the objectives of the study. The research strategy and the adopted methods will be built by these expectations. Research philosophy includes the steps that direct to obtain necessary goals about the research and create an association between the literature and the data collected. Positivism and interpretivism are the most illustrious research philosophy and ontology and epistemology are the strands of research philosophy (Bryman and Bell, 2015). The only existence which is based on the aspect of ontological anticipation is to be the aim of the research. Interpretive have the belief that one must be a realist if one can judge (Quinlan *et al.*, 2015). “It is interpretive because researches need to make sense of the subjective and socially constructed meanings expressed about the phenomenon being studied” (Saunders, Lewis and Thornhill, 2012, p163).

4.3. Research Approach:

Following the first layer, the second layer consists of the research approach. Saunders *et al.* (2012) puts forth that the researcher must pick up one of the different approaches to complete his objectives of the study. There are three various approaches for the research: inductive, deductive and adductive. Commonly qualitative research is correlated with deductive approach because of the use of data and the test theory but on the other hand it can be associated with the inductive approach when data is used to develop a specific theory. Qualitative research is generally associated with the inductive approach, which explains that the researcher desires to gain new expertise. Moreover, the inductive approach is usually studied along with the philosophy of interpretivism.

As explained by Saunders *et al.* (2012), an inductive approach is defined as: “a research particularly concerned with the context in which such events were taking place. Therefore, the study of small samples of subjects might be more appropriate than a large number as with deductive approach.”

4.4. Research Strategy:

The main process of the research is to decide the strategy to obtain appropriate data for the study. The third layer of the onion gives the researcher various strategies to oversight its analysis: experiment, survey, archival research, case study, ethnography, action research, grounded theory and narrative inquiry. In order to apply to the inductive approach elected previously and taking into consideration of doing a semi-structured interview with open-ended questions to increase the scope of study.

4.5. Research Data Collection:

Mason (2002), has explained that there is a requirement focus on the five questions which is based on ontological perspective, epistemological perspective, area of work, intellectual puzzle. According to Saunders *et al.* (2012), there are two different ways to choose the research method: the mono-methods and the multiple methods.

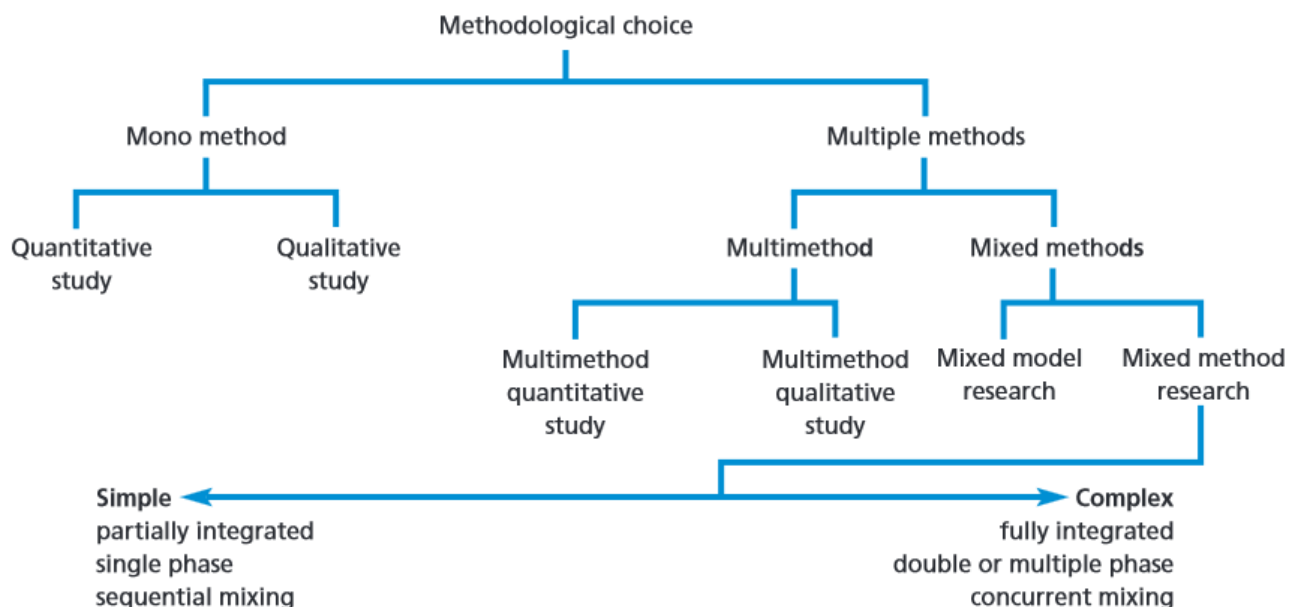


Figure 1.5: Methodological choice

Source: Saunders, Lewis and Thornhill, (2012, p.165)

4.5.1. Primary Data Collection:

In this study the methodology choice is oriented on the mono method: which will be qualitative research. Here the concluding results are not broad observations but are indirect findings. As mentioned above, this this study will be carried out

through inductive approach to find out how the currency fluctuations have impacted the Indian automobile sector and the economy of India. According to Easterby-Smith, Thorpe and Jackson (2008), a semi-structured interview may be used when the researcher wants to ask a large number of questions, whether they are complex or open-ended, and when the order and logic of questioning can be varied.

In the inductive model process, the results are obtained from the explanation of the participant feedback to open-ended questions (Hill, 2012). A qualitative interview is based on the evidence of knowledge is contextual, therefore it is important for the researcher to have the essential topics in the interview and have those questioned during the interview making sure that the necessary data is not just obtained by reading but by having a series of dialogue. By conducting semi-structured interview, the researcher has the convenience to find out results to the interview based on the output of the interviewee (Bryman and Bell, 2015).

In a study if it is the ontological position of the researcher to accept that one's ability and experience are based on the theme that the researcher is working on, then it would be achievable to obtain the necessary information for the study. If the researcher ontological position is such that the best way to collect data is to ask the individuals personally and take their opinions is best for collecting data, then the researcher should elect the interview technique (Bryman and Bell, 2015). We understand from the literature that the researcher acknowledges the knowledge to be situational, such that the interview method is one of the best opted technique for social interaction. Therefore, for this study the writer has taken semi-structured qualitative interviews for collecting the data. Regarding the assumptions of the researcher's knowledge is contextual, having to link to the situation and to interactive. Hence, it is important for the researcher to see that the interview is dependent, and the results obtained are as aspired by the interviewer (Bryman and Bell, 2015).

For this research, the researcher has interviewed eight participants through telephonic interview as well as got their written responses. The interview was designed around the topics of currency fluctuations, growth of the Indian Automobile industry, the advancement of new technologies etc. and the intention was to achieve information about the study.

Therefore, it is necessary to obtain insightful data which is deep rather than the information which is descriptive but has absence of the depth required for the study. Based on these components, it is vital to choose the qualitative research method, mentioned above like a semi-structured interview for this type of research. Thus, it is apt for the researcher to conduct semi-structured interview and analyze the data using thematic analysis for a similar study (Leggat *et al.*, 2016).

4.5.2. Secondary Data Collection:

According to Malhotra and Briks (2007) has explained, secondary data can be defined as the data already gathered by previous researchers for their studies and can still be evaluated in order to give supplementary knowledge, assumptions and conclusions. The obtained necessary information can take several forms listed by Saunders *et al.* (2012). The author has listed various types of secondary data namely, documentary itself subdivided into text and non-text; the survey subdivided into censuses, continuous and regular survey and ad hoc survey; and the multiple source subdivided into snap shot and longitudinal.

For this study, the researcher had assessed and used the data and gathered the necessary information from academic journals, organization's database, journal articles, academic literature, government websites such as International Monetary Fund (IMF), Reserve Bank of India (RBI) and the Society of Indian Automobile Manufactures (SIAM) which is the apex national body representing Indian automobile industry. SIAM works towards supporting sustainable development of the Indian Automobile Industry with the vision that India emerges as the destination of choice in the world for design and manufacture of automobiles. Data gathered through these sources will be helpful in getting the literature and will support the primary data with its statistical reports on the imports, exports and other components. The data regarding the domestic affairs, production trends, general sales in the automobile industry could be analyzed to explore the sector in depth.

4.6. Participants:

Introductory sampling is conducted by eight interviews from employees of leading automobile manufacturing companies in India. The contact to these poisoners were made and appointments were taken with specimens to plan the interviews. These employees were selected from the automobile industry to find out their

approach towards the industry and business within their knowledge. Different areas were chosen to have an array of opinions that are studied after the interviews. The researcher of this study has contacted the participants by telephonic interviews as well as emailing them. The researcher takes interviews with key management staff, technical head, team managers, staff from manufacturing departments, marketing team, operational managers etc. as these personnel are common employees of any organizations who have a deep insight of their businesses related to their areas for betterment of the organization.

4.7. Pilot Study:

The pilot study was done on three participants prior to the main interviews. This primary interview questions proved on these participants to verify if the interviews can be finished within the appropriate time. While conducting the pilot study the researcher found out that there was a demand to clarify some questions for better understanding.

The consequences of the pilot study resulted in adding basic concepts and explanations to terminologies such as currency fluctuations, Gross Domestic Product (GDP), Foreign Direct Investments (FDI), Devaluation, Depreciation etc. while concluding the interview questions so that the interviewee can correspond them easily during the interviews. The pilot study was not recorded.

4.8. Interview Process:

The interviews were telephonic and conducted over a weeks' time with different participants from various areas in the automobile industry. The average time of the interview was around 15 minutes to 30 minutes. The same answers were then emailed to the researcher by the participants for the analysis of the study. The interview questions can be found in the appendix. Consent of the employees was taken before the interviews. Subsequently the feedbacks were obtained from the participants regarding the interview and it mentioned as it was amiable and a normal chat.

4.9. Ethical Issues:

In this the research the researcher has used the qualitative study technique which is semi-structured interview which are conducted with the participants and required data is obtained directly. Then it is obvious for the researcher to face ethical issues and some ethical approval should be undertaken from the participants. Oliver (2010), explains that there are three stages of ethical issues in every research; before, during and after the study. The Cambridge dictionary defines ethic as “a system of accepted beliefs that control behavior, especially such a system based on morals”.

First there might be issues occurring with the primary data. In this study the researcher includes a classified policy when the interviews are conducted. The research also explains the demand of this knowledge which is obtained for the purpose of the study. It is stated that every piece of information which is obtained from the interviews will not be disclosed. Only the necessary conclusions will be anonymously described in the study. In process to keep it confidential, the researcher will have full control over the information. Also, the researcher appreciates the comments of the participants and admit that those will not be modified in the study.

There are ethical issues concerning the secondary data collection. The researcher underwrites that the acquired data has been done legally and ethically. Lastly, the researcher determines honesty and equality and guarantees that there is no disinformation in the research.

4.10. Ethical Approval:

Consent of the interviewee is one of the major aspects during conducting interviews. This is done to give the participant a clarification that the knowledge used for this research will be used only for this study and will not be shared with any other individual. The participants should be guaranteed that this information will be deleted after the research is over. The correspondents should be informed that at any point of time he/she has the right to drop out from the interview. The participants have been assured that their personal details will be confidential at every point of the study. Measures are taken to ensure that ethical approval laid down by the National College of Ireland is followed and taken care of.

4.11. Limitations of the Research:

It is natural for every researcher to face obstacles and limitations in their study which can take various forms and may hamper the proper conduct of the study. The researcher must be familiar with the difficulties in their study and try to avert them when planning the strategy for the research. If not done so there are high chances that the findings may get affected.

The disadvantage of conducting semi-structured interviews are the course in conducting the interviews as it is time consuming and demands a massive amount of skill from the researcher for outlining and accomplishing it. This type of research also needs a lot of time for analyzing the obtained information during the interviews. The researcher should absolutely rely on the data collected during the study. This may be an obstacle to arrange the number of interviews as it could call for more time and efforts. Because of semi-structured interviews it may be hard for the researcher to evaluate the obtained data, as it is not even. Therefore, in this type of study, where the sample size is small it could be that it is not actually representing the huge population (Bryman and Bell, 2015).

4.12. Research Findings:

It is learned from the studies that qualitative techniques are more often used in these type of researches (Divan, Ludwig, Matthews, Motley & Tomljenovic-Berube, 2017). It implies that because of the shortage of difficulty in thematic analysis there is lack of perfection in the research (Nowell, Norris, White and Moules, 2017). The question that the researcher asked the participants and the information that is gathered from the interviewing the participants was not uniformed and therefore, there was a need for a distinct way to analyze the information. As the interviews were short, there was lack of information that the researcher has obtained. For that reason, the researchers decided to compare the feedback received from the participants to analysis the information. Therefore, for carrying out such technique of analyzing the gathered data, different set of questions were constructed for the development of a detailed information which could be analyzed when a comparison takes place. As the responses from the participants are complex it would be difficult to compare and analyze the information can create similar answers which are obtained from different

responses. The questions should be designed to bring out varying aspects (Mason, 2002). Here the researcher uses the thematic analysis and considers it to be the best option to analyze the obtained information as, there is lack of framework on which the data is dependent and the information which is gathered by conducting interviews would be considered as a theme to analyze the information. The thematic analysis approach helps in designing the themes which revolves around the data obtained from the interviews which will be analyzed (Hennink, Hutter, and Bailey, 2011).

Chapter 5: Findings and Key Discussions.

The different participants who were selected for the interview were operational executives, managers, research wing experts working in the Indian automobile sector with various companies with a good experience in the business activities. The interview questions which were asked to the participants were based on quality, growth of automobile sector, the various policy changes which were taken place in the industry and how it changed the automobile manufacturing sector. On receiving the opinions of the participants, questions based on new technology and the advancement in the automobile sector was distinguished. This tells the researcher how the economy of India has impacted due to these factors and what are the consequences of the following changes in the economy.

5.1. Growth of the Automobile Sector:

The first participant was of the opinion the Indian market for automobiles has been growing at a very rapid rate and promise an extreme high potential. The automobile industry roughly contributes to 7% of the nation's Gross Domestic product (GDP) while generating more than a million jobs which directly or indirectly impacts the economy. The second participant was of the thought that there has been a significant growth in the automobile industry in past decade from point of sale even if the value of the Indian rupee has fluctuated in the exchange market. The participant expresses that there has not been growth in all the segments of the automobile industry. There was a negative review regarding the employment sector which has not significantly shown growth. The third participant was mentioned the role of the automobile industry had grown considerably in recent years. The respondent emphasizes that there have been more investments coming in the form of Foreign Direct Investments (FDI) and has also introduced

more automobile companies in the market to choose from, as compared to the local companies. The participant adds in his opinion that most international companies are seeing India as a manufacturing hub for automotive, which helps in creating more employment and improving the standard of living of the people. The Fourth participant was of opinion that the automobile industry has seen a steady growth over the years and the economy has benefited from it increasing the demand for cars. This is a positive impact on the economy and has impacted the employment generation in the industry. The fifth participant confirmed that as far as technology is concerned, the Indian automobile industry is growing two-fold with BS6 being a regulatory norm from April 2020. However, the sales have dipped due to vast and rapid changes in technology and regulatory norms. Usually manufacturing contributes to 3% of the GDP but this may have reduced due to slump in auto industry. The seventh participant mentioned that Research and Development centers being set up in India due to cost efficient Labour and technology. The option emphasizes on the liberal policies and the tax subsidies and rebates for setting up manufacturing plants in India. Which lead to ease of doing business. The eight and the ninth participants were of the opinion that the Indian Automobile industry became the 4th largest in the world with sales increasing 9.5% per cent year-on-year to 4.02 million units (excluding two wheelers) in 2017. It was the 7th largest manufacturer of commercial vehicles in 2018. The Two Wheelers segment dominates the market in terms of volume owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. Hence from these responses we can see clearly that, Indian being a developing nation the automobile industry has grown over the last two decades benefiting the overall economic growth of the nation. Automobile industry directly and indirectly provided employment of a significant percentage people in India. The growth in automobile has led to increased investment by these companies in R&D. These changes in the policies and ease of doing business has helped to increase the options available to customers. More and more companies have introduced their own models, thus forcing local companies to push their own variants in the market, creating a competitive market, which also makes it more conducive to the customer and drives down prices, especially since cost is a major factor in the Indian Market. The growth of the Indian automobile sector has given rise for

employment at the big automobile manufacturers and their supporting industries plays a huge role in stabilizing and improving the economy. This also opens the prospect of more foreign companies entering the Indian market and setting up their manufacturing base in India. The automobile industry has been on a rapid transformation stage as all manufacturing vehicles are being converted to BS6 norms directly from BS4, skipping BS5. This has created a huge pressure from a technological standpoint. Also, evolution of electric vehicles has drastically changed the way auto industry functions in terms of development. The Indian automobile industry is contributing 7.1 per cent to the GDP right now and around 3.2 crore people are employed directly and indirectly by the sector, he said, adding that in the last 10 years, the total investment made by the automobile industry has been to the tune of \$35 billion. There is a significant impact of automotive industry on the country's economy. It is said, by 2026, India's automobile sector must contribute 12% of GDP.

Economy & Car Sales

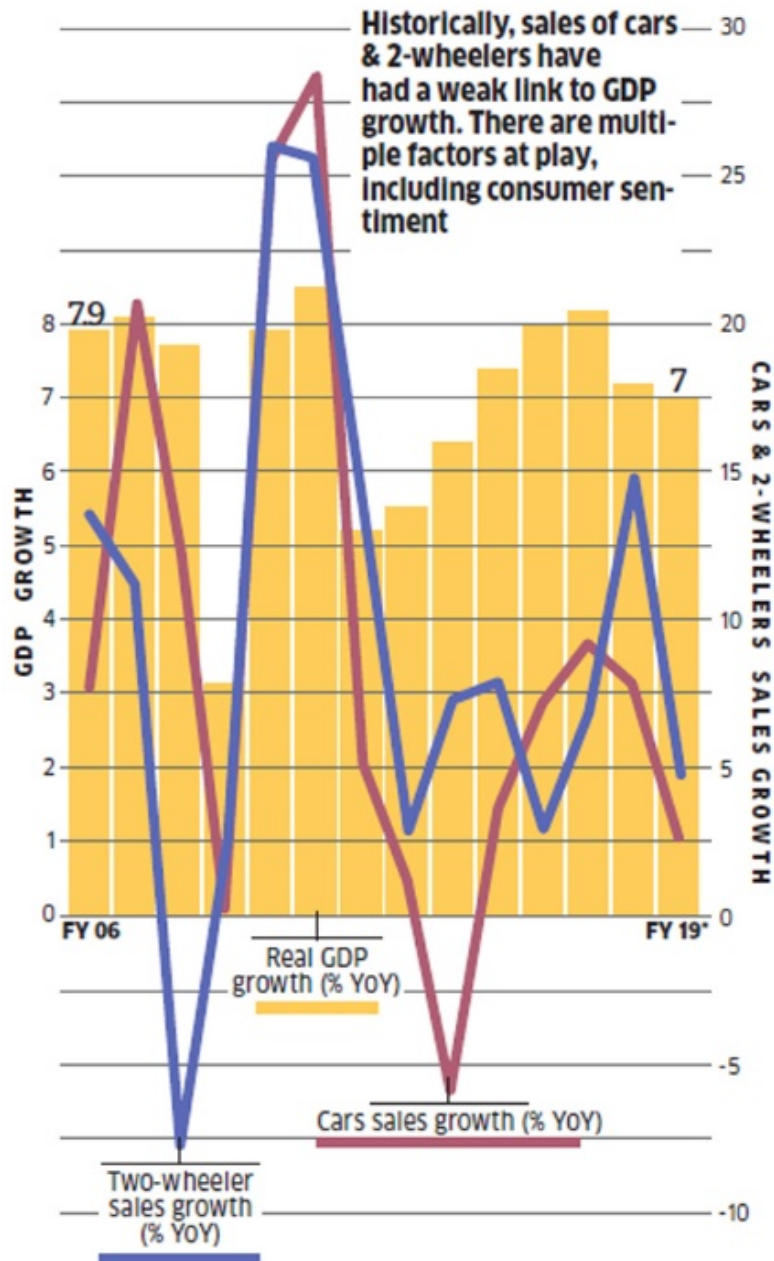


Figure 1.6.

(Source: Economic Times)

5.2. Impact of Currency Fluctuation:

The first participant was of that opinion that the fluctuation in the value of the Indian rupee, if compared to the US dollar and indirectly oil prices do affect the demand levels for a certain class of cars. Giving the example: If dollar is strong, oil prices are high, so are the price levels of petrol and diesel thus affecting the demand for

petrol and diesel cars directly. In simple economic terms this can elasticity of demand. One of the vital factors which cannot be ignored is the cost of importing certain technology or component and that is when the exchange rate plays a crucial role. However, the manufacturer does absorb the price shocks at times, but during annual rate revisions these price shocks are considered. The second participant was of opinion that currency fluctuation would not have a direct effect on automobile industry. The Third participant mentions that, rupee fluctuation has not deeply affected the automobile companies which have been vying for the Indian market as the domestic market has been independent. However, for companies which have purely been using India as a manufacturing hub are considerably affected by these fluctuations as the prices for Labour and production is very volatile. The fourth respondent was of opinion that the Rupee fluctuation plays a huge role especially when it comes to international companies who might be importing parts and technology from outside India. It also affects the profitability of the export products. The fifth and the sixth participant commented that the automobile industry in India, a drop-in rupee against dollar and crude oil price hike affects the sector directly. An industry which uses a minimum of 35-40% imported products will witness a rise in input prices due to the depreciation of rupee. Crude oil has become exponentially expensive than a few years ago which has affected the consumer sentiment. The remains participants believed the automotive industry is prone to foreign currency exposure and risks especially in the case of subsidiaries of foreign automobile companies. The fluctuations directly affect their cash flow, sales revenue, dividend payouts etc.

5.3. Foreign Direct Investments:

The first participant was of the opinion that the FDIs have certainly helped the economy create more jobs in the automobile sector, but the level of stability it can bring for the rupee can be highly debatable. However, in my personal opinion is that high rates of FDI result in higher rates of local production which directly results in lower dependency on foreign currencies. The second participant mentioned that the FDI has brought in sense of positivity within the economy which is important for a developing nation. As automobile has become, social norm, and synonymous to standard of living visible within the society, FDI will result in increased sales. The third participant explained that companies like Ford in recent years stopped sales in the Indian Market after they could not meet the demands of the customer,

mainly for affordable sedans at high fuel economies. However, such events have not stopped companies from investing in India as they still find it to be a conducive market for cheaper manufacturing. This in turn has led to continuous influx of FDI which has helped stabilize the Indian Rupee in my opinion. The fourth respondent mentioned that the FDI has definitely helped to rope in some big international players in India whether it being as a partnership with Indian manufacturers or as an independent entity. I think this brings in the necessary competition for Indian manufacturers and also pushes them to expand their market beyond India. The fifth and the sixth participant were of the opinion that the FDI Inflows to Automobile Industry have been increasing in India thanks to major liberalization in the policies. The basic advantages provided by India in the automobile sector include, advanced technology, cost-effectiveness, and cost-efficient manpower. Besides, India has a well-developed and competent Auto Ancillary Industry along with automobile testing and Research and Development centers. The major investing countries are USA, Japan, UK, Germany, the Netherlands and South Korea. India is home to many international automobile manufacturers including Ford, Suzuki, Honda, Mercedes-Benz, Volvo, Nissan, Volkswagen etc. These automobile giants also are aiding in the export of vehicles, passenger as well as commercial. According to SIAM, 701,157 passenger vehicles exported from India between January- December 2018. The top five passenger vehicle exporters (Ford India, Hyundai Motor, Maruti Suzuki, Volkswagen India and General Motors), contributed 83 per cent of the total passenger vehicle exports from India in 2018. The participants commented on the rapid growth in the automobile industry due to the FDI inflows and an increasing 3.6% of total FDI during 2006-2010. Hundred percent FDI is allowed in this sector and India is becoming a prime destination for many international players in the automobile industry who wish to set up their business in India. The industry consists of automobile industry with 1.36 percent of foreign investment, auto ancillary parts of 1.85 percent, passenger cars 0.61 percent and other transport as 0.46 percent during the period from 2000 to 2009.

5.4. Technological Advancement:

The first participant commented that Technological advancements and availabilities have encouraged more companies to enter Indian and use it as production base for the Asian and South-Asian markets. The second participant was of opinion that the impact can be seen in increased efficiency of

manufacturing, and reduction in waiting time for customers to get the automobile. New features included in automobile the such as safety, design, electronics and increase in smart feature/digital. The third and the fourth respondents mentioned that as the Indian manufacturing sector is growing there are companies investing in the automotive sector, by introducing various technologies in the plants which otherwise would have taken a longer time to be introduced in India. In order to develop reliable supplier network, this has also ensured that such technologies reach all the way to the supplier ensuring that everyone gets to benefit from it. The fifth participant was of the opinion that new technologies like electric cars and autonomous driving are already playing a major role in the automotive industry, both domestically and internationally. Most of the major players are now investing a major chunk of their research in these two areas. The other areas like advancement in safety features, infotainment is also driving a lot of changes and are challenging the industry to come up with better and cheaper solutions. The sixth and the seventh respondents mentioned about the drastic technological shift going from BS4 to BS6 and development of electrical vehicles. This has hampered the current sales of the industry but is expected to jump after the technical stability of the industry. The eighth participant commented with help of an example; Tesla has disrupted the market with Electronic Vehicles (EVs). Because of Tesla's innovation in terms of the power cell/battery operated cars, major automobile giants have been forced to pay attention to the development of EVs in order to be prepared in case of major market erosion by EVs. Automobile manufacturers cannot operate in the dark. They must be aware of the market needs, the environmental needs, statutory needs of the market in which they operate. Thorough research and development are the key for survival and success. The ninth participant was of the opinion that with advancement of technology, more automation has come into picture. There is overall improvement in manufacturing technologies resulting in efficient production. Now a day industry wide production has drastically improved without much increase in work force. Organizations are now focusing on reduction of man hours per automobile.

5.5. Exports of Automobile Industry of India:

The first participant was of the opinion that Exports help us bring more foreign exchange which can be invested into creating valuable infrastructure and technological developments for the automobile industry. The second respondent commented that one of the biggest exports would IT, which has significantly impacted Indian rupee. The salary range for mid-level managers has substantially improved over the last decade, in turn leading in increased sales. The third respondents discuss the exports from the automobile industry has played a role in stabilizing Indian Rupee. However, India continues to be reliant on agriculture and slowly making a shift to manufacturing and engineering. So even though these exports are helping in stabilizing the economy, their impact is still not a huge one in the grand scheme of things. The fourth and the fifth participants mentioned that the exports play a huge role in the automobile industry. There has been a steady increase in exports over the last few years as some major international players have started setting up their bases in India. As more products are added, the Indian rupee will gain from it. With government policies and attractive incentives, the international players will start seeing India as their top choice for the Asia-Pacific region. The sixth participant was of the view that the exports have declined for passenger as well as commercial vehicles. This is impacted the Indian rupee in a negative way. Again, this is believed to be result of the technological shift. The seventh and the eight respondents were of the opinion that Many manufacturing industries depend upon the automobile industry including steel, rubber, glass, machine tools, robots, electronics, software and many more. With export the automobile industry on adds to our GDP. As a major employment and export generator, GDP contributor, FDI earner, the automobile industry is instrumental in shaping the country's economy. Growth rates in a country lead to an appreciation of this country's currency. Indian rupee will appreciate when GDP goes up. The ninth participant explained that as India is also a prominent auto exporter and has strong export growth expectations for the near future. Automobile exports grew 14.5 % during FY 2019. It is expected to grow at a CAGR of 3.05 % during 2016-2026. In addition, several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the two-wheeler and four-wheeler market in the world by 2020.

5.6. Standard of Living:

The first participant was of the opinion regarding to the enhancement of the standard of living as the establishment of various companies have developed many regions and zones by creating employment and local businesses around them, thus contributing to the overall development of the society. The second participant was of the opinion that Automobile industry may not have enhanced the living standard but is an indicator of the increased living standard. Nano is an excellent case. An entry level automobile failed to make an impact whereas Maruti Suzuki, known as the middle income brought a premium segment. The third respondent believes that this helped the growth of more employment opportunities in India. Also, having a government which wants India to become a manufacturing hub, there are a lot of incentives being offered to automotive companies to invest in India which has further helped in the growth of these companies. The fourth participant mentions the areas where the automobile industry is concentrated in have benefited from it. But taking regarding the economy there's still more work to be done to make it a more stable and rewarding industry. A developing economy like India are on the right path and the next few years will be crucial with the rapid changes taking place in the industry and with the increasing competition in the sector. The fifth and the sixth participants were of the opinion that the technological advancements have definitely changed the living standards and will improve it once the electrical vehicles are introduced in the market. However, there is a lot of work to be done in terms of infrastructure for smooth transition. The seventh respondent explains the rapid growth of the automobile industry with some statistics. According to SIAM (Society of India Automobile Manufacturers) the rapid development of Indian automobile industry is evident from the fact that this industry employs more than 30 million people. Employment in India's automobile sector is divided into organized category, which is 33 percent and the unorganized category, which is 67 percent of the total. The expansion of the domestic and exports markets, the liberal policies of the government, increase in FDI (Foreign Direct Investment) and rise in the production have opened up new avenues in the job sector of Indian automobile industry. This industry is responsible for 7 to 8 percent of India's total employed population which means it has developed the livelihood of people. The following participants were of the opinion that the living standards in India have certainly improved over a last decade or two. Due to the

growth in the automotive sector, there is increase in job opportunities and with more people started getting lucrative jobs, the living standard has also gone up.

5.7. Limitations of the Current Thesis:

The following thesis has certain limitations. The initial sample size was 10 respondents but only 9 of the participants attended the interview and gave their views on the topic. The participants which were interviewed were of different areas resulting in the information gathered was limited. Therefore, the extent they gave opinions were not up to the point. Hence, the responses received from the participants may not be generalized to a specific area. As these are not experts in the field of economics so their views currency fluctuation may differ from one another.

Chapter 6 Conclusions:

The information collected by conducting interviews and detailed review of the existing literature is the main foundation of this research thesis. The key points to be considered at the end is that all the interviews taken in the automobile sector of India were of the opinion the currency fluctuations and different factors have an impact on the automobile manufacturing industry in some or the other way. The overall economic growth of the nation changes because of these small fluctuations. After conducting the interviews, the knowledge obtained from the participants was of the view that Foreign Direct investments (FDI) have a huge impact on a developing nation like India. It was learned that; the exports and imports have significant role in the economic growth. However, it is important that the balance between the imports and exports should be viable to maintain strong foreign currency rate. It is also observed that the manufacturing sector of India is growing rapidly with new technologies which is boom for the economy. Changes in the policies and ease of doing business plays a vital role. Gaddam (2016), puts forth that India has made links in the automobile industry exports with the regions of the world. The trade that takes place often is transacted in foreign currency. This study gives the readers an insight in the changes of the currency market and impacts of other factors for the economy to grow. Mukherjee and Sastry (1996) also discusses that penetration of passenger cars in rural and semi- urban areas is extremely low and could provide fresh markets. The authors discuss that the new entrants will have to face with uncertain demand and changing customer

needs which may affect the automobile market to a certain level. The actors further add that, an India a developing economy and an emerging market it will significant to increase the exports and grow the domestic market. As seen from the views of the participants oil price hikes will be a major concern for India. Being the third largest importers of crude oil there will be a negative relationship with the demand for automobiles in the domestic market.

Chapter 7: Recommendations:

The present thesis aimed at providing a new insight regarding the impacts of currency fluctuations on the Indian automobile industry. However, gaps still exist, that could be explored in future research papers. The researchers put forth the recommendations for further academic research and for practitioners in order to better understand this area of study and to understand the economy well.

During this thesis, the researcher identified new insights which bring new knowledge added to previous literature. However, the researcher was limited in its investigation due to time frame, sample size and the resources used. This study improves the understanding of the Indian economy in comparison to the currency fluctuation and its impact on the automobile manufacturing sector.

This research only focuses on the automobile industry of India and the factors which have an adverse effect on the overall economic growth of the country. India being a developing country we must take into consideration the main factor which is the technology advancement which has an impact on the currency exchange.

In addition, the researchers include the study explaining the different factors and the components like Foreign Direct Investments (FDI), Gross Domestic Product (GDP), inflation, employment the relationship between the currency and the imports and the exports and their impacts and consequences of the Indian economy. Through the evolution of new technology, and especially the electronic vehicles, the future researchers may focus on the development of new technologies and their impact on the currency market with relation to the economy. Future work can be presented on the changes in innovation in the automobile

sector and its impacts, effects in the global trade market. As India is a developing economy it could an advantage for the economy with the advancement in new technologies.

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List of Appendices

Appendix 1: Interview Questions:

- Can you briefly introduce the growth of the Indian automobile industry in recent years?
- In your career experience can you tell how has this growth in the automobile industry has affected the Indian economy?
- In your experience, how has the Rupee fluctuation affected the automobile manufacturing sector
- How has the Foreign Direct Investments impacted the automobile industry and the stability of the Indian rupee?
- How has the new technological advancement impacted the automobile manufacturing sector?
- Can you describe the exports and their impact on the Indian Rupee on the automobile Industry?
- Has this development enhanced the living standards in India?

Appendix 2: Interviewee's List

Participant Code	Firm	Age	Designation	Sex
1	Tata Motors - Anand	34	Plant Supervisor	Male
2	Ford - Chennai	44	Sr Automotive Engineer	Male
3	Maruti Suzuki - Gurgaon	51	Product Designer	Male
4	Mercedes - Pune	28	Industrial Sales Representative	Female
5	Mercedes - Pune	39	Compliance Manager	Female
6	Volkswagen - Pune	41	Valuation Manager	Male
7	BMW - Chennai	26	Sales Manager	Male
8	Automotive Research Association of India - Pune	35	Research Associate	Male
9	Mahindra - Kanchipuram	49	Financial Advisor	Female