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A Study to Measure the Customer Satisfaction towards the Online Shopping

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Abstract: The objective of the research was to measure the customer satisfaction and factors which leads to customer satisfaction in online shopping. Sample of 400 online shoppers from Delhi and Haryana state were selected for the purpose of survey, and data was collected using questionnaire method. Exploratory factor analysis was used to identify the factors which leads to customer satisfaction, and descriptive analysis was used to measure the satisfaction level. It can be concluded from the study that there are total six factors which reflects the customer satisfaction in context of online shopping namely; customer services, Payment related factor, Policy related factor, Product related factor, Ease of shopping, and Discount and offers. Online shoppers were found to be more satisfied with the customer services, and the payment related factors while ease of shopping and discount offers were least satisfactory to the online shoppers. Overall the score of satisfaction was higher, which shows that online shoppers were satisfied from online shopping experience. The mean values of the statements reflecting customer satisfaction depicts that the online shoppers were found to be very satisfied towards the delivery charges and the billing process while doing online shopping.

Keywords: Customer satisfaction, Online shopping, India, Payment related factor, Policy related factor, Product related factor, Ease of shopping, and Discount and offers.

I. INTRODUCTION

Tracing its historical trajectory, Wang and Zhang (2012:106) have defined social commerce as ‘a form of commerce that is mediated by social media and is converging both online and offline environments’. Social commerce involves ‘using social media that support social interactions and user contributions to assist activities in the buying and selling of products and services online and offline’. Considering the four variables of people, management, technology and information, they bring out the historical trajectory that social commerce as an impetus to shopping habits and consumer choices has taken since 2005 globally. It was found from their historical analysis at all four levels that, social commerce was more of a peer-recommended and peer-generated rather than marketer-generated form considering the people dimension. On the management dimension, a two-fold approach was found to have been suggested. Firstly, it was recommended that online ads move more towards a user review-based strategy that advises users on what product to choose from rather than suggesting products themselves. Secondly, a shift from ‘short-tail’ thinking to ‘long-tail’ thinking had been recommended. In 2006, it was discovered that shoppers may also be oriented towards exploring possibilities rather than having a clear ‘goal’ or an understanding of what they actually want to purchase. In 2007, the ‘social’ aspect of online shopping was focussed upon. Online consumers were also understood to be ‘social consumers’, with specific focus on the observation that they were highly conscious and like-minded individuals who were interested in knowing what people around were also consuming (McCarthy, 2007). Such was the nature of ‘social shopping’ that online shopping would be turned into a group activity rather than an individual one.

On the other hand, online shoppers were also considered to be 'non-rational', in that they were considered to be impulse buyers simply being persuaded by their peer group. Both perspectives were too simplistic to be taken at face value and more recently, a rather more fluid amalgamation of these have emerged discursively. Simultaneously, social commerce was considered to be more advanced than web search engines which would improve its overall efficacy. In 2008, Wang and Zhang elucidate, is when the concepts around social commerce like 'wish-listing' and similar additives actually materialize into the online mode of shopping, which brings progressive changes in the way in which consumers navigate online shopping websites. In 2009, new technological practices like the use of social media to market products is initiated and in 2010, social commerce becomes a global phenomenon.

II. REVIEW LITERATURE

Prasetyo et al. (2019) have focussed on the factors affecting customer satisfaction and loyalty in online food delivery systems (OFDS) during the Emergency. Referring to 253 respondents from Indonesia, it was found that several factors did not play a significant role in defining consumer satisfaction while shopping online as against previous studies. The hedonic motivation was found to have a significant direct effect on the intention to use. The contexts and surroundings in which the consumer finds themselves is highly influential in how customers make a purchase. The hedonic motivation was seen as an 'irrational buying pattern' as it did not cater to the utilitarian needs of the consumer but simply catered to their pleasure or impulses. Availing of online food delivery systems was also dependent on the price of the items to be purchased. Consumers took into consideration the amount of money that could be saved while ordering through OFDS as against any other means. Information quality that is being produced on OFDS has been observed to have a positive effect on consumer satisfaction. For instance, it was observed that OFDS gave access to consumers information regarding discounts, menus, and promotional offers of a variety of restaurants which gave them better choice options. This translated into subsequent consumer loyalty and satisfaction. However, usability factors related to technical issues were not found to be significant in times of pandemic for OFDS. Thus, this study is an insight into how customer motivation and loyalty can be informed in extraordinary situations.

Widagdo and Roz (2019) have also looked at hedonic shopping motivation and impulse buying among consumers who shop online. Using quantitative approaches to collect data from 177 students in Indonesia on the Likert scale, mediators between website quality and customer satisfaction are studied. It was observed that website quality had a significant effect on the Hedonistic Shopping motivation, without it being realized. The qualities of a good website design like ease of use, provision of information, and user interaction were found to have a significant effect on enhancing hedonic shopping motivation. 'Existence of technology' and 'clarity of information' was considered to increase a consumer's hedonic characteristics when it came to online shopping. Impulse buying was also shown to be highly motivated by the quality of the website, i.e., the better the quality, the more disposition towards buying impulsively. Simultaneously, website quality was also found to influence the consumers' satisfaction levels. Better flexibility and ease of use enforced a better sense of interaction with the user interface on the website, subsequently fostering a heightened sense of satisfaction among consumers. Impulse buying was also linked to having a positive and significant effect on customer satisfaction, and so does Hedonic shopping. Thus, shopping per the consumer's emotional state does improve satisfaction levels for them.

Pal et al. (2019) have also looked at university students' motivations and consumer satisfaction while using online food delivery applications (OFDA) during the emergency problem. Using end-to-end service quality analysis, it was observed that satisfaction was the most significant predictor of loyalty. 'Information design' was also found to be the best predictor of both customer satisfaction and customer loyalty, whereas the navigational and visual design of the merchant sites were next in importance to be the predictors of the same. Aspects of informational design such as arranged menus for different restaurants, images of the dishes, food reviews, and reviews of other users about several restaurants formed an integral component of the mechanism that enhances consumer satisfaction. 'Realism' has been a consistent variable in this- the reviews of other customers, for example, make the app presentation more realistic and believable, thus inducing trust and associated satisfaction.

Secondly, the better navigational ability of the app invokes more satisfaction among consumers. For instance, the flexibility with which consumers could switch from one part of the app to another part was also the second-most motivating factor than informed customer satisfaction. App aesthetics were also found to be the third-most influential factor in motivating consumer satisfaction. However, food quality was observed to have a greater influence on customer satisfaction and loyalty than the quality and swiftness of food delivery. It can be inferred from this that both consumer satisfaction and loyalty are closely intertwined variables that affect and are affected by one another in multifaceted ways.

Ganapathi (2019) has studied the levels of customer satisfaction with online food delivery systems in Qatar. Using data from questionnaires circulated among 263 random customers online, it was observed that ‘while restaurant-quality had no direct relation to customer satisfaction and loyalty, service provider quality did’. It was observed that a small proportion of Qataris did not order food online and while a majority of them did, within that population, the preponderant population was non-Qatari since native residents in Qatar were slightly lower in count than non-Qataris. The overall costs of ordering from premium service providers were significantly higher than that of others. A majority of the locals also preferred to order from higher quality/ premium service providers because of their own higher economic status. It has been observed that most consumers order food online because they are unable to make the same at home themselves, but it was also not just the food quality but the service quality and time are taken by the service provider to deliver the food that was primary determining factors in customer satisfaction. ‘Functionality’, ‘payment options’ and ‘location accuracy’ were desired characteristics that could potentially increase consumer satisfaction. Thus, it has been inferred that restaurant quality by itself does not have a positive impact on customer satisfaction or loyalty. The quality of the service provider rather than the restaurant they ordered from informed consumers’ disposition towards greater satisfaction and loyalty.

Purwati et al. (2019) have analysed the effect of product quality and after-sales service on customer satisfaction and loyalty in Penkabarau Riau. Using SEM on 82 customers, they inferred that product quality had no significant impact on customer satisfaction, while it did on customer loyalty. Product quality was not altogether impertinent; it was very much necessary to improve customer loyalty. The emotional and functional values of the product were found to increase customer loyalty. It was also observed that if this happened, consumers would re-purchase or recommend the same product to friends or family. After-sales service was also found to have a significant impact on customer satisfaction, in that it improved customer loyalty too. Availability of service equipment was found to be a decisive factor in consumers’ gauging of the efficacy of after-sales service. Cross-sectionally, it was found that customer satisfaction itself had no direct effect on customer loyalty. Rather it was product quality and after-sales service which induced feelings of loyalty towards a particular brand. Thus, it has been suggested that improving these two facets of customer catering can increase brand loyalty and profits.

Bauer et al. (2019) explore how combining games and monetary rewards impact customer satisfaction, loyalty, and word-of-mouth (WOM), using two online laboratory experiments. It has been noted that ‘gamification of online retailing can lead to benefits for the vendors as it leads to higher consumer engagement and positively affects the online consumers’ decision-making process. It has been observed that ‘intrinsic motivation’ (enjoyment) affects consumer relational factors positively. However, intrinsic effects are removed in the presence of extrinsic motivation (in the form of money or price discounts) when it comes to the gamification of online shopping. Consumers also saw the discounts received from playing the games as rewards for time invested in the process which helped developed a positive WOM. Participants who played the game were also seen to have spent significantly more time online than participants who did not. Regardless of more actual time investment, it was observed that participants experienced greater flow online and smaller ‘perceived’ investment of time and effort. This led to their enhanced satisfaction as against consumers who did not participate in the gamification process. The second study also inferred that ‘playing a game online increased consumer loyalty only if it wasn’t incentivized. Gamification was shown to positively affect consumer’s intrinsic motivation to play which also, in turn, increases their loyalty.

Vasic et al. (2019) have studied the influence of online shopping determinants on customer satisfaction. By utilizing a sample population from Serbia, it was determined which factors were the most active in deciding customer satisfaction in the online market. Using Confirmatory Factor Analyses and Partial Least Squares of 26 items categorized into seven variables, it was inferred that customer satisfaction did depend on the assumed variables. Shipping, pricing, and information availability were found to have the most impact on consumer satisfaction. Among these, shipping services seemed to be of paramount importance to Serbian consumers. Since online shopping happens swiftly and with relative ease, it was found that consumers preferred faster deliveries in terms of the actual product too. Satisfaction with shipping is also dependent on how much quality expectation can be met: if the products that arrived were of a lower or different quality than the one which the consumer had assumed to be, the level of satisfaction with shipping was seen to go down. Also noteworthy is the observation that when consumers have to pay the shipping charges, i.e., when delivery is not free of cost, consumers will have greater expectations from the vendors to send them the desired quality of products. Failure to do so has been shown to have a significant negative impact on the level of consumer satisfaction. Reliable shipping practices have been shown to have greater chances of repurchase on part of the consumer. Similarly, lower prices are shown to foster greater levels of satisfaction for the consumers, especially the ones who are in their initial phases of online shopping. Higher information availability, higher product quality, and timely delivery were direct drivers for customer satisfaction. However, security in online transactions was a weak factor in determining customer satisfaction as most consumers were already accustomed to making online payments and by default trusted the payment method.

III. OBJECTIVES

The objective of the research was to measure the customer satisfaction and factors which leads to customer satisfaction in online shopping.

IV. RESEARCH METHODOLOGY

Current study is explaining the experiences of the online shoppers have been recorded who have already experienced the online shopping, how much satisfied they are with online shopping. Current study was purely based on the perceptions of the online shoppers, hence primary data was major type of data used in the study. Satisfaction level of online shoppers towards the online shopping. Primary data for the study was collected with the help of structured questionnaire, where all the close ended questions were included in the survey. The method of data collection was survey, and shoppers were contacted through personal contacts, through LinkedIn, Facebook, Instagram, and WhatsApp group. Online shoppers were asked to fill the survey and responses were recorded in the excel sheet and exported to the SPSS fir analysis purpose.

V. RESULTS AND FINDINGS

Reliability test

Description	Variables	Alpha value
Customer satisfaction	35	0.950
Product related	5	0.964
Policy related	6	0.959
Payment related	6	0.973
Customer services	8	0.975
Discount and offers	5	0.789
Ease of shopping	5	0.963

The reliability of the customer satisfaction section in the research instrument was measured using Cronbach alpha method, which gave the alpha value of 0.950 for 35 statements under the customer satisfaction. Further, the reliability of each of the factors which leads to customer satisfaction was also measured using the alpha method, and for all the factors the alpha values were found to be above 0.70. It signifies that customer satisfaction and its factors were reliable and instrument can fetch the reliable results which can be generalized to the overall population.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.908
Bartlett's Test of Sphericity	Approx. Chi-Square	20364.981
	df	595
	Sig.	.000

The KMO test value was 0.908, which indicate that the data taken in the sample i.e. 400 respondents and the 35 variables is adequate to run the exploratory factor analysis on the data set. If this value is close to one, it is assumed that data set is good enough to apply factor analysis. Further, the Bartlett's test also approves the initial conditions for applying the factor analysis on a data set. Here, the chi-square value was found to be 20364.981, which is significant at 0.000, it shows that data set used for the factor analysis is correct and factor analysis will give the normal results which can be applicable to the population.

Communalities		
	Initial	Extraction
Mode of payments	1.000	.893
Ease of shopping	1.000	.875
Web browsing	1.000	.873
User friendly website	1.000	.903
Authentic Reviews section	1.000	.840
Return and exchange policy	1.000	.815
Refund policy	1.000	.850
Time involved in refund of money	1.000	.906
Reasonable Delivery charges	1.000	.922
Shipping policy	1.000	.897
Membership benefits	1.000	.814
Invoices availability on mail	1.000	.889
Customer care number availability	1.000	.870
Compliant and grievance handling policy	1.000	.831
Time involved in resolving customer queries	1.000	.892
Measurement charts/size chart/weight measurement	1.000	.889
Privacy policy for customers	1.000	.894
Customer confidentiality	1.000	.840
Warranty and guarantee cover	1.000	.790
Billing process time	1.000	.853
Billing process complexity	1.000	.881
Customer feedback	1.000	.898
Social blogs/customer forum availability	1.000	.881
Customer updates/SMS or communication for new offers, sale etc.	1.000	.899
Discount offers	1.000	.941
Year-end sale offer/ festival offers	1.000	.690
Ease of navigation while browsing products	1.000	.842
Options to compare similar products	1.000	.898
Product description and possible uses or life of the products	1.000	.939
Variety of products	1.000	.897
Quality of products	1.000	.829
Availability of combo offers	1.000	.882
Exchange offers for used products	1.000	.870
Customer update regarding stock availability if it was out of stock	1.000	.857
Cancellation policy for post-paid ordered items	1.000	.860
Extraction Method: Principal Component Analysis.		

In the current study, researcher has applied the Principal component method, hence the initial communalities were found to be one, and extraction was found to be highest for the variables; Discount offers (0.940), Product description and possible uses or life of the products (0.939), and Reasonable Delivery charges (0.922). While the least extraction was noticed for the variables; Year-end sale offer/ festival offers (0.690), and Warranty and guarantee cover (0.790).

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	14.8	42.4	42.4	14.8	42.4	42.4	9.1	23.2	23.2
2	5.5	15.8	58.2	5.5	15.8	58.2	5.8	16.5	39.7
3	3.3	9.4	67.6	3.3	9.4	67.6	5.1	14.6	54.3
4	2.7	7.7	75.3	2.7	7.7	75.3	4.6	13	67.3
5	1.8	5.0	80.3	1.8	5.0	80.3	3.5	10	77.3
6	1.4	3.9	84.2	1.4	3.9	84.2	2.4	6.9	84.2
7	0.9	2.6	86.8						
8	0.5	1.5	88.4						
9	0.4	1.2	89.6						
10	0.4	1.1	90.6						
11	0.3	1.0	91.6						
12	0.3	1.0	92.6						
13	0.3	0.9	93.5						
14	0.3	0.8	94.2						
15	0.2	0.7	94.9						
16	0.2	0.6	95.5						
17	0.2	0.5	96.0						
18	0.2	0.5	96.5						
19	0.1	0.4	96.9						
20	0.1	0.4	97.3						
21	0.1	0.3	97.6						
22	0.1	0.3	97.9						
23	0.1	0.3	98.2						
24	0.1	0.2	98.4						
25	0.1	0.2	98.6						
26	0.1	0.2	98.8						
27	0.1	0.2	99.0						
28	0.1	0.2	99.2						
29	0.1	0.2	99.3						
30	0.1	0.1	99.5						
31	0.0	0.1	99.6						
32	0.0	0.1	99.7						
33	0.0	0.1	99.8						
34	0.0	0.1	99.9						
35	0.0	0.1	100.0						

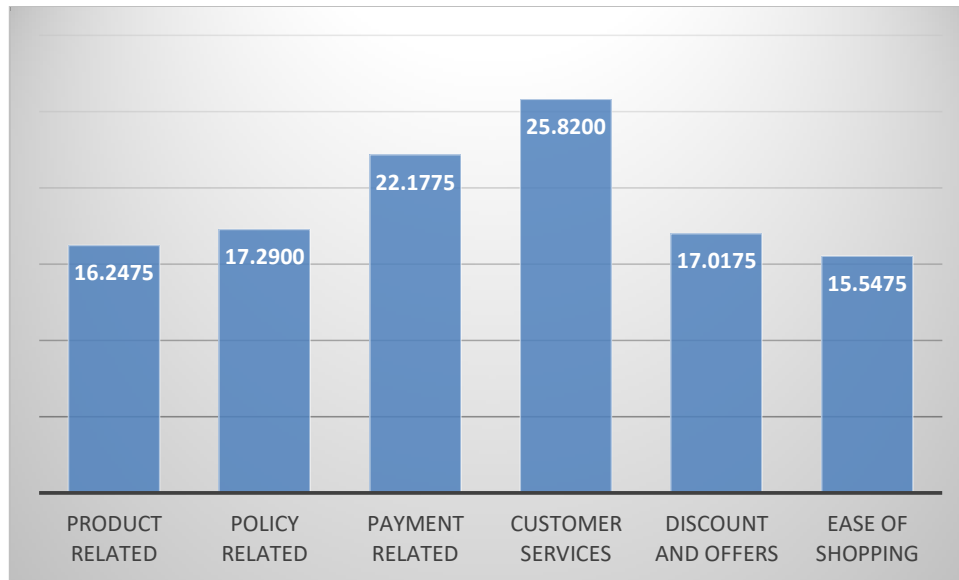
Extraction Method: Principal Component Analysis.

35 variables were converted into six factors, which reflects the satisfaction of online shoppers towards their online shopping experience, based on their eigen values. Out of 35 variables, only six variables were sorted which have shown eigen value more than one. These six factors explain total 84.2 percent variation in the latent variable, while 16 percent remained unexplained. Highest variation is caused by the first and second factor i.e. 23.2 and 16.5 percent respectively, while sixth factor causes least variation in the latent variable i.e. 6.9 percent.

Rotated Matrix						
Variables	F1	F2	F3	F4	F5	F6
Customer updates/SMS or communication for new offers, sale etc.	.929	.114	-.031	.116	.074	.045
Social blogs/customer forum availability	.919	.125	-.008	.098	.089	.048
Customer feedback	.912	.138	.051	.136	.121	.065
Measurement charts/size chart/weight measurement	.909	.179	.085	.092	.106	.028
Time involved in resolving customer queries	.902	.185	.091	.017	.180	.043
Customer update regarding stock availability if it was out of stock	.890	.135	.030	.066	.190	.055

Customer care number availability	.878	.207	.118	.014	.189	.060
Authentic Reviews section	.876	.193	.073	.044	.160	.018
Reasonable Delivery charges	.242	.874	.176	.096	.240	.003
Invoices availability on mail	.212	.873	.174	.142	.174	.018
Time involved in refund of money	.201	.870	.219	.078	.234	-.004
Billing process complexity	.201	.853	.194	.143	.234	.025
Mode of payments	.190	.846	.237	.118	.265	-.002
Billing process time	.199	.839	.187	.175	.207	.021
Shipping policy	.045	.238	.861	.252	.150	.079
Compliant and grievance handling policy	.034	.240	.855	.172	.090	.045
Cancellation policy for post-paid ordered items	.094	.176	.850	.282	.112	.069
Warranty and guarantee cover	.020	.135	.841	.220	.114	.053
Refund policy	.061	.214	.813	.310	.178	.075
Return and exchange policy	.100	.160	.768	.409	.104	.091
Product description and possible uses or life of the products	.091	.103	.248	.914	.146	.016
Options to compare similar products	.123	.106	.250	.882	.166	.052
Variety of products	.117	.130	.304	.869	.137	.009
Ease of navigation while browsing products	.071	.148	.332	.828	.139	-.018
Quality of products	.099	.190	.334	.815	.078	.015
User friendly website	.304	.380	.172	.183	.771	.076
Web browsing	.287	.380	.183	.194	.755	.066
Privacy policy for customers	.292	.353	.224	.230	.753	.100
Ease of shopping	.273	.442	.202	.153	.730	.082
Customer confidentiality	.271	.400	.158	.199	.724	.107
Discount offers	.068	.013	.114	.021	.049	.958
Exchange offers for used products	.115	.025	.090	-.026	.117	.913
Year-end sale offer/ festival offers	.060	.011	.080	.085	.064	.699
Availability of combo offers	.025	-.119	-.033	-.016	-.061	.883
Membership benefits	.136	.013	.163	.012	.183	.857

From varimax rotation solution of the factor analysis, depicts that there are total six factors which reflects the customer satisfaction in context of online shopping. First factor was termed as “customer services” which mainly includes the statements such as; Customer updates/SMS or communication for new offers, sale etc., Social blogs/customer forum availability, Customer feedback, Measurement charts/size chart/weight measurement, Time involved in resolving customer queries, Customer update regarding stock availability if it was out of stock, Customer care number availability, and Authentic Reviews section. Second factor was termed as “Payment related factor”, which includes the statements; reasonable delivery charges, invoices availability on mail, time involved in refund of money, billing process complexity, mode of payments, and billing process time. Third factor was “Policy related factor”, which covers the variables; shipping policy, compliant and grievance handling policy, cancellation policy for post-paid ordered items, warranty and guarantee cover, refund policy, and return and exchange policy. Fourth factor was termed to be “Product related factor”, covering the statements; product description and possible uses or life of the products, options to compare similar products, variety of products, ease of navigation while browsing products, and quality of products. Fifth factor was termed to be “Ease of shopping”, which includes the statements; user friendly website, web browsing, privacy policy for customers, ease of shopping and customer confidentiality. Last factor was found to be “Discount and offers”, which includes the statements; discount offers, exchange offers for used products, year-end sale offer/ festival offers, availability of combo offers, and membership benefits.



The descriptive statistics for all the six factors reflecting satisfaction level of online shoppers related to the online shopping highlighted the fact that customer services have higher mean value i.e. 25.82, followed by the payment related factors. While, the ease of shopping factor got least mean score i.e. 15.54. Hence, online shoppers were found to be more satisfied with the customer services, and the payment related factors while ease of shopping and discount offers were least satisfactory to the online shoppers. Overall the score of satisfaction was higher, which shows that online shoppers were satisfied from online shopping experience.

VI. CONCLUSION

It can be concluded from the study that there are total six factors which reflects the customer satisfaction in context of online shopping. First factor was termed as “customer services” Second factor was termed as “Payment related factor”, Third factor was “Policy related factor”, Fourth factor was termed to be “Product related factor”, Fifth factor was termed to be “Ease of shopping”, Last factor was found to be “Discount and offers”. Customer services have higher mean value i.e. 25.82, followed by the payment related factors. While, the ease of shopping factor got least mean score i.e. 15.54. Hence, online shoppers were found to be more satisfied with the customer services, and the payment related factors while ease of shopping and discount offers were least satisfactory to the online shoppers. Overall the score of satisfaction was higher, which shows that online shoppers were satisfied from online shopping experience. The mean values of the statements reflecting customer satisfaction depicts that the highest mean value was 3.77 for the statement “Reasonable delivery charges”, followed by mean value of 3.77 for the statement “billing process complexity”. The least mean value was 2.51 for the statement “return and exchange policy”. Hence, online shoppers were found to be very satisfied towards the delivery charges and the billing process while doing online shopping.

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