IMPACT OF E-COMMERCE ON ONLINE SHOPPING

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Abstract: Over the last two decades, rising internet and mobile phone penetration has changed the way we communicate and do business. E-commerce is relatively a novel concept. It is, at present, heavily leaning on the internet and mobile phone revolution to fundamentally alter the way businesses reach their customers. This growth is expected to be led by increased consumer-led purchases in durables and electronics, apparels and accessories, besides traditional products such as books and audio-visuals.

Key words: Electronic Commerce, Technology, On-line Shopping.

❖ Introduction

Electronic commerce is commonly written as e- commerce. It is used for trading the products and services using the computer network and draws on technology such as mobile commerce, electronic funds transfer, supply chain management, internal marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. World Wide Web is the modern electronic commerce for least one part of the transaction's life cycle, it may use other technology such as e- mail, sending of purchase orders to supplies, the use of fax, the use of ATMs and smart cards to facilitate payments and obtain digital cash; and the use of internet and online services.

The essence of e-retailing is in its ability to transcend physical boundaries and reach customers in a manner different from the traditional brick-and-mortar stores, to their very doorstep. However, the base of the e-retailing model is technology and logistical solutions that facilitates the customer acquisition and the final 'reach' process. E-commerce further brings to the table vagaries in customer orders accompanied with difficult scenarios such as free delivery; order rescheduling, cancellation, returns and cash-on-delivery. Additionally, an expected minimized turn-around-time (TAT) which will potentially lead to word-of-mouth publicity, feedback and customer retention to the e-portal or website. An information network which shares updated information with respect to inventory status, demand schedules and forecasts, shipment schedules and promotion plans among all the stakeholders of the supply chain will form the backbone of an e-retailer.Smart Phone Penetration has also aided this model in its monstrous development. Companies started rolling-out Applications (Internet) on all the available Smart Phone Platforms.

❖ Review of Literature

The Hindu (2016) reported that E-commerce industry will cross $38 billion this year due to the rapid growth in mobile commerce that contribute 70% of total revenue. In 2015 Mumbai ranked first in online shopping followed by Delhi, Ahmadabad, Bangalore and Kolkata. Increase in use of smartphones has made the digital commerce in India to grow rapidly. The major report in this paper is that online shoppers prefer to pay cash on delivery is of 45%, credit card 16% and debit card 21%. The most popular websites which 18-25 years age group are the fast growing customers that drives towards Snapdeal, Myntra, Flipkart, Amazon, Jabong are connected 24*7 through smart phones, tablets and other mobile device for online shopping. (The Hindu, Sunday, 03 January, 2016. "E- Commerce industry to cross $38 billion this year: Assocham – P.Narasimhan".)

Geethanjali (2015) published a paper on "Consumers awareness with regards to online shopping: A comparative study of Mysuru (Mysore) and Raichur Districts" The Scholar have made a comparative study between developed and undeveloped area , the research concluded that undeveloped area i.e Raichur is unaware of online shopping and Mysore the developed area shop online as a result of time saving, convenience, accessibility, etc because they are provided with wide variety of brand and price comparison availability. (International Journal of Research in Commerce & Management, Volume. 6, Issue. 7 July, ISSN 0976-2183)

Sanjay Kumar (2015) studied on "Online Shopping – A Literature Review". The research revealed the factors affecting the online shopping; they are, shopping convenience, information seeking, social contact and diversity. The major reason people do not prefer online shopping is due to lack of quality in product, lack of security of internet banking password, credit card password, shipping charges is high. (National Conference on Innovative Trends in Computer Science Engineering (ITCSE-2015) held at BRCMCET, Bahal on 4th April 2015)

Priyanka Sinha and Saumya Singh (2014) researched a paper on "Determinants of consumers' perceived risk in online shopping: A study". The research findings revealed that product performance risk, delivery risk and financial risk had a negative impact on attitude towards the online shopping, while time/ convenience risk had no impact on attitude towards online shopping. It was also observed that consumers' dimension of risk varies with age. However it was found that income was the only impact of the perception of a product and financial risk. (Indian Journal of Marketing, Vol: 44, no: 1 Jan 2014, ISSN: 0973-8703)

Meghna Verma and Saranya.S (2014) researched on "Role of Gender in influencing consumers' attitude towards online advertisement". The researcher found that consumers prefer online advertisement is just to seek the information about the price of the product. The consumers' attitude and the purchase decision towards online advertisement were not based on gender. (Indian Journal of Marketing, Vol. 44, issue no 12, Dec 2014, ISSN 0973-8703).

Deepali (2013) researched on "Study on growth of online shopping in India". The findings were 21-30 years age group and female respondents are more attracted towards the online shopping. The consumers visit the websites once in a week to check for new updates, schemes and trends, the most visited website was Homeshope. The number of internet users in the country was expected nearly triple from 125 million in 2011 to 330 million by 2016 in India. (International Journal of Computer Science and Mobile Computing, Volume.2, Issue.6, June 2013, ISSN: 2320-088X)

Arun Thamizhvana and M.J Xavier (2013) attempted a paper on "Determinants of customers' online purchase intention: an empirical study in India". The researcher found that male have more intention to purchase online than female due to purchase orientation, prior purchase experience and online trust in online shopping. (Journal of Indian Business Research, Volume.5, Issue: 1)

Dahiya Richa (2012) attempted a paper on "Impact of demographic factors of consumers on online shopping behavior: A study of consumers in India". The researcher found that most of the people shop online for reservation of tickets and banking. Female frequently shop in online compared to male. The major factor that have an impact on online shopping were the gender and the family size and other factors that does not impact the online shopping were age, marital status, income and education.(International Journal of Engineering and Management Sciences, Volume. 3(1), ISSN 2229-600X)

E- Marketer (2005) showed that the internet applied a bigger influence than offline media for electronics compared to that clothing, beauty or home improvement as would be expected. Internet Marketing has changed the way people buy and sell goods and services. It had added lot of convenience and easy to the whole process of buying. Internet buying prevalence is highest in the United States,

where 93% of Internet users have bought online (Business Software Association, 2002), and it is growing rapidly in India as well (www.ebay.com)

❖ Objectives of the Study

> ➢ To study the attitude of consumer towards online shopping.
> ➢ To evaluate the relationship between the frequency of purchase and factor affecting online shopping.
> ➢ To analyze the type of products and brand, the consumers shop online.
> ➢ To determine the relation between e- satisfaction and e- loyalty in the case of online consumers.

❖ Methodology and Data Source

Data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcome. The primary data are the information which are collected fresh and first time and thus to be original in character. Primary data has been collected from the consumers through survey and questionnaire. On the other hand secondary data are those which have already been passed through the statistical process. Secondary data was collected from various published books, journals, magazines, newspapers and also from web sites.

❖ Research Design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. The research design under taken for the study is in descriptive one. The methodology involved in this design is mostly qualitative in nature.

❖ Statistical Tools for Analysis
Chi- square method
Cross tabulation
ANOVA method

• Chi- square method

Chi-square is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. It is also referred to as χ^2 test in which the sampling distribution of the test statistic is a chi- square distribution when the null hypothesis is true. Chi-squared tests are often constructed from a sum of squared errors, or through the sample variance. Test statistics that follow a chi-squared distribution arise from an assumption of independent normally distributed data, which is valid in many cases due to the central limit theorem. A chi-squared test can then be used to reject the hypothesis that the data are independent.

Pearson's chi-square test is used to assess two types of comparison: tests of goodness of fit and the tests of independence.

❖ Goodness of fit is a non parametric test that is used to find out how the observed value of a given phenomena is significantly different from the expected value. The term goodness of fit is used to compare the observed sample distribution. The term goodness of fit is used to compare the observed sample distribution with the expected probability distribution. Ch- square goodness of fit test determines how well theoretical distribution fits the empirical distribution.

❖ Test of independence, also known as the test of homogeneity, is one of the most basic and common hypothesis tests in the statistical analysis of categorical data. The test of independence determines whether or not there exists a statistical dependence between them. Formally it is a hypothesis test with the null and the alternative hypothesis.

- **Cross tabulation**

Cross tabulation is about taking two variables and tabulating the results of one variable against the other variables. Cross tabulation is a joint frequency distribution of cases based on two or more categorical variables. Displaying a distribution of cases by their values on two or more variables is known as contingency table analysis and is one of the more commonly used analytic methods in the social sciences. They joint frequency distribution can be analyzed with the Chi- square statistic to determine whether the variables are statistically independent or if they are associated.

- **ANOVA analysis method (one way)**

Analysis of variance is a technique used to test equality of means, when more than two populations are considered. If there are more than two populations, for testing the equality of their means the Analysis of Variance method is applied. Under the null hypothesis that the population means are equal, between sample variation and within sample variation would be expected not to differ significantly from one another after adjustment for degree of freedom, since they both reflect the same type of chance of errors. On the other hand if the null hypothesis is false and the population means are different then between sample variation should significantly exceed the within sample variation.

❖ **Online Markets in India**

Flipkart is an e-commerce company founded in 2007 by Sachin Bansal and Binny Bansal. The company is registered in Singapore, but has its headquarters in Bangalore, Karnataka. Flipkart has launched its own product range under the name "DigiFlip" with products including tablets, USBs, and laptop bags.

Snapdeal is an online marketplace, New Delhi, India. The company was started by Kunal Bahl, a Wharton graduate as part of the dual degree M&T Engineering and Business program at Penn, and Rohit Bansal, an alumnus of IIT Delhi in February 2010.

Paytm is an Indian e-commerce shopping website launched in 2010, owned by 197 Communications which initially focused on Mobile and DTH Recharging. The company is headquartered in Noida, India. It gradually provided recharging and bill payment of various portals including electricity bills, gas bills, as well as telephone bills. Paytm entered India's e-commerce market in 2014, providing facilities and products similar to businesses such as Flipkart, Amazon.com, Snapdeal. In 2015, it added booking bus travel.

ShopClues.com is an online marketplace, headquartered in Gurgaon, India. The company was founded in California's Silicon Valley in 2011. It has over 12,000 registered merchants retail +2,00,000 products on the platform to over 42 million visitors every year across 9500 locations in the country. ShopClues joined as 35th entrant in the Indian e-commerce in 2011. The company employs about 700 people across different locations.

Jabong was one of the most visited e-commerce sites during the Great Online Shopping Festival 2013. Company representatives claimed that its revenues increased five to six times compared to a usual day. Jabong.com follows both an inventory model and a managed marketplace model. In the inventory model, products are sourced from brands and stored in the Jabong warehouse. In the managed marketplace model, Jabong provides marketing, logistics and delivery.

HomeShop18 is a part of the Network18 Media & Investments Limited which is owned and operated by Reliance Industries. Network 18 FinCap is the holding company for several media entities in India such as Television Eighteen India Ltd (TV18), HomeShop18, CNN-IBN, First Post, IBN 18 Broadcast Ltd, Web 18, Studio 18, Shop 18, Infomedia 18, and Viacom 18.

Naaptol is a home shopping company based in India that sells various products. The company has its headquarters in Mumbai, Maharashtra. Naaptol was started by its founder and CEO, an IIT Kanpur alumnus in January 2008 as a product research and price comparison service. In 2009 it adapted the marketplace model and stated selling products online. Naaptol follows the marketplace business model.

Pepperfry.com is a furniture and home products e-commerce marketplace headquartered in Mumbai. A managed marketplace, Pepperfry is known for its differentiated product range across categories like Furniture, Home Décor, Furnishings, Lamps & Lighting, Kitchen & Dining, Appliances, Appliances, Bath, Housekeeping . It was established on January 3, 2012 by founders Ambareesh Murty (former eBay Country Manager) and Ashish Shah (former head of eBay Motors-India and Philippines). The company offers free shipping on all orders. It also provides carpenters to assemble furniture items in major cities on the same day.In December 2014 the company launched its first concept store "Studio Pepperfry" in Mumbai. This was followed by a similar Studio opening in Bengaluru, Gurgaon, Mumbai (Linking Road) and Kolkata and in Pune.

Yepme is an online shopping company headquartered in Gurgaon, Haryana, India. It was established in April 2011.The company specializes in the online retailing of men's and women's garments and accessories. In August 2011, the company positioned itself as a fully-fledged private label fashion brand. Yepme.com, was launched in April 2011 by three alumni of Indian Institutes of Technology and Indian Institutes of Management: Vivek Gaur, Sandeep Sharma and Anand Jadhav. Having started its operations as an online apparel retailer, in August 2011 Yepme.com decided to focus on private label fashion-wear instead of branded apparel.

Myntra is an Indian e-commerce company of fashion and casual lifestyle products, headquartered in Bangalore, Karnataka, India. The company was founded in 2007 by Indian Institute of Technology graduates with a focus on personalisation of gift items. By 2010, Myntra shifted its focus to the online retailing of branded apparel. In May 2014, Myntra.com merged with Flipkart to compete against Amazon which entered the Indian market in June 2013 and other established offline retailers like Future Group, Aditya Birla Group and Reliance Retail.

❖ **Analysis & Interpretation**

Objective 1:

To Study the Attitude of Consumers towards Online Shopping

H_0: There is no significant relationship between gender and attitude of consumers towards online shopping

H_1: There is significant relationship between gender and attitude of consumers towards online shopping.

Chi – square tests

	Value	df	Asymp. Sig (2- sided)

Pearson chi- square	4.234[a]	3	.237	

Inference

From the above table, the calculated value of Chi-square is 0.237 which is greater than table value of 0.05 so null hypotheses is accepted at the 5% significance level. It is concluded that gender and the attitude of the consumers have no significant relationship between them.

H_0: There is no significant relationship between gender and attitude of consumers towards online shopping.

Objective 2:

To evaluate the relationship between the frequency of purchase and factor affecting online shopping.

H_0: There is no significant relationship between frequency of purchase and factor affecting online shopping.

H_1: There is significant relationship between frequency of purchase and factor affecting online shopping.

Frequent shopping and price of goods cross tabulation
Chi – square tests

	Value	Df	Asymp. Sig (2- sided)
Pearson chi- square	21.388[a]	6	0.002

Frequent shopping and quality of goods cross tabulation
Chi – square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	13.719[a]	2	0.001

Frequent shopping and variety of goods cross tabulation
Chi – square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	23.757[a]	6	0.001

Frequent shopping and Design of the product cross tabulation
Chi- square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	15.346^a	4	0.004

Frequent shopping and Payment method cross tabulation
Chi- square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	21.051^a	6	0.002

Frequent shopping and Delivery mode cross tabulation
Chi – square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	17.391^a	4	0.002

Frequent shopping and after sales service cross tabulation

Chi- square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	17.654^a	4	0.001

Frequent shopping and Overall service cross tabulation
Chi – square tests

	Value	Df	Asymp. Sig(2- sided)
Pearson chi- square	19.507^a	4	0.001

Inference

From the above table, the Chi – square value are Price of the product (0.002) Quality of the product (0.001) Variety of the product (0.001) Design of the product (0.004) Payment for the product (0.002) Delivery of the product (0.002) After sales service of the product (0.001) Overall service for the product (0.001). All the above values are less than 0.05 so it signifies that the null hypothesis is rejected and the

alternate hypothesis is accepted stating that the various factors affected the respondents in purchasing from online.

H$_1$: There is significant relationship between frequency of purchase and factor affecting online shopping.

Objective 3: To analyze the type of products and brand, the consumers shop online

Cross tabulation of brand and type of products preferred in online shopping

OPINION		BRAND		TOTAL
		YES	NO	
Products preferred	Electronics	47	0	47
	Outfits	35	11	46
	Cosmetics	7	0	7
TOTAL		89	11	100

Inference

From the above cross tabulation it is found that out of 100 respondents 89% of the respondents prefer to buy branded products and 11% respondents do not prefer to buy branded products. Out of 100 respondents 47% of the respondents prefer to purchase branded product in Electronic items, 35% of the respondents prefer brand products and 11% said that they do prefer branded products for outfits, 7% of the respondents prefer cosmetics items in brands.

Objective 4: To determine the relation between e- satisfaction and e- loyalty in the case of online consumers.

H$_0$: There is no significant relationship between satisfaction level and loyalty shown by the consumer in online purchase

H$_1$: There is significant relationship between satisfaction level and loyalty shown by the consumer in online purchase.

ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between groups	4.327	1	1.327	12.606	0.001
Within group	33.633	98	0.343		
TOTAL	**37.96**	**99**			

Inference

From the above ANOVA table it s found that the calculated value is 0.001 which is less that 0.05 so it is concluded that null hypothesis is rejected and the alternate hypothesis is accepted stating that the online

shopping have made them satisfied and they are loyal to that particular website to shop the products they need.

H$_1$: There is significant relationship between satisfaction level and loyalty shown by the consumer in online purchase.

Conclusion

In global online market, internet has experienced a tremendous growth as a medium of communication. The consumers have replaced the technology as the driving force for change. The strong consumer demands and increasing numbers in types of goods that is available has made the online shopping to grow. Internet shoppers are more active by shopping in home. The consumers mostly use the internet from being in home for shopping purpose; the research concluded that there is no significant relationship between the attitude and the gender in purchase the products from online. The factors like price, quality, variety, design of the product, payment mode and various other factors have affected the consumers in purchasing online

Scope of the Study

The study was limited to individual shopping behavior. This is not because of non-availability of resources but the nature of the study itself restricts it. There is also scope for similar studies to be conducted among different age groups, gender and income level from different cities. Therefore, more of qualitative methodology of data collection should be taken in future to provide wider perspectives to the present study. For instance, the research design can employ case study methodology or content analysis to provide a holistic picture to the given subject.

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