



FACTORS INFLUENCING ONLINE SHOPPING IN COIMBATORE CITY - MULTIVARIATE ANALYSIS

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ABSTRACT

The study of consumer behaviour is the understanding of how individuals or organisations behave in the purchase situation. It is really psychology applied to marketing, specifically to the buy decision. Along with information about a company and its products, buyers can also have better access to product review and rating systems. Objectives of the study, to identify the factors influencing online shopping selected respondents in Coimbatore District. Methodology of the study, Descriptive research design study has been adopted in this study. Primary as well as secondary data has been used in this study. Interview Schedule is Primary data collection tool. Sampling unit is Coimbatore District. Thus the twenty four variables in the data were reduced to four Component factors and each factor may be identified with the corresponding variables. Conclude this study, Online markets have become the battlegrounds where the brands, small, medium and big, the known, the not-so-well-known and the wannabe ones, fight it out for the online consumer's attention.

Keywords: Factor analysis, Product, Quality, etc.,

INTRODUCTION

On-line shopping is one of key business activities offered over the Internet. Internet users attitudes about online shopping are not entirely consistent. They are willing to shop online because it is convenient and a time -saver, but they also do not like sending personal or credit card information over the internet. Knowledge of the buyers, their buying motives and buying habits is a fundamental necessity for the marketing man. Such an understanding of buyer behaviour works to the mutual advantage of the consumer and marketer allowing the marketer to become better equipped to satisfy the consumer's need efficiently and to establish a loyal group of customers with positive attitude towards the company's products. The study of consumer behaviour is the understanding of how individuals or organisations behave in the purchase situation. It is really psychology applied to marketing, specifically to the buy decision. To understand the buyer and to create a customer through this understanding is the main purpose of buyer behaviour studies. For marketing to be successful, it is not only sufficient to merely discover what customers require, but also find out why it is required, only by gaining a deep and comprehensive understanding of buyer behaviour can marketers goals be realized.

Online Shopping is relatively new type of retailing. The rise of the Online Shops or Internet Shops is a type of E-Commerce that is Internet based and has proliferated worldwide since the mid-90s. It is an alternative way of selling and buying products and services. It reduces the cost of business investment including the cost of advertising, human resources, inventory, time to market, product improvement and service qualities. People can sell products and buy products through the online shop once the owner has established the shop. There will be a website address for customers to visit in the form of URL, such as <http://>. Normally, the online shop owner will provide necessary information about the shop for customers; there are product details, product pricing, time to delivery, a search function, a contact person via E-mail, other communication channels such as help buttons, search features and an online chat service are provided to the shoppers. In this way, the services of the online shop will not be less to the offline shop, which has a sales person present to assist shoppers.

Goods in online shopping are computer, computer peripherals, electronic items, home & kitchen appliances, home decor items, books and stationery items, health care product, gifts, kids & baby items. The main reasons for success of online retailing are convenience, time saving, wide category of items, number different vendors and brands. Another reason for success of online shopping is the significant discounts that most of these e-retailers provide to attract the customers. Also online store are usually available 24 hours a day and not limited by global time differences. Searching or browsing an online catalogue can be faster than browsing the aisles of physical store. Along with information about a company and its products, buyers can also have better access to product review and rating systems.

Objectives of the study

1. To identify the factors influencing online shopping selected respondents in Coimbatore District.

Scope of the study

The scope of the study is to identify the factors in online shopping with selected parameters and to identify the factors considering in online purchases.

Methodology

Descriptive research design study has been adopted in this study. Primary as well as secondary data has been used in this study. Interview Schedule is Primary data collection tool. Sampling unit is Coimbatore District. The secondary data has been collected from different sources such as technical and trade journals,

articles, magazines, and internet. Fifty respondents in this study. Pilot or pre testing has conducted for set right of Interview Schedule. Convenience Sampling method has been adopted in this study. Factor analysis has used in this study.

REVIEW OF LITERATURE

Anders Hasslinger, Selma Hodzic and Claudio Opazo (2007) examined particular factors that influence the online consumer with reference to university of kristianstad's student. In this research, price, trust, and convenience were identified as important factors. Price was considered to be the most important factor for majority of the students.

Dr.Gangandeepragra and Dr.R.Gopal (2013) studied the impact of demographic factors of consumers on online shopping parameters like satisfaction with online shopping, future purchase intention, frequency of online shopping, number of items purchased and overall amount spend on online shopping. The results of the study revealed that online shopping India is significantly affected by various demographic factors like age, sex, education, etc.

DATA ANALYSIS AND INTERPRETATION

DIMENSIONALITY OF THE MULTI-SCALE ITEMS (FACTOR ANALYSIS)

Factor Analysis is a set of technique which by analyzing correlations between variables reduces their numbers into fewer factors which explain much of the original data, more economically. Even though a subjective interpretation can result from a factor analysis output, the procedure often provides an insight into relevant psychographic variables, and results in economic use of data collection efforts. The subjective element of factor analysis is reduced by splitting the sample randomly into two and extracting factors separately from both parts. If similar factors result, the analysis is assumed as reliable or stable.

Table –1
KMO AND BARTLETT'S TEST -FACTORS RELATED TO INFLUENCE IN CONSUMER SATISFACTION ONLINE SHOPPING

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.732
Bartlett's Test of Sphericity	Approx. Chi-Square	1258.636
	df	276
	Sig.	.000

From the above table, two tests, namely Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity have been applied to test whether the relationship among the variables has been significant or not. The Kaiser-Meyer-Olkin Measure of sampling adequacy shows that the value of test statistics is 0.732, which means the factor analysis for the selected variable is found to be appropriate or good to the data. Bartlett's test of sphericity is used to test whether the data are statistically significant or not with

the value of test statistics and the associated significance level. It shows that there exists a high relationship among variables.

Table –2
EIGEN VALUES AND PROPORTION OF TOTAL VARIANCE OF EACH UNDERLYING FACTORS RELATED TO INFLUENCE IN CONSUMER SATISFACTION ONLINE SHOPPING

Component	Total Variance Explained								
	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	9.919	41.327	41.327	9.919	41.327	41.327	7.658	31.907	31.907
2	4.898	20.407	61.735	4.898	20.407	61.735	5.117	21.322	53.230
3	1.829	7.622	69.357	1.829	7.622	69.357	3.155	13.144	66.374
4	1.319	5.497	74.855	1.319	5.497	74.855	2.035	8.481	74.855

Extraction Method: Principal Component Analysis

The results of the factor analysis presented in the table – 2 regarding factors related to influence in choosing online shopping, have revealed that there are twenty four factors that had Eigen value exceeding “one”. Among those four factors, the first factor accounted for 41.327 percent of the variance, the second 20.407 percent, the third factor 7.62 percent, and last factor 5.49 per cent of the variance in the data set. The first four factors are the final factors solution and they all together represent 74.855 percent of the total variance in the scale items measuring the factors related to influence in choosing online shopping. Hence from the above results, it is certain these are the factors that are related to level of satisfaction about online shopping.

TABLE-3
COMMUNALITIES FOR FACTORS RELATED TO INFLUENCE IN CHOOSING ONLINE SHOPPING

Communalities		Initial	Extraction
I can access to wide variety of products through online (X1)	X1	1.000	.831
I can gather necessary product information for online purchases (X2)	X2	1.000	.811
I can easily judge & compare the product features	X3	1.000	.810
I can access to many brands through online (X4)	X4	1.000	.609
I can purchase trendy items through online (X5)	X5	1.000	.710

Possibility for receiving the product different from the one ordered	X6	1.000	.735
I am not able to touch and feel the product in online(X7)	X7	1.000	.814
Possibility to get the product without lapse of time	X8	1.000	.653
Price comparison is easy in online shopping	X9	1.000	.781
Internet shopping is less expensive method of shopping	X10	1.000	.780
The price of the products sold through online is reasonable	X11	1.000	.774
I have to pay extra amount for transport and handling	X12	1.000	.781
Usage of Credit Card and Debit Card is not secure	X13	1.000	.799
Cash on delivery is best payment option for online purchases	X14	1.000	.779
Disclosing personal information is not secure	X15	1.000	.728
I am tempted to choose the product only through online advertisement	X16	1.000	.620
Online Advertisement offer elaborate information about the product	X17	1.000	.743
There is lack of customer services in online shopping	X18	1.000	.808
I can access many websites for the survey of products	X19	1.000	.701
I trust the websites for online purchases	X20	1.000	.727
It is difficult to find reliable websites	X21	1.000	.716
Delivery of products purchased online is convenient	X22	1.000	.849
Defective products are replaced properly	X23	1.000	.649
Terms of warranty is fulfilled	X24	1.000	.759

Extraction Method: Principal Component Analysis.

The above table (Communalities) represents the application of the Factor Extraction Process, it was performed by Principal Component Analysis to identify the number of factors to be extracted from the data and by specifying the most commonly used Varimax rotation method⁴. In the principal component analysis, total variance in the data is considered. The proportion of the variance is explained by the twenty four factors in each variable. The proportion of variance is explained by the common factors called communalities of the variance. Principal Component Analysis works on initial assumption that all the variance is common.

Therefore, before extraction the communalities are all 1.000. Then the most common approach for determining the number of factors to retain⁵ i.e. examining Eigen values was done.

TABLE- 4
ROTATED COMPONENT MATRIX FOR FACTORS RELATED TO INFLUENCE IN CHOOSING ONLINE SHOPPING

Rotated Component Matrix					
	CODE	Component			
		1	2	3	4
I am not able to touch and feel the product in online	X7	.887	.146	.019	.070
I can access to wide variety of products through online	X1	.886	.164	.043	.134
Delivery of products purchased online is convenient	X22	.868	-.190	-.218	.105
Price comparison is easy in online shopping	X9	.865	-.104	-.128	.012
Cash on delivery is best payment option for online purchases	X14	.804	.256	.135	.222
It is difficult to find reliable websites	X21	.787	.013	-.229	.210
Through necessary product information, I can easily judge & compare the product features	X3	.758	.322	.350	-.093
I can gather necessary product information for online purchases	X2	.732	.387	.312	.169
Disclosing personal information is not secure	X15	.706	.238	-.240	.341
I trust the websites for online purchases	X20	.515	.342	.456	.369
There is lack of customer services in online shopping	X18	-.058	.872	.039	.204
Online Advertisement offer elaborate information about the product	X17	.026	.803	.262	-.171
I can purchase trendy items through online	X5	.286	.756	.128	.199
Possibility for receiving the product different from the one ordered	X6	-.255	.741	-.047	-.343
I am tempted to choose the product only through online advertisement	X16	.404	.668	.078	.064
I can access many websites for the survey of products	X19	.427	.602	.315	.237

Internet shopping is less expensive method of shopping	X10	.412	.562	.298	.454
There is lack of customer services in online shopping	X18	.126	.521	.499	.336
I can access to many brands through online	X4	.479	.502	-.077	.349
I have to pay extra amount for transport and handling	X12	.204	.046	-.807	.293
Terms of warranty is fulfilled	X24	-.133	.420	.709	.249
Usage of Credit Card and Debit Card is not secure	Y5	.581	.075	-.673	.061
Possibility to get the product without lapse of time on payment of the bill	X8	.305	.412	.622	.063
The price of the products sold through online is reasonable	X11	.195	.024	-.044	.856
Extraction Method: Principal Component Analysis.					

The above table represents the Rotated Component Matrix, which is an important output of principal component analysis. The coefficients are the factor loadings which represent the correlation between the factors and the twenty four variables (X_1 to X_{24}). From the above factor matrix it is found that coefficients for factor-I have high absolute correlations with variable (not able to touch and feel the product in online) X7 (access to wide variety of products through online) X1, (Delivery of products purchased online is convenient) X22, (Price comparison is easy in online shopping) X9, (Cash on delivery is best payment option for online purchases) X14, (It is difficult to find reliable websites) X21, (Through necessary product information, I can easily judge & compare the product features) X3, (gather necessary product information for online purchases) X2, (Disclosing personal information is not secure) X15 and (trust the websites for online purchases) X20 that is 0.887,0.886,0.868,0.865,0.804,0.787,0.758,0.732,0.706 and 0.515 respectively. Similarly factor-II has high absolute correlation with variable The price of the products sold through online is reasonable (There is lack of customer services in online shopping) X18 (Online Advertisement offer elaborate information about the product) X17 (purchase trendy items through online) X5, (Possibility for receiving the product different from the one ordered) X6, (tempted to choose the product only through online advertisement) X16, (access many websites for the survey of products) X19, (Internet shopping is less expensive method of shopping) X10, (There is lack of customer services in online shopping) X18 and (access to many brands through online) X4 that is 0.872,0.803,0.756,0.741,0.668,0.602,0.562 and 0.521 respectively. Next, factor III has high absolute correlation with variable (to pay extra amount for transport and handling) X12, (Terms of warranty is fulfilled) X24, (Usage of Credit Card and Debit Card is not secure) Y5, (Possibility to get the product without lapse of time on payment of the bill) X8 that is 0.807,0.709,0.673 and 0.622 respectively. Factor-IV has high absolute correlation with variable (The price of the products sold through online is reasonable) X11 0.856 respectively. For example in this study, factor I is at least somewhat correlated with variable out of the twenty four variables with absolute value of factor loading greater than or equal to 0.5. In such a complex matrix it is difficult to interpret the factor. So proceed to compute the rotated factor matrix.

TABLE 5

Component Transformation Matrix				
Component	1	2	3	4
1	.789	.515	.170	.288
2	-.516	.614	.596	-.034
3	-.222	.578	-.784	.038
4	-.247	-.156	.001	.956
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				

The above table reveals the factor correlation matrix. If the factors are uncorrelated among themselves, then in the factor correlation matrix, the diagonal elements will be 1's and off diagonal elements will be 0's. Since matrix was rotated with Varimax, barring some variables all other variables are found to have, even if not zero correlations but fairly, low correlation.

CONCLUSION

Thus the twenty four variables in the data were reduced to four Component factors and each factor may be identified with the corresponding variables as follows:

TABLE -6
SHOWING THE FACTORS IDENTIFIED THE FACTORS RELATED TO INFLUENCE IN FOR CHOOSING ONLINE SHOPPING

X7	I am not able to touch and feel the product online	78.68 %	Factor I
X1	I can access to wide variety of products through online	78.50 %	
X22	Delivery of products purchased online is convenient	75.34%	
X9	Price comparison is easy in online shopping	74.82 %	
X14	Cash on delivery is best payment option for online purchases	64.64%	
X21	It is difficult to find reliable websites	61.94%	
X3	Through necessary product information, I can easily judge & compare the product features	57.46%	
X2	I can gather necessary product information for online purchases	53.58%	
X15	Disclosing personal information is not secure	49.84%	
X20	I trust the websites for online purchases	26.52%	
X7	There is lack of customer services in online shopping	76.04%	Factor II
X8	Online Advertisement offer elaborate information about the product	64.48%	
X18	I can purchase trendy items through online	57.15%	

X17	Possibility for receiving the product different from the one ordered	54.91%	
X5	I am tempted to choose the product only through online advertisement	44.62%	
X6	I can access many websites for the survey of products	36.24%	
X16	Internet shopping is less expensive method of shopping	31.58%	
X19	There is lack of customer services in online shopping	27.14%	
X10	I can access to many brands through online	25.20%	
X12	I have to pay extra amount for transport and handling	65.12%	Factor III
X24	Terms of warranty is fulfilled	50.27%	
X13	Usage of Credit Card and Debit Card is not secure	45.29%	
X8	Possibility to get the product without lapse of time on payment of the bill	38.69%	
X11	The price of the products sold through online is reasonable	73.27%	FACTOR IV

SUGGESTIONS

1. Today’s world filled with sense consumers. Their remarkable blend of exuberance and skepticism leaves many business owners wondering. The key is retaining customers’ attention no matter what product or service the competition is putting on the market. It takes more than great products to keep online customers coming back.

2. Online shopping companies must consider what they can do to differentiate their business from all the others that offer the same services or products. The differentiator must be the level of service, the unique experience that is offered to customers. One has to engender loyalty so that customers go out of their way to shop with you. This holds true even for critical product categories like medicines, as this research suggests.

3. Online consumers can get the required product from several stores, but even than they mostly prefer patronizing this some online shoppers from where they usually purchase. To do this, we need to focus on actions that show we acknowledge and understand online customer needs.

4. Essentially, it is certain preferred service behaviours exhibited of the time of interaction with the online customer or what is more popularly referred to as the Moment of Truth here are a few insights, as a conclusion of our study, for aiding a marketer to create the ultimate customer experience.

5. Online shoppers websites should try and influence the visitors positively, like by opening the door for them and greeting them when they enter. They can further guide them through the websites, presenting and demonstrating the products and services of the websites and assist them in finding the suitable product or service according to their choice or taste, and then leave it at that. They should not struggle and be over helpful and also try not to be intrusive and leave the customers alone, when the latter desire.

6. Online consumers were found to consider price discounts as an important promotional tool in the online shopping websites in online markets. The hypermarkets should ensure that they offer good deals, bargains and

schemes for all categories and classes of online customers, and as frequently as possible. On the other hand, free gifts and services can be a good way of conveying value to consumers when discounts tend to undermine the perception of quality.

7. Membership discounts can be offered to the customers on their subsequent purchases, thereby retaining customers' loyalty which is an important asset in today's competitive online shopping scenario.

CONCLUSION

One of the prime concerns of the online market is the availability of the space for the retailing to India. The availability of the prime space world definitely enable the online market to deliver better quality products and services to the online consumers, resulting increase in operational efficiencies and decline in costs for the supply chain. And this new area will offer India people numbers of new jobs, high salaries, better living conditions world quality products and services a unique online shopping experience and more social activities and the huge business opportunity to the world retail players. Online markets have become the battlegrounds where the brands, small, medium and big, the known, the not-so-well-known and the wannabe ones, fight it out for the online consumer's attention. And the online consumer is 'loving it' and asking for more. This is one culture that online consumers are happy about.

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