

# Customer Attitude towards Adopting E-Commerce in Rural India

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## ABSTRACT

The purpose of this research is to provide insights on the Customer behavior in rural areas towards Online shopping in the high growing world. In this study following factors that contribute to the success of Online Marketing research: Public reviews, Transport facility, Introducing Gadgets, new era of Internet facility. The main objective of this study is to investigate the factors influencing the adoption of E-Commerce in rural India. This provides more awareness that defines the customer behavior on purchasing the products through online and the companies marketing strategies of improving their business in rural world. It also creates a platform for understanding the business through various factors which are clearly drafted. This provides such a framework where many small scale, large scale and multinational companies could be followed with versatile and innovative technologies involved. An appropriate use of the technologies and ideologies that emerged from this research, in the context of business improvements and customer satisfaction will assist organizations to properly utilize all resources with the aim of improving online marketing. This may be repeated to find lot more opportunities in order to receive the profits for business/satisfaction to buyers on a regular basis, or after major changes in the high evolving online market. There is no scope of limitation in analyzing the customer behavior of online shopping, but needs regular check to find the limitations which obstacle the business growth. This research papers represents the concept of knowledge giving through business growth of rural marketing.

**KEYWORDS:** E-Commerce, Online marketing, Factor Analysis, Machine Learning Algorithms Data Reliability, Rural India

## 1. INTRODUCTION

E-commerce is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, majorly the internet. This type of business transactions occur either as business-to-business (b2b), business-to-consumer (b2c), consumer-to-consumer (c2c) or consumer-to-business(c2b). The terms e-commerce and e-business are frequently used interchangeably. Sometimes the term e-tail is also used in reference to transactional processes for online shopping. The term E-commerce was originally conceived to describe the process of conducting business transactions electronically using technology from Electronic Data Interchange (EDI) and Electronic Funds transfer (EFT).

Electronic Commerce (e-commerce) is a means of doing business through networks of computer like offering different goods and service ranging from tour and travels, movies, hotel reservation, matrimonial service, electronic gadget, fashion accessories and groceries. A developing country can be recognized if it introduces e-commerce effectively and efficiently. It will be enhanced its output and gives competitive advantages.

## 2. LITERATURE REVIEW

India has been experienced remarkable growth in information technology and e-commerce. According to the e-bay census guide 2011, India is home to 3311 e-commerce hubs, 1267 rural hubs, 391 export hubs and 2217 import hubs. Due to the advancement of technology the world has become a global village. People can buy goods with a click of mouse button without moving out of their place. Consumer by couriers and postal services is not very reliable in smaller cities, towns and rural areas. However, many banks in India put the Internet banking facilities. The speed post and courier system were also improved tremendously in recent years. The reason of preferring E-commerce over traditional system both from Purchasers and Consumers end because of some of the following reasons:

Door step delivery, Speed and easy accessibility, Cost efficient, wide variety of product selections, Generated invoices and bills for future reference, Quick Services, Less investment costs (Manpower, Labor cost, Infrastructure), Direct Marketing with customers, Less likely product returns, Marketing strategy of with/without Warehouse, Always can be in contact with customers to provide the better information about all types of available products in market and many more. Following are the possible expected constraints: Lack of “touch and feel” factor, Lack of proper courier services in rural areas. Fear of carrying the financial transactions over internet, The lack of trust and the fear of being fooled etc.

Purchasers and Consumers have some challenges to go with ecommerce as follows:

**PURCHASER’S END:** Weak ICT access and low internet penetration, No or weak electronic payment infrastructure and networks, High delivery costs or delivery not feasible, the inefficient logistics and transportation are some of the key challenges in the delivery of goods in rural areas.

**SELLER’S END:** No proper courier service, Poor infrastructure, more expensive Standard urban-rural connectivity, Low literacy, widespread poverty, low income, and unemployment in rural areas lead to limited purchase capabilities.

Thanks to the emergence of low cost smart phones, however, poor last mile connectivity could act as a deterrent. Keeping control on logistics and on ground fleet management, especially transport and courier companies, are very essential for growth. E-commerce is the word ruling the business since a few years and we have many achievements, some of them as follows: It is a win-win situation for both the consumers and the merchants. Recently, the technology is well developed in the rural years and change the ideology that e-commerce companies may not reach the rural region of India. Moreover, the last few years has witnessed a dramatic change in the Indian Postal service as it is getting collaborated with more than 400 e-commerce websites. Many e-commerce giants revenue coverage from the villages are appreciably notable. Certain unique attributes like COD (cash on delivery) mode of payment and direct imports that lower costs considerably are probably going to bring about a speedy growth in this industry in the upcoming years.

## 3. KEY SOURCES/PARTNERS OF E-COMMERCE SUCCESS:

Post Offices are traditionally reliable and cheap and so far, We have around 1,55,000 post offices in India and through this Indian postal service Indian postal service, there is much infuses in the reliability and competitiveness when it comes to shipping E- Commerce products to end consumers in the remote villages in rural India.

Affordable cost for common man, Ease use and accessible, retail shopping mobile app can be used anywhere in India for online shopping.

According to the Boston Consulting Group (BCG) report, almost half of all Indian internet users will be from rural areas in 2020. BCG expects the Internet to contribute \$200 billion to India's GDP (5 percent of total GDP) by 2020. Internet & Mobile Association of India (IAMAI) estimated that rural India will have 109 million mobile internet users by June 2016, 60.2 per cent higher than figures of June 2015. Another flagship program under National e-Governance Plan to open internet kiosks – Common Service Centers (CSCs) – at 1, 00,000 Gram Panchayats was launched in 2009. Now the Government of India has increased the number to all 2, 50, 000 Panchayats.

The rural regions are already well covered by basic telecommunication services and are now witnessing in increasing penetration of computers and smart phones. Akodara, located in Gujarat's Sabarkantha district is proud to be India's first 'digital village'. The village of roughly 1,200 people has fully adopted by ICICI bank to demonstrate the kind of progress digitization can make on a society. Facilitating the creation of local-language, or vernacular, Internet Strategic investments in internet/broadband penetration in rural India. Need of best Internet Facility, Government of India is looking to install Wi-Fi hotspots at more than 1,000 gram panchayats across India. Facilitating digital transactions and easing payments. Postal Facility: Effective and efficient use of the Indian-Post logistical infrastructure

#### 4. OBJECTIVES

This study focuses on the following research objectives:

- To study the influence of demographic variables on E- Commerce in rural India.
- The main aim of the study is to understand the factors which influence customer expectation to adopt E-commerce in rural India.

#### 5. HYPOTHESIS

**H1:** There is a significant relationship between factors influencing demographic variables and adoption of E- Commerce. factors

**H2:** is there any significant association with psychographic variables vas E commerce Factors

#### 6. RESEARCH METHODOLOGY

**QUESTIONNAIRE DESIGN:** Based on the research objectives, a structured questionnaire with 61 independent variables information contained, mainly with a 50 different opinions.

**DATA COLLECTION:** Customers were considered as population of research interest. The research was carried out on selected 1068 people from rural areas in India as per the sample determination standard formula . For data collection random sampling was adopted. To ensure all questions being answered in a proper way, questionnaires were completed and screened one-by-one.

**DATA CLEANING:** Data mining Tools and Techniques i.e. R programming, R Rattle, Weka and SPSS 2.0 software's (Regression, Classifying& Clustering) has been used to analyze the data.

## 7. DATA ANALYSIS

**H1:** There is a significant relationship between factors influencing demographic variables and adoption of E- Commerce. Factors

		Gender	Marital Status	Age Group	Educational Qualification	Monthly Income	Occupation	Customer Region
Pricing & Delivery	Chi-square	771.483	689.788	1453.053	1503.251	1664.956	1728.160	1679.966
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***
Brand Influence	Chi-square	790.050	2.604	962.463	967.718	2026.996	1461.272	5.533
	Sig.	.000***	0.842	.000***	.000***	.000***	.000***	0.204
Life Style Accessibility	Chi-square	243.045	548.616	973.403	1081.927	1260.705	886.082	8.928
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	0.84
Decision making	Chi-square	370.899	611.971	1174.096	1315.396	1991.312	2255.208	2088.196
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***
Online Shopping	Chi-square	226.400	1011.929	8.760	1205.676	1818.672	2491.218	2050.019
	Sig.	.000***	.000***	0.871	.000***	.000***	.000***	.000***
Discounts & Comfort	Chi-square	344.837	943.383	1726.680	1593.031	1809.155	1819.042	1518.525
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***
Websites design	Chi-square	176.723	164.342	429.946	861.485	675.505	945.057	835.368
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***
Safety measures	Chi-square	168.253	540.419	972.346	937.045	1098.168	1299.533	1810.366
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***
Time Saving	Chi-square	378.242	1018.799	6.602	972.193	1792.637	1382.709	1329.430
	Sig.	.000***	.000***	0.751	.000***	.000***	.000***	.000***
Proactive intimation	Chi-square	159.140	569.825	570.877	691.494	868.790	927.637	1047.331
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***	.000***

### Insights:

Pricing & Delivery factor is affecting by Gender. Both male and female are more concern about delivery cost and price of the products. Marital Status affects this factor as well. Different age group people are reacting in different ways about price and delivery factor so that there is association between age group, Pricing & Delivery factor. Education qualification and monthly family income are also having association with Pricing and Delivery Factor. Customer Region and Occupation are having strong association with Pricing and delivery factor. Brand Influence & Security factor has association with Gender, Age group, educational status, Occupation and highly associated with Monthly family income. This means as the remaining variables influencing this factor but as this factor having strong association means Brand Influence & Security factor is mostly depends on how much the person is earning per month. And there is no significance for this factor with Marital Status and Customer region. Life Style & Accessibility factor has high association with Age group, Educational qualification and Monthly income. And there is no association between Life Style & Accessibility and Customer Region. Decision making is associated with all demographic variables but it is highly associated with Occupation and Customer Region. The factor Online Shopping has less association with Gender and very high association with Occupation and Customer Region. It seems like as most of the doctors are encouraging them to buy the medicines online as some medicines are not available in rural areas. Also the people are attracted for offers and they are buying if any of their friends suggests. There is no Association between Online Shopping and Age group. Every demographic variable has association with Discounts & Comfort factor. But in these variables, Gender is having the lowest association, Monthly income and Occupation has the highest Association. Here monthly earnings and Occupation of the candidate effects Discounts & Comforts factor. Websites Design factor has significance with each and every demographic variable where Occupation has the highest association and marital status having the lowest association. Every

Demographic variable concerning with the safety measures so that all are having Association with Safety measures factor. Here Customer Region having strong association. Time saving factor has strong association with Monthly family income, Occupation and Customer Region and this factor has weak association with Gender. Age group has no association with Time saving factor. Proactive intimation factor has strong association with Customer region and weak association with Gender.

**H2:** is there any significant association with psychographic variables vs E commerce Factors

		How often do you visit E commerce sites	How much amount do you spend purchasing online	Please specify, the mode payment at retail E commerce	Please specify, the time you have spent in this visit E Commerce portal?	Please Specify, Which time do you visit E portal?	Please specify the preference of time for shopping
Pricing & Delivery	Chi-square	2235.744	2492.763	1959.333	1173.133	2245.503	1702.663
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Brand Influence & Security	Chi-square	2367.704	2496.265	2044.228	1426.244	1878.639	1578.839
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Life Style & Accessibility	Chi-square	1116.909	1504.456	1433.231	903.187	741.166	468.448
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Decision making	Chi-square	1730.641	2880.499	1645.050	1412.993	1895.294	1221.046
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Online Shopping	Chi-square	1511.003	2935.320	1359.982	1095.763	2114.319	1003.269
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Discounts & Comfort	Chi-square	1910.801	3009.090	1914.135	1417.210	1789.547	1409.255
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***
Websites design	Chi-square	594.160	9.683	731.287	515.939	685.640	393.884
	Sig.	.000***	0.8045	.000***	.000***	.000***	.000***
Safety measures	Chi-square	2036.371	1398.542	16.586	780.356	1809.446	742.822
	Sig.	.000**	.000**	0.694	.000***	.000***	.000***
Time Saving	Chi-square	1425.744	3053.060	1683.176	710.972	1497.872	949.537
	Sig.	.000**	.000**	.000***	.000***	.000***	.000***
Proactive intimation	Chi-square	649.801	1475.523	833.861	177.395	976.536	489.311
	Sig.	.000***	.000***	.000***	.000***	.000***	.000***

Pricing & Delivery factor has significance with every psychographic variable and in this; this factor is having strong association with visiting sites in a month, spending money in a month, time of visiting portals. Brand Influence & Security factor is having strong association with amount spending online in a month. Which means this factor is highly effected by the amount which is spending by the customers in every month. Visiting E commerce sites is the next strongest associated variable after amount spending online. Life Style & Accessibility factor has strong association with amount spending online and has weak association with time spending in E commerce portals. Decision making factor is also having association with all psychographic variables. This factor has strong association with money spending online and has weak association with time spending on E commerce portals. Online shopping factor has strong association with amount spending online and time of visiting sites. Discounts & Comfort factor is having strong association with every psychographic variable. But, in this also, amount spending monthly online variable is having highest association. Websites design factor is having association with all psychographic variables except the amount spending online variable. It seems like; Website design is not affecting the customers to spend their money in purchasing online products.

Safety measures factor has strong association with visiting E commerce sites in a month and weak association with time spending in E commerce sites. And there is no Association between Safety measures

and Mode of payment variable. Time saving and Proactive intimation factors also having strong association with amount spending online and both factors has weak association in How much time the customer is spending on E commerce sites. Here the amount spending online in a month is strongly associated with all factors except Website design.

## 8. CONCLUSION

This research study revealed that adoption of E-commerce, followed by Factor **Name** variables strongly affect the overall expectation of E-commerce consumers in rural India. In order to promote customer satisfaction, it is inevitable for E-commerce service provider to give due emphasis to all the above-mentioned factors. It is well known that E-commerce in rural India has potential of exploring consumer. The researcher would like to add that a proactive and creative approach by E-commerce provider in rural India, for example, providing consumer education on E-commerce and friendly customer service will help improve the consumer confidence, and eventually overall customer satisfaction levels in rural India. A developing country can be recognized if it introduces e-commerce effectively and efficiently. It will be enhanced its output and gives competitive advantages.

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