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Economics

THE FUTURE OF THE AUTOMOTIVE INDUSTRY IN INDIA. IT'S IMPACT ON GROSS DOMESTIC PRODUCT (GDP) AND EMPLOYMENT. A CRITICAL STUDY

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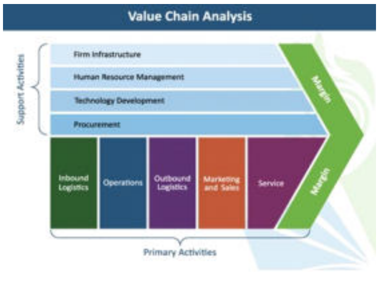
ABSTRACT The paper attempts an in-depth analysis on the impact of the growing automotive industry on achieving higher employment, and GDP for the Economy. This industry has immense potential, as the extent of backward and forward linkages are huge. The government has realized this and is continuously attempting to encourage investment both public, private as well as FDI, in this area. The recent thrust on Electric Vehicles is a new case in point. The fact that India is not only producing for the domestic market, it is also a dedicated hub for the export of vehicles, says a lot for the impact of Government policies. The continuous interest in the sector indicates its importance in achieving policy goals. **Research Question:** Global value chain is the new norm by which emerging market economies hope to achieve the desired levels of GDP growth rate. This has been the path that has been followed by a number of Asian economies after globalization and liberalization. Is this the way that India should follow in its search for higher GDP growth and increasing employment opportunities? Is the automotive Industry a good enough example to achieve both the parameters? The paper would attempt to study the impact of this on the Indian economy.

KEYWORDS :

Introduction

The imperative need for most Emerging Market Economies (EME's) today is to achieve high sustainable inclusive growth. India was a closed economy till the 1980's, with the economy under license raj, and primarily focusing on import substitution. It is only after the 1990's that the Indian economy opened up to the world and allowed the forces of globalization and liberalization to enter the country. Along with the opening of the economy the chance of the country being a part of the Global Value Chain (GVC) emerged. A number of the South Asian Economies developed with them being part of this chain. This essentially indicates that different stages of the production process are located across different countries. This entails the entire gamut of the production process right from design, production, marketing, distribution, and support to the final consumer.

Fig: 1 Diagrammatic representation of a GVC



Source: strategicmanagementinsight.com (2019)

With the world being treated as one, every manufacturer wants to follow the principle of comparative advantage. This allows the producer to source the factors of production at its cheapest rate, to be competitive in the world.

India in recent years has been known as an automotive base. The opening up of the economy has made India an important link in the Value Chain.

2)Definition

The primary aim of India joining in the GVC is to enhance its Gross Domestic Product. GDP is defined as the value of final goods and services produced in the economy during a fixed period of time, normally in an accounting year. Not only has the GDP to increase it also has to be sustainable. For this to be achieved, the path that has been followed by almost all the developed economies are moving from the agriculture sector to the manufacturing sector and then to the services sector. This essentially means that the contribution of each of these sectors to GDP, changes as the economy moves from the agricultural stage to the manufacturing stage and then finally to the services stage.

2.1 GDP

At the initial stages the main contributor to the GDP is the Agricultural sector. The Agricultural sector also supports a major portion of the work force. The work force is defined as the independent workers and is between the ages (15 years – 59 years), though in recent times the age group has increased and might be considered from (22 years -65 years), given the fact that to complete one's education it would require a minimum of 22 years. The dependent population are the infants and the aged.

As the economy starts developing, the contribution of the Agricultural Sector decline and the contribution of the Manufacturing sector increases both in terms of GDP, as well as supporting a larger workforce.

The next stage is the services sector, which starts gaining importance. There is eventually a balance between the manufacturing sector and the service sector, as both are equally important for the economy to grow.

This is represented in the diagram indicated below. It shows the path that is followed by economies that have developed over the centuries. India's best growth period was from 2003-2008. During this period India clocked 9% GDP growth per annum. This was primarily due to the growth that took place in the services sector. This high GDP growth has not been achieved since then. Some of the reasons that have been stated are:

- Due to the Great Recession of 2008, also known as the North Atlantic Financial Recession.
- The growth in India was spearheaded by the services sector. Most economies that have developed moved from the agriculture, then the manufacturing sector andfinally the services sector. India moved from the agriculture sector straight to the services sector. This was not a sustainable path, and led to India's GDP declining after 2008. As mentioned earlier, this was not the only reason.

Figure 1: Sectoral movement of sectors as GDP Increase

Source: own source

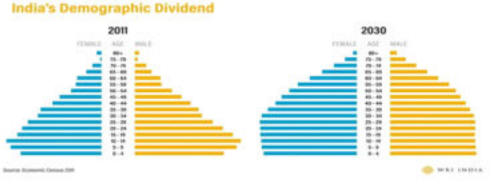
2.2 Employment

Employment is defined as the independent workforce seeking employment. Independent workforce is normally responsible for the well-being of the dependent workforce, which consists of infants and the aged. Most economies of the world are facing the problem of very high percentage of aged population. This has occurred as the fertility rate has fallen below the mortality rate. This is true for countries like China which had a huge population. To control the population, they followed draconian measures like ensuring the 'one child norm'. It resulted in a decline in the fertility rate which now has eventually led to the percentage of aging and aged population being greater than the dependent children population.

Besides giving a direction to the economy for the type of policies to be followed it also impacts the type of factor of production in the form of labour services that are available. India is currently in a position where the independent workforce is at a higher percentage than the dependent workforce, and also for some time to come the infant dependent are higher than the aged dependent. Indicating that at least for the near future there would be a continuous flow into the independent category. This trend may not last forever, as even in India the trend is apparent, whereby the fertility rates are falling. India's total fertility rate (TFR) has declined from 2.2 in 2015-2016 to 2.0 in 2019-2021.

But presently India has the advantage of a 'Demographic Dividend'. This is the economic growth potential that can be realized by a country in the form of the independent labour force. It is this potential that should be realised, and the economy should encourage labour intensive technology, to adequately engage this surplus factor of production.In the figure below the potential of the Demographic Dividend is graphically represented. This is an extremely important potential which China used to its advantage. China became the manufacturing hub of world by efficiently using its labour force.

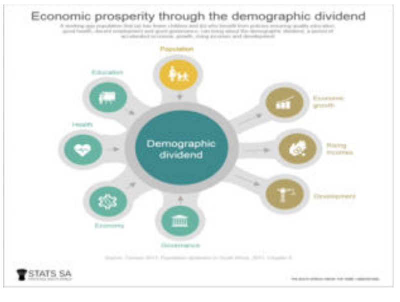
Figure 2: Demographic Dividend



Source: WRI INDIA

It is extremely important that India uses this potential. One of the various ways is to be a part of the GVC.

Figure: 3 Economic advantages of Demographic Dividend



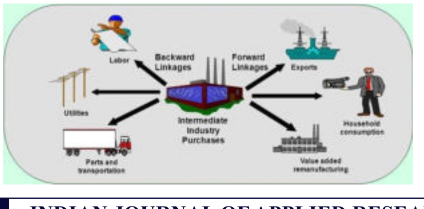
Source: STATS SA

2.3 Global Value Chain

The GVC in the global economy of today is one in which wealth and resources move across national borders. This involves an aggregate of economic activities throughout the world. GVC's have emerged as an extremely dominant character, under the era of globalization. The speed at which global trade has grown is faster than the rate at which world GDP has increased. Participation in GVC's has enhanced productivity growth, supported wages and incomes, increased vertical linkages, strengthened countries' interconnectedness, at the same time magnifying shocks.

Vertical integration leads to growing connectivity between countries, strong linkage between consumer and producer prices. It has been the source as well as the cause of increased advances in information communication technologies, declining trade costs, integration into the world economy.

Fig 4: Diagrammatic representation of the impact of GVC



Source: Google image

The main idea to take advantage of GVC, is to participate. The participation could be of the forward or backward type.

For India to increase its GDP potential it has to take advantage by increasing its participation in GVC's. The main reasons are:

- No country can maintain a strong growth in exports unless they are a part of GVC
- This process allows a country to excel in the areas that it has comparative advantage
- This increases the capacity of local firms as the parent firm transfers knowledge, investment, management and other best practices.

The main aim for an EME to join a GVC is that it would help in achieving all its major macroeconomic goals namely employment and reduction in poverty.

3 Growth of the Automotive Industry in India

Since the reforms of the 1990's one of the major sectors to have benefitted from liberalization and globalization has been the automotive industry in India. Post 1991 the industry has grown at an average rate of 17%, and it presently contributes about 5% of the GDP. (Journal of Management Research and Analysis, April-June2015;2(2):136-141), this is expected to grow many folds in the next ten years. The projected figures are a turnover of \$150-\$200 billion from the present \$45 billion in 2015. This industry has an extremely high participation in GVC. This sector has grown primarily on the strong support that the Indian Government has extended to this sector.

The automobiles produced largely cater to the demands of low- and middle-income group of population in 2017, India was the fourth largest automobile market, and the demand is still growing. To meet this anticipated increase demand, manufacturers are catching up on upgradation, digitization and automation.

This sector has a number of forward and backward linkages with both the traditional sectors as well as new ones that have emerged due to demand created by the sector. The traditional strengths being casting, forging, and precision machining, fabricating (welding, grinding, and polishing) as well as cost advantages due to the fact that India is a labour surplus economy.

India is in a fortunate position of having an abundant low-cost skilled labour as well Foreign Direct Investment in this sector. Besides the central government schemes that have encouraged the automotive industry, there are state governments that have laid the red carpet to various international car manufacturers, to make their states a manufacturing hub, such that the employment, income linkages help in increasing the saving, investment and income cycle of the state.

The Indian automotive industry can be divided into:

- Commercial vehicles
- Four-wheeler segment
- Two-wheeler segmentEach of these segments have grown over the years and have contributed to the exports of the economy. There have been a number of foreign collaborations in this segment, that has led to transfer and use of sophisticated technology. There are different set of players in each segment. Data indicates that in the two-wheeler segment it is home grown companies that have taken the lead, while in the four-wheel segment it is Maruti and Hyundai which have the highest cars on the road. In the case of Commercial vehicles, that includes buses and trucks, the primary manufacturers are Ashok Leyland and Tata motors.

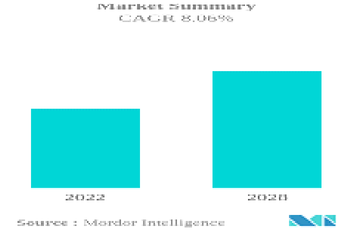
The latest thrust on electronic batteries as a source of fuel as opposed to petrol and diesel has further led to major inventions among the car makers. This has led to a number of backward linkages with respect to the manufacturing of specific batteries, swapping stations, and many more innovations in this segment.

All of this has been possible due to the government's policy towards achieving a safe, ecologically environment friendly for its citizens. The impact of fossil fuels, like the continuous increase in the consumption of petrol and diesel, on Green House Emissions (GHG), along with the adverse impact of climate change on the citizens of a country, has led to the formation of a number of policy measures. These have tried over the years to reduce carbon imprint as well as research and innovation towards the use of alternative sources of energy as fuel. India being a populous economy, the use of all types of vehicles is on the rise. This in turn leads to an increased demand for this sector, further increasing employment, GDP, savings and Investment.

4. Impact factor of commercial vehicles

The commercial vehicle sector in India is one of the smaller ones compared to the four-wheeler and two-wheeler segments, but it still has carved itself as a leading commercial vehicle market across the Asia Pacific region. The growth of this sector is closely related to the sectoral growth of the economy, leading to the possibility of it being the first to crash and the last to recover.

Figure 5: Anticipated growth of commercial vehicles in India



Source: Mordor intelligence

This particular segment though the least important amongst the others is still expected to grow at a Compound Annual Growth Rate of 8.06% from 2022 to 2028. This implies that both the backward and forward linkages of this sectoral growth would have an enormous impact on GDP.

To further increase the impact of this sector the following measures are important

- Growth of the logistic sector
- Acceleration of infrastructure projects
- Implementation of the scrappage policy will result in replacement demand and will support the new age greener, safer and better efficient vehicles
- The introduction of the Production Linked Investment scheme will act as a huge boost for this sector.

Though the impact is tremendous, a lot more can be achieved in this sector.

5. Impact factor of four wheelers

The Indian automotive industry is experiencing a lot of Foreign Direct Investment (FDI), which is being directed towards the unused capacity of the car industrial sector, towards manufacturing cars only for export. The four-wheeler industry primarily caters to the demand of low- and middle-income groups in India. This sector is one which attracts major FDI equity flows. The reasons being:

- Cost effectiveness of operations
- Efficient manpower
- Fast growing dynamic market

In the post 2000 period, Indian firms such as Maruti Suzuki started designing their own variant, that would be suitable for the domestic market. During this period TATA Motors developed their own car 'Tata Indica', in 2002 Mahindra's launched 'Scorpio'.

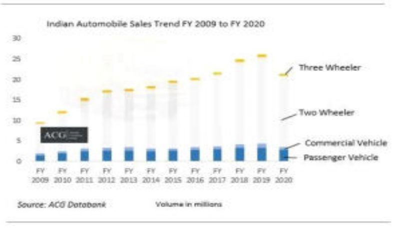
Between 2000-2015, the average year-on- year growth rate of export of vehicles was approximately 23%.

As Indian cities have grown in population, and without the effective planning of public transport, has led to reliance of motorized transport. Longer trips have made walking and cycling difficult and has led to the purchase of two and three wheelers as modes of transport. The leap-frog development of suburban sprawl has led to the increasing demand for the automotive sector.

The low-density decentralization has led to enormous issues for public transport, but has resulted in the increasing demand for two-wheelers and three- wheelers.

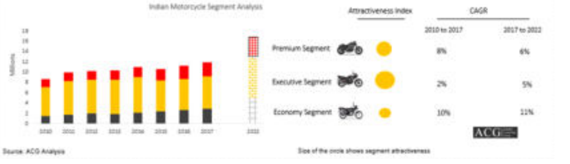
6 Impact Factor of Two and Three-Wheeler Vehicles

Fig 6: Indian Automobile Sales Trend



Source: ACG Databank

Table7: Growth of the Two-Wheeler Segment



Source: ACG Analysis

The reasons for their phenomenal growth are:

- Compact Design
- Lower costs
- Fuel Economy
- Reduced dependency on Public Transport.

7 Conclusion

The impact of the automotive sector on both the GDP as well as the increasing employment is apparent in India. The phenomenal growth that has been witnessed in this sector has contributed to both of the above in recent years. This industry is dependent on the growth of the economy, as well as it helps on furthering the growth of the economy. There is a causal effect between the GDP levels of the country and this sector.

Over the years it has resulted in the emergence of a number of home-grown car and ancillary brands which are designed to suit Indian conditions. The initial impetus to this industry came through the liberal policies of the Government after 1991, with respect to FDI. Besides the FDI policies, various States started vying for foreign investment, as they realized the backward integration prospects of the industry. A large number of States like Tamil Nadu, offered them dedicated land, credit facilities, and uninterrupted power supplies, to attract investment. This has led to further expansion of the industry. Emphasis on the export potential of this sector has further added to the foreign exchange of the country.

The Government till date is committed to encourage this industry as it realizes there is a huge scope in its impact on both employment and incomes of the people. With the continuing thrust on sustainable growth the encouragement of 'green vehicle', 'green transmission' as well as 'green fuel', are being actively encouraged. This will create more job opportunities for the people of the country. A continuous monitoring of this sector is important to achieve the goals set out by the country.

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