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From Editorial Desk.....

CRKIMR March 2021 issue of CRKIMR, Quest, Journal of Management Research is a compendium of various articles that were presented in our International conference on the theme of “Harnessing India’s Resources to make India Self-Reliant in Collaboration with ASEAN Countries”.

This conference was provided opportunity to deliberate on the issues related to India’s current policy of achieving growth through self-reliance. This Conference aims at exploring the trade and investment opportunities in North- Eastern region of India and Singapore.

The COVID-19 pandemic has exposed the fragility of the world’s supply chains for medicines and medical products, food, energy, vehicles, telecom equipment, electronics, and countless other goods. The model of trade-led growth is now changing, because of both external and domestic factors. The trend will probably be exacerbated post-COVID-19. China will continue to vacate space as it.

In this context Indian pharmaceuticals have been on the top side for domestic and export sectors. Serum institute of India, Bharat biotech, Cadila, Doctor Reddy, Aurobindo Pharma are among the major players that are likely to be benefited. India’s manufacturing capacity and capability to manufacture at low cost provide sample opportunity.

A brief analysis of FII flows in India and how it influences the Indian market, also it indicates how contribution of foreign investors has impacted the investment in Indian market. As both Nifty 50 and Sensex indexes move side by side and they have a same impact by FII and hence Hypotheses of Sensex data is taken into consideration. The growth of FIIs in Indian stock market has seen an increase in investments as the economy grows.

Taking under consideration all factors ASEAN countries are having better option for manufacturing goods, but now India is also focusing towards same through having changes in different policy like from Loo2k East Policy to Act East Policy, changes in labor law, pipeline of various infrastructure project, ease of doing business. Taking consideration fact of Indian government spending required for infrastructure every year is close to INR15 Lakh crore,

Multimodal Transportation still requires development in India. It is known to us that a company’s success depends on how efficient & robust its multimodal transportation facility is. As we all know, Warehousing & Transportation are also the fundamentals of the supply chain. If warehousing is handled correctly, then there will be great export potential leading to major profits. Cost & time should be optimized. Human resources & human resource management should be done correctly. They should be able to handle IT, systems & all Technical aspects of movement in the supply

chain. Therefore, an efficient Multimodal Logistics will improve both the top line and the bottom line of organization.

India has the potential to become a regional pioneer in the automobile manufacturing industry. The pandemic has impacted all industries worldwide, but India, with its many benefits, is on the way to reviving its economy. The following are some of the variables that will help this industry grow, Government Policies, Human Resources, Infrastructure and location availability. Logistics and transportation with increasing digitalization of products and services there is a need for marketers to examine factors that influence online purchase intention. The increasing trend of online food delivery services has attracted many players in this sector. It is important to examine factors that influence consumer behaviour.

Mergers and Acquisition is beneficial to increase the synergies of the company and to improve the efficiency of the company. Many Mergers and Acquisitions have been unsuccessful in financial terms. The failures for deal is due not implementing the proper strategy without understanding the depth of the company and its impact on the synergies of the company. The other factors could be on account of improper valuation of the company, lack of ownership of the company where there could be differences in terms of culture of the company. Also the major reasons in the failure of the company could be to recognize the role of integration of companies after Merger and Acquisition. Various marketing strategies employed by ASEAN countries in order to improve their image as a tourist destination. For ASEAN tourism to grow, integrated promotion and other forms of infrastructure support are required. ASEAN Government efficiency improves the performance of infrastructure and modes of transportation for better tourism. The ASEAN Tourism Forum has promoted integrated tourism in ASEAN countries, and the use of branding as a tourism tool has increased the number of tourists per year. Nation branding is also used to differentiate the distinctiveness of South East Asian countries.

This Quest issue covers the articles on the trends as India's Manufacturing sector potential & Self-Reliance, Self-Reliance in association with ASEAN countries, Exploring Trade Opportunities between North-Eastern Region of India and Singapore, Trade corridor: Singapore and India.

We Thank all the authors & reviewers for their valuable contributions!!

Dr. Kavita Khadse
Editor

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India in comparison with ASEAN countries in terms of Infrastructure

* Darshan Vartak, Saurabh Nagare, Rohit Kumbalkar and Sayali Nagvekar
Co-author: Mr. Hemant Jog

Abstract

When a company wants to lay their foot on to a particular country, it looks after many favorable conditions which are in favor or not. In the year 2018, the trade war started between China and USA which forced the companies to move out of China and relocate it to South East Asian countries. This article will discuss whether and why the companies are shifting to ASEAN countries like Vietnam, Malaysia etc. rather than shifting it to more developing nation like India. Also, the effect of trade war between USA and China on India and ASEAN countries, effect of geographic location for shifting of business from one place to other, effect of stringent labor laws making companies shift their mind to countries having less stringent laws, effect of social infrastructure like health, education infrastructure and the resources matter while selecting the location and factors like red tapism, which states that the company needs to go through excessive paper works and tedious procedures that is both exhaustive and time consuming would be discussed in this paper.

Keywords: India, ASEAN, Infrastructure, Labor laws, Red tapism, Geographical location, Social infrastructure.

1. INTRODUCTION

As we know, the result of US-China trade war has resulted shifting of businesses from China to ASEAN countries, there are many factors that a company or an organization needs to look after while setting up a business. Comparing with one of the ASEAN country i.e. Vietnam their export is INR 5.23 lac crores in 2010 and it reaches to INR 23.16 lac crores in 2019, whereas for India in 2010

exports worth INR 15.97 lac crores and in 2019 it reached to INR 23.45 lac crores. Vietnam in 2010 having trade deficit of INR 0.94 lac crores whereas India having trade deficit of INR 9.43 lac crores. In 2019 Vietnam having trade surplus of INR 3.41 lac crores and India is having trade deficit of INR 11.32 lac crores. To understand trade differences, we have considered factors such as geographical location, labor cost, laws and regulations, social infrastructure to name a few.

* Darshan Vartak, Saurabh Nagare, Rohit Kumbalkar and Sayali Nagvekar
Students of Chetana's Institute of Management & Research, (CIMR), Mumbai.
Co-author: Mr. Hemant Jog, Email: hemant.jog45@gmail.com

2. STATEMENT OF PROBLEM

To find out whether and why companies are shifting to ASEAN countries like Vietnam, Malaysia, etc. rather than shifting it to more developing nation like India. This research is limited to secondary research only and no primary research was conducted.

3. LITERATURE REVIEW

Based on existing research, this study compares India to ASEAN countries in terms of infrastructure in order to provide an understanding of how India can improve various policies and laws in order to have more efficient trade relations with other countries. The study will propose solutions to problems that may be impeding India's ability to realize its full potential in global markets.

Social infrastructure is critical to both a nation's economic development and the improvement of society's quality of life. Social infrastructure improves social well-being and promotes economic growth by providing basic services and facilities that allow businesses to grow and thrive.

Labor is a vital component of an economy's production of goods and services. Individual labor supply, both in quantity and quality, is an important factor in determining the economy's level of production and rate of growth.

Red tape is composed or sequence of forms and procedures required to obtain bureaucratic approval for something, particularly when it is oppressively complex and time-consuming.

Access to markets is influenced by geographical location. Geographical factors may influence growth

directly, controlling for economic policies and institutions, as well as the effects of geography on policy choices and institutions. The same has been aimed to discuss in this study. (John Luke Gallup and Jeffrey D. Sachs, with Andrew D. Mellinger, March 1999)

4. OBJECTIVES OF STUDY

Our research objective is to find out whether and why companies are shifting to ASEAN countries rather than shifting it to more developing nation like India. To understand this better, we have considered following factors:

4.1 Geographical Location

If we consider ASEAN region it is mainly divided into two main Geographical areas. The Maritime ASEAN and the Mainland ASEAN. Maritime ASEAN includes Indonesia, Singapore, Malaysia, Philippines and the Brunei whereas Mainland ASEAN includes Vietnam, Cambodia, Myanmar, Laos, and Thailand. Both these areas have their own benefits. The Maritime ASEAN is surrounded by seas while on the other hand Mainland ASEAN is characterized by its landlocked territory with traversing rivers which makes its land fertile. Thus, Strategic location, culture of that region, abundance of natural resources and favorable climate gives an advantage to ASEAN's geography to have better economy.

In India it takes 7 to 10 days to reach port, whereas countries like China and Vietnam it takes less than a day and this is because of their superior transportation facilities. Even if India's coastal line is double than Vietnam it is not used up to full potential. In addition, Vietnam has geographical advantage of closeness to China and China being biggest manufacturing hub, the raw material for manu-

facturing and other resources are easily available to the company.

This makes any company or an organization to consider ASEAN region as a primary location for setting up its business.



Figure 1. Demographic view of ASEAN countries

4.2 Labor Laws

Table 1. Comparison of some parameters in Labor laws between Vietnam and India

Parameter	Vietnam	India
Minimum wages	Ranges from INR 9700 to INR 14000 per month, depending on the locality in Vietnam.	Differs from state to state.
Working hours (per day)	7-8 hours	8-9 hours
Minimum Paid Annual leaves	12 days	15 days

If we look at above table, we can notice that there is very less difference in both countries labor laws.

4.3 Social Infrastructure

Social Infrastructure plays a vital role in growth and employment of any country. It primarily includes education and health sector.

1. Education sector:

- In India:

India is known to have largest networks of educational institutes in the world. Expenditure on education sector as a percentage of GDP raised by about 0.3 percent from 2.8 to 3.1 percent during the year 2014-15 and 2019-20 respectively. It is estimated that, during 2020-25 Centre and State

Government would be spending approx. INR 2.13 lacs crore for education infrastructure.

- In ASEAN:

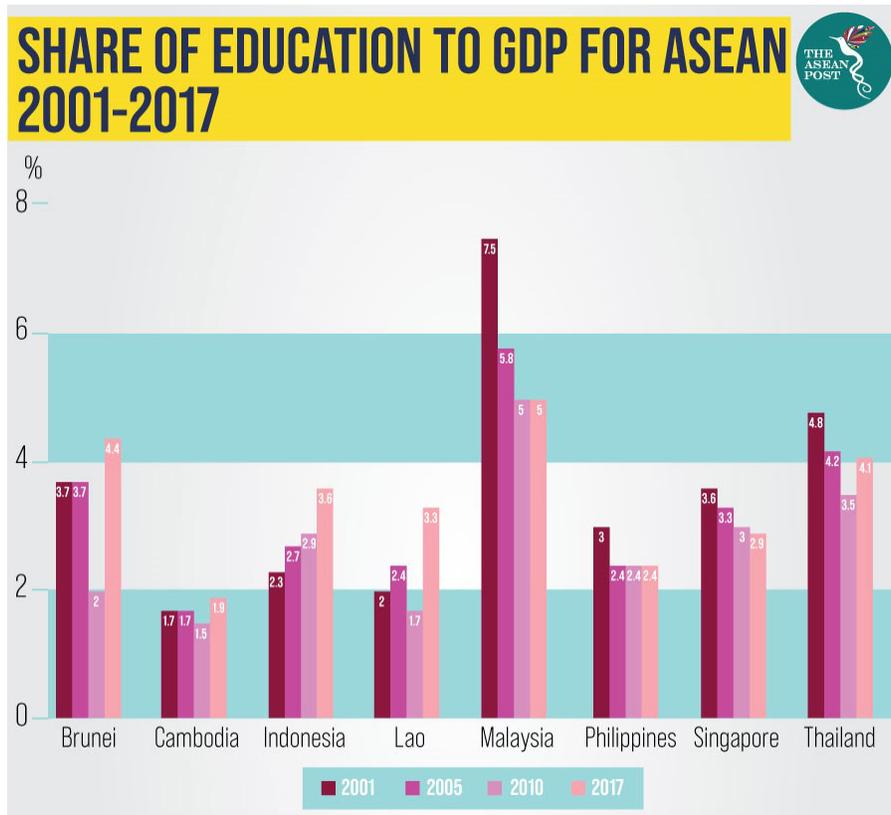


Figure 2. Contribution of Education sector to GDP for ASEAN countries

The Malaysian government, has prioritized education since the First Malaysia Plan (1966-1970) and contributes a larger portion of the overall annual budget to it, which is evident from the above figure. From 1970 to 2018, education expenditures accounted for 6% of the overall government budget, and this percentage has risen to about 11.4 percent in 2018.

The ASEAN-5 (Malaysia, Thailand, Indonesia, Singapore and the Philippines) countries with the best economic performances feel the influence of education spending as a social obligation to assure human life enrichment. In comparison to other

Southeast ASEAN countries, the ASEAN-5 has spent more capital on education.

Thus, we can say that there is neck to neck competition among India and ASEAN countries in education sector.

2. Health sector:

- In India:

Expenditure on health as a percentage of GDP raised by about 0.4 percent from 1.2 to 1.6 percent during the year 2014-15 and 2019-20 respectively. It is estimated that, during 2020-2025 Centre and State Government would be spending approx.

Rs 1.51 lacs crore for health infrastructure. Also, it is estimated that, the expenditure for implementing about 52 identified projects during the period 2020-25 would be around Rs 94,697 crore.

● In ASEAN:

ASEAN states are gradually committing to universal healthcare systems, with Indonesia having the world’s largest free healthcare program, with about 180 million people covered. Healthcare already accounts for about 4% of GDP during the year 2019-20 in this region, and this figure is anticipated to rise as consumers tend to become more health-conscious. According to World Health Organization (WHO), Singapore is at the top of the list, with a per capita spending of around INR 2 lakhs. According to BMI Research it is estimated that, the ASEAN medical device market would earn more than INR 0.59 billion revenue by 2021.

In ASEAN:

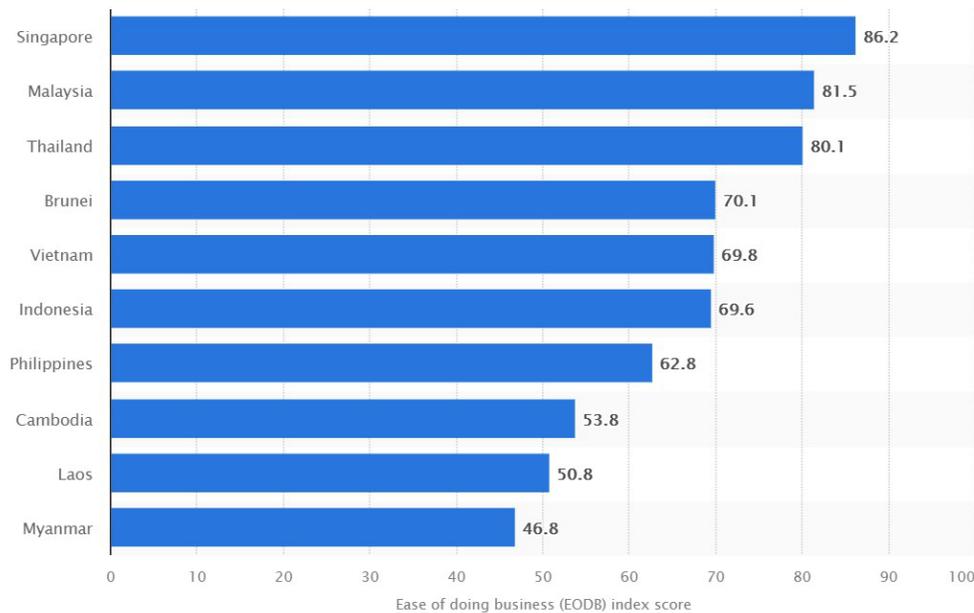


Figure 3. Rankings of ASEAN countries in terms of Ease of doing Business

Thus, ASEANs are fast in tackling the new changes in healthcare when compared with India.

4.4 Ease of Doing Business

● In India:

The government of India is set to reduce the time taken to start a new business from 18 days to five days with minimum procedures. Key services such as name registration for different taxes such as GST (Goods and Service Tax) will be done with two forms instead of multiple individual forms.

These two new forms namely ‘Spice Plus and ‘Agile Pro’ will replace existing six forms and would provide access to GSTIN, PAN, TAN, ESIC, EPFO, DIN, bank accounts and professional tax. Thus, these forms would be easier to use and make the work of businessman hassle-free. India ranks 14th to 63rd in the most recent rankings of the ease of doing business factor.

There are differences among ASEAN Member States (AMSs) in terms of business registration processes, particularly in terms of duration, cost, transparency and complexity. The 'starting a business' indication is based upon a complete database of start-up procedures, including time and costs, as well as minimum money required to be invested. Accordingly, in the above figure the countries are been ranked based on this indicator. It can be seen that Singapore ranks highest which makes an entrepreneur or any company to consider it first followed by Malaysia, Thailand and other countries.

The growth in sectors such as retail, manufacturing, telecommunication and transportation has made ASEAN powerhouse of the economy with an GDP of about 689.4 trillion Rs. in 2019. ASEAN states have continued to modernize legal and trade frameworks, as well as invest in infrastructure and advanced manufacturing capabilities, to make ease of doing business easier.

Although we notice that, India is improving in ease of doing business, still it is little behind these countries.

5. RESEARCH METHODOLOGY

We have done a secondary research using ProQuest, Journals, Research papers, etc. and analyzed this topic.

6. DISCUSSION AND CONCLUSION

Taking under consideration above all factors ASEAN countries are having better option for manufacturing goods, but now India is also focusing towards same through having changes in different policy like from Look East Policy to Act East

Policy, changes in labor law, pipeline of various infrastructure project, ease of doing business. Taking consideration fact of Indian government spending required for infrastructure every year is close to INR15 Lakh crore, whereas government spend close to INR7 lakh crore to INR8 lakh crore per annum. In 2019, largest investment in infrastructure has seen as overall private equity/ venture capital investment touches all-time high. Indian domestic private sector neither has amplitude nor aspiration to participate in infrastructure business so propel towards reaching the target will have to come from the government. The Master Plan on ASEAN Connectivity (MPAC) focuses on development of ASEAN countries in the areas of sustainable infrastructure, excellence in regulations, innovation in digitalization, mobility of people and hassle-free logistics.

7. ROAD AHEAD

➤ For ASEAN

By 2025, ASEAN's GDP is expected to increase to about 377 lac crores, primarily due to implementation of ASEAN Economic Community (AEC).

By 2030, ASEAN is expected to become the 4th largest market after EU, US and China by the support of favorable geographic location for trade and increased skilled workforce.

The Master Plan on ASEAN Connectivity (MPAC) focuses on development of ASEAN countries in the areas of sustainable infrastructure, excellence in regulations, innovation in digitalization, mobility of people and hassle-free logistics.

● Sustainable Infrastructure

ASEAN needs at least 7.9 lac crores of infrastructure investment every year. This is the big

opportunity which the master plan aims to help investors seize by developing a rolling pipeline of priority infrastructure projects and by helping member states improve infrastructure productivity to reduce the time and cost of projects.

- Excellence in Regulations

The Master Plan focuses on standards harmonization, mutual recognition and technical regulations, as well as addressing trade-distorting non-tariff measures.

- Innovation in Digitalization

The Master Plan will focus on supporting the digital adoption of micro, small and medium-sized enterprises, the development of open data promoting digital financial inclusion and establishing strong data governance frameworks.

- Mobility of People

The Master Plan would also make traveling information easily available for tourists thereby making the visa process simpler.

- Hassle-Free Logistics

The Master Plan aims to reduce the duration and cost of transportation in the region by identifying key bottlenecks in important trade routes and sharing best practices to remove them.

The Master Plan will develop high-quality qualification frameworks for critical vocational occupations which ASEAN could implement according to their national circumstances. Through the implementation of the Master Plan, ASEAN can strengthen its community-building efforts and demonstrate that the whole is truly greater than the sum of the parts.

➤ For India:

The Infrastructure sector has been on the top of the priority list for the government of India. It is estimated that about INR 101 lac crores would be spent by the Indian Government on infrastructure development of the country during the period 2019-23. Also, an investment of about 50 lac crores would be spent on railway infrastructure during the period 2018-30.

India have joined hands with Japan for the infrastructure development in North-eastern states of India and are also establishing India-Japan Coordination Forum for the development of strategic infrastructure projects in Northeast region.

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India to Gain Regional Leadership in Manufacturing Sector" Analysis of Indian Automobile Sector: To Gain Regional Leadership

*** Anuja Patole, Pallavi Pawar, Yogisha Pingle and Forum Mehta**
Co-author: Dr Jayashree Bhakay

Abstract

'The COVID-19 pandemic has shown the fundamental flaws in the current global supply chain, as well as the manufacturing industry's over-reliance on leading countries.' In core sectors such as electronics, FMCG, pharma, automotive (vehicles and auto ancillary), and others, several countries, including the United States and Japan, have begun to move manufacturing plants from China to India. Our research focuses on the automobile manufacturing industry, and as researchers, we want to highlight India's potential to become a regional leader in this field.

This needs improvement

Pointers for improvement: Significance of Automotive Industry for a country's economy. Then the two major divisions of automotive sector as ancillary and automobile.

Then the importance of automobile industry in the country's economy.

Then the advantage of India as the important destination for automobile sector Major happenings pre-covid and post-covid

Cluster development, import-export, collaborations, etc.

Country's need: employment generation, efficient and effective utilisation of resources, attracting FDIs, regional economic development, opportunities to non-industrialised states, dispersal of economic resources, infrastructure network

Keywords: *Swot Analysis, Porter's 5 Forces of Analysis, Case Study Analysis.*

INTRODUCTION

In India, the automotive industry is one of the most significant. The key to India's growth, as in any other country, is a well-developed transportation system, which is where the automobile industry

plays a strategic role. The Indian government has been nurturing the automotive industry through policy initiatives, recognising it as one of the key or pillar industries for achieving economic development. The Indian automotive industry is regarded as a major driver of production, exports, and jobs

* Ms. Anuja Patole, Ms. Pallavi Pawar, Ms. Yogisha Pingle and Ms. Forum Mehta
Students of Chetana's R K Institute of Management & Research, (CRKIMR), Mumbai.
Co-author: Dr Jayashree Bhakay, Chetana's R K Institute of Management & Research, (CRKIMR), Mumbai.
Email: jayashree.bhakay@crkimr.in

due to its interconnections with other industrial sectors. As a result, it has been designated as a sunrise field in the Indian economy.

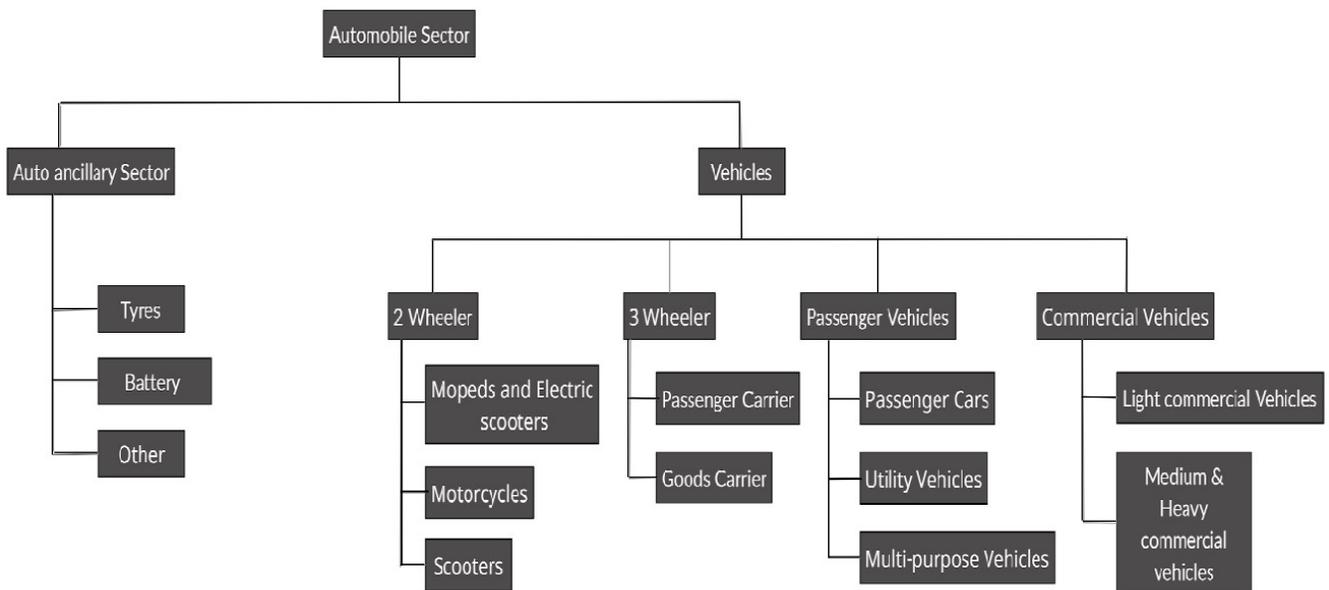
The COVID-19 pandemic has had a long-term and short-term effect on all stakeholders in the value chain. The consequences ranged from a lack of raw materials, manufacturing moving to other countries, and a liquidity crunch to model delays, postponed releases, and a drop in market demand. During this time, all segments of the automobile industry, including the auto ancillary sector, saw a decrease in revenue. However, with all of the precautions people are taking to avoid being infected with the virus, they are opting to buy private vehicles, especially two-wheelers, rather than use public transportation.

Though the industry has grown at a 2.36 percent compound annual growth rate (CAGR) between fiscal years (FY) 2016 and 2020 (Automobile Industry in India, Indian Automobile Industry, Business, Trends, Statistics, n.d.), companies in the sector have also experienced periodic slumps.

OBJECTIVES

- To analyze the Automotive and Auto Ancillary sectors of India with the help of secondary data.
- To study the impact of covid 19 on the automobile industry with the help of examples.
- To examine the proportion of automotive exports from India.
- To conduct a swot analysis and porter’s 5 forces analysis of the automobile industry.

Classification of Automobile Sector



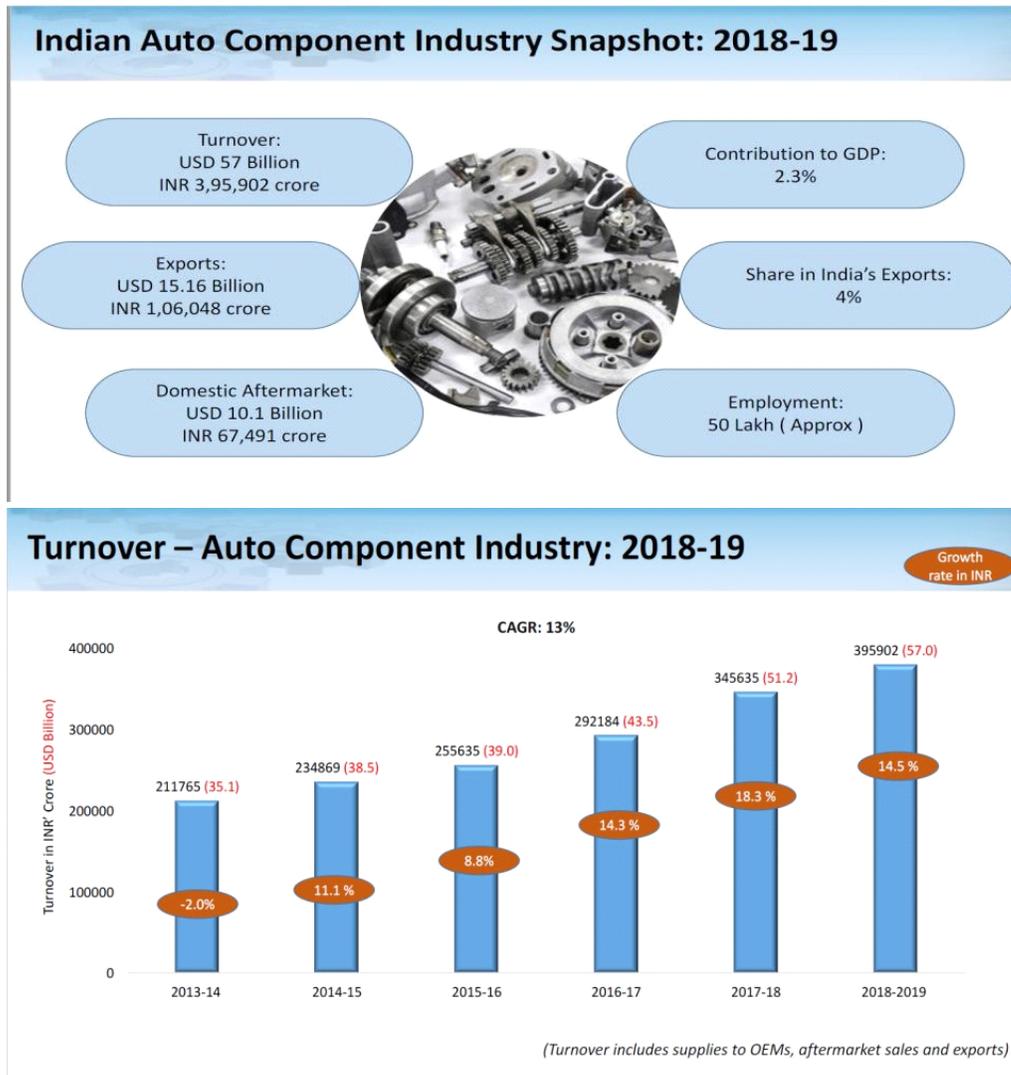
Source: India brand equity foundation official website

**INDIA TO GAIN REGIONAL LEADERSHIP IN MANUFACTURING SECTOR”
ANALYSIS OF INDIAN AUTOMOBILE SECTOR: TO GAIN REGIONAL LEADERSHIP**

The automotive industry is divided into two sections: auto ancillary and automobiles. Tyres, batteries, mirrors, dashboards, and other auto ancillary items are all parts that go into making a finished car. Vehicles are divided into four categories, which are as follows: Mopeds, scooters, bicycles, and hybrid two-wheelers are examples of two-wheelers; three-wheelers, passenger cars, recreational vehicles, and multi-purpose vehicles are examples of three-wheelers; and commercial vehicles are examples of four-wheelers.

Auto Ancillary

Auto product suppliers directly and indirectly employ 1.5 million workers, accounting for 2.3 percent of India’s GDP. According to the Automobile Product Manufacturers Association, India’s automobile component exports are expected to reach US\$ 80 billion by 2026. (ACMA). The Indian auto parts industry aims to produce \$200 billion in revenue by 2026.



Source: <https://www.acma.in/auto-component.php>

A. Tyre Segment

1. **MRF Limited-** In terms of net revenue and MCAP, MRF Limited is India’s largest tyre company. MRF has come a long way since then, gaining a quarter of the industry and expanding its reach to 65 countries. MRF manufactures and sells tyres for passenger cars, bicycles, bikes, coaches, farm equipment, Pickup, 3-Wheeler, and other vehicles.
2. **Balkrishna Industries Limited (BKT)-** Balkrishna Industries Limited (BKT) is a leading producer in the Off-Highway tyre industry. Mining, earthmoving, agriculture, manufacturing, and other commercial tyre segments fall under this category. With a 6% global market share, BKT has developed into a global leader in the Off-Highway tyre industry.
3. **Apollo Tyre-** The company currently makes radials for cars, bikes, and a host of other commercial vehicles.

B. Battery Segment

1. **Exide Industries-** Exide, an Indian firm, is one of the world’s largest battery manufacturers. The firm offers automobile and commercial lead-acid batteries with capacities ranging from 2.5Ah to 20,500Ah.
2. **Amara Raja Batteries-** Amara Raja Batteries is one of the largest manufacturers of lead acid batteries for both industrial and automotive applications.
3. **HBL Power Systems LTD-** HBL Power Systems LTD sells advanced batteries and found that the aircraft industry is one of its main

customers. Apart from airlines, the company also supplies batteries to railways, defence, and other heavy industries.

C. Other Auto Ancillary Industry Companies

1. **Bosch Ltd-** After buying a 49 percent stake in Motor Industries Company Ltd in 1951, the company entered India in 1922 but did not foray into the auto ancillary until 1951. (MICO). The automobile industry accounts for 84 percent of the company’s sales in India. Bosch has a revenue of over \$3 billion and operates 18 manufacturing facilities as well as seven production and technology centres.
2. **Motherson Sumi Systems Limited (MSSL)-** MSSL is a major provider of plastic parts and modules to the automotive industry, specialising in automotive wiring harnesses, dashboards, door trims, bumpers, and mirrors for passenger vehicles.
3. **Endurance Technologies-** Any of the company’s offerings include aluminium die-casting products, two-wheeler aluminium alloy wheels, shock absorbers, front forks for motorcycles, hydraulic and gas-charged dampers, rotary brake discs, hydraulic drum brakes, and tandem master cylinders. In India, there are 16 packaging plants and two in Germany.

Vehicles

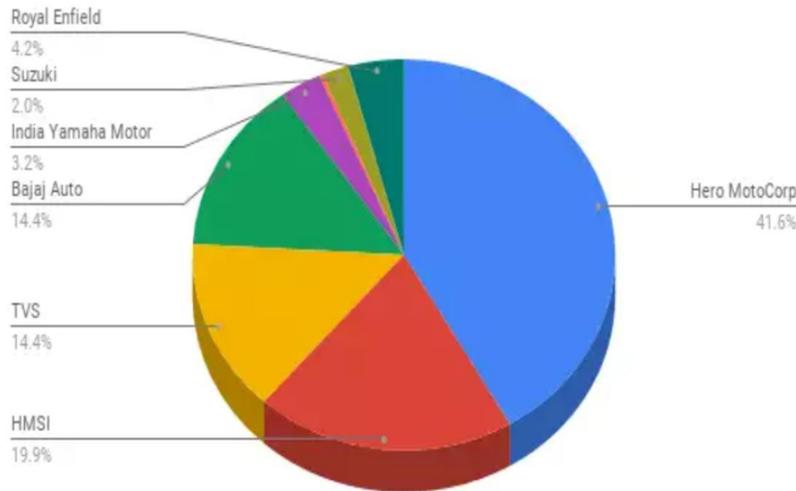
A. Two wheeler vehicles

India, the world’s second most populous nation, has a large middle and lower class population. Since transportation is still a problem in India, many people in these segments are looking forward to the 2-Wheeler Industry. This industry includes

vehicles such as motorcycles, scooters, and mopeds, which vary in price from economical to luxurious. By 2025, the overall number of motorcycles,

scooters, and mopeds is projected to reach 63 million units, representing a 3.7 percent annual growth rate.

Two wheelers: Q1 FY 2020-21 Market Share



Source: ACMA

In terms of market share, the leaders, Hero MotoCorp and Honda Motorcycles & Scooters, shed some muscle to enable Bajaj Auto to increase its slice of the pie. In FY19, Bajaj Auto increased its market share to 13% from 9.8% in previous years. In FY 2020, the Indian two-wheeler industry saw an 18 percent drop in revenue compared to the previous year. The total number of units sold was 17.5 million. The Indian motorcycle industry suffered its worst decline ever in 2020, with 14.8 million units sold (-23.3 percent). However, the fourth-quarter revenue turnaround was solid, with December sales increasing by a massive 32 percent.

B. Three wheeler vehicles

Three-wheeled vehicles have the biggest market in Asia Pacific. India is the world’s largest market for three-wheeler vehicles in terms of both sales and production.

India’s ICE three-wheeler industry was priced at USD 636.57 million in FY2020 due to growing population in tier 1, tier 2, and tier 3 towns and cities. The fast manoeuvrability and high fuel efficiency of three-wheelers, as well as the growing popularity of app-based three-wheeler booking services, are driving up demand in India.

In FY 2019-20, India sold 6,36,569 3-wheelers (load+passenger), with 5,02,169 exported. There are two kinds of vehicles in the industry: cargo carriers and load carriers. With an 82.48 percent market share in FY2020, passenger carriers dominated the bulk of the market.

Due to a 49 percent rise in exports, the three-wheeler segment saw a robust 24 percent increase in overall volume (sales) in the financial year 2019.

Passenger 3 Wheelers	FY 2020	FY 2019	Growth
Bajaj Auto	3,34,714	3,68,198	-9%
Piaggio	1,05,460	1,12,300	-6%
M&M	43,242	48,006	-10%
Atul Auto	23,275	24,812	-6%
TVS	11,934	16,706	-29%
Mahindra Electric	4,042	559	523%
Scooters India	2,344	1,802	30%
Force Motors	4	0	-
TOTAL	5,25,015	5,72,386	-8%

Load/Goods 3 Wheelers	FY 2020	FY 2019
Piaggio	46,906	57,670
Bajaj Auto	30,103	30,628
Atul Auto	17,436	19,701
M&M	14,903	18,134
Scooters India	2,206	2,486
TOTAL	1,11,554	1,28,619

Source: autopunditz.com

Even the three-wheeler segment was not immune to the auto industry’s slowdown and corona effect. In FY20, compared to FY19, the 3 Wheeler Passenger segment saw a -8 percent decrease. In FY2020, Bajaj Auto was the strong market leader in the three-wheeler passenger segment, with a market share of 63.8 percent.

Piaggio came in second on the chart, with a market share of over 20% in FY20. In the 3 wheeler passenger category, Piaggio+Bajaj had a lion’s share of 83.9 percent! Mahindra Electric had a strong year in FY20, selling over 4000 passenger three-wheelers. It also increased its Market Share to 0.8 percent in FY21 and is expected to grow even further. The passenger segment is dominated by Bajaj, while the load segment is dominated by Piaggio. In FY2020, Piaggio had a 42 percent market share, while Bajaj had a 27 percent market share. Bajaj went all out in FY2020, gaining 3.2 percent over the previous year! This was possible because Bajaj had one of the lowest degrowth rates in the previous fiscal year. It’s worth noting that the overall segment is down -13 percent year over year, with Bajaj down -2 percent.

C. Commercial Vehicles

Despite being one of the smallest segments of the

Indian automotive industry, the commercial vehicle segment has carved a niche for itself as one of the region’s leading commercial vehicle markets. In India, the commercial vehicle segment is inextricably linked to other business sectors, making it the first to crash and the last to recover.

Light Commercial Vehicles (LCV)

Mahindra and Mahindra: With a Market Share of over 42% in FY2020, M&M has been the undisputed leader in the group. M&M dethroned the previous leader, Tata Motors, in 2015 and has held the position ever since.

Tata Motors: In FY2020, Tata Motors came in second with a market share of 39.3 percent. The fight for the LCV throne between Mahindra and Tata has always been fascinating.

Ashok Leyland: Dost and Partner, a division of Ashok Leyland, has been vying for market share in the light commercial vehicle segment. For FY2020, they were able to secure a market share of 9.8%.

Maruti Suzuki: In the last 4-5 years, Maruti Suzuki’s Carry has grown in popularity exponentially.

However, the OEM was not immune to the downturn last year, and saw a decline in FY20 compared to FY19.

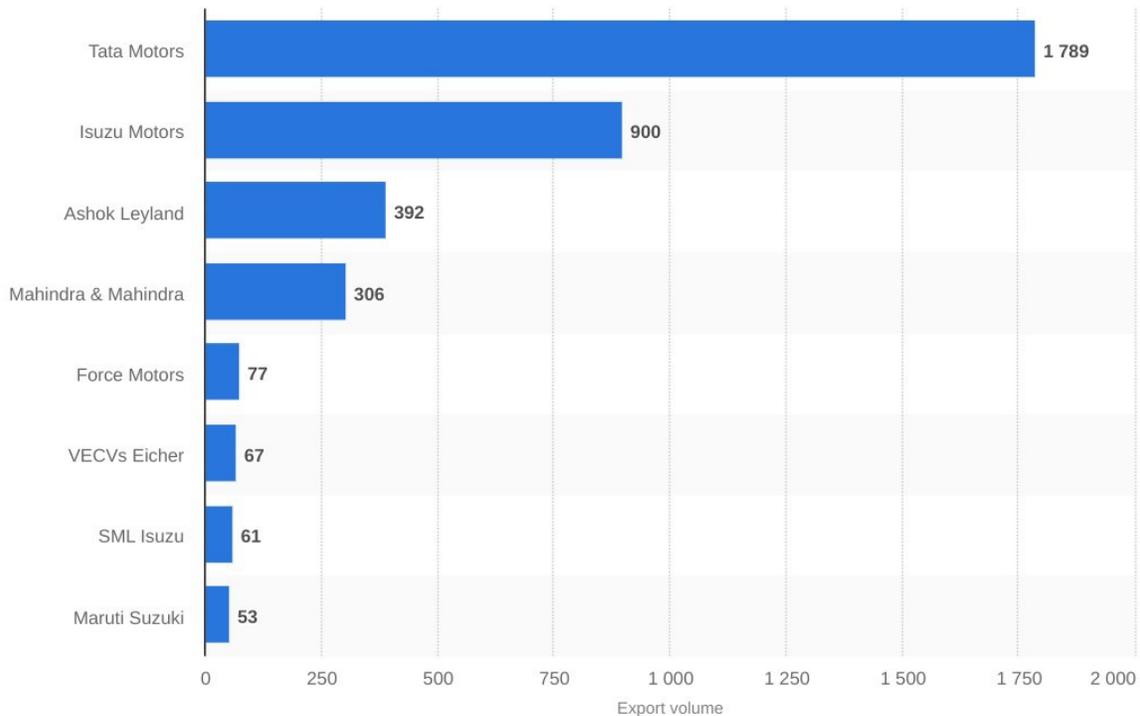
Medium and Heavy Commercial Vehicles (M & HCV)

Ashok Leyland: With a market share of over 45 percent in FY2020, Ashok Leyland was the category’s market leader. Surprisingly, it was the only OEM to rise in FY20 compared to FY19!

Tata Motors: Tata Motors had a market share of 35%, and together with Ashok Leyland, they controlled over 80% of the market!

VECV & Swaraj Mazda Isuzu Limited: It was ranked 3rd and 4th, respectively. However, they are well behind the likes of Leyland/Tata in terms of volume in the group.

Commercial vehicle sales in India increased significantly in November, as the country’s economic recovery gained traction after months of stagnation. According to a study by Care Ratings, retail sales of commercial vehicles increased 12.7 percent month over month in November, as the country saw a steady rise in infrastructure activities and development in the e-commerce market. The increase in demand, however, was primarily seen in light commercial vehicles.

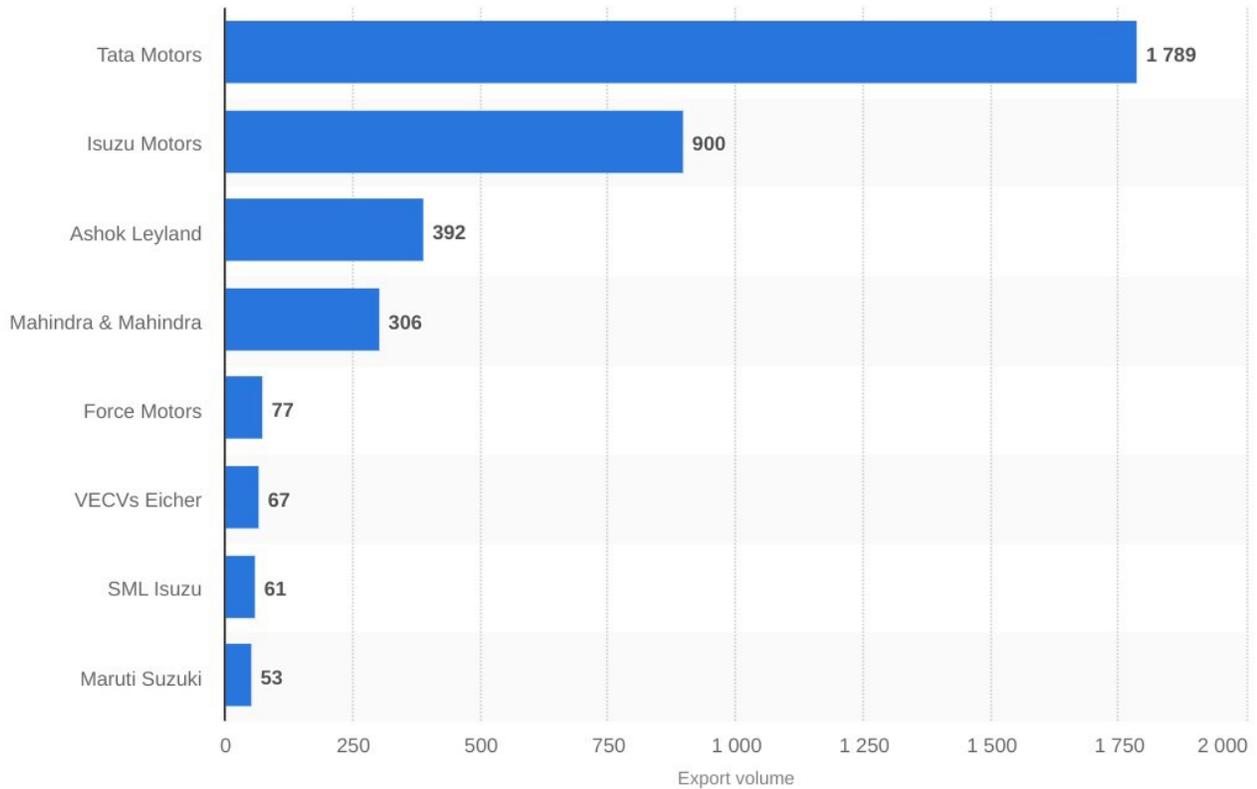


Source: Statista

Although demand for buses was muted as most schools remained closed and a large number of Volume of Commercial Vehicles Export from India

in March 2020, from manufacturer offices still practised the work-from-home culture, demand for medium and heavy commercial vehicles was also muted.

**INDIA TO GAIN REGIONAL LEADERSHIP IN MANUFACTURING SECTOR”
ANALYSIS OF INDIAN AUTOMOBILE SECTOR: TO GAIN REGIONAL LEADERSHIP**



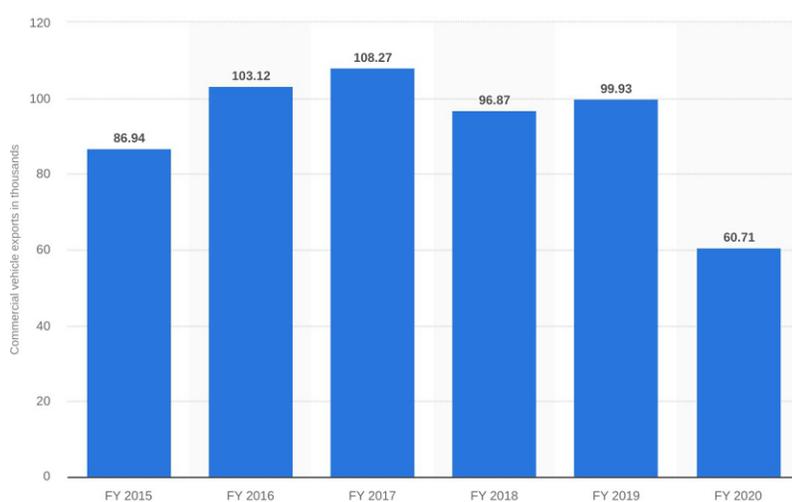
Export volume of Commercial from India between FY 2015 and 2020

Source: Statista

D. Passenger Vehicles-

In the fiscal year 2019, India manufactured over four million passenger vehicles. Within the market, it took about seven years to raise production volume

from three million to four million. Around three million units were sold domestically out of a total production volume of over four million.



Source: Statista

Sales of passenger vehicles (PV) rose by 13.59 percent in December 2020, according to data from the industry body SIAM (Society of Indian Automobile Manufacturers), with 252,998 units sold compared to 222,728 units in December 2019. This represents a significant increase in PV revenue after a 4.65% increase in November. India’s car exports are forecast to drop by around a quarter in 2020 compared to 2019. 3.87 million vehicles were exported, including 277 000 passenger cars and 150 000 utility vehicles. Ford EcoSport, Chevrolet Beat, Hyundai Verna, Kia Seltos, Hyundai Creta,

and Nissan Sunny are among the top car models exported from April to December of this year. Ford India was the largest car exporter in FY18, with over 181000 vehicles delivered overseas.

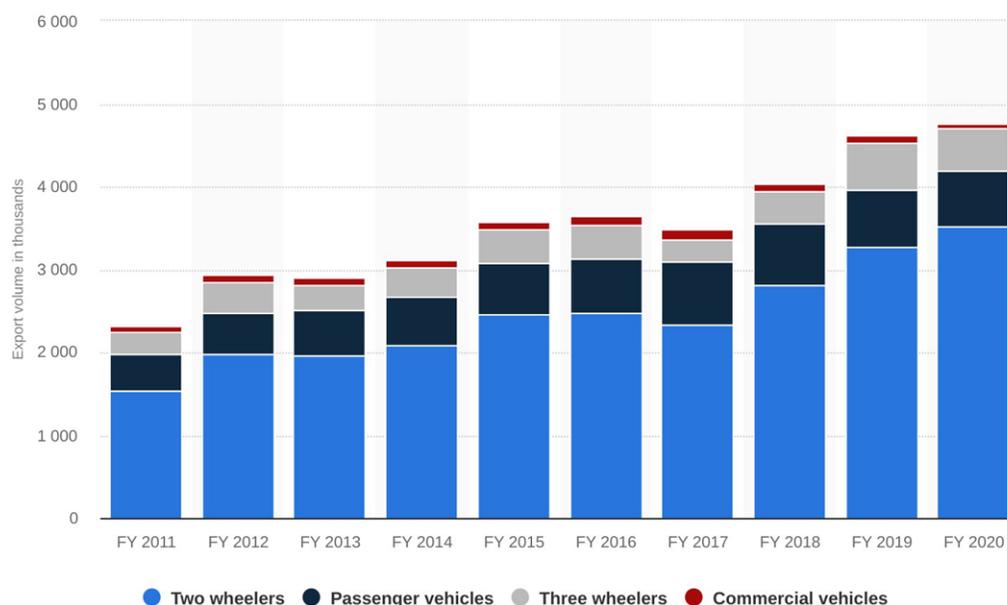
After suffering serious setbacks as a result of the COVID-19 pandemic, India’s automotive industry is on the mend. Passenger vehicle sales in India fell by 78 percent between April and June 2020, costing the country an estimated Rs. 2,300 crore per day during the lockdown.

Domestic Motor Vehicle Sales (2019-20)

Vehicle Type	Sales (thousands)
Passenger	2,774
Commercial	718
Three wheelers	637
Two wheelers	17,418
Quadricycles	1

Source: knownet.in

Export volume of automobiles from India from financial year 2011 to 2020



Source: Statista

The export volume of two-wheelers from India was about 3.5 million units at the end of fiscal year 2020. In recent years, the export sector has experienced double-digit growth. Bajaj Auto was the leading two-wheeler exporter from the south Asian region, accounting for nearly half of all exports, followed by TVS Motors, which accounted for about 20% of all exports.

At the end of fiscal year 2020, India exported over 500 thousand three-wheelers. Two-wheelers and passenger vehicles dominated India’s automotive industry. In terms of revenue, small and mid-sized cars accounted for roughly 13% of the total 2.9 million vehicles sold. Two-wheeler sales, on the other hand, accounted for more than 80% of total sales. From FY16 to FY20, auto exports increased by 6.94 percent, hitting 4.77 million vehicles. Two-wheelers accounted for 73.9 percent of all vehicles shipped, with passenger vehicles (14.2 percent),

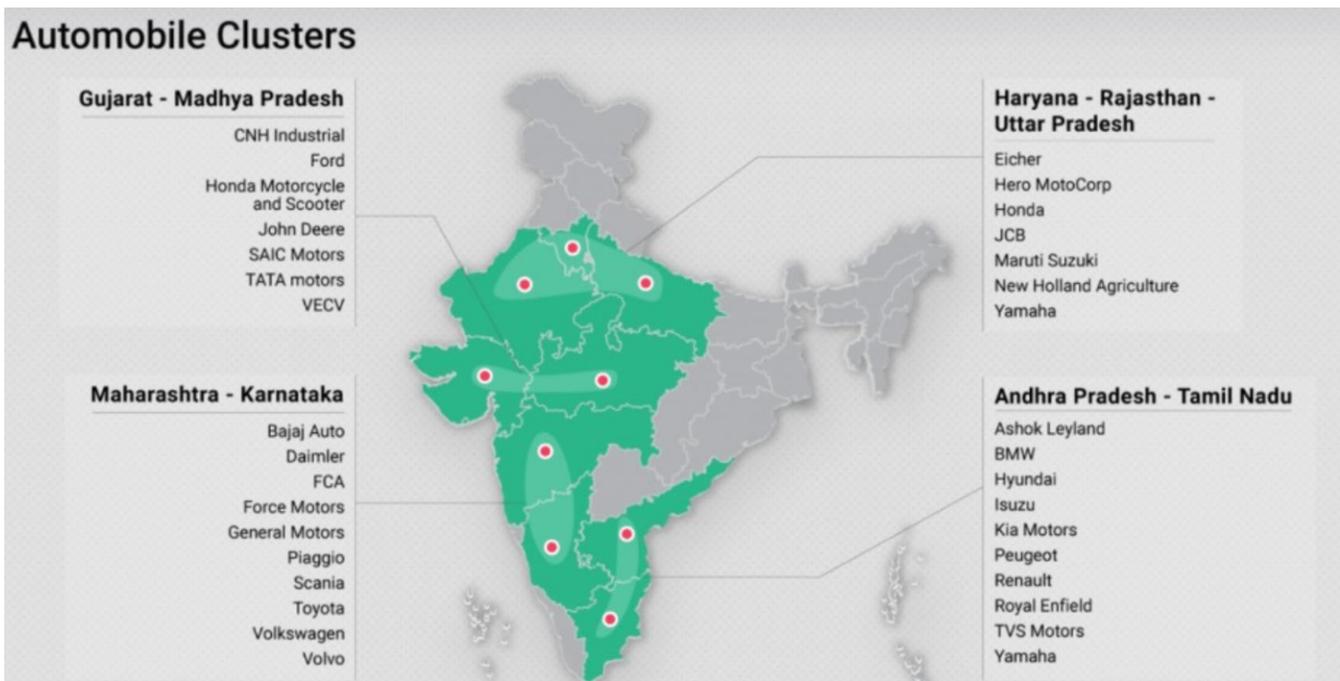
three-wheelers (10.5 percent), and freight vehicles accounting for the remaining 10.5 percent (1.3 percent).

Demographic Distribution (Automobile Cluster Development)

The majority of India’s car manufacturing industry is based around four clusters

- I. Delhi-Gurgaon-Faridabad-Ghaziabad-Gautama Buddha Nagar in (North),
- II. Mumbai-Pune-Nasik-Aurangabad-Thane in (West) and
- III. Chennai – Bangalore-Dharmapuri-Vellore-Kanchipuram-Thiruvallur in (South)
- IV. Kolkata-Jamshedpur in (East).

The southern cluster, which includes Chennai, is the largest, accounting for 35 percent of total revenue. The western hub near Mumbai and Pune accounts for 33% of the industry, while the northern

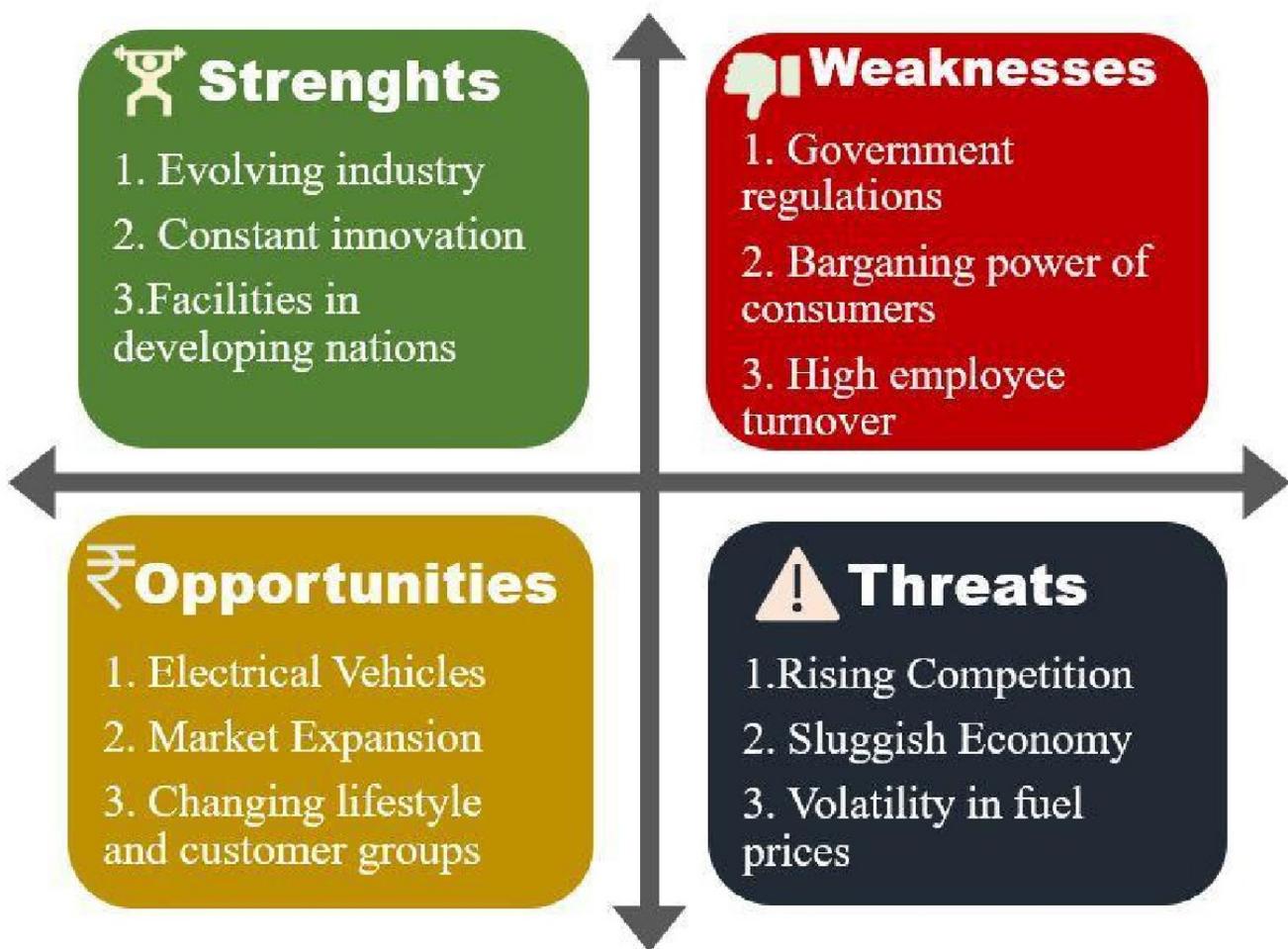


Source: Invest India

cluster near the National Capital Region accounts for 32%. Ashok Leyland, Ford, Hyundai, Renault Nissan, BMW, Hindustan Motors, and Daimler all have India operations in Chennai. Chennai is also home to 60% of the country’s automotive industry. The northern cluster, which includes Gurgaon and Manesar in Haryana, is home to Maruti Suzuki,

the country’s largest car manufacturer. The western cluster is located near Pune, Maharashtra, and includes companies such as GM, Volkswagen, Skoda, Mahindra and Mahindra, Tata Motors, Mercedes Benz, Land Rover, Jaguar Cars, Fiat, and others.

SWOT Analysis for Indian Automobile Sector



Strength

Evolving industry: The car industry is a rapidly expanding industry that contributes to overall growth and development. The automobile industry’s advancements in convenience and quality of living can only boost demand for cars in the future.

Constant product innovation & technological advancement:

Automobile companies are growing R&D investment to accelerate the next step of development through the use of green energy sources, such as Shell gas, CNG, and others, with

the introduction of E-vehicles and alternative fuels such as Shell gas, CNG, and others.

Manufacturing facilities in Asian nations to control cost: Automobile firms such as Harley-Davidson, Volvo, Bharat Benz, and others are establishing manufacturing facilities in developed countries such as India and China in order to keep costs under control and manage declining margins. These countries have optimal conditions, such as a low-cost population, abundant capital, and proximity to developed economies.

Weakness

Bargaining power of consumers: The car industry has changed from a demand to a supply market over the past three to four decades. Customers now have the power to pick whatever they want thanks to the availability of a large range of variants, fierce rivalry among them, and a long list of alternatives to choose from.

Government regulations: Automobile firms face significant hurdles from regulations such as excise tax, no admission of outside vehicles into the province, declining registration date validity, and fuel price fluctuations.

High employee turnover: As compared to other industries, the car industry has a higher workforce turnover rate. Furthermore, recruiting and retaining workers in the automotive industry can be difficult, especially as rivals are doing all they can to entice the best talent.

Opportunities

Fuel-efficient vehicles: The car industry has a lot of prospects for optimising fuel-driven combustion engines and implementing cost-cutting policies.

Changing lifestyle & customer groups: Improved data and information access, a shift in consumer demand, and expanded regulatory requirements for safety and fuel efficiency will all contribute to the industry’s progress.

Market expansion: The demand for vehicles will skyrocket as new markets, such as Asia and the BRIC nations, are opened up. Other markets are still expected to emerge in the near future.

Threats

Rising competition: Since there are so many competitors in the car industry, there is fierce rivalry and firms are cutting away each other’s market share, leaving no room for newcomers.

Sluggish economy: The car industry would be hampered for a long time by macroeconomic instability, stagnation, unemployment, and other economic factors.

Volatility in fuel prices: Fuel price variations continue to be the determining factor for success in the market sector. Government rules governing the use of unconventional fuels such as CNG and Shell gas are also having an effect on inventories.

Porter’s 5 Forces of Analysis

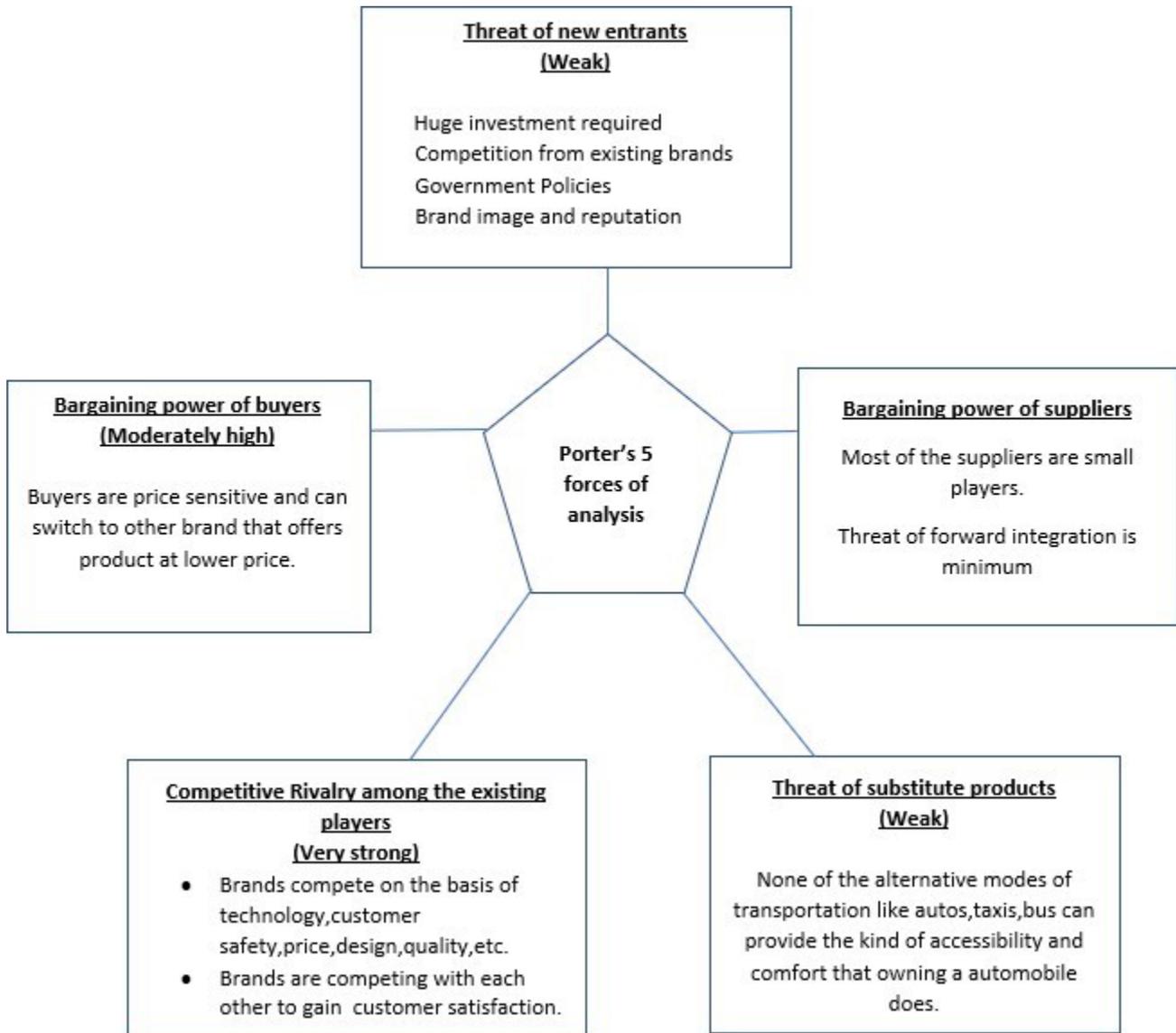
In strategic planning, Michael Porter’s Five Forces concept is often used. Porter’s dynamic five powers concept is one of the most widely used corporate planning techniques, and it has been shown to be useful in a variety of scenarios when examining strategic management models.

External rivalry is listed in three of Porter’s five powers. The others are challenges from inside. Porter’s five powers should be used in combination

with a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats).

A change in some of the powers, in most cases, necessitates a re-evaluation of the marketplace due to the general change in industry knowledge. The

competitiveness of the business as a whole does not mean that any company in it would be profitable. Firms should use their core competencies, business strategy, or network to earn a return that is higher than the industry average.



Source: notesratic.com

CONCLUSION

All of the above research has led us to believe that India has the potential to become a regional pioneer in the automobile manufacturing industry. The pandemic has impacted all industries worldwide, but India, with its many benefits, is on the way to reviving its economy. The following are some of the variables that will help this industry grow:

Government Policies

a) According to data published by the Department for Promotion of Business and Internal Trade, the industry received US\$ 24.53 billion in foreign direct investment (FDI) between April 2000 and June 2020. (DPIIT).

b) **Government Initiatives :(with reference to Union Budget 2021)**

The auto scrapping scheme, which states that “private cars older than 20 years and considered unfit/polluting would be scrapped, and for commercial vehicles, the age is up to 15 years,” is the budget’s greatest hit. As a result, enacting this strategy would result in a surge in car production.

Global investment in India’s infrastructure sector would benefit from a tax exemption of 100 percent on wages, dividends, and capital gains, which is expected to fuel vehicle production.

Human Resources

- a. Cheap and Skilled Labor
- b. Youth centric economy
- c. Large consumer base

Infrastructure and location availability

Various Indian and foreign companies are establi-

shing manufacturing plants in cities such as Pune, Aurangabad, Chennai, Gurgaon, and others that have enough land to meet their needs. People working in and near these areas will be able to find work as a result of this.

Logistics and transportation

Since India has the world’s largest road network, it is by far the most used mode of transportation. New policies will be developed, and the face of the logistic industry will transform as new and larger warehouses and inventories are built to improve the quality of merchandise distribution. To boost the speed and reliability of freight movement, the government has successfully launched a number of projects that will improve the country’s road and rail networks. With improved connectivity between major cities, dedicated industrial corridors are being built, which will benefit the country’s manufacturing sector.

VISION OF INDUSTRY LEADERS STATING THEIR CONFIDENCE IN THE INDUSTRY

“With the health crisis expected to continue for some time, rise in personal mobility is likely to help the auto industry sustain sales momentum in the coming months. With the government announcing that the first batch of novel coronavirus vaccines will arrive soon in India, we expect improvement in consumer sentiment leading to positive sales trend and business normalcy” -

Rajesh Goel,

**India Senior Vice President and Director
Marketing & Sales, Honda Cars.**

“If all companies bring down the inventory level to 20-25 days and also do a very good inventory control in their plants and to the suppliers, the auto industry could take out as much as Rs 50,000 crore

from the working capital”.

**Pawan Goenka,
MD & CEO, Mahindra & Mahindra.**

“Post-COVID, the world has changed. Customers are now seeking safe, personal mobility solutions. We see a clear shift toward ownership for both two-wheelers and four-wheelers; because [of the virus], both are considered to be much safer to use than public transport. We are seeing an increase in first-time buyers, customers who possibly wouldn’t have had such priorities before. Convenient financing and lower down payments are contributing to this.”

**Guenter Butschek,
Ex-CEO, Tata Motors.**

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Customer Perception of Youth Towards Made in China Consumer Electronic Goods

*** Sailesh Kukreja, Keyur Thadeshwar, Aishwarya Nair and Someshwari Sawant**
Co-author: Dr Rashmi Jain

Abstract

India and China are among the biggest developing nations and the fastest growing economies in the world. Nevertheless, most notably, they are among the key rising powers in Asia. The bilateral trade between the two countries has reported exponential growth since the start of the current decade. India was China's 12th largest trading partner in the year 2019.

In year 2019, India's exports to china amounted to US\$ 17.97 Billion as against US\$ 74.92 Billion of Imports, thereby facing a trade deficit of US\$ 56.95 Billion with an overall drop of 4.55% in exports and drop of 2.54% in imports of India corresponding to FY 2018 (As per Embassy of India, Beijing, China). In 2019-2020, India's imports from China in electronic and related products amounted to US\$ 7030 Million out of which consumer electronics like Television, Mobile Phones and Personal computers amounted to US\$ 3234.70 Million which is 46.01% (The India Forum 2020). In 2020, for the period from January to September, India's exports to china stood at US\$ 15.32 Billion against US\$ 45.18 Billion in Imports which has seen a massive drop of 14.90% corresponding to FY 2019 (As per Embassy of India, Beijing, China). The massive drop is due to reasons like Covid-19 Catastrophe that disrupted the world economy, the India-China Border Standoff and the growing Anti-China sentiments.

Bilateral relations with China have been strained by the restrictions and regulations imposed by the Government of India in favour of anti-China sentiments. Small and medium traders under Swadeshi Jagran Manch and the Confederation of All India Traders, gave open calls to boycott Chinese goods. Increased inspection of Chinese goods at ports and consequent delays followed this. The government also wanted, to reduce its dependence on Chinese imports and encourage indigenous development. For selected goods, certain curbs have also been imposed in the form of increased import duties.

Tensions between India and China have its origins from the year 1962 when the first Indo- China war broke out over border disputes which continues till date. The root cause lies in an un-defined, 3,440km long border shared between these Asian giants. Rivers, lakes and snow-caps along the frontier mean the line

* Sailesh Kukreja, Keyur Thadeshwar, Aishwarya Nair and Someshwari Sawant
Students of Chetana's Institute of Management & Research, (CIMR), Mumbai.
Co-author: Dr Rashmi Jain, Faculty, Chetana's Institute of Management & Research, (CIMR), Mumbai.
Email: rashmi.jain@cimr.in

can shift, bringing soldiers face to face at many points, sometimes leading to confrontation. During the beginning of 2020, the two Asian giants faced off against each other at the disputed border in the Ladakh region.

In the wake of the face-off with Chinese forces on the India-China border in Ladakh, and a violent clash on June 15, 2020 that left 20 Indian soldiers dead the Indian government brought about a counter move by banning 59 Chinese mobile applications on June 29, 2020, followed by another 118 of the Chinese apps on September 2, 2020 and 43 more of them on November 25, 2020, which are prejudicial to sovereignty and integrity of India, defence of India, security of state and public order. The list of banned mobile applications included popular mobile application like WeChat, PubG, TikTok, Cam Scanner, Shien, AliExpress etc.

Further with Indo-China relations worsening, the Indian consumers are hoping to hit China economically by calling for a boycott of Chinese products. Prime minister Narendra Modi's vision to make India self-reliant through "Atmanirbhar Bharat Abhyan" and the "Vocal for Local" initiative also in the similar lines calling to promote domestic manufacturing, and this can also have an effect on the bilateral trade relations between both the countries.

The Government of India in addition to this has also asked Ecommerce players in the country to comply with the Department for Promotion of Industry and Internal Trade (DPIIT)'s order of mentioning the 'country of origin' on items (Business Today August 26th 2020).

The world is sharing a similar sentiment for China. Many Countries like USA, UK and Australia allege that Chinese companies are a threat to the internal security of a country as a result of which many of them have banned Huawei and ZTE, the company's products may purposely contain security holes that China's government could use for spying purposes. Also USA was contemplating banning TIK TOK a Chinese application after India sighting national security concerns as personal data of American users could be obtained by Chinese government.

Keywords: *Consumer Behaviour, Country of Origin, Youth, Electronics*

INTRODUCTION

Problem statement

We want to study whether Indian companies and Indian customer can rely on Indian Products and make India Atmanirbhar.

Scope of study

India and China are among the biggest developing

nations and the fastest growing economies in the world. Nevertheless, most notably, they are among the key rising powers in Asia. The bilateral trade between the two countries has reported exponential growth since the start of the current decade. India was China's 12th largest trading partner in the year 2019.

In year 2019, India's exports to china amounted to

US\$ 17.97 Billion as against US\$ 74.92 Billion of Imports, thereby facing a trade deficit of US\$ 56.95 Billion with an overall drop of 4.55% in exports and drop of 2.54% in imports of India corresponding to FY 2018 (As per Embassy of India, Beijing, China). In 2019-2020, India's imports from China in electronic and related products amounted to US\$ 7030 Million out of which consumer electronics like Television, Mobile Phones and Personal computers amounted to US\$ 3234.70 Million which is 46.01% (The India Forum 2020). In 2020, for the period from January to September, India's exports to china stood at US\$ 15.32 Billion against US\$ 45.18 Billion in Imports which has seen a massive drop of 14.90% corresponding to FY 2019 (As per Embassy of India, Beijing, China).

As India and China trade in Plethora of items from chemicals to toys we have limited the scope of study to electronics and electronics which are popular among youth like mobile phones, headsets etc

OBJECTIVE OF THE STUDY

The research objective is to find the customer perception of youth (age 18-40 years) towards made in China products in the category of consumer electronic products like Mobile phones, earphones, tablets, speakers etc. The study further investigates whether the perception varies for products that belong to Non-Chinese brands (like Apple, Sony etc.) but manufactured in China and products that are manufactured in China and are sold under Chinese brands like Huawei, Oppo, Vivo etc.

In order to fulfil the objectives of the study the following constructs are considered:

- Country Image: this includes image of country-of- origin as aspects like hostility, aggression, ethical etc.
- Price: this construct measures the price sensitivity of the customers via set of questions
- Product Image: this construct includes product quality, durability, availability etc.
- Brand Image: it includes perception towards the brand, and loyalty towards the brand.
- Purchase Intention: it measures the willingness to buy the product which is 'Made in China'

LIMITATION OF THE STUDY

Our study was conducted only in the region of Mumbai If the study can be expanded in the future in other towns and cities it would give a better geographical coverage to the study.

Literature Review

Extant of literature was reviewed. A summary of few key literature is presented below:

Rezvani and Dehkordi (2012), The study found that ethnocentrism did negatively impact the intention to purchase products from less developed countries, while it did not have any significant influence on the intention to purchase products from economically advanced countries. Also, for some countries, country of origin perceptions, serving as a product quality cue, positively influenced purchase intentions.

Kulshreshtha and Tripathi (2017), examined the Indian consumers' decision-making regarding consumer durable goods i.e., split air-conditioner on the basis of several factors like brand equity, price, advertisement type, celebrity, country-of-origin under multi cue situation. The relative importance

of these attributes was determined using part-worth analysis.

Research in Malaysia found that price and product quality were the most important concern that customers have while buying Chinese products. Two other independent variables (country of origin and product type) do not have significant influence on the customers' perception towards buying Chinese products. However, it can be readily seen that price influences on the purchase decision represents a separate effect apart from the other factors that influence the customers' perception towards buying Chinese products (Sarwar, Azam. Et.al, 2013).

Yunusa & Edura (2016), found that there is positive relationship between country image and purchase intention. On the other hand, a significant relationship exists between perceived product quality and purchase intention. In investigating the influence of country-of-origin on consumer purchase decision, perceived quality is considered to be one that mostly affects. Other than that, a very highly positive correlated relationship between brand familiarity with purchase intention is also consistent. The product familiarity has been found to be a predictor of how well consumers are able to classify products and brands in terms of their respective origins that lead to consumer purchase intention.

Bhullar and Singh (2017), found that nationalism was a influencing factor influencing perception and attitude of Indian consumers. Status and Recognition was significant factor that benefits to the foreign brands. Further, Country of Origin is not the most influential factor of product that affects the consumers' perception and their buying behaviour. Just the name of Country of Origin on the label of product does not drive the consumers to

buy the product but the attributes like quality, price, after sale services, performance also have been emerged as the influential factors. Consumers prefer local brands to foreign brands if they get same product attributes (features, quality, performance etc.) at lower price in the local market. Consumers' ethnocentrism is also the influential factor as consumer prefers value for money rather than simple tag of country. Make in India campaign also boost the consumers' ethnocentrism.

Uyar (2018), showed that a majority of consumers have a negative attitude against Chinese products, that they do not want to buy these products, and that country of origin has a significant influence on their buying preference.

Gap: Though there have been various studies conducted investigating the perception of foreign products there were no suitable studies that would elaborate perception of Chinese electronic products amongst Indian youth to cover this gap this study was undertaken.

Research Methodology

Methodology of this Research was conducted using a Survey in the form of questionnaire to study Consumers between the age group of 18-45 both male and females to find out their perspective towards Made in China products. A sample of 203 Consumer from the City of Mumbai (Financial Capital of India) was considered for this survey. Mumbai was particularly chosen due its socio-cultural and economic diversity. It is an exploratory research conducted using convenient sampling. The questionnaire was made to understand the perception of youth towards Chinese products the questionnaire also investigated if there is a change in the buying process if there is an increase or decrease

in the prices of Chinese products. The Data collected from the Survey was Analysed and a Chi-Square Test was run to derive associations between variables.

Proposed Hypothesis I

- H10: There is no pride in owning Chinese products
- H11: There is pride in owning Chinese products.

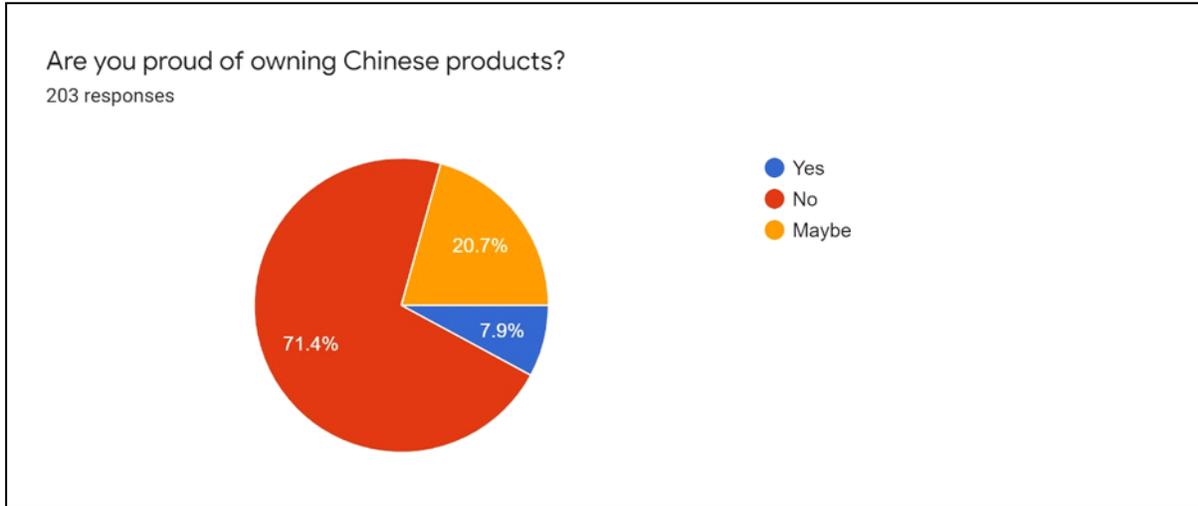


Figure 1

The data highlights that our respondents do purchase Chinese products however maximum customers are not proud of owning the Chinese consumer electronic products. There by proving the Null Hypothesis.

Proposed Hypothesis II

- H₂₀: Customers will change their purchase intentions if popular brands are manufactured in China
- H₂₁: Customers will not change their purchase intentions if popular brands are manufactured in China

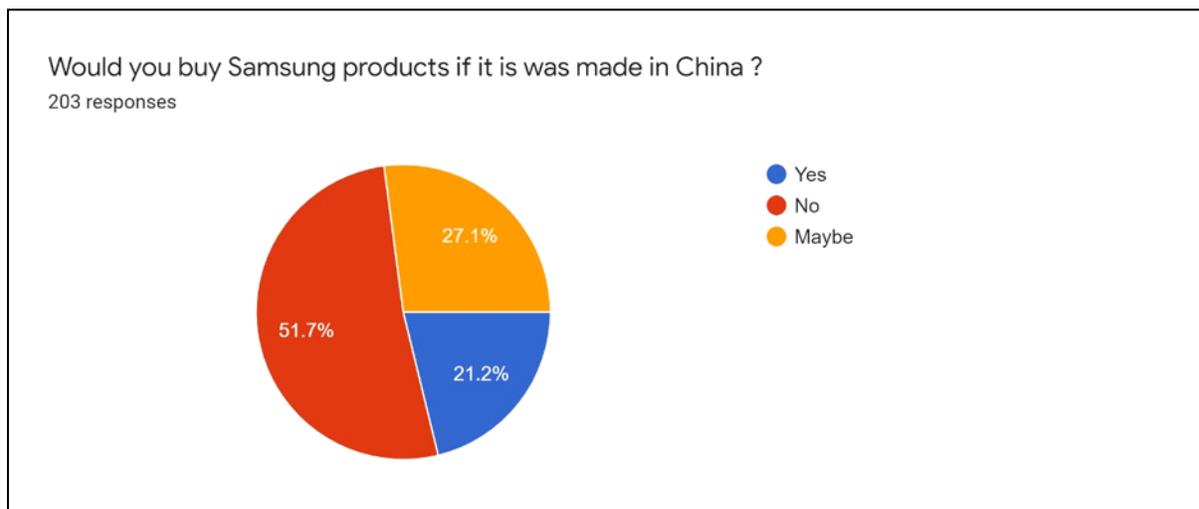


Figure 2

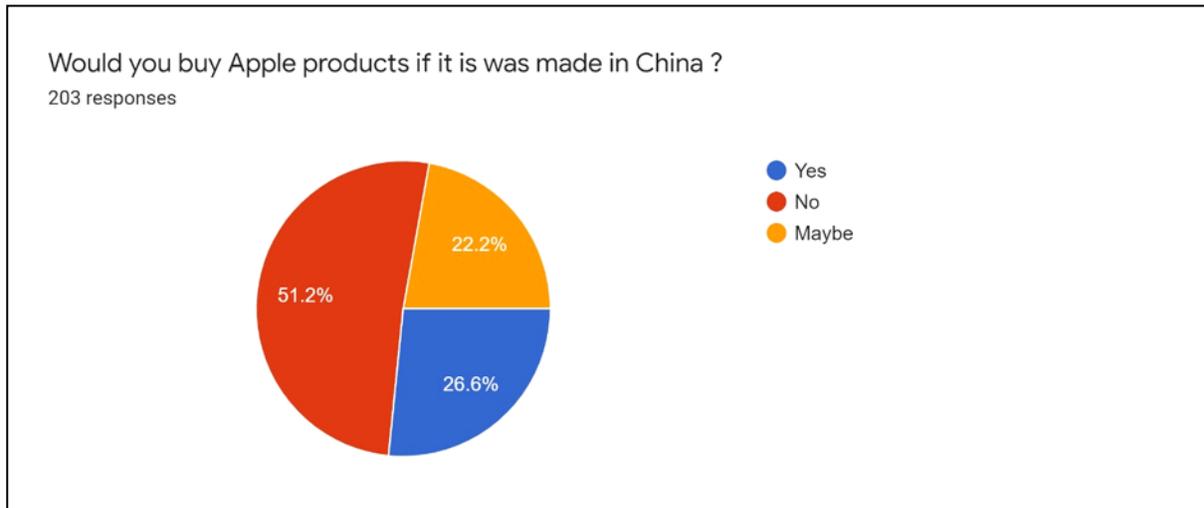


Figure 3

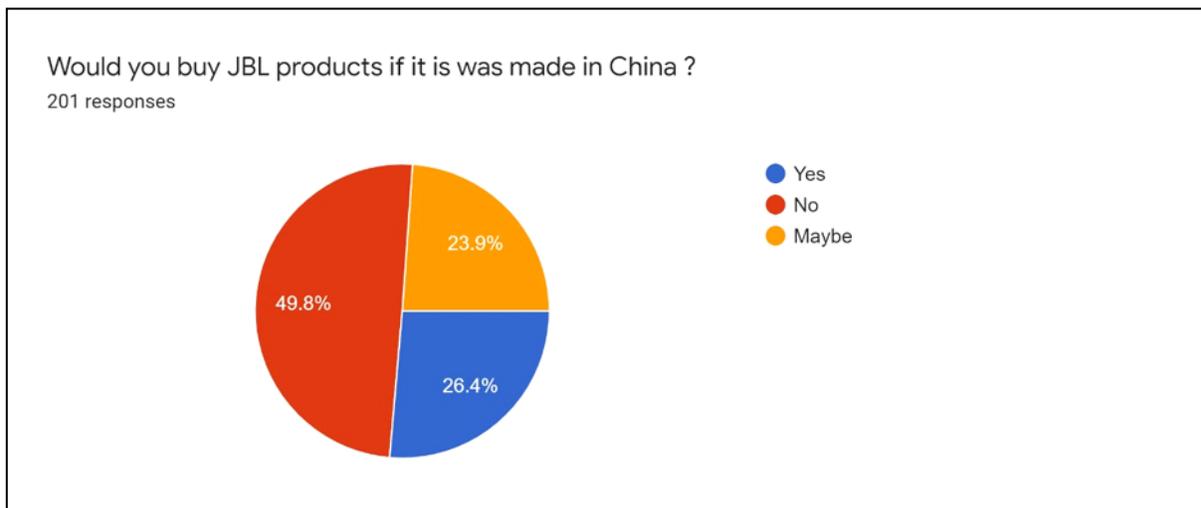


Figure 4

The Above line of questioning, we tried to derive the Willingness of consumers to buy electronic products of brands such as Apple, Samsung and JBL if they were manufactured in China.

The Data Analysis highlights that the Customers are not Willing to Buy brands such as Samsung, JBL and Apple if they were manufactured in China, this concludes that Customers will change their purchase intentions if popular brands are manu-

factured in China thereby proving thee Null Hypothesis.

Proposed Hypothesis III

- H₃₀: Price influences the decision of buying made in China products
- H₃₁: Price does not influence the decision of buying made in China products

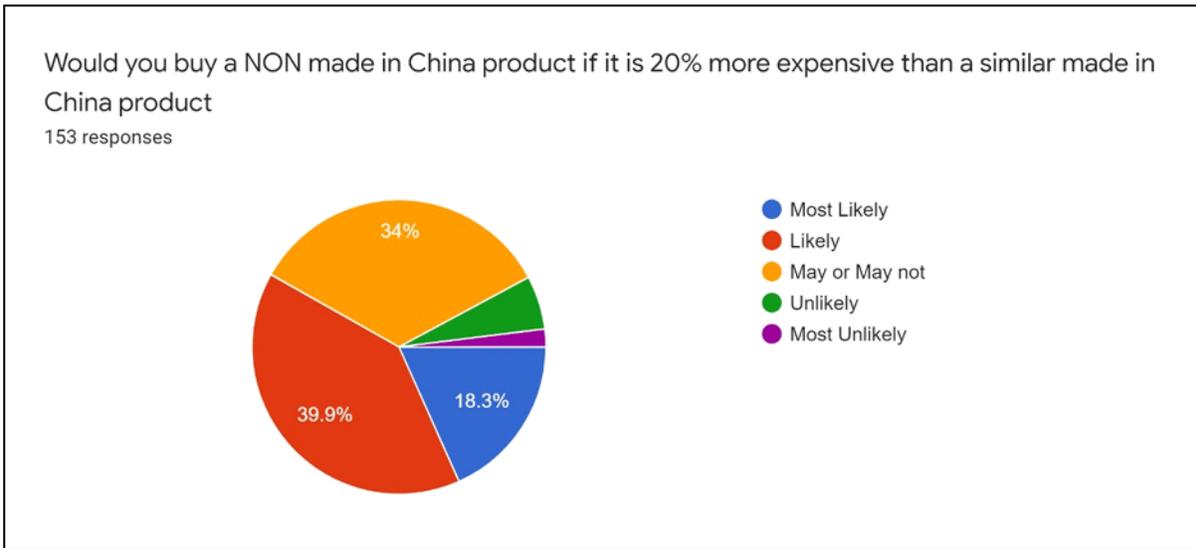


Figure 5

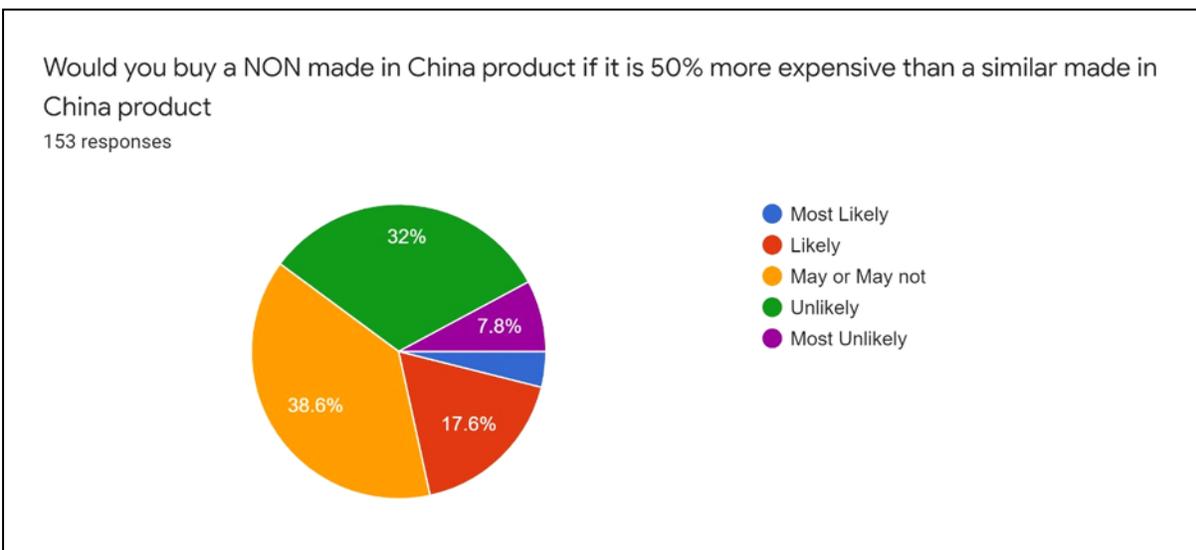


Figure 6

The highlight of this questioning is that to the extent of 20%, customers are sensitive about the country of Origin.

However, when there is a 50% rise in price the country of Origin, does not play a major factor instead Price does. There by it can be concluded that Price influences the decision of buying made in China products

Proposed Hypothesis IV (chi square test)

H_{40} : There is no association between budget and quality perception. H_{41} : There is association between budget and quality perception.

H_{41} : There is association between budget and quality perception.

Count of Quality Perception	Column Labels					
Row Labels	1 Very poor	2 Poor	3 Neutral	4 Good	5 VeryGood	Grand Total
1 lac +				2		2
10K to 20K	3	15	40	23		81
20k to 30K	2	7	24	18	3	54
30K to 50K	4	6	14	7	3	34
50 K to 1 lac	1	6	6		1	14
Less than 10K	1		1			2
Grand Total	11	34	85	50	7	187

Level of Significance = 0.05 p value = 0.028

Since the p-value is less than level of significance the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, it can be concluded that there is an association between budget and quality perception.

DISCUSSIONS AND CONCLUSION

India and china Being two of the biggest developing nations in the world and fastest growing economies, undertake herculean amount of trade and our research attempts to study the Customer perception of youth towards products made in China. We wanted to study the Impact of certain parameters on consumer perception which are as follows:

The first parameter we studied was the price at which the respondents were willing to purchase a mobile phone and we found that 43.2% of our respondents were willing to purchase a mobile phone in the range of 10000 to 20000 while 28.9% were willing to purchase a mobile phone in the range of 20000 to 30000.

As consumer electronic goods are price sensitive in nature we wanted to study whether the respon-

dents would purchase a product that is not made in China if it was 20% more expensive than a similar made in China product, it was observed that 39.9% respondents were likely to buy such a product. Which shows that even when a non-Chinese product its 20% more expensive people are likely to buy such a product. However, when a similar product is 50% more expensive, 38.6% of the respondents were of the opinion that they may or may not buy the product irrespective of country of origin.

Our respondents felt that China as a country is least friendly, least ethical and moderately hostile while more than 60% of them also perceived it to be highly competitive also aggressive and therefore highly innovative.

Given these characteristics about China as a country and its products 71.4% of the respondents confessed that they were not proud of owning a Chinese product.

The next parameter we studied was product image wherein we enquired about their willingness to buy a Chinese brand if it was not made in China but India or some other Country.

For the brand Xiaomi Majority of respondents said yes they would buy, for Oppo majority of the respondents said that they would not prefer buying irrespective of the country of Origin. Which

concludes that brand Image does play a Role in the buying behaviour of the consumers before the factor of country of Origin of the product.

For brands that are Non-Chinese, we asked the respondents whether they would prefer buying them if they were made in China, our respondents denied buying JBL product if it was made in China. Similarly, for Samsung and Apple the respondents denied to buy the Products if they were made in China. Here we see a contradictory Opinion where country of Origin plays a Superior role.

The further parameter was product image of Chinese brands, respondents voted Chinese Products to be More Innovative, had more variety, are widely Available and are value for money. However, they were mediocre in quality and Reliability also not very Trust worthy and aesthetically neutral and non-durable.

For in depth Study we wanted to learn the reason for purchasing Chinese products. The top three reasons were them being Budget Friendly, Variety of features and Wide availability.

Further a chi square test was conducted to analyse the association between budget and quality perception where in it was observed that the p – value (0.028) is less than the level of significance which was assumed to be at 95 % this concluded that there is an association between budget and quality perception when it comes Chinese consumer electronic goods.

DIRECTIONS OF FURTHER RESEARCH STUDY

This research can be further conducted for other product categories like toys amongst kids or home

appliances amongst women for future research study.

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Nation Branding: Building Brand Image of ASEAN Countries through Tourism

* **Hitiksha Darji, Tanvi Bisani, Manjiri Raut and Shivkumar Prajapati**
Co-author: **Dr. Kavita Khadse**

Abstract

The Association of Southeast Asian Nations (ASEAN) is a regional group that promotes economic, political and security cooperation among its 10 members. ASEAN countries' main motto is one vision, one identity and one community. Tourism has therefore become one of the main development sectors of ASEAN, and Member States are making continuous efforts to develop tourism in ASEAN countries. The strategic partnership between India and its member nations has been targeted by the ASEAN countries in order to access untapped tourism opportunities in Indian markets and to build mutual understanding between the two sides.

The aim of this research paper is to understand how ASEAN countries implement strategies to promote tourism by building their nation's brand image.

The research paper takes a holistic view and focuses on how the branding of ASEAN countries has been improved by different marketing campaigns. For the study of different marketing strategies used to improve ASEAN nation branding, qualitative secondary research methodology is used.

This research paper concludes that the ASEAN tourism forum has encouraged organised tourism in ASEAN countries and also states that visitors are growing each year by using branding as a platform for tourism. The analysis on national branding is a growing trend as it enriches both connectivity and tourism studies together. Tourism helps to maintain a country's ancient culture and heritage and also facilitates the development of a nation's infrastructure. The importance of tourism on the improvement of the economy of the nation and the development of employers. This research highlighted how India creates the brand image of its nation with association with ASEAN countries by promoting tourism to attract individuals from various parts of the world through different marketing strategy. ASEAN tourism industry hopes that the ASEAN destinations are heading to economic growth and countries marking a more visible obligation.

Keywords: Nation Branding, Brand Image, Tourism, ASEAN countries

* Hitiksha Darji, Tanvi Bisani, Manjiri Raut and Shivkumar Prajapati
Students of Chetana's Institute of Management & Research, (CIMR), Mumbai.
Co-author: Dr. Kavita Khadse, Chetana's R K Institute of Management & Research, (CRKIMR), Mumbai.
Email: kavita.khadse@crkimr.in

INTRODUCTION

Due to their geographical proximity, mutual values, and similar economic goals, India and ASEAN have developed themselves as reliable trading partners over the last two decades. They have now achieved new heights in their journey that started in 1992 when they became sectoral partners. Three main industries, logistics, agriculture, and e-commerce, are expected to play a significant role in this expansion. Manufacturing, textiles, cars, oil, and healthcare are all projected to see substantial increases in trade over the next few years. Three main industries, logistics, agriculture, and e-commerce, are expected to play a significant role in this expansion. Manufacturing, textiles, cars, oil, and healthcare are all projected to see substantial increases in trade over the next few years. Due to expanding infrastructure, favourable demographics, aggressive policies, and a strong skilled workforce, India and ASEAN countries offer ample investment opportunities for multinational corporations in all major industries. These markets are becoming more attractive as a result of rapid urbanisation and the presence of a wide domestic market. India's foreign policy relies heavily on its ties with ASEAN countries.

The ASEAN-India Tourism Ministers Meeting promotes tourism cooperation between India and ASEAN. India signed a Memorandum of Understanding on Strengthening Tourism Cooperation with ASEAN in 2012, making it the first Dialogue Partner to do so. Prahlad Singh Patel, India's Minister of State for Culture and Tourism, and Dr. Thong Khon, Cambodia's Minister of Tourism, co-chaired the 8th ASEAN-India Tourism Minister Meeting 2021, which was held digitally on February 5, 2021. The Minister addressed the Ministry's road map for reviving tourism activities following the Covid disaster, highlighting initiatives such as

SAATHI (System for Assessment, Awareness, and Training for the Hospitality Industry) and the Incredible India Tourist Facilitator (IITF) Certification Programme, an online learning platform aimed at creating a pool of well-trained and experienced Tourist Facilitators across the country. The Ministers agreed to deepen ASEAN-India tourism cooperation in the form of an ASEAN-India Memorandum of Understanding, according to a joint press release issued after the meeting.

Tourism is one of the most important industries for any country, and it contributes to the country's development when it is well designed and implemented. The tourism industry also contributes significantly to the country's GDP. For more than a decade, the 'Incredible India' campaign has successfully placed Indian tourism in the international market. Long beaches, stretches of sand, tropical forests, a wide range of lifestyles, climatic variations, plains, and mountain chains are among the many tourist attractions offered by Indian tourism and mountain ranges, as well as a mingling of arts, culture, history, practices, customs, ideologies, values, religions, and climates. According to statistics given by Aseanstats, about 53,19,697 Indian tourists visited ASEAN countries in 2019. Borobudur, Bali, Merlion Park, Hanoi, Pattaya Beach, and Angkor Watt are just a few of ASEAN's most prominent tourist destinations. Like India, the majority of ASEAN countries have breathtaking mountain and beach views and are rich in natural resources. Attempts to promote tourism in each ASEAN country have been made since 1970, when Indonesia introduced the slogan "Indonesia, there is more to it than Bali." Since then, each ASEAN country, including Malaysia, Singapore, and Thailand, has competed with Indonesia to attract more foreign visitors. As a result, the Association of Southeast Asian Nations (ASEAN) has organised

a tourism competition. By the end of 2012, ASEAN had established an ASEAN tourism forum and launched a campaign called “Southeast Asia, Feel the Warmth.”

This research paper examines the different marketing strategies used by ASEAN countries to boost their tourism brand image.

LITERATURE REVIEW

A number of studies discuss public diplomacy during the Cold War (e.g., Alexandre, 1987; Critchlow, 1995; Dizard, 2004; Nelson, 1997), but my focus is on the period after the Cold War, because I want to compare nation branding and public diplomacy, and the term “nation branding” emerges only in the 1990s.

Peter van Ham (2001a, 2001b) draws on theories of post-modernity to argue that international relations are witnessing the rise of “brand-states.” For him, nation branding signifies “a shift in political paradigms, a move from the modern world of geopolitics and power to the postmodern world of images and influence” (2001b, p. 4). He compares the power of “the brand” to a “surrogate religion” and argues that concerns over image and reputation are “increasingly shaping Europe’s political landscape, affecting even NATO and the European Union” (2001b, p. 3). Van Ham’s most provocative claim is that nation branding presents an alternative discourse of collective identity construction that is less dangerous than modern nationalism (2001b, p. 3). Using post-communist nations as his example, he claims that branding can channel national sentiments into an outward-oriented mode of collective identity, “gradually supplanting nationalism” (2001b, p. 3). This thesis seems questionable in the face of recent ethnic

conflicts in the Balkans.

Antonios A. Giannopoulos, Lamprini P. Piha, George J. Avlonitis (2011), “Desti–Nation Branding”: what for? From the notions of tourism and nation branding to an integrated framework. A positive brand image gives the national identity a robust, visible, communicable and useful character for tourism as a valued commodity of a country. In this research paper it is also suggested that long-term macro-destination branding strategy might have a direct, highly promising impact on nation branding. Halina Kiryluka, Ewa Glinska (2015), Creation and evaluation of the tourist image of a country.

In the process of developing the image of a national brand and the country’s brand as a tourism destination, there is a need for comprehensive collaboration between different agencies and organizations and, in particular, for the alignment and synchronization of their actions. Arisetyanto Nugroho (2017), Page number – 383, European Research Studies Journal, ASEAN Tourism Marketing Communication Attribute: An Exploratory Research at Goaseantv. Integrated promotion and other means of supporting infrastructure are needed for the tourism growth process in ASEAN. ASEAN Member States’ government efficiency increases the performance of the infrastructure and a means of transport for better tourism.

Restu Karlina Rahayu, Ratnaningsih Damayanti, Irma Fitriana Ulfah (2017), TOURISM BRANDING IN ASEAN COUNTRIES.

This research paper concludes that ASEAN tourism forum has promoted integrated tourism in ASEAN countries and it also states that using branding as a tool for tourism increases the tourists per year.

Nation branding is also used as a tool to distinguish the uniqueness of South East Asian countries. Chalernporn Siriwicha, Veridian E-Journal (2018), Constructing ASEAN tourism brand identity by applying event and leisure marketing. With the difficult problem of individuality over resemblances of ten countries' tourism identities to contend with other global rivals, the ASEAN tourism brand identity has been slowly initiated and developed over decades. Since 2011, the new ASEAN tourism brand name, 'Feel the Love', has been used prior to the majority decision through various formal and informal communications. Although most brand identities of tourism have brief lifespans because it has to produce stimulation and enthusiasm to draw visitors, 'Feel the Warmth' may be an excellent case of regional branding of tourism.

Peter J.C.K. Gisbey, 11th April, 2016, International Marketing Management. It is broadly suggested that effective international marketing strategies will involve a judicious combination of the standardisation of some components of the marketing mix across the world, along with the adaptation of others to the vagaries of the relevant countries and markets. In particular, it is suggested that with respect to a given business activity, certain aspects may be uniformly globalised, with other aspects left locally responsive.

The field of nation branding is fragmented and has developed in the course of the last two decades in different directions. This paper identifies key publication outlets and articles, major theoretical and methodological approaches and primary variables of interest that exist in the nation branding literature (Andy W. Hao, Justin Paul 30 August 2019)

Objectives

1. Understand the significance of Nation Branding in ASEAN Countries
2. To identify marketing tools to build Nations image through tourism.
3. To study how the marketing tools are utilised to build nations image through tourism.

Data Analysis

A1: A key belief of nations branding is that the image and reputation of a nation identically important as a branded product. The association of southeast Asian nations (ASEAN) consist of ten nations. For many reasons ASEAN nations represents an attractive and great site for nations branding. Many ASEAN nations needed economic growth and Many nations like Singapore, Thailand, Malaysia in southeast asia have started nations branding approach to accomplishing the goal. On different level of economic growth, needs and priorities perhaps considered in their nations branding campaign. Around 450 Million people in ASEAN with potential and huge market which has not been totally utilized yet. It also increase foreign exchange earnings for the nation. \$27,310 million was the foreign exchange of India from tourism in 2018. Tourism directly contributes to growing economy and nations branding over globe.

A2 Business example: TCEP Thailand Convention and Exhibition Bureau is a public organization that running business tourism of Thailand. Business tourism account for 24% of tourism industry GDP which valued about 1.1 trillion USD.

B1: Tourism campaigns are often seen as the powerful approach in nations branding because of

the high economical budget and word to mouth promotions and marketing by praising magnificent experience of tourism and travelling. Nations branding considering applying promotion and marketing through communications technique to market nations image in an positive manner. The modern marketing strategy brand partnership and cobranding there is several different types of brand collaborations. ASEAN tourism organisation or NTOs has coordinates marketing and promotion strategy arranged by the marketing agency for blogs, social media marketing, website, applications, and branding. Partnership, the government has acknowledged AirAsia, Citilink airline as the airline partner for promoting southeast asia tourism. Travel trade newspaper (TTG) as the trade media partner for dynamic partnership and support in marketing ASEAN tourism. Social media like Facebook, Instagram, Snapchat, Twitter and others were a person can effectively reach out to a greater number of population around the world. Digital marketing in collaboration with influencer marketing is increasing their customers base and travelling experience. Association as the campaign supporter 'The visit southeast Asia' is anticipated to raise the status of the nation as a destination.

B2 Business example: 'Khushboo Gujarat Ki' is the new promotion campaign for tourism in Gujarat India under the incredible India campaign. Amitabh bachchan is Brand ambassador of this campaign.

CONCLUSION

Tourism is one of the most important industries for any nation, and it contributes to the country's development when it is well-planned and implemented. The tourism industry also contributes significantly to the country's GDP. For more than a decade, the 'Incredible India' campaign has effec-

tively placed Indian tourism on the international market.

When it comes to ASEAN countries, most of them, like India, have stunning views of mountains and beaches and are rich in natural resources. ASEAN is putting on a tourism competition. By the end of 2012, ASEAN had established an ASEAN Tourism Forum and had launched a campaign called "South East Asia Feel Warm."

This research paper discusses the various marketing strategies employed by ASEAN countries in order to improve their image as a tourist destination. For ASEAN tourism to grow, integrated promotion and other forms of infrastructure support are required. ASEAN Government efficiency improves the performance of infrastructure and modes of transportation for better tourism. The ASEAN Tourism Forum has promoted integrated tourism in ASEAN countries, according to this research paper, and the use of branding as a tourism tool has increased the number of tourists per year. Nation branding is also used to differentiate the distinctiveness of South East Asian countries. In many ways, India's tourism industry lags behind that of ASEAN nations. The reasons for India's poor tourism statistics are numerous. The reasons for this were discussed in detail in the paper. Unlike India, most ASEAN countries rely on tourism because they lack opportunities in other sectors. This could be one of the reasons for India's low tourism figures in comparison to other countries.

FURTHER SCOPE

1. Tourism will promote cross culture at international level and it will also improve relationship between the southeast Asian countries.

2. It will bring money and lead to improvement of infrastructure.
3. As increase in number of visitors spontaneously will decrease the traveling and destination visiting cost.
4. Involvement of local people and increase in job opportunities in the tourism industry.

LIMITATIONS OF STUDY

1. Limited availability of data
2. No primary research
3. Time constraint

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India - Pharmacy of the World

* Shivam Bhat, Shrishti Dubey, Rohan Gavade and Pratik Dhupkar
Co-author: Mrs. Geeta Shetti

Abstract

India is having a very long and distinguished history in the innovations and distributing the medicines which has saved many lives of people at a very low and an affordable cost price to all the people not only for India but all over the globe. Now India is considered as one of the booming sectors in pharmaceutical sector. It is thirteenth largest in providing value and third largest in terms of volume. It has the lowest manufacturing costs lower than that of USA and almost the half of Europe. A very big amount of raw material base and the skilled work force available here gives the industry a definite good & competitive advantage. India is also known as major exporter because it exports to over 200 countries and that results in one of the top 10 Pharmaceutical exporters. In the Covid pandemic too, India proved that not only it can innovate the vaccine but can also distribute the vaccine to every part of the globe that need it. Because of this India has created a brand image of a producer at a very low priced and high-quality products. Now as we can see India is not only competing but with that it is collaborating with the global players too. India has updated with the upcoming new environment in the following three ways; by providing R&D outsourcing services, by engaging in strategic alliance with global players. This helps to stay updated with the market and by Contractual Manufacturing include supply of Active pharmaceutical ingredients. This research paper is based on harnessing India's resources to make India Self- Reliant in collaboration with ASEAN countries.

Keywords: *Innovations, Pharmaceutical, Affordable, Quality, Low Manufacturing Cost, Competitive Advantage, Strategic Alliance*

INTRODUCTION

India is the largest provider of generic drugs in the world. Indian pharmaceutical is responsible for supplying more than 50 percent of total global demand for different vaccine. Pharmaceutical sector in India is booming and has long distinguished

history in innovating and distributing life-saving medicines to millions of people globally at affordable cost. In global pharmaceutical sector India holds a very important position. Indian pharmaceutical market is 3rd largest in terms of volume and 13th largest in terms of value in the world. India is among top ten pharmaceutical

* Shivam Bhat, Shrishti Dubey, Rohan Gavade and Pratik Dhupkar
Students of Chetana's R K Institute of Management & Research, (CRKIMR), Mumbai.
Co-author: Mrs. Geeta Shetti, Chetana's R K Institute of Management & Research, (CRKIMR), Mumbai.
Email: geeta.shetti@crkimr.in

countries and exports medicine to over 200 countries. This has increased demand for Indian pharmaceutical products in international market. Therefore, India is increasingly called as ‘Pharmacy of the world’.

The characteristics are what made Indian pharmaceuticals market unique. First, branded generics dominates 70 to 80 percent of total retail market. Second, price levels are low and are driven by intense competition. Third, well established domestic manufacturing base. This is opportunity for Indian pharmaceutical to play a large role in global drug security.

The COVID-19 pandemic has shown that India can not only innovate but also rapidly distribute time critical drugs to every part of the world. This capability of Indian Pharmaceutical market has attracted global pharma multinational to enter Indian market to capitalise on this growing opportunity. Favourable market condition and world class capabilities have ensured that India continues to be most lucrative pharmaceutical market in the world.

OBJECTIVES

To understand how India has helped other countries in terms of pharmaceuticals and during the covid pandemic

Research design

In order to address the objectives of the study, the following research questions have been addressed by means of secondary research.

- A bibliometric review of articles or papers that describes the community, retail or private pharmacy practice in India was undertaken.
- The search covered the period 2000 to Decem-

ber 2020 using D-Essence consulting reports, McKinsey & Company Report, Assocham India (India ASEAN Trade Relations) databases.

- A direct search was made in primary sources, specifically in the journals Indian Journal of Pharmaceutical Sciences (online) and Indian Journal of Hospital Pharmacy (offline).
- The search strategies were refined after conducting pilot searches. All terms were searched for in title, abstract and main body text.
- We reviewed the outcome of each search. The title and the abstract of the articles retrieved were analysed to identify original papers.
- Identification of relevant papers was based on strict predetermined criteria.
- All original papers (research and review) which provided an aspect of community pharmacy-based activity were included in our study.
- The articles restricted to opinions and studies that did not involve community pharmacists/pharmacies and papers relying on anecdotal evidence to provide a general overview or statement.
- Understanding position of India in the Pharmaceutical Global Leadership.

REVIEW OF LITERATURE

The COVID-19 pandemic and the Indian Pharmaceutical Industry Export relation with UK & US

As we all know that The Indian pharmaceutical industry is the world’s third largest drug producer by volume and the country’s market manufactures 60 percent of vaccines globally. This constitutes 40-70% of supply to satisfy the World Health

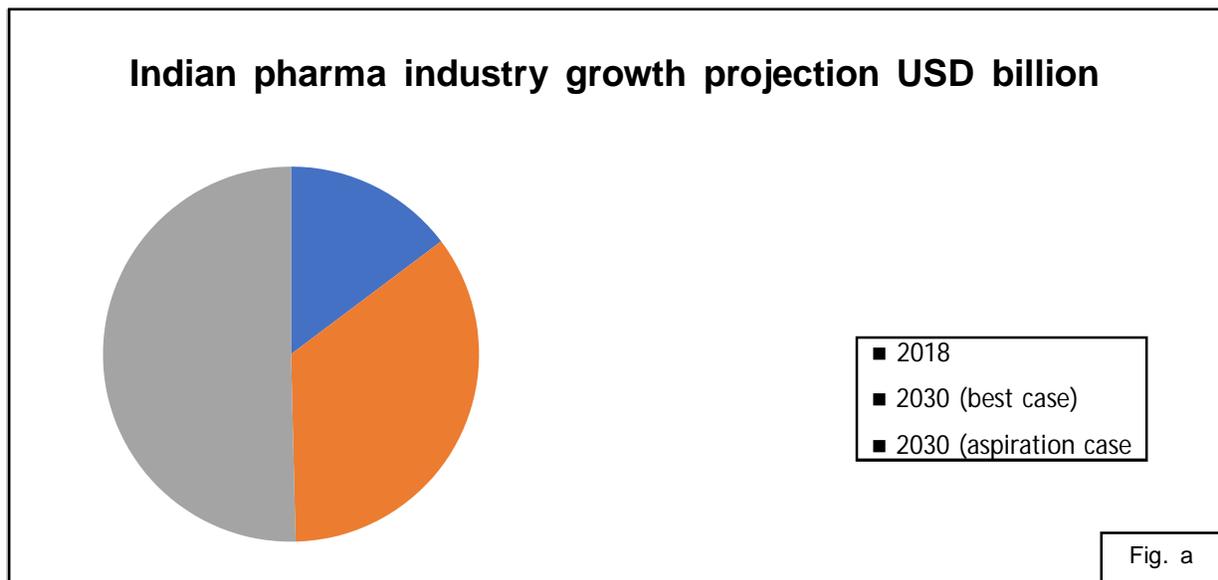
Organization's (WHO) demand for Diphtheria, Tetanus and Pertussis (DPT) and Bacillus Calmette Guerin (BCG) vaccines and 90% of the global demand for the measles vaccine.

India Exports to 250 US Food and Drug Administration (FDA) and UK Medicine and Healthcare products Regulatory Agency (MHRA) approved plants, it is estimated that according to current scenario the active pharmaceutical ingredients (APIs) market is forecasted to attain a revenue of \$6 billion (2020). The majority of APIs for generic drug manufacturing across the globe are sourced from India, which also supplies approximately 30 % of the generic APIs used in the US.

How Indian serum institute played a major role during covid crisis?

Along with Pfizer and Johnson & Johnson, one of the Institute in India which is located in Pune popularly known as SERUM institute is playing an outstanding role in this pandemic, creating a lifeline of hundreds of millions of vaccine doses for COVID-19. SERUM is one of the world's largest vaccine manufacturer in the world, both by number of doses and by what it sells worldwide. As per last year, Serum produced more than 1.6 billion vaccine doses including for measles and whooping cough distributed in more than 170 countries.

Forecasted Pharma Industry growth



By considering all the previous facts and figures, Indian Pharma sector has shown that the potential of India's pharma sector is very high. The growing population of India with the increasing prosperity and rising awareness towards health provides a very good incentive to make investments. If these oppor-

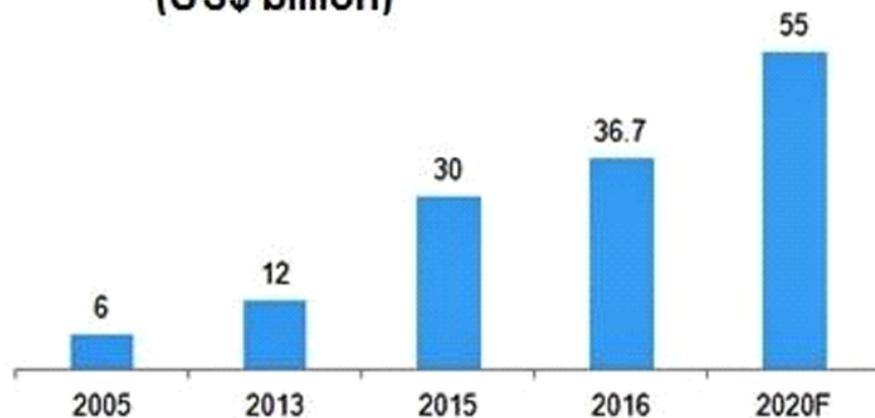
tunities are seized properly, it is forecasted that the market size of the Indian pharmaceutical industry can reach to more than \$100 Billion by 2025 while Medical Devices industry can reach to \$50 Billion by 2025.

Indian pharmaceutical industry aspires to become the world’s largest supplier of drugs by 2030 and aims to increase its industry revenue to \$ 120-130 Billion by 2030 from current revenue of \$41 billion at a Compound Annual Growth Rate (CAGR) of 11-12 per cent.

By exporting vita and essential medicines to the world during the Covid-19 pandemic, India has

more than ever before, proved that it deserves to be called the **‘Pharmacy of the World’**. India’s pharmaceutical sector is not only growing at a good rate but contributing to the growth of the economy and also to majority of India’s exports. GOI Launched four schemes in India and it is expected that India will move in the direction of becoming self-reliant in critical APIs and Medical Devices.”

Revenue of Indian pharmaceutical sector (US\$ billion)

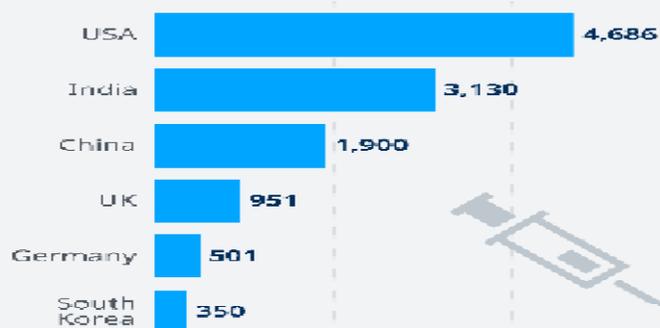


Source: Department of Pharmaceuticals, PwC, McKinsey, TechSci Research
Notes: F - Forecast, CAGR - Compound Annual Growth Rate

Fig. b

Production capabilities of Covid-19 vaccine candidates per country

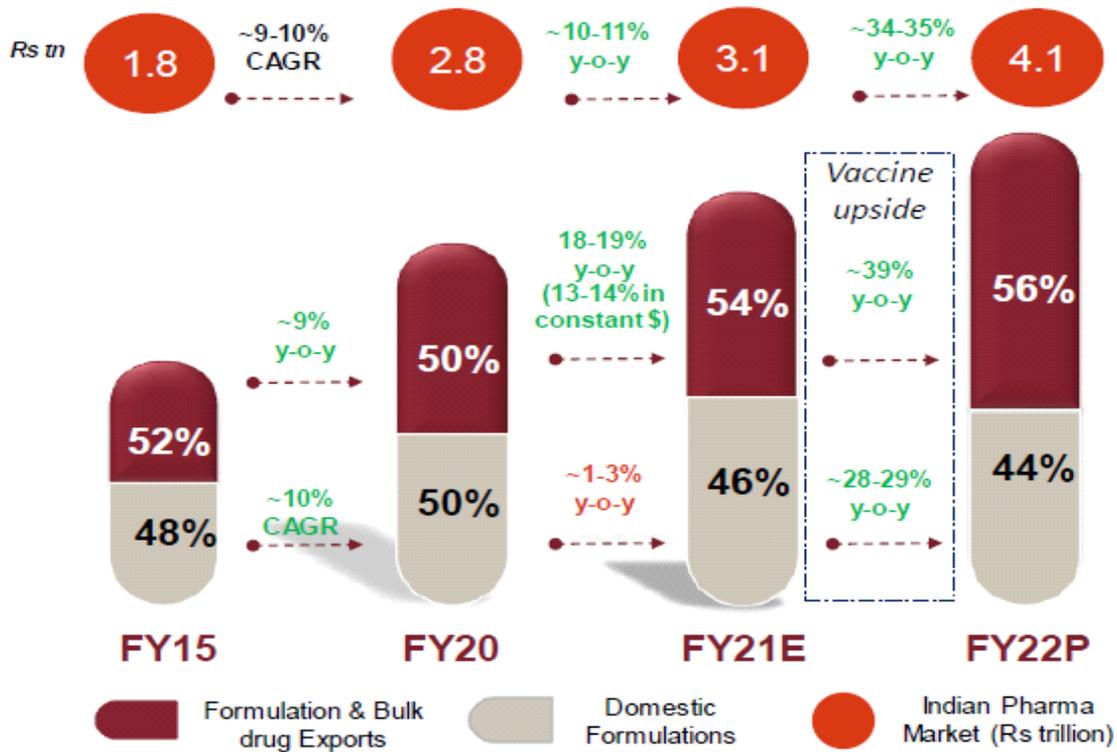
In millions of doses, estimates for 2020-2021 period



Source: Airfinity Ltd., 2020

Fig. c

Pharma industry remains resilient in FY21



Note: CAGR – Compound annual growth rate; y-o-y – year-on-year (INR terms)
 Source: Directorate General of Commercial Intelligence & Statistics (DGCI&S) CRISIL Research

Fig. d

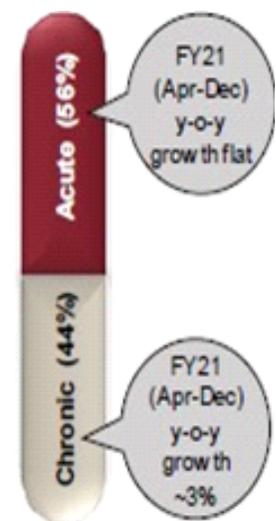
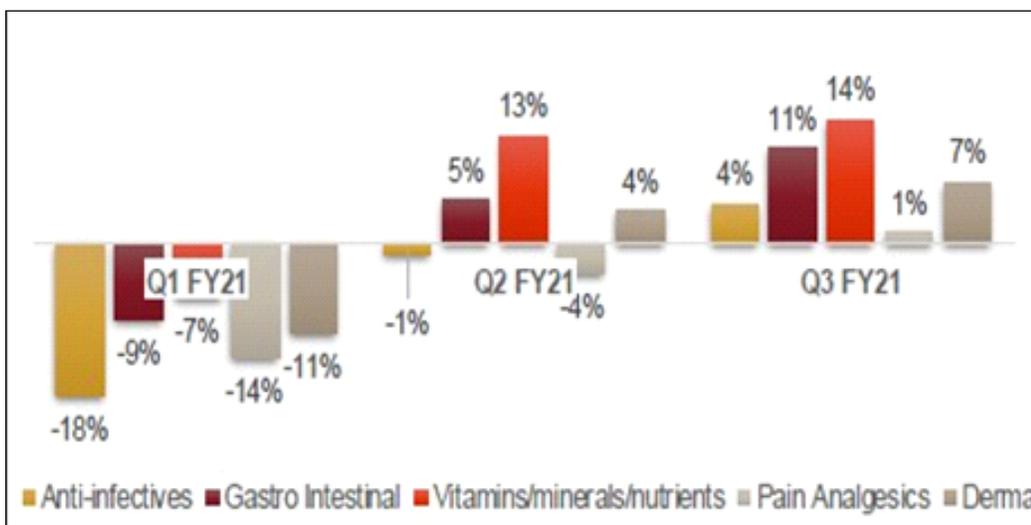


Fig. e

Analysis:

Fig. b explains Indian pharmaceutical has increased 9 times in revenue since 2005 to 2020 i.e from US\$ 6 billion to US\$ 55 billion.

Fig. c shows India has 2nd largest production capacity of covid19 vaccine in terms of candidates per country i.e 3130 million of doses in the year 2020-21, having only USA ahead of it.

Fig d : The annual year on year CAGR of Indian pharma market is 10%-11% being Rs.2.8 trillion.

Considering formulation and bulk drug exports the year on year growth from FY15 to FY20 has been 9%. However in case of FY2020 and FY2021 this year on year growth is expected to bounce to 39% from the current 18%-19%. This growth is majorly due to competitive advantage that India has.

The domestic formulation to have seen year on year growth of approx. 28% to 29% from 10% in FY-15.

Fig e : The demand for anti infectives which Was in negative (18%) in the first quarter of FY- 21 rose to a positive 4% figure in the third quarter. The reason for the same, being availability of the covid vaccines. Not just the anti infectives but gastro intestinal (-9 to 11%), vitamins & nutrients (-7 to 14%), analgesics (-14 to 1%), & derma (-11 to 7%), all have seen a positive growth.

India during Covid:

Indian pharmaceuticals has been on the top side for domestic and export sectors. Serum institute of India, Bharat biotech, Cadila, Doctor Reddy, Aurobindo Pharma are among the major players that are

likely to be benefited. India's manufacturing capacity and capability to manufacture at low cost provide sample opportunity. Because of the 19th global place, we have de-risking supply chain. From China, the supply scheme also offers potential to reduce dependence on China and scale of exports in medium term.

An addition of 150000 health and wellness centres is very likely to have a large number of first time patients who are prescribed medicines at the primary care level. Revision in schemes such NLEM, PMBJP, is done to keep exercising price control on essential drugs. Apart from this pharmacies are likely to tab 70 million households by FY25 from about 9 million currently.

Under the Pradhan Mantri Bharatiya Janaushadhi Kendra an impressive sale of Rs.100.40 crore took place in the first two months of FY21. Also the 'Pharma Vision 2020' aims to make India a major hub for end to end drug discovery. With this India provides Medical Tourism by providing quality services at marginal costs compared to US, Europe and South Asia. An expertise in low cost generic patented drug and strong domestic demand is making India compete on the world platform

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Statistical Analysis of Correlation of FII Investment with Sensex and Nifty

* **Ashika Jain, Ami Kansara, Yash Pundkar and Siddhi Shah**
Co-author: Dr. Chetana Asbe

Abstract

For a developing country like India, total capital requirements cannot be met by domestic sources alone, so foreign investment is becoming an important part of capital supply. Foreign institutional investors play a important role in every economy. As a developing country, India offers a relatively higher growth rate than the industrialised countries. India Economy has always been an attractive investment destination for Foreign Institutional Investors (FIIs). A foreign institutional investor is an investor/investing entity in a financial market outside its official home country and here in India, registering with SEBI as well as GOVT/RBI is essential while investing. In single day, it was found that FPIs raised Rs 121.57 billion into the Indian market which enables the growth of foreign institutional investors in the market that possesses its own set of advantages along with certain problems. This research study aims to identify the determinants of Foreign Institutional Investors Investments and analyze its impact on the Indian Stock market with top three sectors.

Keywords: Foreign Institutional Investor, Domestic Institutional Investor, Correlation, Regression, NSE Nifty, BSE Sensex, Automobile Sector, Banking Sector, Oil & Gas Sector.

INTRODUCTION

FII means that an establishment that's incorporated outside India and that plans to create investment in securities in India. The investment in FII began in 1992. Investors has been major drivers of the economy due to their investment or disinvestment the economy gets impacted this is not only one factor but FII is backed up with various other factors like government intervention, various rating compa-

nies etc. The developing countries specially need such type of investments which are generally required for boosting up the whole advancement of the country in efficiency of the machinery, labour and so on. FIIs is a short-term investment and is considered as short term in nature. Investments in FII are principally through like stock markets, foreign exchange markets and money markets.

Institutional Investors primarily embody hedge

* Ashika Jain, Ami Kansara, Yash Pundkar and Siddhi Shah
 Students of Chetana's Institute of Management & Research, (CIMR), Mumbai.
 Co-author: Dr. Chetana Asbe, Chetana's Institute of Management & Research, (CIMR), Mumbai.
 Email: chetana.asbe@cimr.in

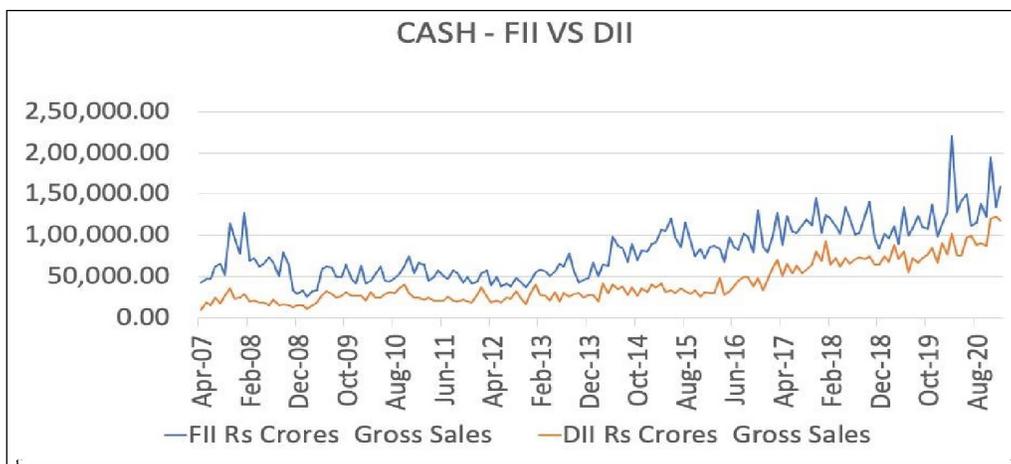
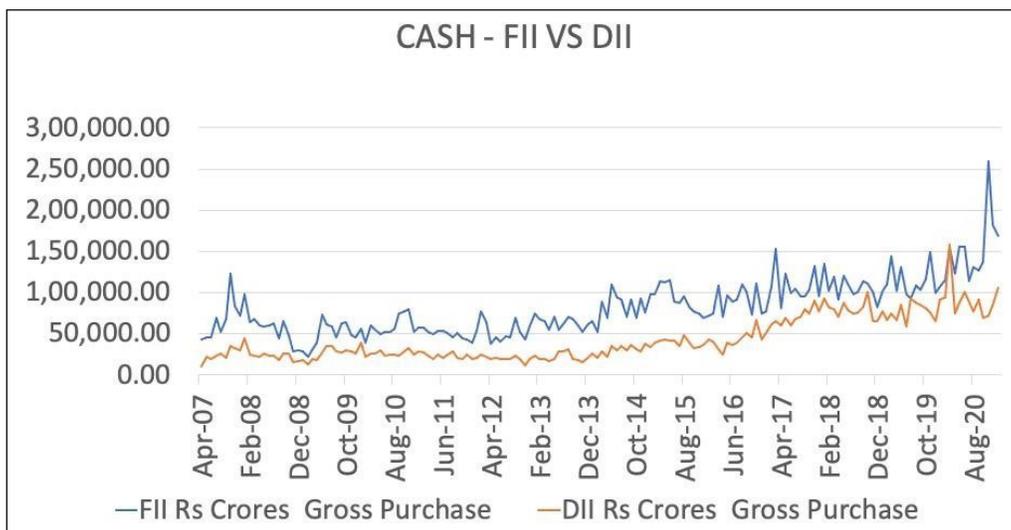
funds, mutual funds, pension funds and insurance companies. Large corporate buyers of large institutions and investment banks consist of FPI/FDI. Foreign Institutional Investors/Foreign Portfolio Investors have been probably the greatest driver for India’s monetary business sectors, having contributed around Rs.2.17 trillion. Primary and secondary markets have created essential and auxiliary business in FIIs/FPI. The study expected to reveal that there is a significant positive relationship between FIIs capital flows and stock market volatility. In addition, the investment of FIIs has a

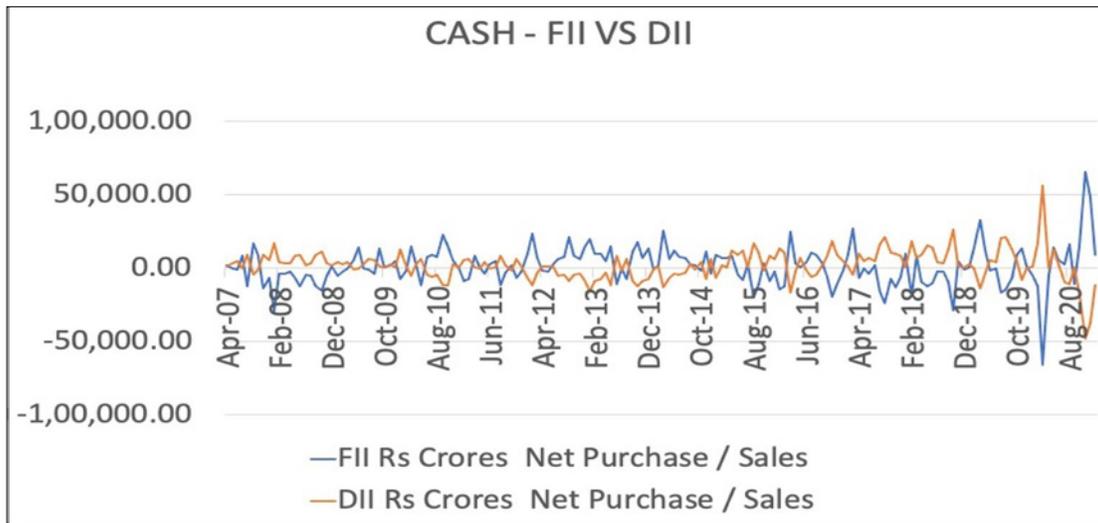
statistically significant influence on the volatility of NSE Nifty and BSE Sensex in the Indian Market.

The major development in this sector is as follows:

- At the end of December 2020 stock market achieved its record breaking high, when COVID-19 vaccine was approved this resulted in strengthened investor sentiment.
- Due to this the investment by the foreign investors in Indian market grew more than Rs.1.4 trillion in 2020.

Previous FII & DII Trading Activities





Interpretation of above graphs:

Figure (a): From Apr 2007 till Oct 2020, the above graph shows Gross purchases (Cash Rs Crores) in Indian economy by FII & DII. During the period (2007 - 2008), the Financial Crisis caused high volatility in the market, after that it showed sideways trend till Oct 2014, there has been an uptrend in the given chart. The graph shows that DII (Cash Rs Crores) follows the same trend.

Figure (b): From Apr 2007 till Oct 2020, the above graph shows Gross sales (Cash Rs Crores) in Indian economy with more volatility compared to buying pattern while DIIs shows less sales compared to FIIs.

Figure (c): Net Purchases/Sales is the difference between Gross sales and Gross purchases. Here the Net purchases increased (have large spike) which means large lump sum gets into Indian Market. The chart shows that there is negative correlation between FIIs and DIIs trading pattern.

Determinants Of FII Flow In India:

- FII inflows are determined by exchange rate, domestic inflation, equity market returns and risk associated with US equity market.
- World interest rates: For a business the cost of borrowing or short term loans etc can become more expensive with the rise in interest. In some cases this delays the investment made by the business as they might be funded by the loan money or the borrowings made. The rise in interest rates signals the FII to invest in US markets and withdraw from the Indian markets.
- Country risk measures (Macroeconomic Variables): The macro economic variables of any country play a vital role in determining the FII flows. The macro economic variables that can be considered can be the GDP of any country, Fiscal deficit, IIP etc.

Challenges FII face in Indian Society:

- Investment limits: A FII cannot hold more than 10% of the total paid-up equity capital of an

Indian company and the total holding of all FIIs in an Indian company cannot exceed 24% of such a company's paid-up equity capital. Separately, FII investments are also subject to the sectoral caps for foreign investment prescribed in the FDI policy issued by the government of India.

- This chaotic arrangement of sectoral caps for FDI and portfolio investments has led to considerable uncertainty among investors.

OBJECTIVE

- a) To analyse whether there exists any significant

relation between the FII and Indian stock market (Nifty & Sensex). Also, is there any significant growth with the number of FIIs in India.

- b) The study also going to learn from a sectoral comparison between FII data and Nifty data that spanned the three major sectors: Information technology, Banking and financial services, and Oil & Gas.
- c) The paper tried to predict Net FII investments in India, if estimated volume was traded on Indian Stock exchange.

LITERATURE REVIEW

No.	Author	Year	Country	Type of study	Variable	Methods / Test	Findings
1.	Dr. Bidhan Datta, Banantika Datta, Rajeshreeba Gohil	2019	India	Secondary Research (Quantitative and Descriptive)	FII, Indian Economy, Indian Stock Market, Investment- Barriers, SEBI	Regression, Pearson Correlation, Hypothesis, ANOVA	NIFTY and SENSEX have moderate positive correlation with FII investments.
2.	B. Raja Mannar	2018	India	Primary Research (60 Experts) as well as Secondary Research (Quantitative and Descriptive)	FII, S&P CNX Nifty	ANOVA, Pearson correlation	Positive Pearson correlation values between the foreign institutional investments and the Nifty Movement
3.	Dr. P. S. Vijaya Lakshmi, Dr. V. Subhamathi	2018	India	Secondary Research (Quantitative and Descriptive)	FII (Equity & Debt), GDP, GDP Growth rate	Change in rate compared to previous years, Price levels	The contributions of FII inflows are supposed to have a positive impact on the economic development of the country. By looking at the main economic indicators, it can be realised that FIIs play an important role in the country's financial stability.

STATISTICAL ANALYSIS OF CORRELATION OF FII INVESTMENT WITH SENSEX AND NIFTY

No.	Author	Year	Country	Type of study	Variables	Methods /Test	Findings
4.	Naresh Kedia, Prof. (Dr.) Anil Vashisht	2017	India	Secondary Research (Quantitative and Descriptive)	FII, Indian capital market,BSE, SENSEX	Hypothesis test, ANOVA, Regression	The level of significance is 0.000 i.e., less than 0.05, also, value of R is 0.609 it means that FII has 60% positive effect on stock market.
5.	SabaAbid, Neelam Jhawar	2017	India	Secondary Research (Quantitative and Descriptive)	Total FII (FPI) and FDI,CNX NIFTY, Gross Purchase, Gross Sales, Cumulative Net Investment, Disinvestment	Percentage Change in Share in the Total Investment, Inflow & Outflow Values	FII's Contribution in Indian Market; The percentage share of FII in total foreign investments certainly has proof of their enormous contribution. Weak positive correlation i.e. 0.243
6.	Dr. Vijay Gondaliya	2016	India	Secondary Research (Quantitative and Descriptive)	FII, Indian capital market, BSE, SENSEX, Nifty, Pound, Dollar, Indian Rupee	Correlation, matrix, Hypothesis, F Statistics	Movement of exchange rate against Rupee value are influence on Indian stock market. Similarly the movement of Inflow of FII's in Indian market is influence on Indian stock market movement Thus, it can be interpret that time series are interrelated with their investment characteristics.
7.	Bashir Ahmad Joo, Zahoor Ahmad Mir	2014	India	Secondary Research (Quantitative and Descriptive)	Net FII, Nifty Monthly Close, Sensex Monthly Close, Nifty Returns, Sensex Returns, Volatility of FII	Correlation Analysis, Descriptive Statistics of FII's, Garch Models, Stationary Test	Volatility of FII's increased over during crises period. Positive Moderate correlation between Net FII flow and Nifty 50 & Sensex.
8.	Varsha Virani	2012	India	Secondary Research (Quantitative and Descriptive)	FII, Portfolio, stock market, SEBI	Hypothesis- F-Statistics	FII influence on the domestic markets is growing. FII have emerged as the most dominant investor group in the domestic stock market in India

No.	Author	Year	Country	Type of study	Variables	Methods /Test	Findings
9.	Jatinder Loomba	2012	India	Secondary Research (Quantitative and Descriptive)	FII, Indian capital market, BSE, SENSEX	Karl Pearson' coefficient of Correlation	Strong positive correlation 0.672
10.	Karan Walia, Dr.Rimpi Walia, Monika Jain	2012	India	Secondary Research (Quantitative and Descriptive)	Net Investment of FII (Equity and Debt), BSE Sensex Value Points	Karl Pearson' coefficient of Correlation	Sensex index has increased when there are positive inputs of FIIs High positive correlation i.e., 0.746

RESEARCH GAP

The existing literature discloses that a considerable amount of research has been examined by exploring 20 years of data that shows the relationship between FII and Indian stock market, putting an emphasis on top three sectors. The study reveals as to what extent the FII has been influencing the Stock market while considering the growth which will be seen in the future. Also, the study tried to forecast Net FII in India from the estimated volume of variable.

METHODOLOGY

Information Source/Websites:

- a) NSE India & nifty indices
- b) BSE India
- c) FII's Data: NSDL/CDSL
- d) SEBI/RBI
- e) Money Control

This research tries to explain the relation between FII's & Stock Exchange using a statistical tool like Karl Pearson's correlation coefficient (r) and also correlation between FII's and Nifty/Sensex of top three sectors:

- Automobile, Banking, Oil & Gas.

Correlation Process

Step 1:- Define : Do FII's have Impact on Indian Stock Market.

Step 2:- Collection : FII data and Nifty/Sensex Index data.

Step 3:- Preparation : Tabulation (Row & Column) of Data for Comparison.

Step 4:- Method : Karl Pearson's correlation method in the tables (Two tail).

Step 5:- Interpreting Result : Is variable positively correlated or not.



Similar treatment will be in finding correlation of Top 3 FII sectors.

With Regression analysis, the paper tried to predict FII investments in India, though (temporary considering an average rate) anticipated volume was traded (if considered constant rate). The study conducted further statistical analysis to determine the dominance of FIIs on the Indian stock market. The research paper uses 20 years of data (from year 2000 to year 2020) for the correlation analysis, but for the sector the last 8 years data was used.

Regression Analysis

Step 1:- Problem Definition: To predict Net FII investments in India, if estimated volume was traded on Indian Stock exchange.

Step 2:- Define Variables : Net FII investment and Shares traded volume on stock market.

Step 3:- Collection : Previous FII investment data and Nifty Shares traded volume.

Step 4:- Preparation : Tabulation (Row & Column) of Data for comparison: Total FII as a Dependent variable, while Shares traded on NSE (Nifty 50) as an Independent variable

Step 5:- Method : Regression analysis on both columns for creating summary and graph.

Step 6:- Interpreting: Net FII investments (INR Cr) in India, if estimated volume (in '000') was traded on Indian Stock exchange.

CORRELATION ANALYSIS

Table (a)

Financial Year	FII Equity	FII Debt	TOTAL FII	Total Index	Turnover	Total India's Trade
20XX-20XX	a	b	c = a + b	Nifty 50	Nifty 50	Service & Commodity
APR - MAR	INR crores	INR crores	INR crores	Return Value	INR crores	INR crores (import + export)
2000-01	10207	-273	9933	1428.68	2275.5	4,34,076.92
2001-02	8072	690	8763	1165.78	1264.2	4,53,869.97
2002-03	2527	162	2689	1142.32	1424.9	5,51,902.01
2003-04	39960	5805	45765	1617.02	2891.4	6,51,973.02
2004-05	44123	1759	45881	2084.99	2880.3	8,56,602.94
2005-06	48801	-7334	41467	2957.37	3100.5	10,30,418.66
2006-07	25236	5605	30840	4266.98	3947.7	14,12,246.25
2007-08	53404	12775	66179	5938.44	6163.1	16,68,033.82
2008-09	-47706	1895	-45811	4565.52	6666.4	22,15,145.96
2009-10	110221	32438	142658	5769.17	8789.4	22,09,146.08
2010-11	110121	36317	146438	6988.01	6649.2	28,20,418.17
2011-12	43738	49988	93726	6634.00	8916.3	38,11,360.42
2012-13	140033	28334	168367	7075.57	10941.8	43,02,659.63
2013-14	79709	-28060	51649	7798.79	15373.1	46,20,379.09
2014-15	111333	166127	277461	10464.73	8033.6	46,33,014.63
2015-16	-14172	-4004	-18176	10599.58	7952.7	41,98,765.47

STATISTICAL ANALYSIS OF CORRELATION OF FII INVESTMENT WITH SENSEX AND NIFTY

2016-17	55703	-7292	48411	11327.07	8916.3	44,17,847.67
2017-18	25635	119047	144682	13665.02	10998.0	49,57,229.16
2018-19	-88	-38842	-38930	14997.33	15448.1	59,02,345.17
2019-20	6153	-33681	-27528	16072.63	20573.2	55,80,708.38
2020-21 **	252141	-10224	241917	16296.46	34353.0	2932018.18**

** indicates that value is from Apr 2020 to Nov 2020

Table (b)

Pearson's Correlation	Total Index Return	Turnover	Total India's Trade
Total FII	0.267897329	0.34868464	0.201397499

Table Interpretation:

- Here the table compared the Total FII's for 20 year with both Nifty 50's Turnover and Total return index value which resulted a close relationship. The correlation value shows a positive correlation between FII and movement of Nifty 50 index ($r=0.26789$).
- On the basis of above analysis and discussion, the study concludes that FII's are influencing the Nifty's movement to a greater extent.
- India's Total trade (services and commodity) when compared to FII showed a positive correlation.

Table (c)

Financial Year	FII Equity	FII Debt	TOTAL FII	BSE
20XX-20XX	a	b	c = a + b	Sensex
APR - MAR	INR crores	INR crores	INR crores	Closing value
2000-01	10207	-273	9933	3,972.12
2001-02	8072	690	8763	3,262.33
2002-03	2527	162	2689	3,377.28
2003-04	39960	5805	45765	5,838.96
2004-05	44123	1759	45881	6,602.69
2005-06	48801	-7334	41467	9,397.93
2006-07	25236	5605	30840	13,786.91
2007-08	53404	12775	66179	20,286.99
2008-09	-47706	1895	-45811	9,647.31
2009-10	110221	32438	142658	17,464.81
2010-11	110121	36317	146438	20,509.09
2011-12	43738	49988	93726	15,454.92
2012-13	140033	28334	168367	19,426.71
2013-14	79709	-28060	51649	21,170.68
2014-15	111333	166127	277461	27,499.42
2015-16	-14172	-4004	-18176	26,117.54
2016-17	55703	-7292	48411	26,626.46
2017-18	25635	119047	144682	34,056.83
2018-19	-88	-38842	-38930	36,068.33
2019-20	6153	-33681	-27528	41,253.74
2020-21 **	252141	-10224	241917	46,973.54

** indicates that value is from Apr 2020 to Nov 2020

Table (d)

t-Test: Paired Two Sample for Means	TOTAL FII	SENSEX
Mean	68399.09524	19466.40905
Variance	7913381164	162368300.2
Observations	21	21
Pearson Correlation	0.348684463	-
Hypothesized Mean Difference	0	-
df	20	-
t Stat	2.627157305	-
P(T<=t) two-tail	0.016148328	-
t Critical two-tail	2.085963447	-

Table (e)

Hypothesis Testing	Although a positive correlation, $r = 0.3486$. Here (ρ) p is taken as r .	
Step 1	State The Null & Alternate Hypothesis	Ho: $p = 0$ (Not Linear) H1: $p \neq 0$ (Linear)
Step 2	Select the confidence level	Level of Significance: 0.05 Level of Confidence: 95%
Step 3	Select the Test Statistics	T Statistics (distribution)
Step 4	Formulate Decision rule	Decision : Reject Null hypothesis if $t \text{ Stat} > t \text{ Critical}$ (two tail)
Step 5	Make a decision and Interpret the result	Calculated value 2.62 is greater than 2.08 so the null hypothesis is rejected and the alternate hypothesis is accepted which makes it clear that there is a significant correlation.

Fig (d)

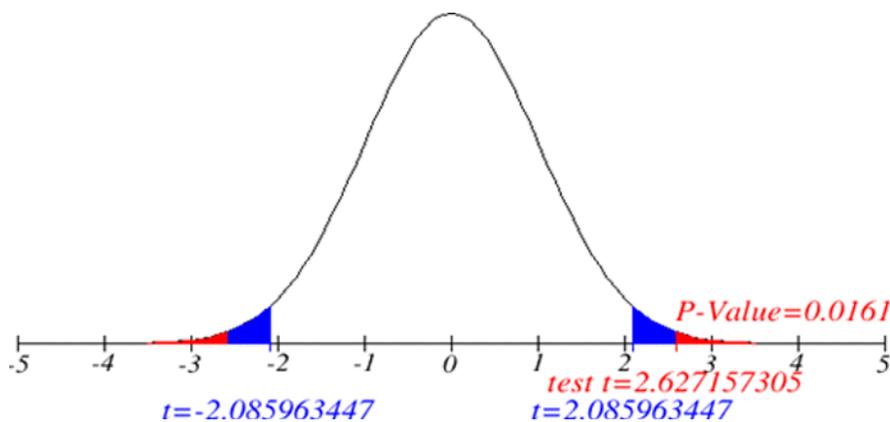


Table Interpretation

In this case, FII and BSE Sensex have a linear relationship with $r=0.3486$ which reflect positive correlation between them but not strong. As Nifty 50 and Sensex indexes move side by side, both are equally impacted by FII and hence Hypotheses of

Sensex data is taken into consideration. With the level of significance 0.05, The null hypothesis is rejected which means that the study has accepted an alternate hypothesis which indicates that significant impact of FII's on BSE Sensex.

Auto Sector Correlation Analysis Table (f)

CALENDER YEAR	FII AUTOMOBILES	NIFTY AUTO	SENSEX AUTO
2012	473.17	4112.69	11426.21
2013	361.66	4703.13	12258.83
2014	792.83	6771.21	18630.84
2015	406.67	8360.30	18519.08
2016	296.58	8776.44	20257.43
2017	14.83	10597.40	26751.2
2018	-1354.92	10597.34	20833.73
2019	-88.58	8014.20	18485
2020	138	7338.73	20811.49
2021*	3,483	10166	24615.55

*indicate Jan 2021 value

Table (g)

Taken data till 2020	FII AUTOMOBILES	NIFTY AUTO
NIFTY AUTO	-0.6206635	1
SENSEX AUTO	-0.3485629	0.901178911
if considered Jan 2021 * also	FII AUTOMOBILES	NIFTY AUTO
NIFTY AUTO	0.0240039	1
SENSEX AUTO	0.19689886	0.913059963

Table Interpretation

By analysing table (f) using correlation, the results presented in table (g) conclude that the relation between Nifty Auto and FII Automobile data showed a moderate negative relationship (i.e. -

0.6206635). Similarly, comparing FII Automobile and Sensex it showed a Negative correlation. Hence, the automobile sector did not had a good impact on Indian market. Considering the data of January 2021, the industry is slowly improving.

Banking Sector Correlation Analysis Table (h) Table (i)

CALENDER YEAR	FII BANK	BANK NIFTY	SENSEX BANKEK
2012	1677.17	10509.24	14344.99
2013	902.00	11414.97	13001.94
2014	1690.33	14522.66	21458.11
2015	171.42	18095.70	19328.74
2016	389.25	17560.81	20748.74
2017	2714.75	23067.19	28856.77
2018	-1758.42	26106.83	30376.68
2019	1961.75	29360.10	36671.5
2020	1807.45	24531.36	35888.42
2021*	-3840	32569.4	40724.81

Taken data till 2020	FII BANK	BANK NIFTY
BANK NIFTY	-0.0695694	1
SENSEX BANKEK	0.11665844	0.95154699
if considered Jan 2021 *also	FII BANK	BANK NIFTY
BANK NIFTY	-0.4647775	1
SENSEX BANKEK	-0.3472235	0.96519619

*indicate Jan 2021 value

Table Interpretation

The 2012 to 2020 data of Banking sector from table (h) reveals that the correlation between FII and Nifty has been calculated in table(i) which comes out to -0.0695694 and shows a weak negative

correlation. Whereas the correlation between Sensex and FII of same sector shows weak positive correlation. Looking at the current situation, the banking sector shows a moderate negative correlation for Jan 2021 data.

Oil & Gas Sector Correlation Analysis Table (j) Table (k)

CALENDER YEAR	FII OIL & GAS	NIFTY OIL & GAS	SENSEX OIL & GAS
2012	428.42	2352.64	8518.58
2013	329.50	2434.19	8834.42
2014	560.50	2978.17	9895.21
2015	32.25	2927.20	9555.61
2016	1142.08	3184.36	12151.64
2017	975.75	4484.01	16283.26
2018	-834.75	4768.44	13748.57
2019	1532.75	4936.19	14744.76
2020	474.00	4795.11	14090.07
2021*	666	5660	14793.04

Taken data till 2020	FII OIL & GAS	NIFTY OIL & GAS
NIFTY OIL & GAS	0.08508356	1
SENSEX OIL & GAS	0.27957546	0.928126918
if considered Jan 2021 *also	FII OIL & GAS	NIFTY OIL & GAS
NIFTY OIL & GAS	0.11095379	1
SENSEX OIL & GAS	0.28784335	0.913046998

*indicate Jan 2021 value

Table Interpretation

The result of Oil & Gas sector's table (j) reveals that FII and its Nifty Index shows weak positive correlation of 0.08508356 whereas the correlation between FII and Sensex is low to moderate positive correlation. Oil and gas sector in January 2021 showed a very less improvement.

REGRESSION ANALYSIS

Table (I)

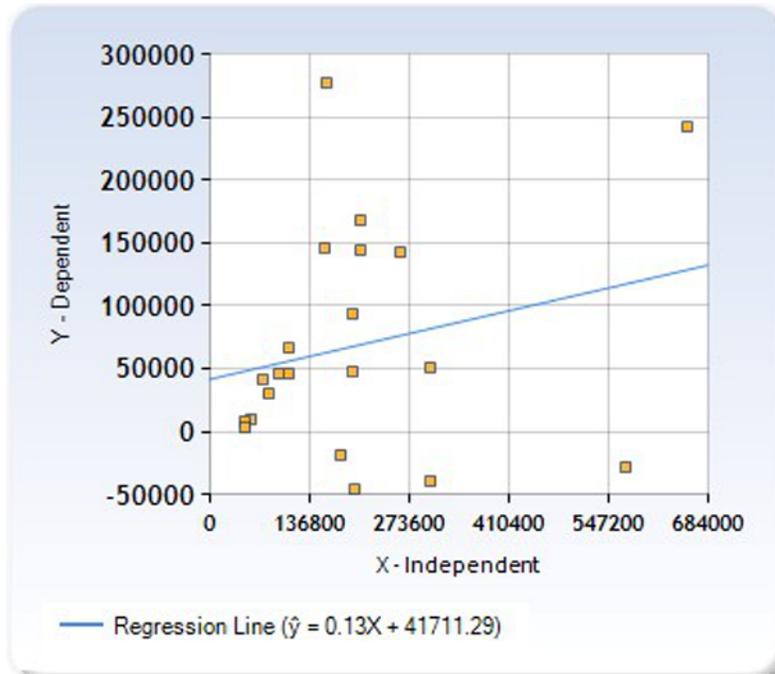
Regression Analysis	Shares Traded on NSE (NIFTY 50)	Total FII (Equity + Debt)
Financial	Independent (X)	Dependent (Y)
Year	Volume in thousand	INR crores
2000-01	57,372	9,933
2001-02	47,435	8,763
2002-03	48,649	2,689
2003-04	1,09,018	45,765
2004-05	96,450	45,881
2005-06	72,404	41,467
2006-07	80,553	30,840
2007-08	1,09,424	66,179
2008-09	2,00,331	(45,811)
2009-10	2,61,895	1,42,658
2010-11	1,59,423	1,46,438
2011-12	1,97,568	93,726
2012-13	2,06,282	1,68,367
2013-14	3,03,045	51,649
2014-15	1,60,211	2,77,461
2015-16	1,81,239	(18,176)
2016-17	1,97,568	48,411
2017-18	2,06,820	1,44,682
2018-19	3,04,194	(38,930)
2019-20	5,72,042	(27,528)
2020-21	6,55,509	2,41,917
2021-22**	7,80,000	1,43,111

** 1,43,111 INR Cr. is forecasted FII if estimated 780000 (volume in thousand is traded on NSE)

Fig (e)

Calculation Summary
Sum of X = 4227432
Sum of Y = 1436381
Mean X = 201306.2857
Mean Y = 68399.0952
Sum of squares (SS_X) = 499131679240.286
Sum of products (SP) = 66171451327.4286
Regression Equation = $\hat{y} = bX + a$
$b = SP/SS_X = 66171451327.43/499131679240.29 = 0.13257$
$a = M_Y - bM_X = 68399.1 - (0.13*201306.29) = 41711.28991$
$\hat{y} = 0.13257X + 41711.28991$

Fig (f)



Interpretation

Here the study tried to form a regression line/ equation with the help of Total FII and Shares traded on NSE Nifty 50 by taking Total FII as a Dependent Variable, while Shares traded on NSE Nifty 50 as an Independent Variable. By comparing the previous year’s data with the rates and then taking an average of the rates, further multiplying the average rate with 2020-2021 volume, it was noted that 7,80,000 can be traded. Then the study tried to predict Net FII investments (Rs 1,43,111 Cr) in India, if estimated 7,80,000 volume (in ‘000’) was traded on Indian Stock exchange.

CONCLUSION

The research investigates the trading behaviour of FIIs & DIIs in the Indian stock market, the DIIs has wider definition which includes MFs, banks, domestic financial institutions and insurance compa-

nies where FIIs act as momentum traders, the trading behaviour of DIIs is contrarian. On the basis of above discussed points, it can be inferred that FIIs had an influence on Nifty/Sensex movement to a greater extent as the study reveals positive correlation of 0.34868. The Study compared FII with DII in which it was found that FII’s still hold the market. This paper gives us a brief analysis of FII flows in India and how it influences the Indian market, also it indicates how contribution of foreign investors has impacted the investment in Indian market. As both Nifty 50 and Sensex indexes move side by side and they have a same impact by FII and hence Hypotheses of Sensex data is taken into consideration. The overview of three sectors shows that by comparing the data of FII’s it was found out that the oil and gas sector and the auto mobile sector is showing a good response compared to banking sector. Over the years, the foreign capital has become an extremely important source of

finance and therefore, the growth of FIIs in Indian stock market has seen an increase in investments as the economy grows.

RESEARCH DISCUSSION AND LIMITATIONS

- The study used FII's Mean data, Share traded volume mean, Turnover mean and Closing price means.
- Here the research tried to study the most recent data but the whole picture of financial year 2020 to 2021 can be studied after the full NSE, NSDL data is available.
- The Hypothesis testing is based on t-Test: Two Paired Sample for the Means and the relationship in junction with Karl Pearson's Correlation and Regression Analysis.
- Data can be 95% confident about hypotheses testing.

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Efficient Services needed for Multi Modal Transport in India

* Harshad Borhade and Huzan Madon
Co-author: Mr. Hemant Jog

Abstract

India will be a \$5 trillion economy in 2024-25, “Our economy was \$1.85 trillion when we assumed power (in 2014) and it reached \$2.7 trillion (in 2019) and recently it has reached \$3.05 trillion (in 2021). The agriculture sector constitutes about 16% of the Indian GDP, the industrial sector is contributing around 31% of the India GDP and the automobile sector of India accounts for over 7.1% of India’s GDP. Therefore, Transportation plays an important role in today’s modern world and also significant role in promoting national and global integration. An efficient transport system also helps in increasing productivity and gives a greater competitive advantage within the economy. Advancement in the transportation sector has resulted in comfort, convenience, easier & faster logistics. Transportation and Industrial development are interrelated. Without improved modes of transportation, it would be tougher for the industrial producers to produce and then sell their goods to wider markets.

Multimodal Transportation is defined as the transportation of goods under a single contract, but performed with at least two different modes of transport. Due to significant economies of scale which create low variable costs and intrinsically higher energy efficiencies, modes such as rail, water and pipeline, offer the potential to move goods much more cost effectively than trucks and with far lower energy consumption and CO2 emissions.

Improperly loaded truck can cause danger as it can flip over, causing truck accidents and Bad weather condition can cause fatal accidents. The challenges of multimodal transportation faced are the development of transport system is unbalanced. There is heavy pressure on rail and road transport in certain cities and regions Rail and Road transport systems are the main transportation in a country. These two should work in co-ordination. All modes of transport have old and worn-out infrastructure which needs to be replaced immediately. Improved technology will help in loading and unloading, tracking and preservation of Cargo. The first problem, related to multi-modal transportation, reflects the combination of at least two modes of transport in a single transport chain, without change of container for the goods. The second problem refers to use of common uni-modal transportation problem: the delivering of goods from a central depot to consumers with time windows, and where only the road transport mode is used.

Keywords: Multimodal Transportation, Inventory Management, Supply Chain, Logistics.

* Mr. Harshad Borhade and Ms. Huzan Madon
Students of Chetana’s Institute of Management & Research, (CIMR), Mumbai.
Co-author: Mr. Hemant Jog, Email: hemantjog45@gmail.com

INTRODUCTION

An industrialized society can't exist without a productive transportation framework if attempting to contend in worldwide business sectors in the 21st century. Exchange globalization, rethinking, and supply fastening, had changed the world forever. In a colossal and distinctive country like India where a beginning to end movement is a humongous task, multimodal transport is an amazing course of action.

India is at present the quickest developing significant economy worldwide, with GDP developing by 7.3% in 2018-2019 and expected to speed up by double digit in 2021-2022. Because of this quick development, India is ready to turn into the third biggest economy on the planet by 2030 and the second biggest, just after China, as far as Purchasing Power Parity (PPP) by 2040. The strong development in assembling as imagined through the "Make in India" activity will request undeniable degrees of calculated effectiveness, which implies that merchandise should not exclusively be delivered, they should likewise be productively shipped to business sectors at competitive costs.

Multimodal Transport proficiency can likewise profit ranchers through decrease in misfortune and wastage of produce during transportation to business sectors. The nations like Australia and Japan experience the deficiency of agriculture items during shipment is upto 2% to 3%, while many agricultural nations experience misfortunes up to 25%. At present, India loses 40% of agriculture creation to wastage in the store network. Diminishing that wastage could both turn out a revenue lift to ranchers and furthermore lower costs for produce which will make better nourishment for Indian residents. For this improvement, Indian government

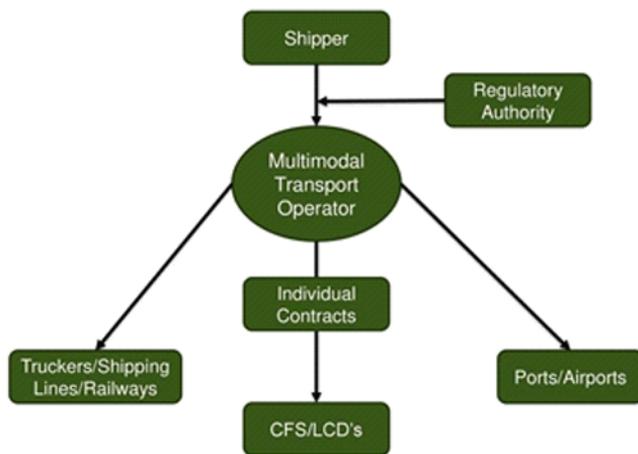
presented Jal Marg Vikas Project (JMVP), which is pointing towards advancing inland streams as an elective methods for transport that will be less expensive and eco-accommodating, particularly for freight development. It is being dealt with by the Inland Waterways Authority of India (IWAI). It has zeroed in on the productivity, low vehicle cost, high security, low draft and high conveying limit.

We are able to see the success of immunisation drive for COVID-19 vaccine because of collaborative efforts by the Indian government and various Multimodal players. The government is taking the right steps to ease both the import and export of COVID-19 vaccines. This can be seen in the pre-authorisation procedure that is already in place. Since the start of COVID-19 pandemic, the transportation industry has been successful in taking up distribution challenges in spite of various restrictions in force throughout the country. Throughout the lockdown, logistics companies made sure that the supply of essential commodity and the shipment related to the medical needs do not stop. They prioritised the emergency movement needed for the timely delivery of PPE kits, masks, and other medical equipment. The way it was handled is proof of the efficiency of the system in place. Indian railways played a major role by transporting such necessities in the quickest time. But at the end, COVID-19 experience suggests that as the economy is back on track and as we see the lowering of risk of COVID-19, we need to win customer trust, raise productivity, optimise asset utilisation, cut costs, minimise delays, simplify processes, enhance reliability. The vaccine logistics will potentially be an opportune moment for India's logistics industry to learn the right lessons.

The future development of Multimodal transportation is probably going to be influenced by various

elements—quick urbanization, segment changes, developing working class, the advanced upheaval, which will significantly affect versatility and transport. There is a worldwide change in transport itself to an integrated logistics service, involving the convergence of traditional transport infrastructure with the world of information technology.

MULTIMODAL TRANSPORT

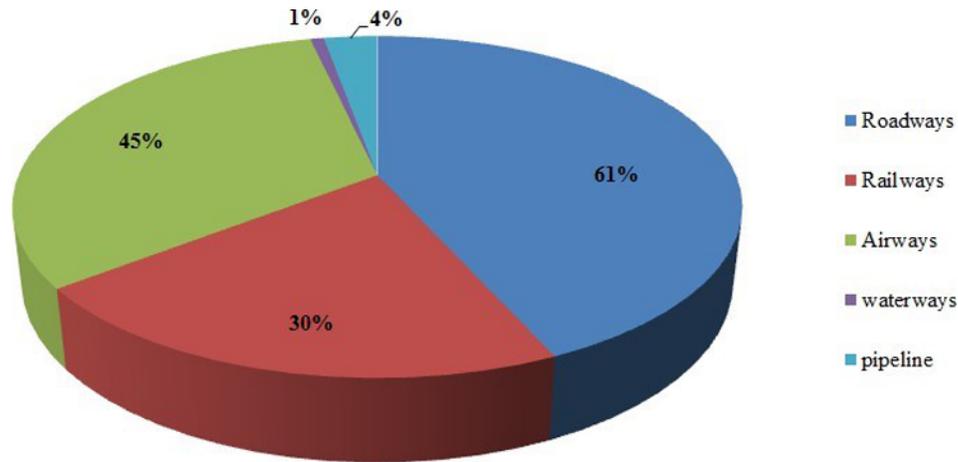


LITERATURE REVIEW

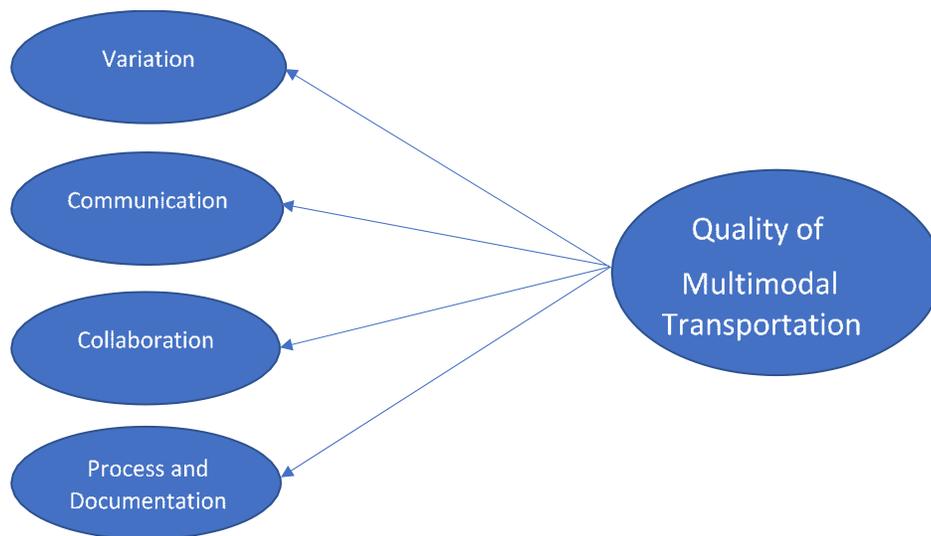
As India is a diverse country where an end-to-end delivery is a big task, multimodal transportation is an effective solution. Multimodal transport can mean different solutions depending on their portfolio of transport and storage options for various companies. The transport and logistics sector are fundamental to the development of a country. In 1966, Indian railways containerized the goods for transporting and started the intermodal freight transport in India. So, this year played a crucial role for Indian railways in promoting multimodal transportation in India. Initially, the Container Corporation of India Limited (CONCOR) was the sole operator of Inland Container Depot (ICD) and Container train operator. In the year 2018-2019 the market share of CONCOR is 66.36%.

In India, the majority of the transportation is done by road i.e., about 60 to 65 percent and by railways it is about 30 percent. Transporting goods through sea is negligible as sea is not spread over the entire country. Transferring goods is concentrated to limited regions and on the other hand coastal shipping is being promoted as an economical mode of transport. The market of Indian logistics is at about \$150 billion and also estimated that it generates employment to 45 million people. The Indian market size of logistics is \$150 billion and it is highly fragmented with a large number of unorganized players. Approximately 10-15 percent of the \$150 billion Indian logistics market is owned by organized players. The Indian logistics market is expected to grow at a CAGR of 10.7 percent from 2020-2024.

In India Multi-modal transportation was a monopoly of the CONCOR of Indian till 2005 by providing licenses to 13 new private players. In order to boost the small-scale industries, Indian Railways has initiated a road-rail system where container vehicles are capable of running both on highways as well as on rail. Multimodal transportation is the best solution in India with different modes of transportation in their various stages of evolution. Most common mode for transporting goods is by roads with railways catching up quickly. Air freight is expensive while inland waterways have just started. The movement of the cargo is more on the west coast of the country due to presence of natural harbour, for example Maharashtra and Gujarat. In order to maintain this growth, there should be proper investment in logistics infrastructure which will encourage and ease the sentiments of some foreign companies.



METHODOLOGY



❖ **Variation** - The variations in time, cost, quantity and form indicate the quality of MMT. Here variation in time implies deviation from the expected arrival time. By variation in time, the researcher intends to find the frequency of deviation from the scheduled time of operation. Variation in cost refers to the overrunning of the cost of logistics or operation by stakeholders executing MMT.

'Variation in quantity' means short shipment or

short landing and receipt of goods due to incorrect stowage planning, damage, theft or misplacement.

'Variation in form' implies distortion or deformation of the shape, characteristics or quality of products dispatched. The interviewees opined that low cost, is not an important criterion once the shipper agrees to bear the same. This means, they are looking for the right service at the right cost.

❖ **Communication** - Communication is an important enabler in any supply chain. It requires infrastructure, soft as well as hard, to carry out communication in the supply chain. The information can be utilized in planning if it is received correctly, timely and is easy to interpret. To measure the communication construct, five items on a seven- point scale are used. These are: the infrastructure required, timeliness and willingness of the communicator, the skill of the representative and standardization of information.

❖ **Collaboration** - To share spirit of tackling challenges among the stakeholders in MMT chain. The chain comprises multiple modes, nodes (terminals) and stakeholders. The quality of delivery in an MMT chain suffers when collaboration among the entities is weak. This is especially experienced when the stakeholders are fragmented, weak in compliances and their planning (strategic, operational and tactical) is disjoint. In case of containerized movement of export cargo, the shippers forward the forwarding instructions to the freight forwarder or the third-party logistics provider, who in turn negotiates with the shipping lines and forwards the cargo. At this point, the cargo is stuffed in a container, and with due approval from the Customs it is moved to the port. At the port, the documents meant for ports are submitted and acknowledged followed by the loading of the cargo on the ship.

❖ **Process and Documentation** - It is an important component in an MMT chain. The number of documents and complexity of processes are high especially in International Business. This complexity affects the performance of an MMT chain. By the bureaucratic system, lack of stan-

dardization and low competence of the service, the outcomes of MMT are affected.

ADVANTAGES

There are some pros & cons to this type of mode of shipment. The advantages of multimodal transportation are many as companies and businesses use this mode of transport as it is a win- win for the carriers and the customers. Its simplicity in the contract and the cargo flexibility makes it the most efficient among businesses.

❖ **Centralizes all the movements under your control** - Offering multimodal transportation means that the company is ready to provide integrated logistics demands. Besides providing customers with a one-way solution which provides a competitive advantage, having control over your customers' entire operations will also give you more authority as a forwarder. In other words, there is a flexibility to manage and plan everything according to what you believe it's best for the operation.

❖ **Enables you to offer more competitive fares** - Another advantage of multimodal transportation method is the ability to offer competitive fares. Most of the time, a forwarder is able to negotiate better prices when they are in charge of the entire logistics operation rather than just one stage of it. This happens because you'll have a broader perspective of the shipping process and how to optimize costs in each step of the way.

❖ **Reduced Lead time for customers** - Reducing the shipping time is probably the biggest reason to hire a multimodal transportation. If you offer this kind of service, you'll be able to

deliver your customers' cargo with unparalleled agility. The biggest reason for this is that the same staff will be in charge of monitoring the entire shipping process, therefore, communication along the journey will be much smoother and time-effective.

LIMITATIONS

- ❖ **Need to specialize/build partnerships in all areas** - Some forwarders have a specific service, such as air or sea freight, as their company's area of expertise and the main reason why customers choose them over the competition. However, in order to offer multimodal transportation, it is important to master in organizing shipping solutions that comprise all freight methods. This might require higher investments in terms of staff, infrastructure, and equipment. Besides, you'll also need to count on international partners that can supply you with all the logistics assistance that you require overseas.
- ❖ **More bureaucracy for the forwarder** - Each transport modal has its own regulations and requires handling a different kind of documentation. Aiming to provide a complete logistics service that includes more than one modal means having the customs knowledge to deal with all the bureaucracy involved in multimodal transportation demands. Depending on the complexity of the operation, this can be quite a task!
- ❖ **Lack of reliability** - Because of its dependence on more than one mode of transportation, intermodal transportation is also subjected to decrease overall reliability. As the chain of different forms grows, the probability of any con-

nection in the chain collapsing down also progresses.

OPPORTUNITY

Multimodal is getting a lot of attention especially on the route from India to Bangladesh. Currently, there are proofs of concept where trial runs have been completed, for example Kolkata to Benapole via Rail option, and likewise many trial runs have been planned. There is also an initiative around a Rail + Barge solution for which discussion is under way. The key benefits include transit time savings & avoiding double handling of cargo at borders.

“If a beginning could be made with Railways joining the multi modal logistics initiative though a common acceptable documentation, we will scale up fast. Also shipping lines need to be brought under the common documentation of multi modal logistics which will bring down logistics cost significantly.” Transportation of freight by rail, coastal shipping or inland waterways is significantly cheaper than that by road. However, there is an issue of first mile and last mile connectivity in rail and waterways transportation, whereby you require transshipments facilities. The first mile and last mile often have to be done by road and if you add these costs, sometimes, it turns out to be more than road transport alone. So, while it is cheaper and environmentally better to transport freight by rail/coastal shipping or by inland waterways, it may not necessarily be cheaper overall but we need to consider total cost of ownership by looking at the total lead time and the reduced inventory benefit before taking final decision.

There is a lot of buzz in the Industry about the much-awaited National Logistics Policy and complete roll out of various other Government

initiatives like DFC, various other infrastructure projects, trimodal terminals using inland waterways, rails and roads. Along with this the laws and regulations governing logistics need to be simplified too.

FEATURES/CHARACTERISTICS

- ❖ **Transportation under single agreement-** At least two sorts of transport are utilized to ship the item or carriage. This exchange can be between public just as global area. You can move materials or products utilizing a solitary agreement and there is just a single party in question for whole carriage. There might be a requirement for a mix of train and street transport for a scope of reasons. We may likewise add the choice of air transport which is ideal for the express vehicle of merchandise or critical conveyances. This aides in lessening the probability of experiencing correspondence issues at any vehicle point.
- ❖ **Time reserve funds-** Since in multimodal transportation single delivery organization completes the whole interaction, you'll just need to convey and get a report and update from the single resource. This guarantees less stressing over the shipment, and quicker travel times, which in the end bring about higher efficiency. The coordination's administrator (Multimodal Transport Operator) is the gathering that will prompt us on the course or mix of methods for transport that is the fastest and generally serious for our conveyance, in this manner diminishing expenses and time spans. This makes it simpler to track and follow the products.
- ❖ **Cost-effectiveness-** One of the advantages of multi-modular vehicle for contracting organizations is the presence of a solitary agent for the whole interaction, without the need to contract diverse strategic administrators. This hence includes lower managerial expenses, inferable from just going into one agreement. A lot simpler coordination's coordination inside multimodal can help you get a good deal on transportation. Reduced inventory could be a significant benefit, which needs to be evaluated.
- ❖ **Easier Communication-** At the point when organizations transport through multimodal transportation, they handle all delivery updates, postponements and cooperation's through one supplier and agreement. This gives transporters simplicity of psyche and improves on the way toward conveying between various contacts and transporters. Basically, when you have one individual liable for the whole transportation chain, it's a lot simpler to simply zero in on the business and not invest energy bobbing starting with one call then onto the next.
- ❖ **Faster Transit Options-** Because of new limitations on transporters on driving hours and different guidelines, some more drawn out pull shipments are not as quick as they used to be. The blend of various transportation modes under one agreement allows you to have a piece of psyche and equilibrium travel time. That way, you dodge drivers driving excessively long and, in this manner, sidestep delivering delays. Giving organizations more alternatives for their shipment gives you control and adaptability over the stacking and dumping measure. At last, multimodal transport helps ensure shoppers on-time conveyances and genuine expense reserve funds. Whether you are shipping by air, rail or barge, multimodal shipping can be a solution for you.

CONCLUSION

After researching the findings of this report, we can conclude that Multimodal Transportation still requires development in India. It is known to us that a company's success depends on how efficient & robust its multimodal transportation facility is. Therefore, it is important to choose the right permutations & combinations for achieving greater success & movement. For e.g.- rail & road, road & waterways etc. A great emphasis should be given to the supply chain & its smooth movement, this will get things back on track. Especially during the pandemic when everyone is waiting for the vaccine to come out. Cold chains can be used to transport the vaccine from one place to another through combination of waterways, roads, airways etc. As we all know, Warehousing & Transportation are also the fundamentals of the supply chain. If warehousing is handled correctly then there will be great export potential leading to major profits. Cost & time should be optimized. Human resources & human resource management should be done correctly. They should be able to handle IT, systems & all Technical aspects of movement in the supply chain. Therefore, an efficient Multimodal Logistics will improve both the top line and the bottom line of organisation.

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Exploring Online Purchase Intention of Online Food Delivery Services : A comparative study in India and Indonesia

* Akash Morwal, Saket Wakde, Simran Bathija and Pearl Vakharia
Co-author: Dr. Mahesh Luthia

Abstract

Online Food Delivery industry is growing globally with the changing socio-economic environment. Within the ASEAN region many players have emerged in the past few years in this segment. It is important for these firms to examine and analyse the factors that influence online purchase intention of Online Food Delivery (OFD) services. The study attempts to make an incremental contribution in the area of consumer behaviour by exploring how technology acceptance and consumer behavioural intentions based on the theory of planned behaviour can predict online purchase intention of Online Food Delivery (OFD) services. The theoretical model developed based in in-depth literature review was tested using the hypothesis. Location was used as the moderating variable to examine if difference in location had an influence on the predictors of Online Purchase Intention. Data was collected through online questionnaires from respondents using online food delivery platform from India and Indonesia. Multiple regression analysis indicated that Technology acceptance did not influence purchase intention however, perceived behavioral control predicted higher purchase intention compared to attitude and subjective norms. While examining the behavioural intentions of respondents between the two countries the study was able to identify specific motivational influence on online purchase intentions. This paper presents a framework that can be adopted by online food providers for understanding factors that influence online purchase intentions. The study extends the application of the theory of planned behaviour to help online food delivery providers to understand how a positive attitude, social expectations and perceived control influence higher intention to use online food services. The study concludes by identifying future research areas and limitations of the study.

Keywords: Online Food Delivery, Consumer Behaviour, Online Purchase Intention, Technology Acceptance

1. INTRODUCTION

The online food delivery (OFD) service market in India is seeing a lasting boom owing to evolving lifestyle patterns and changing eating habits of Indians. Hectic Work Schedules, Increasing Dispo-

sable Incomes and adoption of technology has popularized the concept of food delivery. Discounts offers and effective marketing strategies have made online food ordering a habit now. The Online food Delivery industry in India is expected to grow up to \$12.7 billion by 2025 encouraged by higher

* Akash Morwal, Saket Wakde, Simran Bathija and Pearl Vakharia
Studnets of Chetana's Institute of Management & Research, (CIMR), Mumbai.
Co-author: Dr. Mahesh Luthia, Chetana's Institute of Management & Research, (CIMR), Mumbai.
Email: mahesh.luthia@cimr.in

internet penetration and adoption of technology (IMARCGroup, 2021). ASEAN is a region of geo-strategic importance to the world. While considering the choices to study the expansion in various markets. It is one of the world's fastest-growing emerging markets with economic performance outperforming global average. Emergence of the OFD services can be attributed to a multitude of factors ranging from rising income & consumerism to changing consumer attitudes, including the greater reliance on E- Commerce and online delivery services. These factors are creating a pull effect on organisations to internationalise their operations and provide motivation to enter into different countries including Indonesia among the ASEAN Nations (India & Economy, 2021)

Online food ordering is the process of ordering food from a website or a mobile application. Products, can be either ready to eat food (Home kitchen, restaurant etc) or food that has not been specially prepared for direct consumption (eg vegetable, frozen meat etc). Major Players currently operating include platform-to-customer service providers like Swiggy, Zomato, Faasos etc. Apart from these, certain companies like Box8 operation with a restaurant-to- customer delivery model.

ASEAN is a region of geo-strategic importance to the world. While considering the choices to study the expansion in various markets, ASEAN was a natural choice for the same. It is one of the world's fastest-growing emerging markets with economic performance outperforming global average. The ASEAN's booming middle class will result in major implications. The F&B category will be the biggest beneficiary. ASEAN consumers will continue to spend more in F&B than any other category. Within the food and beverage industry in the ASEAN Market, there is an emerging wave of the online

food delivery (OFD) Service.

Understanding motives and factors to adopt online food delivery services are important for the service provider. Food is a low involvement product and hence customers do not give much consideration to past transaction in terms of food-price choices (Monroe and Lee, 1999). The findings of Yeo, Goh, Rezaei (2017) indicate that attitude impacts intent. While analysing from customer perspective the research contributes to the better understanding of the environmental factors that contribute to the growth of the online food delivery service from a customer perspective. In addition, since online food delivery apps are technology based platforms we examined the influence of attitude towards technology acceptance based on the UTAUT (Venkatesh et al., 2003) on the Intention use OFDs within the integrated framework developed by Cheung et al. (2003) to understand consumer behaviour. To gain a contemporary perspective, we explore if there is a positive relationship between attitude towards OFD on the intention to adopt OFD service. Among the environmental influence, culture impacts the intention to use OFD service. The study examines the influence of culture on purchase intention The Objective of the study is to determine the influence of technology acceptance on online Purchase intention of Online Food delivery services.

Integrated marketing communication play a key role in influencing customer behaviour. Online food ordering businesses need to focus on building trust in the post Covid-19 era. Changing socio-demographic and behavior aspects create new challenges for such firms. While examining the online behaviour of consumes using online food delivery, the study considers the online consumer as a shopper and IT user. Based on the integration of the UTAUT model and Consumer Behaviour

(Marketing) the study presents a theoretical framework of online consumer behaviour that can be used by firms for making entry decisions in markets where the cultural distance is limited in the ASEAN context.

1.1 Problem Statement

Changes in consumer behaviour and differences in adoption of technology creates challenges for consumers adopting online food ordering platforms. Organizations in the 21st century need to evolve their marketing strategies according to the changing times. While there is a growing trend of many online applications emerging to offer serve the customer segments, not all players are able to achieve have a positive impact on influencing customers in a virtual environment using mobile apps. It is important to examine ease of use of technology and consumer characteristics that impact intention of users to purchase online to segment customer in the online food delivery business. Here it becomes extremely important for marketing managers to understand the need of consumer behaviour attributes and technology acceptance on the purchase intention of their target audience.

1.2 Purpose of the study

The purpose of the study is to conceptualize a model highlighting the importance of technology acceptance & Consumer behaviour attributes on the purchase intention of online food delivery. With this, we would understand whether technology and consumer behaviour positively or negatively impacts the purchase intention of online food delivery.

1.3 Research Objectives

1. To determine the influence of technology acceptance on online purchase intention of OFD services

2. To evaluate the influence of consumer characteristics on online purchase intention of OFD services
3. To analyse how locational differences influence adoption of online food delivery services.

2. REVIEW OF LITERATURE

Examining Consumer behaviour has attracted attention of many researchers in different fields. With the emergence of online shopping, researchers have examined intent to purchase as an indication and motivation to purchase behaviour. Intention to purchase has also been established as a indicate of usage behaviour based on product/service experience and understanding of technology. Online Purchase intention can be defined as the willingness of a customer to make online purchase or select an online service. Intent to use online shopping is widely impacted by the level of acceptance of technology and consumer traits (Singh and Srivastava, 2018).

Various theoretical intention-based frameworks such as Fishbein & Ajzen (1975), Theory of Reasoned Action (TRA), Ajzen's, (1991) theory of planned behaviour (TPB) and Davis (1989) (TAM) i.e. technology acceptance model (TAM) have be examined. The research model of this study is based in the integration of Davis's (1989) technology acceptance model (TAM) and Ajzen's (1991) theory of planned behaviour (TPB). The TPB has been used by many researchers to examine factors that influence consumer behaviour including online purchasing behaviour. To examine the influence of Technology acceptance and Consumer Behavioral Intentions on the Online Purchas Intention of Food Deliver services four hypothesis were developed.

2.1 Model of intention, adoption and continuance (MIAC)

The Engel-Kollat-Blackwell consumer behavior model that was adopted by researchers to explain consumer behaviour. The models helps marketers to understand factors that impact five stages namely problem recognition, search, alternative evaluation, choice and outcome. However, with the emergence

of online buying the understand factors that influence online customers in adopting and using these applications. Cheung et al. (2003) developed an integrated framework based on Fishbein's (1967) attitudinal theoretical model that could help online service providers to develop marketing plans to attract customers to use their products online.

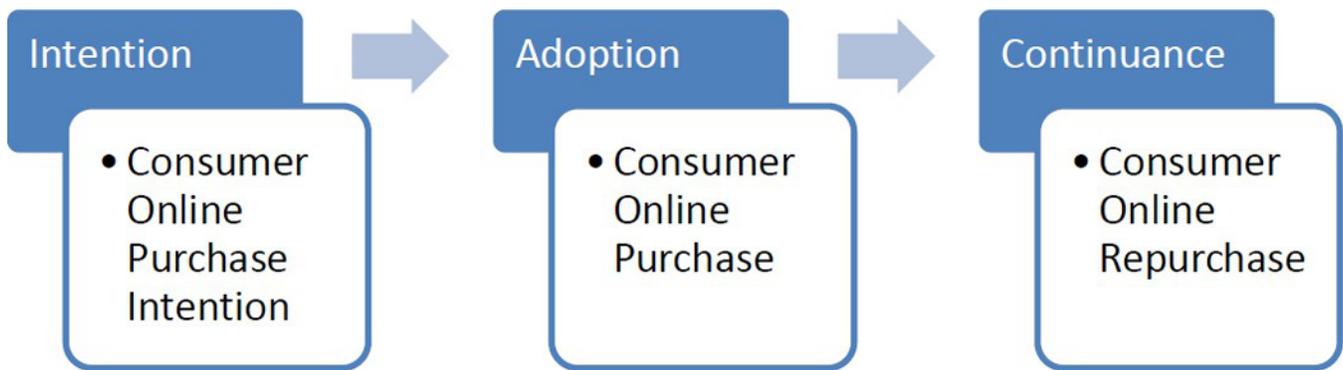


Fig. 1 : Intention, Adoption and Continuance (MIAC) Model (Cheung et al. (2003), p. 199)

Engel et al (2001) cited in Cheung et al. (2003) suggested that Consumer behavior influenced by different environmental factors (Refer fig 2) such culture, social influence (subjective norms), peer influence, and mass media play an important role in affecting consumer intention to use online services.

2.1 Technology Acceptance

User acceptance of any IT or information system is key to effective implementation. TAM explains that individual behaviour when using a system is affected by perceived ease of use and perceived usefulness. (Davis, 1989). Two factors of the TAM model, perceived usefulness and perceived ease of use help to explain why some applications are more accepted than others. While several refined models have emerged after this model, the unified model called the unified theory of acceptance and use of technology (UTAUT) model developed by

Venkatesh et al. (2003) overcomes the limitation of understanding the relationship between attitude and usage intention. This model has important factors and contingencies that predict behavioural intention to use an application or technology.

The UTAUT model has been widely used to examine adoption of technology as it examines performance expectancy, effort expectancy, social influence, facilitating conditions that determine behavioural intention to gain perspectives on the attitude towards technology acceptance (Yeo, Goh and Rezaei, 2017; Chao, 2019).

Based on the above findings the following hypothesis H1, is proposed :

H1, Technology Acceptance has a positive influence on purchase intention of Online Food Delivery (OFD) services.

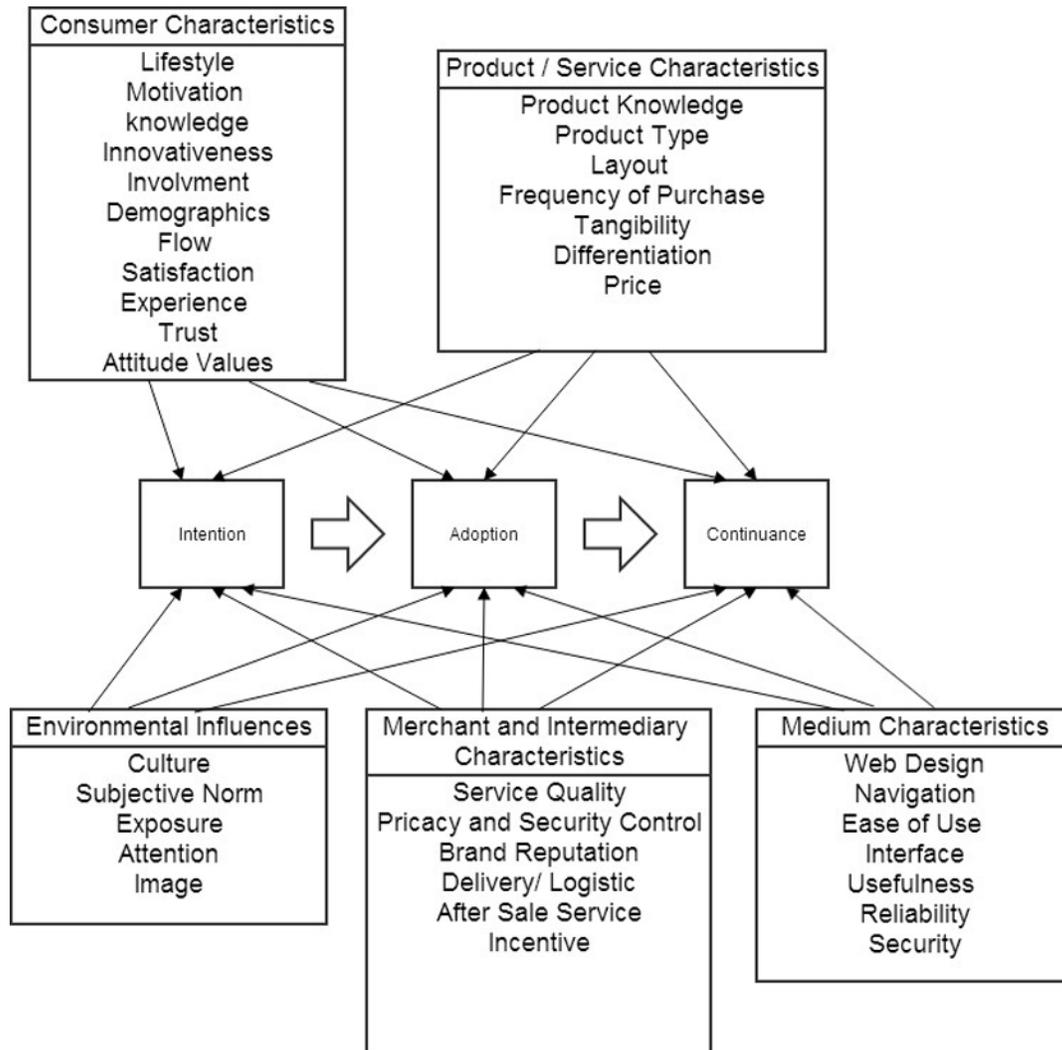


Fig 2 : Factors that influence Intention, Adoption and Continuance (MIAC) Model (Cheung et al. (2003), p. 199)

2.2 Customer Characteristics

The Theory of Planned Behaviour (TPB) suggests that intention predicts behaviour and these intentions are influenced by Attitude, subjective norm, and perceived behavior control largely determine consumer online purchase intention (e.g. Bhattacharjee 2000, Keen et al 2000, Limayem et al., 2000). Based on Ajzen's (1991) Theory of Planned Behaviour (TPB) which is an extension of Ajzen and Fishbein's (1980) theory of reasoned action (TRA) which suggested that including

perceived behavioural control would help in stronger prediction of the intention of the target behaviour. Higher the perceived behavioural control higher would be behavioral prediction of a behaviour (Madden, Ellen and Ajzen, ,1992).

2.2.1 Attitude towards OFD

An individual's attitude influences the response to a stimulus. Attitude is also the extent to which and individual develops a favorable or unfavorable assessment of the target behaviour. Higher the

positive/favorable attitude, higher would be the intention to carry out the behaviour. The attitude towards online services is an important factor that affects intention to purchase (Belanche, Flavián and Pérez-Rueda, 2020). The findings of Yeo, Goh and Rezaei (2017) indicated a positive relationship between attitude towards OFD services and behavioral intention towards OFD services.

2.2.2 Subjective Norm

Normative beliefs and an individual's motivation to comply with these beliefs are subjective norms. These norms, reflect the social pressure an individual perceives about matter that impact their behavioral intentions. The positive perception that society has of these new business models is likely to influence the subjective norms of customers in deciding whether or not to use OFD (Belanche, Flavián and Pérez-Rueda, 2020).

2.2.3 Perceived control (Perceived Behaviour Control)

An individual's perception of the ability to adopt a particular behavior is manifested by Perceived control of the possession of knowledge and/or resources required to adopt a behaviour. It has been considered a key determinant of intentions to do something. the adoption of some behaviors is often associated with difficulties that are more relevant for certain population groups. Customers need to feel that they are able to control them in order to decide to use the OFD service (Belanche, Flavián and Pérez-Rueda, 2020).

Based on the above discussions the following hypothesis H2, is proposed:

Consumer's behavioral intentions in terms of Attitude towards Online Food Delivery, Subjective Norms and Perceived Control has a positive

influence on purchase intention of Online Food Delivery (OFD) services

2.3 Locational differences

Globalisation by multi-national firms has resulted in various challenges associated with marketing of products and services. One of the key challenge that marketers face across culturally different markets is determining the influence of cross-national differences in consumer behaviour and attitude. When markets differ significantly due to cultural values, it is important to examine differences in consumer attitude in home country and host country (Morgeson, Sharma and Hult, 2015). Culture shapes online buying behaviour (Badgaiyan and Verma, 2014) and Cultural values are at the root of consumer behavior due to which firms must understand cultural difference when they internationalize their operations. Many aspects of consumer behaviour are associated to a national culture. A nation's culture impacts the level of consumerism, or materialism that members of the society believe. Cultural values of a national or region impact attitude and behaviour towards social and mental processes. These values impact product usage, Adoption/diffusion of innovations, brand loyalty and response of marketing activities (De Mooij and Hofstede, 2011). With limited research in the area of examining the influence of locational differences on technology adoption and consumer behavior in the Online Food Delivery Service, this research aims to make an incremental contribution to the field of consumer behaviours. Hence, examining the impact locational difference on intention to use OFD services will provide interesting insight to segment customer along with variables. It will enable online service providers to design and deliver marketing communication based on their location and point of purchase which will be more effective.

Based on the above the following hypothesis H3 and H4 are proposed :

H3, Locational difference moderates the relationship between Technology acceptance and online purchase intention of Online Food Delivery (OFD) services

H4, Locational difference moderates the relationship between Consumer's behavioral intentions and online purchase intention of Online Food Delivery (OFD) services

The study integrates the framework and the theory of reasoned action that helps to explain how behavior is predominantly determined by intention. Intention, adoption, and continuance are the key building blocks of our proposed framework of online consumer behavior.

Based on the above discussions the study proposes an integrative theoretical research model (Refer fig 3) based on the UTAUT model, Cheung et al. (2003) model of consumer behaviour for online purchase.

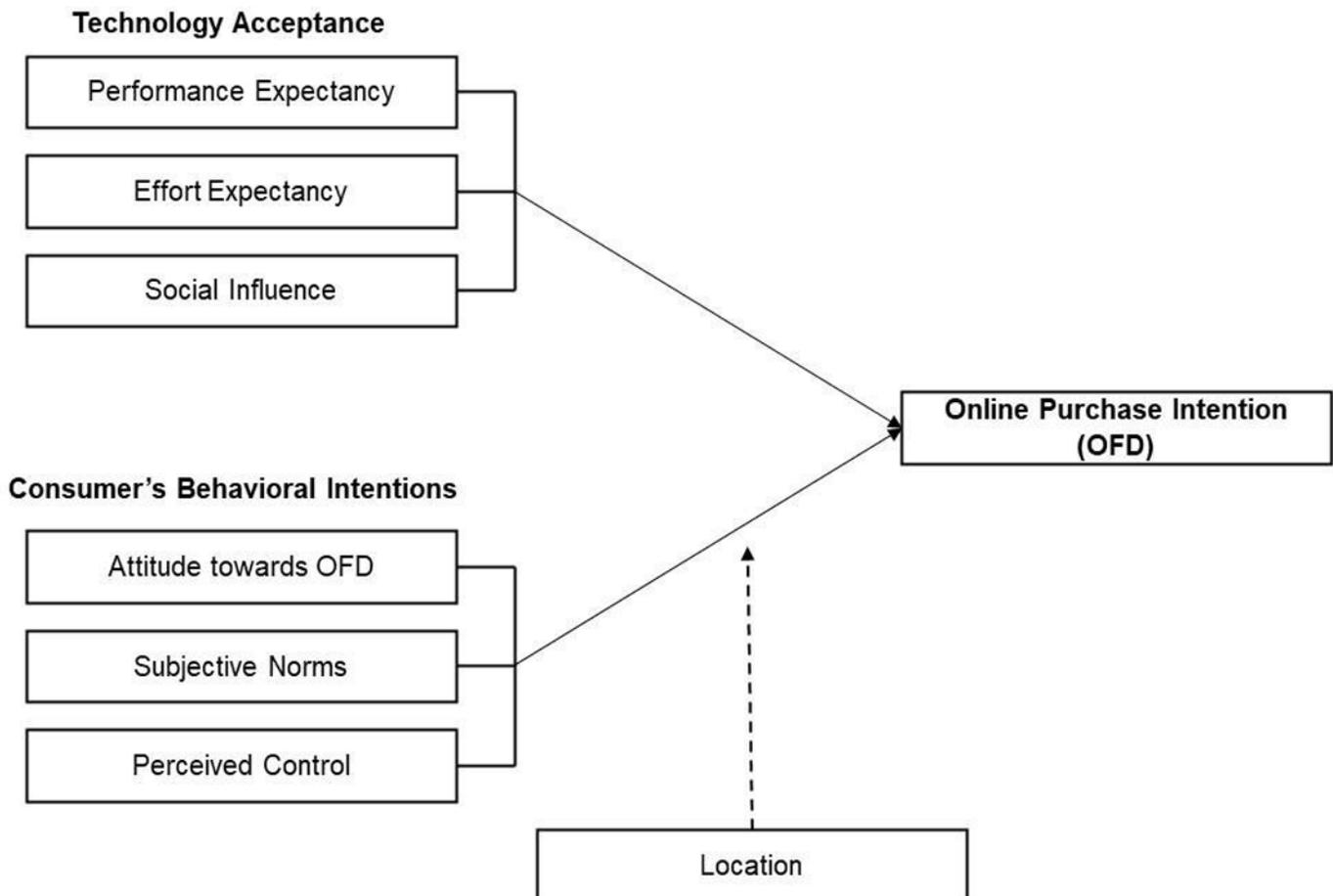


Fig 3 : Proposed theoretical model

The above theoretical model was tested using the hypothesis proposed to examine the influence of Technology acceptance and Consumer Behavioral Intentions on Prurchase Intention of Online Food Delivery services. Location was used as the moderating variable to examine if difference in location had an influence on the predictors of Online Purchase Intention for Online Food Delivery Services.

3. RESEARCH METHODOLOGY

3.1 Research Design

As per Hair et al. (2003) the study has adopted an exploratory design to help us gain some more understanding of the problem and it the initial research, which forms the basis of more conclusive research. This study has adopted a quantitative approach and used cross-sectional survey for data collection to test the theoretical model. The first step of secondary research was to develop a research question based on which the investigation study was developed. The secondary research based on literature reviews focused on analyzing journal articles, case studies and white papers focused on Technology acceptance Models, online consumer behaviour and national culture. Efficient literature search techniques and strategies was implemented by the researchers using appropriate key words and techniques using e- resources for literature review and development of scales.

3.2 Sampling

Non-probability sampling method was adopted for this study as which refers to the selection of respondents being a subjective judgment by the researcher. This approach is most suited when the population is not known or the sampling frame is not completely available. Additionally convenience sampling was appropriate as it reduces cost of data

collection (Hair et al., 2003).

Data of a reasonable number of sample of 106 respondents were analysed. The respondents were from two different countries. 74% of the respondents were Indians in the age group of 18 to 31 years of age; 26% of the respondents were Indonesians in the age group of 18 to 36 years. The sample comprised of students and working professionals who were using online Food Delivery Services.

3.3 Scales

The scales for each construct were adapted from earlier studies with minor modifications. In the demographics section, there were a total of seven variables: gender, age, nationality, ethnicity, highest level of education. In the second part, Items that measured performance expectancy, effort expectancy and social influence in the UTAUT model were adopted from Han and Conti (2020) and items for Attitude, subjective norm, and perceived behavior control were adopted from Belanche, Flavián and Pérez-Rueda (2020). All the constructs were measured using a 5-point Likert scale of 1- strongly disagree to 5- strongly agree.

3.4 Reliability and validity Scales

To establish reliability of the scales used for the study the reliability analysis was carried out in SPSS. Inter-Item co-relations were examined along with Cronbach's alpha. The scales in indicated a good reliability with the value of $>.60$, all the items. Table 1, outlines the reliability estimated Cronbach's alpha for each scale:

Table 1 : Cronbach Alpha Values of the Scales

Sr. No.	Scale	No. of Items	Cronbach Alpha
1	Performance expectancy	04	0.626
2	Effort Expectancy	04	0.781
3	Social Influence	03	0.864
4	Attitude towards OFD	04	0.864
5	Subjective Norms	03	0.786
6	Perceived Control	03	0.811
7	Online Purchase Intention	03	0.846

4. RESULTS

4.1 Data Collection Plan

Based on the questionnaire developed using literature reviews, data was collected using google form that was sent to the respondents across the two countries. The data was imported into SPSS for analysis, where a stepwise multiple regression analysis was run. Initial assessment of measurement validity was confirmed using factor analysis to ascertain loadings scored around 0.9 on their respective constructs. An additional indicator of convergent validity, through average variance extracted (AVE) values was ascertained. To test the hypotheses and the structural model, data analysis using SPSS software would be carried out. Descriptive analysis would be carried out to identify appropriate customer segments.

4.2 Primary Data Analysis

Kaiser Meyer Test for Sampling Adequacy was performed to examine if the sample was adequate for factor analysis. The model summary table reports the strength of the relationship between the model and the dependent variable. R, the multiple correlation coefficient, is the linear correlation between the observed and model-predicted values of the dependent variable. Its large value indicates a strong relationship between the same. Based on the estimates of R Square, the coefficient of determination explained 50% of variation by the model. Hence it can be concluded that 50% of the variation in the Online Purchase intention is impacted by the predictors i.e. independent variables of the study. Table 2 exhibits the predictors of the Online Purchase Intention.

Table 2 : Predictors of Online Purchase Intention (Summary)

Predictors of Online Purchase Intention	R	R Square
Performance expectancy, Effort Expectancy, Social Influence, Attitude towards OFD, Subjective Norms and Perceived Control	.704	.496

To further examine the model from a statistical perspective, the F value was computed that helps to explain that the variation explained by the model is not due to chance.

**EXPLORING ONLINE PURCHASE INTENTION OF ONLINE FOOD DELIVERY SERVICES :
A COMPARATIVE STUDY IN INDIA AND INDONESIA**

Table 3 : ANOVA Table for estimating F value

Model 1	Sum of Squares	df	MeanSquare	F	Sig.
Regression	27.970	6	4.662	16.379	a .000
Residual	28.462	100	.285		
Total	56.432	106			

- a. Predictors: (Constant), Performance expectancy, Effort Expectancy, Social Influence, Attitude towards OFD, Subjective Norms and Perceived Control
 b. Dependent Variable: Online Purchase Intention

The F value was estimated to examine the variability of the group mean. The high value above and the significance value of less than .01 indicates that there is variance in the group means and there is a larger dispersion between the means of the two groups. This is the first test that was carried out to test the hypothesis.

4.3 Hypothesis Testing

Based on the literature review on consumer behaviour the hypothesis were proposed to examine if Technology Acceptance and Consumer Behavioral Intentions influenced Online Purchas

Intention of Food Deliver services.

Table 4 presents the results of the multiple regression analysis using t-test to assess the strength of the proposed relationships. The t-test was used to compare the mean values of the two samples i.e. the respondents from India and Indonesia to examine if locational differences (Geographic variable) influenced the predictors of the intent to purchase. The t- test also helped to compute the *beta* coefficient to measure the strength of the influence of the predictors in the dependent variable, Purchase Intention OFD.

Table 4 : Regression Analysis for Hypothesis Testing

Hypo	Independent	Dependent	Beta Value	T	Sign	Result
H1	Technology acceptance	Performance Expectancy	.060	.731	.467	Reject
		Effort Expectancy	.018	.209	.835	Reject
		Social Influence	-.017	-.199	.843	Reject
H2	Consumer's Behavioral Intentions	Attitude towards OFD	.221	2.201	.030	Accept
		Subjective Norms	.229	2.231	.028	Accept
		Perceived Control	.347	3.441	.001	Accept

Based on the findings above H1 is rejected indicating that Technology Acceptance does not purchase intention of Online Food Delivery (OFD) services. The results provide support to hypothesis 2 which 4: indicated that positive attitude ($\beta=0.221$ and $p<.05$), subjective norms ($\beta=0.229$ and $p<.05$),

and perceived behavioral control ($\beta=0.347$ and $p<.01$), as a significant and positive influence on purchase intentions on Online Food Delivery Services.

To examine if Locational difference moderates the

relationship between Technology Acceptance and Consumer's behavioral intentions on online purchase intention of OFD services, the mean values of the two groups, Indians and Indonesia was com-

puted using the two-sample t-test. **Table 5** indicates the mean values of the two Groups for testing Hypothesis 3 and 4 :

Table 5 : T-Test Table for Two Samples

	Standardized Coefficients (Beta)	T value	Sig.	Standardized Coefficients (Beta)	T value	Sig.
	Indians			Indonesians		
Constant		.853	.397		.300	.767
Technology Acceptance						
Performance Expectancy	.083	.733	.466	.141	.861	.400
Effort Expectancy	-.011	-.108	.914	-.140	-.711	.486
Social Influence	-.050	-.467	.642	-.059	-.271	.789
Behavioral intentions						
Attitude towards OFD	.389	3.241	.002	-.099	-.464	.648
Subjective Norms	.265	2.220	.030	.335	1.486	.154
Perceived Control	.105	.885	.379	.678	3.376	.003

Based on the findings above H3 is rejected suggesting that Locational difference does not moderates the influence of Technology Acceptance on online purchase intention of Online Food Delivery (OFD) services. However, H4 is accepted partially as Indian's are more influenced by attitude ($\hat{\alpha}=0.389$, $t=3.241$ and $p<.05$), and Subjective Norms ($\hat{\alpha}=0.265$, $t=2.22$ and $p<.05$) towards the OFD, whereas the respondents from Indonesia were more influenced by perceived behaviour control ($\hat{\alpha}=0.678$, $t=3.376$ and $p<.01$).

5. DISCUSSION

The main objectives of the research was to explore how technology acceptance and behavioural intentions of consumers based on the theory of planned behaviour can predict online purchase intention of Online Food Delivery (OFD) services. The results indicate that the two factors could explain 50 percent of variance in intention to use online food delivery services. The model was

statistically significant and theoretical model could assess the factors that influenced respondents from both nations.

The study indicated the behavioural intentions in terms of Attitude, Subjective Norms and Perceived Control had a significant impact on online purchase intention of Online Food Delivery (OFD) services. Attitude is one of the key characteristics of consumer that impacts intent along social pressure and perceived control. The findings are in line with the theory of planned behaviour (Madden, Ellen and Ajzen, 1992) and findings of Alam and Sayuti (2011) which suggest that perceived behaviour control has a strong influence on intentions. Strong the perceived behavioral control, higher will be the level of prediction to perform certain behaviour. Technology Acceptance not influencing online purchase intention of Online Food Delivery (OFD) services could be attributed to the age of the respondents. Since the respondents were young, educated and would be technology savvy, it would

not be a key factor that would directly affect intention to purchase.

6. CONCLUSION

With increasing digitalization of products and services there is a need for marketers to examine factors that influence online purchase intention. The increasing trend of online food delivery services has attracted many players in this sector. It is important to examine factors that influence consumer behaviour. The study carried out in two emerging markets, India and Indonesia indicate that behavioural intentions in terms of Attitude, Subjective Norms and Perceived Control had a significant impact on online purchase intention of Online Food Delivery (OFD) services compared to Technology Acceptance. The findings provide evidence that the theory of planned behaviour (TPB) can effectively be adopted to analyse and predict purchase intentions. To increase consumers, online food service providers must develop social expectations and a positive attitude towards online food delivery. Comfort, economic pricing and safe packaging could be promoted to develop a positive attitude towards online food delivery services. Most important based in the impact of perceived behavioral control on purchase intention, if online food providers demonstrate through their marketing communication that consumer have complete control on what to order, where to order and how to pay if will have a positive direct and indirect effect on their intention and purchase behaviour. The motivational influence will reinforce the intention to buy.

The research would help marketing managers of OFD Services and Other Delivery Services understand the importance of attitude in purchase intention and channelize their marketing strategies

accordingly. It would also enable them to understand factors related of consumer behaviour that influence online purchase intentions.

The future research studies can concentrate on identifying the relation between consumer behavioural intention and purchase adoption and continuation of the MIAC Model. The study could be used to provide empirical data to explain factors adopted by leading online food delivery platforms such as Zomato and Swiggy to illustrate how this theoretical framework in implanted practically.

The study has considered only technology acceptance and behavioural intentions in terms of Attitude, Subjective Norms and Perceived Control based on the theory of planned behaviour in examining the predictors of purchase intention. Cultural variables could be included to expand the study. The study also has a small sample size which could limit the generalization of the findings. The study could be made more comprehensive by analysing the influence of other demographic data on purchase intentions.

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