

Identifying the factors influencing consumers' perception towards online shopping in Madurai city

N. Ganesha Pandian¹, G. Divya²

¹(MBA department/Madurai school of /management, India)

²(MBA department/Madurai school of /management, India)

Abstract: Online shopping is growing in a fast pace in country like India. Major online shopping sites compete strongly to achieve the strong customer base. In this paper, we have used questionnaire technique to collect the preliminary data from Madurai city. The collected data were analysed and interpreted using various analytical tools like explanatory analysis and exploratory factor analysis. Exploratory factor analysis includes 9 set of questions about consumers' perception on the latent variables price, service quality and trust worthiness were identified.

Keywords: Online shopping, Madurai city, consumers' perception, Purchase preference, modes of payment

I. Introduction

(Stephen P. Robbins et al., 2011) Perception is a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. However what we perceive can be substantially different from objective reality. A number of factors operate to shape and sometimes distort perception. These factors may be *perceiver, situation, or target or object*. These factors may influence consumer's perception in purchasing of product through online.

(Philip kotler et al., 2013) E-commerce uses a website to transact or facilitate the sale of products and services online. Online retail sales have exploded in recent years, and it is easy to see why. Online retailers can predictably provide convenient, informative and personalised experiences for vastly different types of consumers and business. By saving the cost of retail floor space, staff and inventory, online retailers can profitably sell low-volume products to niche markets. Online retailers compete in three key aspects of transaction:

- Customer interaction with the website
- Delivery
- Ability to address problem when they occur

Commerce sites sell types of products and services, notably books, music, toys, insurance, stocks, cloths, mobile phones, electronic items and so on. Flip kart is a major player in the sale of online books and electronic items.

1.1 Objective of the study:

- To identify the factors influencing the consumer's perception towards online shopping in Madurai city.
- To study the consumers preference of purchase through online shopping sites
- To study the consumer's preference of purchase about the category of items
- To find out the reason of preferring online shopping and preferred mode of payment while shopping online.

II. Review of literature:

(Selim Aren et al. 2013) This study shows that the factors affecting consumers' intention to shop at the same website and the relations among them are depending on the analyses. The result shows that characteristics of an online store and what consumers feel and perceive cannot be ignored apart from social and economic reasons that lead people to shop online. These factors take consumers first to behavioural intention and then to the behaviour itself.

(Pratiksinh sureshsinh vaghela 2014) This paper indicates that most of the customer having experience of online shopping. Customer believed that online shopping is better option than manual shopping. Still they have belief that online shopping is expensive, delayed in delivery of products and service. Most of the customers are facing problems like return of bad/wrong product, confusing sites and ineffective customer service.

(Ceyda Aysuna Turkyilmaz et al. 2014) This study shows that website quality is very important for consumers' online buying impulsiveness. The next important dimension effective on online buying impulsiveness is entertainment of the website which includes the visual and emotional appeal of the website. The result of the study is related to the personality traits of the consumers who shop online. According to the results extraversion,

openness to change and agreeableness have positive effects; conscientiousness and neuroticism have negative effects on online impulse buying.

(Javed Anjum Sheikh et al. 2015) This study shows that the consumers exhibit different behaviour while shopping online. There are perceived differences between male and female consumers. Female consumers face more difficulties as they do not frequently use internet and have some security and privacy concerns. By keeping perceived difference in mind designer should design the website that will be effective and entertaining for all users especially the women.

(Dr. Desti Kannaiah 2015) The study highlights the fact that the youngsters between the age of 20-25 are mostly poised to use the online shopping. It is also found that the majority of the people who shop online buys books online as it is cheaper compared to the market price with various discounts and offers. The study also reveals that the price of the products have the most influencing factor on online purchase. The second most influencing factor is the security of the products, the third most influencing factor on online purchase is Guarantees and Warrantees followed by delivery time and the next most influencing factor is reputation of the company, privacy of the information and nice description of goods. The study also reveals that majority of the respondent's buys clothes from flipkart.com which is thus one of the leading online shopping websites in India. On top of that the most products purchased online by the respondents is the books followed by tickets (railway, movie, concerts).

(Pratiksinh sureshsinh vaghela 2015) This study shows that most of people purchase products like electronics, books, media, footwear and apparels. Majority of respondents prefer cash on delivery as a payment mode and very few prefer EMI facility. At the time of online purchase, respondents consider range of products as most important factors followed by trustworthiness of online vendor, price and convenience. Overall it is found that online buying habit is independent of gender. Most of the respondents select website for online purchase based on their previous experience and vendor's credibility.

(Mahsa Abayi, Behnaz Khoshtinat 2015) shows that an individual's attitude influences the search for information and online shopping incentives and causes concentration on the product and finally customer satisfaction in online shopping, and in addition to external benefits (savings in time and cost), internal costs (brand name and newness of the product) can positively affect customer tendency for online shopping as well.

(Chao-Hung Wand et al. 2015) In this study, an embedded online shopping system was constructed; the Augmented Reality embedded system received higher scores in both subjective questionnaires and had better mouse performance. It indicates that AR embedded online shopping system can help customers to increase the effectiveness and satisfaction of performing online shopping.

(Dr. A. T. Jaganathan et.al 2016) This paper shows that the perception of the consumer also has similarities and difference based on their personal characteristics usage based on their needs and demand. The study reveals that mostly the students are attached to the online shopping and hence the elder people don't use online shopping much as compared to the younger ones, so awareness has been fashioned in the coming era. Finally this study suggested that the online transaction should be flexible for the customers who perceived in shopping.

III. Research methodology:

A descriptive study was conducted on consumer perception towards online shopping by collecting primary data through questionnaire method. A sample size of 320 was taken to reach out the varied demographic background. A non- probability sampling technique, convenience sampling technique is used, since the size of population is very large nearly to infinity. The questionnaire contains 15 questions with a set of demographic questions about the respondents and a set of dichotomous questions with "yes" or "No" which is to find the preferred shopping sites and preferred shopping items. And the other questions were to find the reason for preferring online shopping and preferred mode of payment through online shopping. A set of nine questions were present to find the consumer's perception towards online shopping with five point Likert scale of "Strongly agreed" to "Strongly disagreed". Secondary data was collected through various sources such as literature of previous studies, books, websites and etc.

The collected data were analysed using percentage analysis and exploratory factor analysis which is used to find out the factors influencing the online shopping of consumers.

IV. Data analysis and interpretation:

TABLE 1: Shows Demographic profile of respondents

Demographic variables	Frequency of respondents	Percentage
Gender		
Male	184	57.5%
Female	136	42.5%
Age		

Below 20 yrs	8	2.5%
20-40 yrs	280	87.5%
41-50 yrs	26	8.1%
Above 50 yrs	6	1.9%

From the above table 1, it is inferred that 184 (57.5%) of respondents were male and 136 (42.5%) of respondents were female. It also shows 8 (2.5%) of respondents' age were below 20, 280 (87.5%) of respondents' age were between 20-40, 26 (8.1%) of respondents' age were between 41-50 and 6 (1.9%) of respondents' age were above 50.

TABLE 2: Reason for preferring online shopping

Reason to prefer online shopping	Frequency of respondents	Percentage
Cash on delivery	120	37.5%
Option to return	16	5.0%
Variety of goods	40	12.5%
Availability of goods	8	2.5%
Above all	136	42.5%

The above table 2 indicates that 120 (37.5%) of respondents prefer online shopping because of cash on delivery facility, 16 (5%) of respondents' prefer online shopping because of option to return facility, 40 (12.5%) of respondents' prefer online shopping because of variety of goods, 8 (2.5%) of respondents' prefer online shopping because of availability of goods, 136 (42.5%) of respondents' prefer online shopping because of all the above mentioned options.

TABLE 3: Shows the preferred mode of payment by respondents

Preferred mode of payment	Frequency of respondents	Percentage
Net banking	40	12.5%
Card payment	56	17.5%
Cash on Delivery	224	70.0%

Table 3: 224 (70%) respondents prefer cash on delivery mode of payment, 56 (17.5%) respondents preferred mode is card payment, 40(12.5%) respondents' preferred mode of payment is card payment in online shopping.

TABLE 4: Shows the respondents preference of online shopping sites

Online shopping sites	Yes	No	Mean scores	Priority Rank
Amazon	272	48	0.85	2
Flip Kart	296	24	0.93	1
Snap deal	240	80	0.75	3
Paytm	152	168	0.48	4
E-Bay	152	168	0.48	4
Jabong	128	192	0.40	8
Myntras	128	192	0.40	8
Shop clues	136	184	0.43	6
Pepper fry	88	232	0.28	10
Home shop	136	184	0.43	6

Above mentioned table represents that Flipkart with mean score of 0.93 ranks first, it is the most preferred online shopping site, Amazon with mean score of 0.85 ranks third, pay-tm and E-bay with mean score of 0.48 ranks fourth, shop clues and Home shop with mean score of 0.43 ranks sixth, Jabong and Myntras with

the mean score of 0.40 ranks eighth and Pepper fry with the mean score of 0.28 ranks last as the least preferred shopping site.

TABLE 5: shows the respondents purchase preference of items available online

Items in online shopping	Yes	No	Mean scores	Priority Rank
Electronics item and gadgets	160	160	0.50	4
Men and women’s wear	160	160	0.50	4
Auto spare parts	40	280	0.13	14
Cosmetics	96	224	0.30	9
Home and accessories	144	176	0.45	6
Spectacles, sun glasses and contact lens	120	200	0.38	7
Books and e-books	192	128	0.60	2
Cooking utensils	72	248	0.23	13
Tools and Hardware items	88	232	0.28	11
Kids items	96	224	0.30	9
Bag and footwear items	168	152	0.53	3
Sports items	104	216	0.33	8
Home decorative items	88	232	0.28	11
Body building and fitness equipments	40	280	0.13	14
Mobile and accessories	224	96	0.70	1

From the above table 5 it is inferred that Mobile and accessories with mean score of 0.70 ranks first as most preferred item of respondents’ through online, books and e-books with mean score of 0.60 ranks second, bag and footwear items with mean score of 0.53 ranks third, Electronic items and gadgets & Men and women wear with mean score of 0.50 ranks fourth, Home and accessories with mean score of 0.45 ranks sixth, Spectacles, sunglasses and contact lenses with mean score of 0.37 ranks seventh, spots items with mean score of 0.33 ranks eighth, Kids items and cosmetics with the mean score of 0.30 ranks ninth, Home decorative items and tools and hardware items with the mean score of 0.28 ranks eleventh, cooking utensils with mean score of 0.23 ranks thirteenth, Body building equipments and fitness equipments& Auto spare parts with the mean score of 0.13 ranks last as respondents’ least preferred items through online shopping .

TABLE 6: Shows the respondents perception on various factors (in percentage)

Variables	SA-5	A-4	N-3	DA-4	SDA-5	Mean	Mode	SD
Product I got is same as ordered online	25	45	30	0	0	3.95	4	0.741
I trust online products	5	50	40	2.5	2.5	3.53	4	0.742
Variables	SA-1	A-2	N-3	DA-2	SDA-1	Mean	Mode	SD
Online products inferior in quality	2.5	42.5	42.5	10	2.5	2.68	2	0.788
Higher prices	7.5	17.5	35	27.5	12.5	3.20	3	1.102
Higher delivery charges	15	17.5	45	17.5	5	2.80	3	1.055
I feel insecure about payments	22.5	25	30	20	2.5	2.55	3	1.119
Delay in delivery of products	2.5	35	27.5	17.5	17.5	3.13	2	1.146
Defective products delivered online	5	20	55	20	0	2.90	3	0.769
Not properly delivered at door	5	35	47.5	7.5	5	2.73	3	0.867

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The above table 6 states that respondents’ agree that product he got is same as ordered through online with Mean 3.95 and Mode 4. Respondents’ agree that they trust online products with the Mean 3.53 and Mode 4. Respondents’ agree that online products are inferior in quality with Mean 2.68 and Mode 2. Respondents’ feels neutral (neither agreed nor disagreed) about online products are highly priced with Mean 3.20 and Mode 3. Respondents’ feels neutral (neither agreed nor disagreed) about high delivery charges on online products with Mean 2.80 and Mode 3. Respondents’ were expressed neutral for insecure about online payments with Mean 2.55 and Mode 3. Respondents’ agreed that there is a delay in delivery of online products with Mean 3.13 and Mode 2. Respondents’ feels neutral about defective products delivered online with Mean 2.90 and Mode 3. Respondents’ feels neutral about products not delivered properly at doorsteps with mean 2.73 and mode 3.

TABLE 9: KMO and Bartlett’s test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.777
Bartlett's Test of Sphericity	Approx. Chi-Square	1354.576
	df	28
	Sig.	.000

TABLE 10: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.147	51.838	51.838	4.147	51.838	51.838	3.374	42.176	42.176
2	1.125	14.065	65.903	1.125	14.065	65.903	1.898	23.727	65.903
3	.909	11.363	77.267						
4	.627	7.836	85.102						
5	.451	5.632	90.734						
6	.387	4.835	95.569						
7	.221	2.766	98.335						
8	.133	1.665	100.000						

Extraction Method: Principal Component Analysis.

Rotation: Promax with Kaiser Normalization

TABLE 11: Exploratory factor analysis (EFA) – factor loadings and construct reliability

Latent variables	Factors/Variables	Component 1 factor loadings	Component 2 factor loadings	Reliability – Cronbach’s Alpha α
Perception on price and service quality	Inferior in quality	0.755		0.884
	Higher prices	0.777		
	Higher delivery charges	0.893		
	Insecure about payments	0.830		
	Delay in delivery	0.747		
Perception on	Defective product delivered		0.792	0.647

trust worthiness	Not delivered properly		0.872	
	I trust online products		0.515	

4.1 Factor Analysis:

Kaiser-Meyer-Olkin (KMO) value was computed in order to assess the correlation matrices for factor analysis. It is important to assess KMO because it determines whether the data is suitable for running factor analysis. KMO value ranges from 0 to 1, whereby it is essential to have a KMO value of 0.60 or more in order to conduct factor analysis, and if researcher fails to attain the above said value, then the variables that have attained the lowest anti-image must be dropped until KMO value reaches 0.60 (Hair et al.,2010). Barlett’s test of sphericity with chi square with value of 1354.576; degree of freedom=28 is significant at the level of 0.05. Now the factors or latent variables were extracted by rotating the variables by using SPSS software into two major factors loading were identified:

4.1.1 Factor 1: Perception on price and service quality

Customers are sensitive about price and service quality. There is always a trade off between fixing of price and compromise in quality. From the above analysis, it is evident that consumer’s perception on price and service quality plays a major role in buying behaviour. (Refer Table 11). The reliability scale Cronbach Alpha score of (factor 1) Perception on price and service quality is 0.884 above the expected value of above 0.6 for social science researches.

4.1.2 Factor 2: Perception on Trust worthiness

Trust worthiness is a key issue in most of the online shopping and money transactions. If there is more trust built, then the purchase of product through online shopping increases eventually. From the above analysis, it is evident that perception on trust worthiness influences the shopping behaviour. The reliability scale Cronbach Alpha score of (factor 1) Perception on price and service quality is 0.647 which is at par with the standard value of 0.6 for social science researches.

4.2 Key Findings:

Based on the interpretations above, it is found that (37.5%) 120 respondents out of 320 has preferred online shopping as a reason of COD option. (70%) 224 respondents out of 320 Cash on delivery is the most preferred payment than Net banking or card payment methods. Flip kart, Amazon and snap deal with mean score of 0.93, 0.85, 0.75 tops in first three ranks as compared to other online shopping sites respectively. Mobile and accessories ranks first in preferred item for purchase with mean score of 0.70, Books and e-books ranks second with the mean score of 0.60 and Bags & foot wears ranks third with the mean score of 0.53.

From the factor analysis, there are two important latent variables were identified:

1. Perception of consumers on price and service quality and
2. Perception of consumers on trust worthiness by using the principal component method and with promax rotation with Kaiser Normalization

V. Managerial implications and further research direction:

From the managerial perspective, this study suggests that some of the top online shopping sites stay in the market by their unique strategy. The result of this study clearly explains that those shopping sites stays top with their sophisticated and most preferred payment method like cash on delivery (COD) and it is one of the main reason for consumers’ to prefer online shopping. This study also reveals that some products like books, footwear and mobiles were preferred by consumers through online in relation to other categories of products. Online shopping companies should focus primarily on price & service quality and trust worthiness to compete in the competitive online market.

The limitation of the research is that the results obtained cannot be generalized. Since this research focuses on Madurai city consumers only. Thus result obtained cannot be generalised for other states in India or any other countries. This study only identifies the latent variables such as price & service quality and trust worthiness. These identified variables should be confirmed statistically for further practical applications.

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