

## **Role Of Online Reviews In The Purchase Decision Of Cars - A Study With Special Reference To Chennai**

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### **ABSTRACT**

Product reviews available on the internet act as major informants and induces consumers in making purchase decision even for offline high-value products like cars. By reviewing the previous studies there is a research gap that focuses on the effect of online reviews for offline products. The major aim of this research is to study the various role of online reviews in the purchase decision of cars. This descriptive research identifies 120 car owners as sample respondents under the convenience sampling method but 104 responses are considered valid and used for this study. Cronbach's alpha is used to test the reliability of the data. Descriptive statistics such as frequency distribution, mean and standard deviation, non-parametric tests such as Mann Whitney U test and Kruskal Wallis H test are used for data analysis. This study identifies three major roles of online reviews namely inducing role, informational role, and persuasive role. The major findings of the study are Informative role is the major role played by online reviews. Online reviews provide detailed information about various car models, their pros and cons and even quality of after-sales service. Online reviews also induce consumers in making purchase decision and are more persuasive than advertisements and salesmanship. Men are heavily influenced by online reviews than women. Consumers who fall in the age group of 25 to 45 years are largely influenced by online reviews. This study suggest the marketers to focus on the online brand image by monitoring online reviews regularly and act accordingly.

**Keywords:** Online Reviews, Offline Products, Cars, Purchase Decision

### **1. INTRODUCTION**

The evolution of information technology (IT) has been transforming business practices continuously. Many new business models have emerged as a result of information-based technology. (Narayanasamy et al. 2011)

The growth of the internet is tremendous in the past ten years. With the introduction of cheaper mobile internet and fibre to home technology, the usage of the internet is rapidly increasing among people. More internet usage leads to more transfer of information. People usually tend to search for information about products and services of their interest in the internet. Before making purchase decisions people search product-related information on the internet. Online product reviews play an important role in providing such product-related information.

Online reviews are product reviews found on the internet from experts and consumers. Experts are people who have more technical knowledge about a particular line of products and they share their opinion on the internet about products. On the other hand, consumers can also post their reviews on the internet. Usually, consumers who are all highly disappointed by purchasing

a product and consumers who are highly satisfied by a product share their reviews. Hennig Thureau et al. (2003) define online consumer review as “any positive or negative statement made by potential, actual, or former customers about a product or company which is made available to a multitude of the people and institutes via the Internet”

Online reviews give information about the pros and cons, availability, price, maintenance and durability of a product. Even though most of the online reviews cover products sold through e-commerce sites, there are some online reviews that shift their focus in high-value offline products like bikes and cars. Cars are one of the high-value products and consumers seeking online review information before making purchase decisions is inevitable.

A short literature review was carried out to outline the meaning and significance of online reviews.

## **2. REVIEW OF LITERATURE**

**Mudambi and Schuff (2010)** are pointing out the meaning of online reviews in a research article that online reviews are evaluation information of products and service which are posted on third party websites.

**Becker & Nobre (2014)** in their research in social networking reputation management pointed out that online reviews serve as valuable sources of information about goods and services and helps the consumers to make purchase decisions. The negative reviews create a negative impact on brand image and most of the firms are monitoring the online image of their brand regularly.

**Fan & Gordon (2014)**. It is easy for a customer to assess the online reviews and electronic word of mouth through the rapid growth of internet. Online reviews helps the customers to make their purchase decision on certain products or services.

**Feng Zhu & Xiaoquan (Michael) Zhang (2010)** examined how product and consumer characteristics moderate the influence of online consumer reviews on product sales. Their results suggested that online reviews have less impact on the sale of popular products and have greater influence on less popular products because consumers seek online information to reduce the risk of purchase of unpopular products. Consumers with greater internet experience find online information as less credible, as anyone can give information online.

The impact of quantity and rating presented in online reviews on purchase decision was examined by **Vranceanu (2017)**. Her study aimed to understand the influence of quantity and rating in reviews on perceived quality, perceived value, and shopping intentions. Her study concludes that online consumer reviews are considered as one of the important sources of product information for internet users as it expresses the impressions of other online buyers' about products. Consumers are more sensitive to review ratings than reviews' quantity. Reviews' quantity has no significant influence on quality perception, value perception, and shopping intentions. But these variables are influenced significantly by review ratings.

**Ruba Obiedat (2013)** in her study states that consumers view online reviews as important information prior to the purchase decision. She demonstrated that the buying intention of a consumer with high cognitive needs was affected by the quality of online review as compared

to the quantity of online reviews. The buying intentions of online consumers with low cognitive need were affected by quantity of reviews more than the quality of reviews

### **3. OBJECTIVES OF THE STUDY**

The primary objective of this study is to understand the role of online reviews in the purchase decision of cars.

Secondary objectives of this study as follows:

- To study the demographic profile of the respondents.
- To understand various roles of online reviews in the purchase decision of cars.
- To study the relationship between demographic factors and the roles of online reviews in the purchase decision of cars.

### **4. LIMITATIONS OF THE STUDY**

This study uses a structured type of questionnaire as a primary survey tool with limited constructs. A structured questionnaire may not be able to understand the thoughts of the respondents deeply. This study focuses on the respondents residing in urban areas only. The thoughts of rural area residence are completely omitted in this study.

### **5. RESEARCH METHODOLOGY**

This research is based on the descriptive research design as it tries to describe a situation. A structured questionnaire with closed-ended questions is the primary data collection tool used for this study. Scholarly journals and websites from various online sources are used to collect secondary data required for this study. People who own car were selected as the sample population. Since many car owners do not come forward to disclose their information for this study, the convenience sampling method was followed. 120 samples were collected during the period of July 2019 to September 2019, the time where the global recession prevailed in the automobile industry. Only 104 samples were considered as valid and taken for this study. Exploratory factor analysis is used to reduce variables into factors. Descriptive statistical tools like frequency, mean and standard deviation are used to analyse the demographic and influencing factors respectively. Mann Whitney U test and Kruskal Wallis H test are used to identify the relationship between demographic variables and factors describing the roles of online reviews in the purchase decision of cars.

### **6. ANALYSIS AND INTERPRETATION**

Data analysis used IBM SPSS Statistics V 23.0 software. The reliability of the data was tested using Cronbach's Alpha test.

#### **RELIABILITY STATISTICS**

<b>CRONBACH'S ALPHA</b>	<b>N OF ITEMS</b>
.823	19

**TABLE NO 1**

Cronbach's Alpha test shows a score of 0.823 for 19 items. It is acceptable and good for further analysis as any score that is above 0.8 is considered as good.

**DESCRIPTIVE ANALYSIS  
FREQUENCY DISTRIBUTION OF THE RESPONDENTS' DEMOGRAPHIC  
PROFILE**

**DEMOGRAPHICS OF THE RESPONDENTS**

<b>DEMOGRAPHIC FACTORS</b>	<b>CLASSIFICATION</b>	<b>FREQUENCY N=104</b>	<b>PERCENTAGE</b>
Gender	Male	85	81.7
	Female	19	18.3
	<b>Total</b>	<b>104</b>	<b>100.0</b>
Age	Below 25	18	17.3
	25-45	51	49.0
	Above 45	35	33.7
	<b>Total</b>	<b>104</b>	<b>100.0</b>
Occupational status	Employed	61	58.7
	Self employed	20	19.2
	Unemployed	10	9.6
	Student	13	12.5
	<b>Total</b>	<b>104</b>	<b>100.0</b>
Income status per month. (Dependent income if students or unemployed)	Below Rs 25,000	19	18.3
	Rs 26,000 – 50,000	41	39.4
	Rs 51,000 – 1,00,000	32	30.8
	Above Rs 1,00,000	12	11.5
	<b>Total</b>	<b>104</b>	<b>100.0</b>
Marital status	Married	67	64.4
	Single	37	35.6
	<b>Total</b>	<b>104</b>	<b>100.0</b>
Education Status	School	19	18.3
	Graduate	47	45.2
	Postgraduate	38	36.5
	<b>Total</b>	<b>104</b>	<b>100.0</b>

Source: Primary data

**TABLE NO 2**

**INTERPRETATION**

The above table shows the frequency distribution of the demographic profile of the sample respondents. The gender profile of the respondents shows that 81.7% are male and 18.3% are female. Considering the age group of the respondents, 49% of the respondents are in the age group of 25 to 45 years, 33.7% are in the age group of above 45 years and 17.3% are below 25 years. The monthly income profile of the respondents shows that 39.4% falls in the income group of Rs 26,000 to 50,000, 30.8% falls in Rs 51,000 to 1,00,000, 18.3% earn below Rs 25,000 and only 11.5% of the respondents earn more than Rs 1,00,000 per month. Employment status of the respondents shows that 58.7% are employed, 19.2% are self-employed, 12.5% are students and 9.6% are unemployed. 64.4% of the respondents are married and 35.6% are single. Considering the education status of the respondents, 45.2% are graduates and 36.5% are postgraduates.

**FREQUENCY SHOWING INTERNET USAGE OF THE RESPONDENTS  
INTERNET USAGE OF THE RESPONDENTS**

STATEMENT	RESPONSE	FREQUENCY N=103	PERCENTAGE
I use internet frequently	Yes	66	63.5
	No	38	36.5
	<b>Total</b>	<b>103</b>	<b>100.0</b>
I use internet to collect information	Yes	73	70.2
	No	31	29.8
	<b>Total</b>	<b>103</b>	<b>100.0</b>

Source: Primary data

**TABLE NO 3**

**INTERPRETATION**

From the above table, it is inferred that 63.5% of the respondents use the internet frequently. 73% of the respondents said that they use the internet for gathering information. From this, it is understood that majority of the respondents use the internet frequently and use the internet for information gathering.

**MEAN AND STANDARD DEVIATION OF THE STUDY FACTORS DESCRIBING VARIOUS ROLES OF ONLINE REVIEWS**

SL. NO	FACTORS	FACTOR LOADING	MEAN	STD. DEVIATION
<b>A.</b>	<b>B. Variables describing factor</b>			
	<b>C. 1. INDUCING ROLE of online reviews in the purchase decision of cars</b>			
A1.	I seek online reviews before making a purchase decision of my car	0.836	2.95	1.396
A2.	Good online reputation of a car is important for me while making purchase decision	0.859	3.11	1.393
A3.	I choose to purchase a car because of its positive reviews	0.629	2.76	1.478
A4.	I avoid purchasing a car with poor and negative online reviews	0.596	2.83	1.390
<b>D.</b>	<b>E. Variable describing factor</b>			
	<b>F. 2. INFORMATIONAL ROLE of online reviews in the purchase decision of cars</b>			
B1.	Online reviews give detailed information about cars	0.536	3.13	1.351
B2.	Online reviews provide both positive and negative aspects of various car models	0.812	3.12	1.457
B3.	Car showrooms and after sales services information also available in online reviews	0.740	3.15	1.245
B4.	Online reviews provide more information than marketer websites	0.691	3.01	1.288
<b>G.</b>	<b>H. Variables describing factor</b>			
	<b>I. 3. PERSUASIVE ROLE of online reviews in the purchase decision of cars</b>			
C1.	Online reviews are more persuasive than advertisements	0.849	3.04	1.329
C2.	Online reviews are more persuasive than sales executives	0.848	2.81	1.359
C3.	Online reviews are more persuasive in choosing a car than family influence.	0.558	2.83	1.361

Source: Computed data

**TABLE NO 4**

**INTERPRETATION**

The above table shows the results of factor analysis and mean and standard deviation of the factors. Exploratory factor analysis (EFA) using principal component matrix with the condition of Eigen value greater than 1 is used to reduce 11 variables. The KMO test show a satisfactory test static of 0.880. The EFA generated three factors. The factors are named as Inducing role, Informational role and Persuasive role. Information role is the most influencing role with a mean score of 3.102 with the most influencing item is B3 with a mean score of 3.15 followed by item B1 with a mean score of 3.13 and item B2 having a mean score of 3.12. The second most influential role is inducing a role with a mean score of 2.912. The individual items scores in the inducing role are A2 = 3.11, A1 = 2.95, A4 = 2.83 and A3 = 2.76. Persuasive role is the least influencing constraint with the mean score of 2.89 and the individual items scores are C1 = 3.04, C3 = 2.83 and C2 = 2.81.

**NON-PARAMETRIC TESTS**

**MANN WHITNEY U TEST**

**Mann Whitney Test on significant difference between the Gender of the respondents and the factors describing Roles of online reviews in purchase decision of cars.**

H<sub>0</sub>: There is no significant difference between the Gender of the respondents and the factors describing various roles of online reviews in purchase decision of cars.

**MANN WHITNEY U TEST ON THE GENDER OF THE RESPONDENTS AND THE FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS**

FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS	MEAN RANK - GENDER		P VALUE
	MALE	FEMALE	
Inducing role	50.54	38.55	0.025
Informational role	50.43	38.71	0.032
Persuasive role	54.49	40.05	0.034

Source: Computed data

**TABLE NO 5**

**INTERPRETATION**

The above table reveals the results of the Mann Whitney U test. It shows that there is a statistical difference between the gender of the respondents and inducing, informational and persuasive role of online reviews in the purchase decision of cars as their respective calculated p-values, p = 0.034, 0.025, 0.032 are lesser than 0.05. It is also evident from the difference in mean ranks between males and females. It is inferred that online reviews have a significant and positive effect on men than women in the purchase decision of cars.

**Mann Whitney Test on significant difference between the marital status of the respondents and the factors describing roles of online reviews in purchase decision of cars.**

H<sub>0</sub>: There is no significant difference between the marital status of the respondents and the factors describing various roles of online reviews in purchase decision of cars.

**MANN WHITNEY U TEST ON THE MARITAL STATUS OF THE RESPONDENTS AND THE FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS**

FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS	MEAN RANK – MARITAL STATUS		P VALUE
	MARRIED	SINGLE	
Inducing Role	52.17	53.09	0.816
Informational Role	50.16	56.73	0.330
Persuasive Role	51.19	54.87	0.543

Source: Computed data

**TABLE NO 6**

**INTERPRETATION**

The above table shows the result of the Mann Whitney test. The mean ranks between married and single in different roles of online reviews are very close. The p-value of inducing (p=0.816), informational (p=0.330) and persuasive roles (p=0.543) of online reviews are all lesser than table value at 95% confidence level (0.05). It is inferred that there is no statistical difference between the gender of the respondents and various roles of online reviews in the purchase decision of cars.

**KRUSKAL WALLIS H TEST**

**Kruskal Wallis Test on significant difference between the age of the respondents and the factors describing roles of online reviews in purchase decision of cars.**

H<sub>0</sub>: There is no significant difference between the Age of the respondents and the factors describing various roles of online reviews in purchase decision of cars.

**KRUSKAL WALLIS H TEST ON THE AGE OF THE RESPONDENTS AND THE FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS**

FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS	MEAN RANK – AGE			CHI-SQUARE	P-VALUE
	BELOW 25	25 – 45	ABOVE 45		
Inducing role	53.75	58.81	42.66	6.263	0.044
Informational role	55.74	62.33	42.73	6.479	0.039
Persuasive role	59.78	53.12	47.86	2.000	0.368

Source: Computed data

**TABLE NO 7**

**INTERPRETATION**

The above table shows the effect of respondents’ age on the factors describing the roles of online reviews in the purchase decision. The p-values of inducing role of online reviews and informational role of online reviews are 0.44 and 0.39 respectively. As the above p values are lesser than 0.05, it is inferred that the age of the respondents has a significant difference in inducing and informational role of online reviews. The p-value of persuasive role on online

review is 0.368 which is greater than the table value at a 95% level of significance, it is inferred that there is no significant difference between the age of the respondents and persuasive role of online reviews in the purchase decision of cars.

**Kruskal Wallis Test on significant difference between the educational qualification of the respondents and the factors describing roles of online reviews in purchase decision of cars.**

H<sub>0</sub>: There is no significant difference between the educational qualification of the respondents and the factors describing various roles of online reviews in purchase decision of cars.

**KRUSKAL WALLIS H TEST ON THE EDUCATION OF THE RESPONDENTS AND THE FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS**

FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS	MEAN RANK – EDUCATION			CHI-SQUARE	P-VALUE
	SCHOOL LEVEL	UNDER GRADUATE	POST GRADUATE		
Inducing role	52.68	58.29	45.25	1.149	0.563
Informational role	60.34	49.43	52.38	1.999	0.368
Persuasive role	45.61	58.11	49.01	3.291	0.193

Source: Computed data

**TABLE NO 8**

**INTERPRETATION**

From the above table it is inferred that the calculated p-values of inducing, informational and persuasive roles on online reviews in the purchase decision of cars are greater than the table value at 95% level of confidence, there is no statistical difference between the educational qualification of the respondents and the role of online reviews in purchase decision. It is concluded that the education of the respondents has no significant impact on roles of online reviews in the purchase decision of cars.

**Kruskal Wallis Test on significant difference between Occupation of the respondents and the factors describing roles of online reviews in purchase decision of cars.**

H<sub>0</sub>: There is no significant difference between the occupation of the respondents and the factors describing various roles of online reviews in purchase decision of cars.

**KRUSKAL WALLIS H TEST ON THE OCCUPATION OF THE RESPONDENTS AND THE FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS**

FACTORS DESCRIBING THE ROLES OF ONLINE REVIEWS	MEAN RANK – OCCUPATION				CHI - SQUARE	P- VALUE
	EMPLOYED	SELF EMPLOYED	UNEMPLOYED	STUDENT		
Inducing role	67.73	59.90	51.60	29.92	13.240	0.004
Informational role	68.25	60.75	49.18	37.73	10.471	0.015
Persuasive role	67.25	56.20	48.16	47.31	6.931	0.074

Source: Computed data

**TABLE NO 9**

## **INTERPRETATION**

From the above table, it is inferred that there is a significant difference between the occupation mean rank scores of inducing and informational role of online reviews in the purchase decision of cars as their respective p-values 0.004 and 0.015 are lesser than 0.05. But there is no significant difference between the mean rank scores of occupation and the persuasive role of online reviews ( $p = 0.074 > 0.05$ ). The mean ranks show that respondents who are employed are highly influenced by online reviews in the purchase decision of cars than self-employed and unemployed.

## **7. MAJOR FINDINGS OF THE STUDY**

This study sheds light on the significant roles of online reviews and their influence on the purchase intention of cars. This study shows the relationship between the demographics of the respondents and role of online reviews in the purchase decision of cars. Online reviews play three major roles in the purchase decision of cars namely Inducing role, Informational role and Persuasive role. Online reviews are majorly used for getting information about cars in the market. Online reviews provide information about after-sales service, detailed information about various car models with positive and negative aspects which are not easily available from the marketer. Online reviews induce a consumer in making a purchase decision by showing positive aspects of a car model. The majority of the respondents believe that online reviews are more persuasive than advertisements and salesmen. This study also analyses the relationship between gender and the influence of online reviews. It is revealed that men are induced more by online reviews towards purchase decision of cars than women but the marital status of the respondents have no significant difference in the factors describing the roles of online reviews. This study also reveals that there exists a significant difference between the age group of the respondents and the factors describing the inducing and informative role of online reviews. Respondents in the age group of 25 to 45 are heavily induced by online reviews and found online reviews more informative than other age group but there is no significant difference between the educational qualification of the respondents and the role of online reviews in making a purchase decision. Also, there is a significant difference exists between inducing and informative roles of online reviews and the occupation of the respondents. Respondents who are employed found online reviews more informative and inducing them to purchase cars. But they are not agreeing on online reviews persuasiveness comparing to advertisements, salesmen and family influence.

## **8. SUMMARY AND CONCLUSION**

Online reviews play a major part in making awareness about products and services nowadays due to the revolution of mobile internet and cheaper broadband connection. Even though online reviews majorly covers e-commerce products and services but offline products like restaurants and automobiles are getting popular in recent years. This study suggests the marketers of cars to concentrate on online reviews and e-wom about their car models. Negative reviews have a significant effect on sales, more than positive reviews. Consumers who are employed and within the age group of 25 to 45 are major users of online reviews. Additional care has to be taken by the marketers while handling prospective buyers of cars who are employed and under this age group as they spread positive or negative reviews on the internet. This study also suggest that advertisers and salesmen have to monitor and consider online reviews about their

car models and also the competitors car models so that they can easily persuade the consumers by comparing their car models with competitors’.

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