

## “The Consumer perception of Electric Vehicles”

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### ABSTRACT

#### Purpose

Research in the field of Electric Vehicles have become a dynamic study area over the past few decades and is likely to become even more so as the importance of Automobiles is rapidly gaining momentum. Therefore, understanding the Electric vehicles will be viewed as increasingly important. Electric Vehicles over the last few years have started playing an important role in the Automobile Industry. Research in the field of Consumer Perception of Electric Vehicles is slowly gaining momentum, but is still one of the most neglected components in the India due to the complexity in its computation. This article aims at examining “The Consumer perception of Electric Vehicles”

**KEYWORDS:** Consumer perception, Electric Vehicles

#### Consumer Perception

Customer perception definition: “Marketing concept that encompasses a customer’s impression, awareness, or consciousness about a company or its offerings.”

Customer collects information about a product and interprets the information to make a meaningful image about a particular product. This is called as customer perception. When a customer sees advertisements, promotions, customer reviews, social media feedback, etc. relating to a product, they develop an impression about the product.

The entire process of customer perception starts when a consumer sees or gets information about a particular product. This process continues until the consumer starts to build an opinion about the product.

Everything that a company does affects customer perception. The way the products are positioned in a retail store, the colors, and shapes in your logo, the advertisements that you create, the

discounts that you offer, everything impacts the customer perception.

#### Why is Customer Perception Important?

A happy customer is one who is satisfied with the experience that he has with a product or a service. The customer perception is built around the experience that a customer has with a product.

Consumer perception can make or break your brand. When customers had a pleasant experience of getting their products delivered on time, they form a perception. Getting the products that were as described in the product description also creates a positive customer perception. When customers experienced a great after-sale service it is going to develop a positive opinion about the brand.

But when customers had a bad experience such as broken products, no returns, no after-sales service, etc. the customers build a negative perception about the brand.

When companies work towards strengthening the bond between customers and the company, customer perception improves, and this gives way for a better competitive edge.

Customer perception is also important to determine the kind of image a brand wants to build.

For example, when a retail clothing store has displayed clothes in crowded racks using low quality plastic hangers, customers get a perception that it is a low-quality brand. But when the same clothes are presented well with back-lit mannequins, neatly arranged, good quality attractive hangers, etc. the customers build a different perception about the brand.

Customer perception or consumer perception plays a major role in buying behavior. Hence companies are going the extra mile to create a pleasant and happy customer experience for its customers. Companies are ready to spend money and effort to influence customer perception and drive profitable consumer behavior.

## I. WHAT ARE THE FACTORS INFLUENCING CUSTOMER PERCEPTION?

Customer perception can be influenced by external factors, some of which are listed below:

### 1. *Personal experience*

Customer perception is highly influenced by the personal experience that a customer had while buying and using a particular product. If the quality, customer service, price, logo, color, discounts, etc. were able to make an excellent impression on the minds of the customers, they would build a good perception of the brand. But in case they did not enjoy the experience with the brand, it will leave an everlasting impression.

### 2. *Advertising*

Customers get to see the products first through advertisements and therefore become one of the biggest factors that influence customer perception. The advertisement and campaigns that a company runs will help to build a positive customer perception.

### 3. *Influencers*

People generally buy things when another person has tried and tested it. Such people who have bought it first and tried the product become influencers. When people hear about the great product that the influencer has tried out, it will influence the person to buy it and test it out, as the recommendation has come from a known person whom they trust.

### 4. *Customer reviews*

Many people look into the customer reviews before buying a product. This shows that customer reviews are an important factor in defining customer perception. If the consumers see that a product has a lower number of stars it means that product does not have good customer reviews. The impression that it creates on the consumer's mind is negative.

### 5. *Social Media*

Social media has become the strongest medium to manage customer perception. When social media audience gets consistent communication regarding a product, the users build an image of the product. Social media can be used to post content, images, videos, etc. which helps to build the kind of perception intended by the company.

### *Electric Vehicles:*

Just as there are a variety of technologies available in conventional vehicles, plug-in electric vehicles (also known as electric cars or EVs) have different capabilities that can accommodate different drivers' needs. A major feature of EVs is that drivers can plug them in to charge from an off-board electric power source. This distinguishes them from hybrid electric vehicles, which supplement an internal combustion engine with battery power but cannot be plugged in.

There are two basic types of EVs: all-electric vehicles (AEVs) and plug-in hybrid electric vehicles (PHEVs). AEVs include Battery Electric Vehicles (BEVs) and Fuel Cell Electric Vehicles (FCEVs). In addition to charging from the electrical grid, both types are charged in part by regenerative braking, which generates electricity from some of the energy normally lost when braking. Which type of vehicle will fit your lifestyle depends on your needs and driving habits. Find out which BEVs and PHEVs are available to suit your needs.

All-electric vehicles (AEVs) run only on electricity. Most have all-electric ranges of 80 to 100 miles, while a few luxury models have ranges up to 250 miles. When the battery is depleted, it can take from 30 minutes (with fast charging) up to nearly a full day (with Level 1 charging) to recharge it, depending on the type of charger and battery.

If this range is not sufficient, a plug-in electric vehicle (PHEV) may be a better choice. PHEVs run on electricity for shorter ranges (6 to 40 miles), then switch over to an internal combustion engine running on gasoline when the battery is depleted. The flexibility of PHEVs allows drivers to use electricity as often as possible while also being able to fuel up with gasoline if needed. Powering the vehicle with electricity from the grid reduces fuel costs, cuts petroleum consumption, and reduces tailpipe emissions compared with conventional vehicles. When driving distances are longer than the all-electric range, PHEVs act like hybrid electric vehicles, consuming less fuel and producing fewer emissions than similar conventional vehicles. Depending on the model, the internal combustion engine may also power the vehicle at other times, such as during rapid acceleration or when using heating or air conditioning. PHEVs could also use hydrogen in a fuel cell, biofuels, or other alternative fuels as a back-up instead of gasoline.

### *Types of EVs*

**EVs** (also known as plug-in electric vehicles) derive all or part of their power from electricity supplied by the electric grid. They include AEVs and PHEVs.

**AEVs** (all-electric vehicles) are powered by one or more electric motors. They receive electricity by plugging into the grid and store it in batteries. They consume no petroleum-based fuel and produce no tailpipe emissions. AEVs include Battery Electric Vehicles (BEVs) and Fuel Cell Electric Vehicles (FCEVs).

**PHEVs** (plug-in hybrid electric vehicles) use batteries to power an electric motor, plug into the electric grid to charge, and use a petroleum-based or alternative fuel to power the internal combustion engine. Some types of PHEVs are also called extended-range electric vehicles (EREVs).

## **II. LITERATURE REVIEW**

(MifzalaAnsar, Monika (2019)) The researchers have found that sustainability is the answer for the most environmental problems and EV referred to as electric vehicles and HEV referred to as hybrid electric vehicles are the key to sustainability. Companies like Ola, Uber and other Taxi aggregators can adapt and use EV. The government must give subsidies for the people to use it. In future, the government must teach about EV and their advantages and implement 1 EV per household.

(Masurali. A, Surya. P (2018)) The researchers have found that there are various factors which affect the perception level of consumers on EV (electric vehicles), but among those factors Price and Maintenance cost is given higher weightage by consumers when compared to other factors. The authors also mentioned in their study that the Government should help in spreading awareness and influence the positive perception of EV among potential consumers.

(Fanchao Liao, Eric Molin & Bert van Mee (2017)) The researchers have found that the impact of financial and technical attributes of EV on its utility is significant, including its purchase and operating cost, driving range, charging

duration, vehicle performance and brand diversity on the market.

(Ivan K.W.Lai, Yide Liu, Xinbo Sun, Hao Zhang, Weiwei Xu (2015)) The researchers have found that Environmental concern is a psychological factor that directly and indirectly influences perceptions that mediate the link between environmental concern and the acceptance of full-electric vehicles.

(Bharti Motwani and Abhishek Patil (2019)) The researchers suggested that the Indian economy is at a mounting stage and electric cars is a new conception in India. Therefore, it is necessary to know the progress done in this genre of electric cars in India. New technologies have made cars more user-friendly in terms of ease-of-use, appealing fuel-saving, pollution friendly and smooth navigation the companies should increase their efforts to do promotion based on the significant factors of electric cars. An attempt should be made to emphasize the usefulness of electric car by using a suitable advertising campaign by creating web-based tutorials or videos that guide the utility of electric cars.

This research clearly proved there is a direct relationship between Consumer Perception of Electric Vehicles and its sales.

### **Observation**

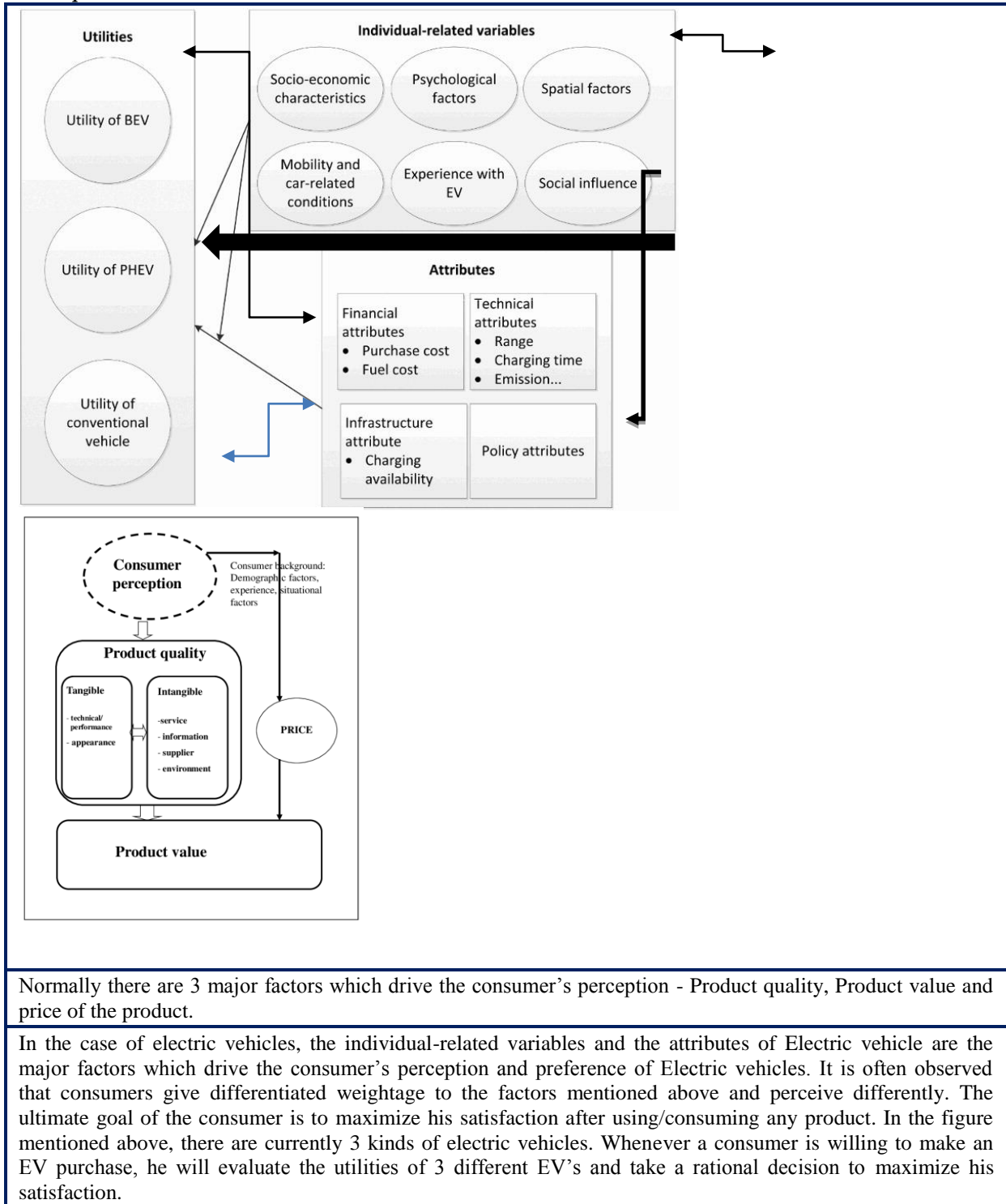
On completing an extensive secondary research and literature review, the following conclusions can be made.

- This research clearly proved there is a direct relationship between Consumer Perception of Electric Vehicles and its sales.
- Consumer Perception can be changed easily.

### **Research Gap**

Research has been conducted extensively on Automobile Industry, however there is hardly any research that focusses on the consumer perception of Electric Vehicles. This research shows the relationship between Consumer Perception of Electric Vehicles and its sales.

**Conceptual Model**



**III. CONCLUSION:**

On doing an extensive Secondary Research and Literature Review, the relationship between Consumer Perception of Electric Vehicles and its sales has been estimated. It has been

concluded that primary research on 100 respondents will be conducted as a next step in order to test the correlation between the same.

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