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A Study on Glimpse of Escalating Tendency of Motorbikes in Chennai City

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ABSTRACT

Chennai, the capital of Tamil Nadu, the gate way of South East Asia, and one among the mega cities of the world. The City being the engines of growth, it is natural that most of the population would be concentrated in urban areas, for their chic living. City needs to gear itself to the daunting task to play the lead role in the economic development of the region. Liberalization of the national economy by Government of India since early nineties has been redefining the role of urban areas particularly metropolitan cities in economic development. As the quality of urban infrastructure particularly urban transport infrastructure is so vital for the vibrancy of metropolitan economy. Chennai is nicknamed the Detroit of south Asia due to the presence of major automobile manufacturing units and allied industries around the city. As of 1 April 2017, the total vehicle population of Chennai is 3,881,850, including 3,053,233 two wheelers. Two-Wheeler industry is one of the largest industries in the automobile sector of global market. Being the leader in product and process technologies in the manufacturing sector, it has been recognized as one of the drivers of economic growth. It has been observed that in a last few decades, peoples are mostly like to acquire the motorbikes for daily usage. Traffic congestion is a public issue which can strike a balance between urbanization and urban mobility. This study investigates the evaluation and usage of motorbikes in Chennai city. The study designed as descriptive research and is limited to the Chennai city. It reveals the vital role of brand name and increasing trend in purchasing motorbikes in recent years to avoid traffic congestion.

Key words: Traffic congestion, two wheelers, Population growth, urban mobility.

INTRODUCTION

Chennai situated on the shores of the Bay of Bengal [with latitude between 12°50'49" and 13°17'24", and longitude between 79°59'53" and 80°20'12"] on the coramandal coast in southern India and the land is a flat coastal plain. Chennai Metropolis is the fourth largest metropolis in India. CMA comprises the area covered by Chennai City Corporation is 176 sq.km. Most of the cities in Asian countries are experiencing multi-faceted problems as a result of rapid urbanization. Urban congestion is one such problem afflicting urban agglomerations urban congestion is broadly defined as excess demand for travel over its supply. With such a rapid increase in urban population, there has been an increase in demand for mobility, and with it, an increase in motorized vehicle ownership. As of 1 April 2017, the total vehicle population of Chennai is 3,881,850, including 3,053,233 two wheelers.

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BACKGROUND OF THE STUDY

Chennai is a major commercial, cultural, economic and educational centre in South India. The city has 4.68 million residents, making it as most populous city in India. The density pattern indicates that the City has the highest gross density of 247 persons/ha, whereas the average gross density in CMA is only 59 persons/ha. The rapid growth of population in the city has been causing a strain on the existing urban services and infrastructure. The transport sector is vital and needs carefully planned expansion to meet the demands of the increasing population.

In the current scenario, many two wheeler companies coming up and competing with each other by providing advanced technology and great engineering designs. As per data, from Tamil Nadu transport regional office (2016), there is an average of 800 new two wheelers are registered every day in regional transport office across the city. Significantly, two wheeler models in India get popular when they are in good price range and have other attractive features. Inadequate public transport system, Traffic congestion and easy loan facilities are the reasons for increasing trend of two wheeler population in the city.

TWO-WHEELER MARKET IN INDIA

Indian Two-Wheeler Market is noticing a continuous upsurge in demand and resulting in growing of sales volume. This owes a lot to the launching of new attractive models at affordable prices, design innovations made from youths‟ perspective. The sales volume in two-wheeler sector shot up from 15% to 24% between 2008-09 and 2013-14. A considerable expansion was seen in the sales volume of the scooter segment during 2014-15 as far as the two-wheelers were concerned. The two-wheeler segment is divided into 3 major product classifications:

(1) Mopeds; (2) Motor cycles; (3) Scooters

SCOOTERS: Scooter is a vehicle with an engine and two small wheels that look like a small motorcycle. Scooters are perceived as more of a utility vehicle or a family vehicle. It has more safety features than a motorcycle.

MOTOR CYCLES: The major players in the motorcycle market are: (1) Bajaj Auto Ltd., (2) TVS Suzuki, (3) Hero Honda, (4) Escorts Yamaha and (5) Royal Enfield.

MOPEDS: The market for mopeds has not been witnessing much activity in the last few years. This is mainly on account of the gradual shift in the demand pattern which has seen consumers buying the other categories of two wheelers, motorcycles segment gaining the most.

TABLE :1 TWO WHEELER SALES PERFORMANCE IN 2015

	2015(IN UNITS)	2014(IN UNITS)	% CHANGE
Scooters	4880117	4320925	12.90%
Motor cycles	10523909	10896687	-3.40%
Total	15404026	15217612	1.20%

Source: SIAM

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TABLE:2 TWO WHEELER SALES PERFORMANCE IN 2017			
Segment	**APRIL 2016 (IN UNITS)**	**APRIL 2017 (IN UNITS)**	**GROWTH %**
Scooters	468 368	586,886	25.3%
Motor cycles	1,024,895	1,029,972	0.5%
Mopeds	67,045	57,938	-13.6%
Total : two wheelers	**1,560,308**	**1,674,796**	***7.3%***

Source: SIAM

The two wheelers segment registered a growth of 7.3%, at 1,674,796 units during the month of april 2017. In 2-wheeler segment, only scooter sales witnessed a sharp growth of 25.3% at 586,886 units. Motorcycles recorded a minor growth of 0.5% in sales by selling 1,029,972 units and mopeds sales went down by -13.6% by selling 57,938 units. When compared to 2015 data, there is an overall increasing trend in buying two wheelers. Motorcycle sales, which have been impacted in rural areas for nearly three years now, witnessed some revival last month. This is due to the fact that the recently launched gearless scooters cater to the needs of both men and women, while motorbikes are a segment preferred by men only. The 'Make in India' campaign also a big boom for the growth momentum, the fact that the two-wheeler manufacturers in India.

SCENARIO IN TAMIL NADU

Tamil Nadu is the third biggest market by total volumes and Chennai the second biggest world market when it comes to automatic scooter sales across India. Tamil Nadu is the largest contributor to the automobile sector in India in terms of Industrial Output and has about 20% of India's total installed capacity of Vehicle production. The state aims to reach 5 million Units production by 2020. Tamil Nadu accounts for 21% of India's automobile exports.

The table below visualizes the healthy growth of the Industry with encouraging trend in the Automobile companies which has a base in Tamil Nadu from 2010-11 to 2016-17. The State contributes17 % to the overall automobile production in the country is notable. Tamil Nadu would have significant capacity addition by 2017-18 with players like Yamaha, Toyota, and Mahindra & Mahindra establishing their plants in the Region. Automobile Industry shows a steady performance in the State with Government constant support which has nurtured Chennai as a very cost-effective manufacturing hub for automobiles.

The city, Chennai, ubiquitous the name of **Detroit of South Asia** due to the presence of the top Global Automobile majors like Ford, Hyundai, BMW, Renault, Nissan and Mitsubishi HM Chennai producing over 40% of the country's auto parts and vehicles. The city is a major center for the auto ancillary industry. Ford is planning to invest $500 million in Chennai plant.

TABLE NO: 4, STATE DOMESTIC MARKET SHARE 2015-16

Passenger Vehicles	**14%**
Commercial Vehicles	**3%**
Three Wheelers	**3%**

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Two Wheelers	**80%**
Grand Total	**100**

Source: Basic road statistics, CRISIL Research

MAJOR FACTORS INFLUENCING BUYING BEHAVIOUR OF MOTOR BIKES

- **RISE IN YOUNG WORKING POPULATION:** With the rising levels of per capita income of people, the two wheeler market offers a huge potential for growth. This growth is relevant in the light of the fact that 70 per cent of population is below the age of 35 years and 150 million people will be added to the working population in the next five years.

- **GROWTH OF MIDDLE INCOME HOUSEHOLDS:** The growth prospects of the significant opportunity for the motorcycle industry. The penetration of motorcycles amongst households with income levels greater than 3 lakh per annum.

- **GREATER AFFORDABILITY OF VEHICLES:** The growth in two-wheeler sales in India has been driven by an increase in affordability of these vehicles. An analysis of the price trends indicates that prices have more or less stagnated in the past and greater avenues of financing, the customer's capacity to own a two wheeler has improved.

- **RAPID PRODUCT INTRODUCTION AND SHORTER PRODUCT LIFE CYCLE:** The last five years have witnessed a sharp increase in new product of two-wheeler industry. It is estimated that nearly 50 new products have been launched by manufacturers during this period.

- **INADEQUATE PUBLIC TRANSPORT SYSTEMS IN MOST URBAN AREAS:** Increased migration to urban areas and have increased the traffic congestion. Inadequate urban planning increased the dependence on personal modes of transport and two wheelers .

- **AVAILABILITY OF TWO WHEELER LOANS:** A loan is available of up to 90% of the on road price of the vehicle or Rs. 60,000, whichever is less, at an interest rate of 13.25 to 16.25%. The repayment period varies from 3 to 5 years, based on the interest rate.

- **INCENTIVES TO WOMEN:** Increasing trend of women users of bikes. To improve the standard of life for women, the government provides loans at a special interest rate1% less than men.

- **DEMAND FOR PARKING:** With the roads getting congested, public spaces getting less, the situation is imminent for a strategy to solve the parking woes of the city. It is noted that nearly 76% which constitute two wheelers of the total vehicles in Chennai are in free parking.

Marketers provide a range of product or services choices to meet diverse consumer interests, consumers are satisfied and their overall happiness, satisfaction and quality of life are ultimately enhanced. Hence market segmentation is a positive force for both consumers and marketers alike. The table shows the interest on two wheelers based on their market sales segmentation. The country's largest two-wheeler manufacturer Hero motocorp led the upwards spiral recovering after

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a dip in sales in April to bounce back at 8.7 percent in May 2017 with sales. Honda is a leading marketer global two-wheeler business followed by TVS group and Bajaj. Honda -wheelers India inaugurated its new zonal office in Coimbatore. Aggressive marketing by the auto finance companies have also played a significant role in boosting automobile demand, especially from the population in the middle income group. These aggressive marketing strategies have resulted in making the consumer the major key for success in the industry.

TRANSPORTATION SCENARIO IN CHENNAI

TABLE: 6 CHENNAI- A GLANCE

(BASED ON 2011CENSUS)

Population in Chennai	46,81,087
Area	181.06 sq km
Population Density	26,903/sq km
Road length	2847 km
Total vehicles	34,22,647
Vehicle per person	0.73

Source: Census data

The total population of Chennai amounted to 4681087 in 2011, Chennai district on the other accounted for 8.3% percent of state's total population. Chennai has become an important destination for trade and tourism, in recent years. Testate Government Departments are geared towards increasing trade and commerce links with other countries and also developing greater industrial growth. So, the population of Chennai has grown rapidly in the last 20 years, due to major industrialization and tremendous growth. The rapid growth of population in the CMA has been causing a strain on the existing urban services and infrastructure. It is envisaged that by the year 2026, the population within the Chennai Metropolitan Area (CMA) will be approximately 12.6 million. This would expected to an estimated 17.3 million daily vehicle-trips may increse in the year 2026, which will be about two times the present vehicle-trips.

ROAD TRANSPORT FACILITY

Chennai is connected by the Golden Quadrilateral System of National Highways. It is connected to other Indian cities by four National Highways (NH) that originate in the city. The road network of Chennai is dominated by a radial pattern converging at George Town, which is the main Central Business District (CBD) of the CMA. The road network is primarily based on the four National Highways,

NH 4 to Mumbai (via Bangalore),

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NH 5 to Kolkata
NH 205 to Thiruvallur, Anantapur, Andhra Pradesh (via Tirupati).
NH45 to Trichy

The total number of motor vehicles in CMA has increased from 2005. The number of two-wheelers has grown 13% enormously. Chennai is connected to other parts of the state and the Union Territory of Pondicherry by state highways. The Government has constructed grade separators and flyovers at major intersections, and built Inner Ring Road and Outer Ring Road. The Gemini flyover, built in 1973, crosses over the arterial road, and eases the traffic movements towards Anna Salai and towards the Anna Flyover. As of 2011, according to the Transport Department, there were 2.58 million two-wheelers and 0.56 million four wheeler sin the city, and the Metropolitan Transport Corporation (MTC) bus fleet was 0.1 per cent of the total vehicular population of the city.

VEHICLE GROWTH AND ITS COMPOSITION

As per the Dept. of Transport, Tamil Nadu, there are 34, 22,647 vehicles in Chennai as on June 1, 2011. 32, 26,622 are privately owned vehicles while the remaining 1, 96,025 or 6 per cent constitute public transport vehicles plying in Chennai city limits. There are about 2.6 million two wheelers registered in Chennai which accounts for roughly 81 per cent of total number of private vehicle population in Chennai and 4 wheelers account for 18 per cent and the rest by other vehicles. According to a survey conducted by the city traffic police in 2014, there is a vehicle on the road for every two Chennai Cites. Based on 2015 data the vehicle density of Chennai has shoot up to17% hike. Therefore, 1,202 vehicles need to be accommodated per kilo meter on Chennai roads.

Arterial roads leading to carry heavy traffic and are congested. Level of congestion on arterials and other major roads has increased seven-fold for the period 1984 to 2004. According to a survey, conducted by the city traffic police in 2014,In close competition with Anna Salai are Poonamallee High Road that is used by 1.70lakhvehicles, Mylapore, Adyar, and Parry’s corner and Jawaharlal Nehru Salai, which carries1.15 lakh vehicles every day.

The map shows the thick highlighted locations in the city found the high vulnerable places of traffic congestion during peak hours. The roads that are highlighted, Poonamallee High Road, Anna salai, Beach road, Central Station, Tambaram ,Vadapalani, Thiruvanmiyur to Parry’s corner, Adyar, New Arcot road and Anna nagar to Koyembedu are the main locations of CMBT. Owing to the high traffic density, the average bus speed in the city as of 2014 is 17-18 kilo metres per hour. Over the next five years it is expected to come down to 12 km per hour, whereas the maximum allowable operating speed of the vehicles shall be 80 km/h with a maximum design speed of 90 km/h. Motor vehicle population has increased at a phenomenal rate during the last few decades.

Establishment of multi-national companies, establishment of Tidel Park and a large of number of IT (Infosys, Wipro, and TCS) and IT Enabling Service establishments is tending to increase two and four wheeler ownership in Chennai. With the mushrooming financial institutions making available easy finance and the sprawling suburban development without adequate transport facilities have placed considerable demand in favor of private vehicles to own motorized vehicles by individuals. The number of two wheelers as on April 2017 is 3,053,233 which comprise 75% of total vehicle population.

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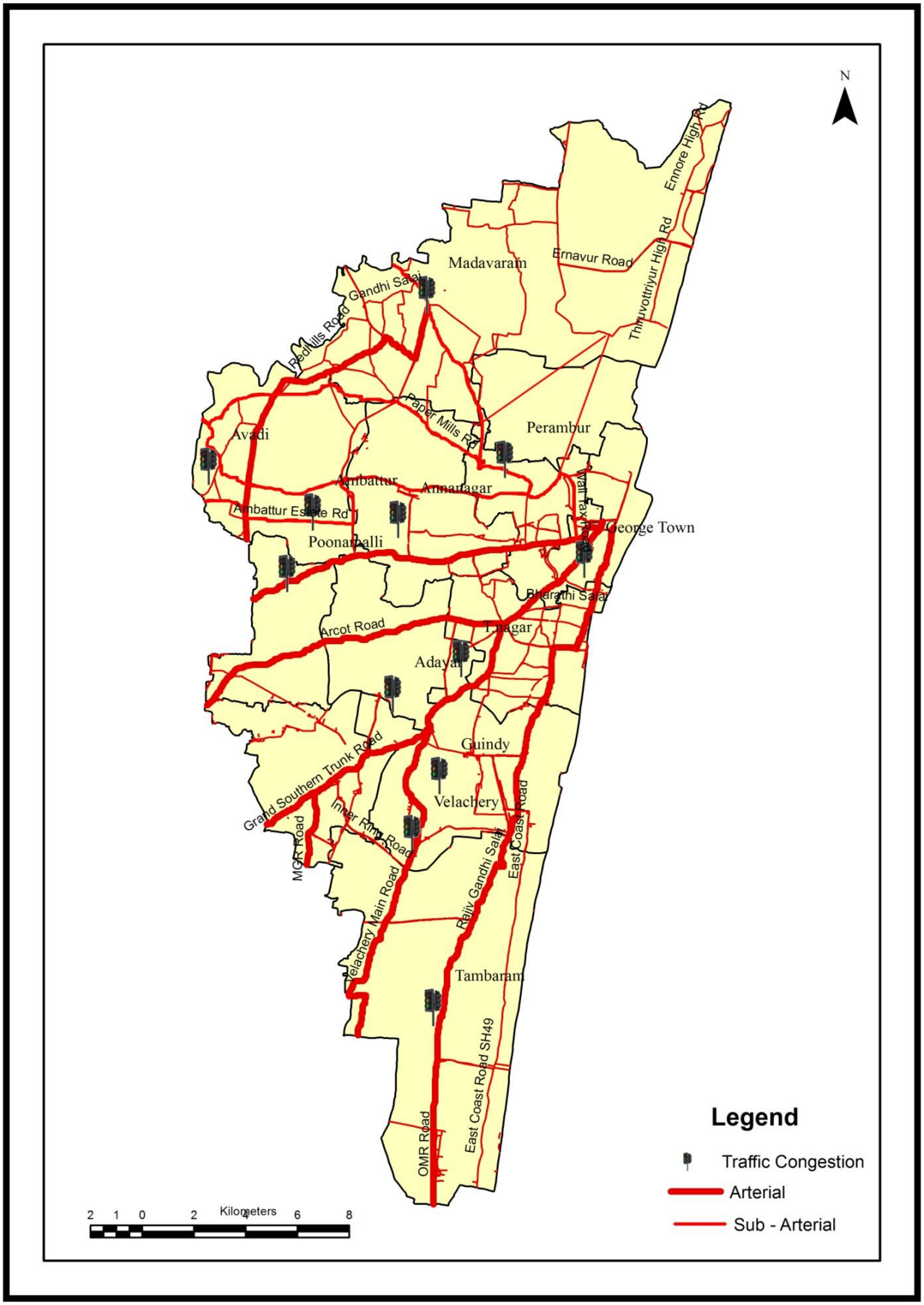

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TABLE 7: DOMESTIC SALES DATA : MAY 2017

SEGMENTS	MARKET SHARE		
TWO-WHEELERS	MAY'16 (IN UNITS)	MAY'17 (IN UNITS)	CHANGE%
India Yamaha Motor	62748	69429	11
Hero MotoCorp	583,117	633,884	8.7
Royal Enfield	47232	58647	24.16
HMSI	436,328	535,035	23
Bajaj Auto	179822	156523	-13

Source:Basic road statistics, CRISIL Reserch

Aggressive marginal increase of two wheeler sales momentum in fiscal March 2016-17. Hero Motorcycle & Scooter closed May 2017 with 6 lakh unit plus sales total grew by 8.7%. The world's largest two-wheeler manufacturer Hero Moto Corp (HMCL) reported a marginal rise in its total sales which stood at 633,884 units sold from 583,117 units sold in March 2016. Royal enfield grew by healthy 24.16%, Yamaha doubling the industry growth of 11 percent. HMSI got 23% hike in 2017 comparedto2016.In the motorcycle business Honda's sales recorded a high 20 percent growth. The domestic two-wheelers sales of the company grew by 8.4 %.

TRAFFIC FLOWS AND CONGESTION IN CHENNAI

A study was carried out in the city of Chennai by National Urban Transport Policy (NUTP) and the results obtained are explained below. The volume/capacity (V/C) ratio measures congestion in 2013, it is calculated by taking peak hour volume counts (four hours in the morning peak and four hours in the evening peak)

TABLE 8.

MODAL SHARE OF TRAFFIC (CHENNAI, 2013)

MODE OF TRANSPORT	%VOLUME
Buses and Trucks	10
Bicycles	3
Two wheelers	41
Three wheelers	16
Cars	28
Light Commercial vehicles	3

Source: Arasan et al., Road and Transport Research

The above table gives the average V/C ratios in the arterials of cities categorized according to their population. The future V/C ratios may change based on the infrastructure development. Study of vehicular interaction under heterogeneous traffic conditions involves modeling the traffic flow at the micro level, over a wide range of roadway and traffic conditions. In this study two wheeler

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Volumes about 41% on Chennai traffic. Data clearly shown the two wheelers have got highest range of mode of transport. Hence people prefer two wheelers as their mode of transportation in city to avoid traffic congestion during peak hours.

SWOT- ANALYSIS OF TWO WHEELER INDUSTRY

STRENGTH	WEAKNESS
1. Significant contribution to Indian economy as second largest two wheeler manufacturer. 2. Two wheeler markets projected to expand from 12% to 14% CAGR growth during 2015-20. 3. A favorable economic condition of people to buy their vehicle to avoid increasing trend of traffic congestion. 4. Passion of youngsters to buy bikes. 5. Most helpful for a developing country like India in terms of transport feasibility. 6. Easy availability of two wheeler loans with minimum interest. 7. Women are keen in buying two wheelers. 8. It is easy to approach city from outskirts of Chennai. Due to urbanization, people move their residents to outskirts from urban area. 9. The " Make In India" Campaign	1. Rise in raw material cost. 2. Due to industrialization, the private and govt companies would provide transport facilities like bus and van to their employees. 3. Changing attitude of thinking of safest and sophisticated travel with family members in car.

From the above we could analyze the escalating factors which are favorable for increasing trend in buying bikes. Threats are also there to revoke the trend. But still due to increasing levels of urbanization, public transport in cities is characterized as that of high dependency of two wheelers. The policy gap between urbanization and infrastructural development which gives a way to personal vehicle travel. Trustworthy, a policy, "Vision 2026"wolud make Chennai a prime metropolis which will be more livable, economically vibrant and environmentally sustainable and with better assets for the future generations.

CONCLUSION

The Chennai City Corporation with 176 sq.km areas will accommodate about 59 lakh populations while the rest of the Metropolitan Area with an extent of 1013 sq.km will accommodate about 67 lakh populations by 2026. In spite of having committed schemes like MRTS, Metro rail, Suburban rail, Bypass road, Outer Ring Road, Elevated freight corridor etc., Chennai is expected to face severe traffic congestion in the coming years. In the absence of properly planned mass transit systems, a disproportionately high share of trips will be carried by

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personalized modes of transport more sustainable is crucially important. Higher growth and larger concentration of urban population in metropolitan areas is an important feature of has brought in big boom to the two wheeler industry and was able to attract international private players to invest here. Competition is very high in the market and hence change of strategy is undertaken like expansion with new tie ups to explore in rural as well as in the premium segments.

Technology plays a very crucial and elixir role for innovation product differentiation, quality improvement, and new product development. The marketing concept is consumer oriented and the emphasis is more on the consumer rather than on the product. The essence of modern marketing lies in building of profit along with creating meaningful value satisfaction for the costumers, therefore, marketing success an enterprise depends as its ability to create a community of satisfied consumers. In this study, we could visualize that there is so many international and national companies are there to meet and fulfill the people's need. Particularly in two wheeler market, people have enough satisfaction and sales in Chennai city.

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