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## CHAPTER 33

### MILLENNIAL CONSUMER TREND FOR E- VEHICLES

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#### **Abstract**

In this paper we present an integrative view of Millennial consumer trend for E Vehicles in Pollachi Taluk. Consumer trend for electric vehicles is one of the vital reasons for a company to achieve the organization's goal. Therefore, it is substantial to seek out the underlying factors that influence customer preference, which thus contributes to the organization indirectly the nation's economy. Besides that, it is essential to examine the influence of the independent variables as the chosen factors are less towards the field of electricity cost, public relations, the preference, and the viewpoint of branding, satisfaction based on the customer.

**Key Words:** *Millennial, Trend, E-Vehicles*

#### **Introduction**

**N**owadays, the term globalization used everywhere in the world. Adam Smith (1776) coined the term 'globalization' in his book 'Wealth of Nation'. The historical pieces of evidence proved that Indians were business with countries like Chinese, British and other southeast Asian countries. The Chinese used to sell silk to the world. The British come to India purchase spices, and in return, India used to buy ammunition. So, globalization is not a new concept. In the earlier days, Indian spices, silk handicrafts, gold, silver ornaments, etc. were existing everywhere in the world. Many governments have initiated and implemented policies to stimulate and encourage electric vehicle (EV) production and adoption (Sierzchula, Bakker, Maat, & Van Wee, 2014). The expectation is that better knowledge of consumer preferences for EV can make these policies more effective and efficient. Many empirical studies on consumer preferences for EV have been published over the last decades, and a comprehensive literature review would be helpful to synthesise the findings and facilitate a more well-rounded understanding of this topic. Rezvani, Jansson, and Bodin (2015) give an overview of EV adoption studies; however, they only focus on individual-specific psychological factors which influence people's intention for EV adoption and only select some representative studies. Our review complements it in the following ways: first, we review a wider range of influential factors in EV adoption other than psychological constructs only; second, we present a comprehensive picture of current research by collecting all the available academic EV preference studies.

#### **Millennial Consumer Behaviour:**

Millennials represent a large segment of the population and are an important target market for consumer companies. The group consists of people born between 1981 and 1996, or roughly 25% of the U.S. population. In India, millennials are 34% (at 440 million) of the country's total population. The last few years have seen India become the world's largest millennial market, drawing attention from across the world to Indian millennials. As millennials require new skill sets to survive and succeed in the new workplace, they spend a significant amount of money on vocational and technical courses to enhance their skills. This is in sharp contrast to the previous generation that mostly studied to become a doctor, engineer, CA or a government officer. Millennials spend a considerable portion of their disposable income to enhance and upgrade their knowledge and skills. Consumer behaviour is the study of how individual customers,

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groups or organizations select, buy, use, and dispose ideas, goods, and services to satisfy their needs and wants. It refers to the actions of the consumers in the marketplace and the underlying motives for those actions. The study of consumer behaviour assumes that the consumers are actors in the marketplace. The perspective of role theory assumes that consumers play various roles in the marketplace. Starting from the information provider, from the user to the payer and to the disposer, consumers play these roles in the decision process.

#### **Characteristics of millennial consumers:**

- Millennial are technologically ability and connected.
- Millennial are transparent.
- Millennial value straight forward management and recognition.
- Millennial desire diverse work and collaboration.

#### **HISTORY OF E-VEHICLES**

**In 1996**, The first electric vehicle i.e. Three Wheeler VIKRAM SAFA was developed by Scooters India Pvt Ltd, Lucknow and approximately 400 vehicles were made and sold. These vehicles ran on 72 volt lead acid battery. “Vikram EV the first zero emission electric (battery-driven) 3-wheeler of the world”

Former US President Clinton during his visit to Taj Mahal in India was shown this pollution-free vehicle as Mr. Berry of USAID briefed him about various zero emission products being developed in India.

**In 1999**, Mahindra and Mahindra Ltd. Launched its first electric three wheeler and also launched a new company, based in Coimbatore, in 2001, to make and sell electric vehicles named Bijlee. In 2004, MEML was closed down due to lack of demand.

Mahindra again started at Haridwar plant in 2006 and continues to produce electric vehicles as per market demand.

**In 2000**, BHEL developed an eighteen seater electric bus. Its power pack consisted of an AC Induction Motor and 96V Lead acid battery pack. Some 200 electric vans were built and run in Delhi, with monetary support from MNES. The major concern with these vehicles was their poor consistency, low life and very high cost of battery.

**In 2001**, Bajaj Auto Ltd, Pune, had also demonstrated their 3 seater electric rickshaw. The vehicle used advance PMSM drive system. However this product has not been commercially launched.

**In 2001**, REVA, Bangalore, entered the EV sector in the car industry with a vehicle developed by American company (Amerigon). Some 3200 cars had been sold worldwide including approximately 1500 cars that had been sold in India, mostly in Bangalore city.

**In 2007**, in two wheeler segment, Hero cycles collaborated with UK based ULTRA Motor to launch a series of bikes. Other companies such as Electrotherm India, TVS Motor, Hero electric etc. are also manufacturing and selling their products. TATA Motors, Maruti Suzuki, Toyota and many other companies started entering Indian market with battery and hybrid electric vehicle products.

#### **Types of Electric Vehicles:**

- Battery Electric Vehicles (BEVs) Powered solely by an electric battery, with no gas engine parts. Plug-in
- Hybrid Electric Vehicles (PHEVs) Similar to a Hybrid, but with a larger battery and electric motor.
- Hybrid Electric Vehicles (HEVs)

#### **INDIA ELECTRIC VEHICLE MARKET:**

E vehicles present an important prospect for smart cities to harness cleaner fuel technologies in urban mobility. According to Persistence Market Research report India electric vehicles market is forecasted to expand at a CAGR of 77% in value during 2017 – 2025 and forecasted are.

**By Vehicle Type Forecast:**

India electric vehicle market is anticipated to increase during FY 2018-FY2023 at 37% CAGR , market growth is anticipated on account of increasing government initiatives and growing consumer inclination, concerns over harmful effects of air pollution, and huge investments by various OEMs for developing more affordable premium electric vehicles and passenger cars and two wheelers are the main segments.

**By Technology Forecast:**

The technology comprises hybrid electric vehicles, plug-in hybrid and battery electric vehicles. In India Hybrid and battery electric vehicles is expected to dominate the market. A large market share of the battery electric vehicles about 85% in 2025 is expected to be sales of two wheelers in India.

**By Power Source Forecast:**

The power sources comprise of stored and on-board electricity. The stored electricity is expected to be the most important in India electric vehicles market and is anticipated to dominate .The electric vehicle storage market in India is expected to be 4.7 GW by 2022.

**By Power train Forecast:**

The Indian market for electric vehicles is segmented into series hybrid, parallel hybrid and combined hybrid. Parallel hybrid is the most preferred owing to its advantages above other power train types but this is not included in electric vehicle battery as it involves both internal combustion engine and an electric motor.

**OBJECTIVES OF THE STUDY:**

- \* To know the socio economic factors of millennial consumers towards electric vehicles.
- \* To find out the millennial consumer trend towards electric vehicles.

**RESEARCH METHODOLOGY**

This study is descriptive to explore the consumer preference for electric vehicles. Both primary and secondary data were used in this study. Secondary data used for collecting information on published sources like magazines, books, journals, and annual reports, etc. about electric vehicles for a clear understanding of the concept. Primary data were collected using a questionnaire. The first part of the questionnaire consists of the consumer's socio economic profile, and the second part relating to consumer preference for electric vehicles. The sample size is limited to 100 and convenient sampling techniques adopted, using percentage analysis.

**ANALYSIS OF THE STUDY:**

The below table shows for Socio Economic Factors of Millennial Consumers and trend of the consumers.

		NOs	PERCENTAGE
GENDER			
	MALE	63	63
	FEMALE	37	37
AGE			
	18-22	22	22
	23-27	42	42
	27-31	21	21
	Above 31	15	15
EDUCATION			
	HSC	10	10
	UG	20	20
	PG	40	40
	PROFESSIONAL	15	15

		NOs	PERCENTAGE
	OTHERS	15	15
Family Income(in Rs)			
	20,000-30,000	15	15
	30,001-40,000	29	29
	40,001-50,000	25	25
	Above 50,000	31	31
Willing to Buy E-vehicles			
	YES	72	72
	NO	28	28
If no, state the reason			
	Not Aware	2	7
	Not Reliable	10	36
	Danger	10	36
	Not interested	6	21
If YES, state the reason			
	Fashion	11	14
	Prestige	15	21
	Convenient	30	42
	Low cost	12	17
	Trend	4	6

In this study, out of 100, 63 male and 37 female, majority of the respondent are 23-27 age group. Most of the respondent who completed PG have high level of awareness towards E-Vehicles. Majority of the respondent willing to E Vehicles because of convenient.

### CONCLUSION:

Electric vehicles are a means of worldwide sustainable transportation and its usage is increasing rapidly. The Indian government has also started to accelerate the EVs penetration. However, many hurdles should be dealt with for wider and easy adoption of EVs in India. Being a nascent player in EV transportation, the most important barriers identified include state Government Incentives and Consumer Characteristics. All Consumers are enthusiastic to reduce pollution reduction but the various costs is high (purchasing cost, minimum operating cost, vehicle cost, payback period, operating cost, maintenance cost and electricity cost, resale) .hence, a cost-effective vehicle is required for the Indian markets. Participants in industry meets arranged by the Center for Future Mobility in Delhi and Chennai mentioned high acquisition cost as the top restraint to EV penetration. The charging infrastructure, the electric vehicle performance safety concerns and new user anxiety affect EV adoption strongly Thus, in the perception of researcher, penetration pricing strategy is more suitable for Indian automobile sector which has a lot of middle class consumers . This indicates that Indian automobile policymakers must act on it to take advantage of growth in this sector as a lot of national fuel can be conserved by using these electric vehicles along with reduced emissions.

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