

# Factors affecting Online Shopping Behavior of Customers: An Empirical Study of Shimla City

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## ABSTRACT

Online shopping saves time which is very important for modern people because people becomes so busy now a days that they can't or they are unwilling to spend much time in shopping on the other hand it is said that money is time and time is money. The present research paper aims to identify the factors affecting the online shopping behavior of customers. To serve the objective descriptive research design is used and primary data is collected from 450 respondents with the help of questionnaire. Data is analyzed with the help of weighted arithmetic mean and factor analysis and it has been concluded that 24 X 7 Shopping facility and Cash on Delivery facility are two major parameters affecting the online shopping behavior of respondents.

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## 1. Introduction

Internet has made the life simple and innovative. People are trading online and business has become more easy and fast. Internet provides new ways to promote business. Website has become the essential part of online business as to promote their services and products. Internet gathers all competitors and consumers in one place. It brings new lane to promote, advertise products and services in market.

Online consumers are always seeking new products, new attractiveness and the most important thing being price compatibility with their budget. The internet is the best way to save time and money through purchasing online within their range of budget anywhere and anytime. Online consumers don't have limits to online shopping. They also use internet for comparison of prices of goods and services, news, visit social networks and search information and so on.

Consumer behavior in electronics environment is critical as compared to physical world and crucial understanding can be examined if the factors that affect the purchase decisions are ignored and unambiguous. Online consumers fear the opportunity to physically examine the product which is specifically regarded as influential factor in purchase decision. Therefore, consumer behavioral pattern in online shopping can be fundamentally different from traditional environment.

### Literature Review

Zeng, Y. X., Kuo, Y. H., & Cheng, H. Y. (2018) identified that the convenience and diversity of online shopping made many customers willing to buy clothes or accessories on the internet. In order to make goods more attractive to users, many virtual try-on systems are developed for e-commerce websites. This research proposed an interactive virtual try-on system combined with automatic accessory segmentation. This system automatically retrieves the hat from images and stores them in the try-on system to provide users with subsequent selection. When a buyer selects the hat that he or she wanted to try on, the hat is placed on the proper position of the user in the

image. In the stage of accessories segmentation, we perform background elimination and super-pixel segmentation. According to the color information on the hat image, the feature vector generated by the color histogram is used to select super-pixels that belong to the accessories. In the stage of try-on system, we use Kinect, which provides skeleton information, to track the user's face and gestures. When a user selects the hat, the proposed system reads the corresponding hat information and places the hat in the appropriate location based on the results of the face tracking.

Ren, W. (2018) identified that with the increasing popularity of online shopping among customers and the continuous development of interactive digital communication, online reviews are prevalent in contemporary life. As a new genre, online reviews deserve more attention in language and discourse studies. Previous studies in this field predominantly investigated online reviews in English. More research on a greater variety of languages is needed to better understand the linguistic features of this genre and the localization of the social practice. In addition, how customers mitigated their evaluations lacks systemic exploration. This study provided an analysis of mitigation strategies in Chinese consumer reviews, based on a dataset of user-generated online comments on Kindle E-Reader collected from Amazon China. This study examined the usage and frequency of different types of mitigation devices in the reviews. The distribution of mitigation is further investigated against the positive or negative nature of the comments. Since Chinese is a logographical language, exploring Chinese mitigation identified some particular usages. This study demonstrated that the investigation into mitigation in Chinese online customer reviews could provide insights into cross-cultural differences in this genre.

Miwa, Y., Morisada, M., & Dahana, W. D. (2018) addressed that how consumers develop loyalty toward focal stores within an online shopping mall, and how this construct affects behavioral mall loyalty in both the short & long-term. Author employed a type II Tobit model to dynamically capture the short & long-term impacts of store loyalty on purchase

incidence and purchase amount. In addition the author embedded this model within a model of store loyalty formation to elucidate its driving factors. Applying the models to purchase history data of new consumers in an online shopping mall, it was observed that store loyalty had an immediate adverse effect on purchase incidence; however, given a purchase, this variable increased the purchase amount in the long-term. Additionally, the formation of store loyalty appears to be significantly affected by gender, age, cumulative purchase amount, cumulative purchase frequency, and time trend. Author discussed the implications of these findings for mall owners in an effort to increase revenue contribution of their tenants.

**Chincholkar, S., & Sonwaney, V. (2017)** identified that online retailing was gaining popularity in India and now Indian customers prefer online shopping over traditional in-store shopping. During online shopping various factors impact customer's buying decisions process and what made it different from traditional in-store shopping was involvement of web. This paper aimed to identify the various factors impacting online customer buying behaviour, specifically related to website. Factors affecting online customer buying behaviour had been identified by detailed literature review and based on that questionnaire had been prepared focusing on website attributes. After that data had been collected from Mumbai city using online survey method. Out of collected 133 responses 123 had been be considered for further data analysis. From this study, it was seen that while selecting a website for online shopping customers gave preference to websites which offered varied and quality products, better price & discounts, less delivery time and after sales services. Analysis based on demographic factors. Features identified by this paper can help digital marketers to design and develop their website in such a way that they can grab attention of more and more consumer and gain competitive advantage.

**Bastam, H., Lotfabadi, V. T., Kouchakzadeh, V., & Faraji (2017)** conducted this study with the aim to investigate determinants of customer buying behavior in Digikala Online Store. This paper was applied in terms of objective, and descriptive-correlational according to data collection method. The statistical population of this study consists of Two Hundred customers in Digikala Online Store, and they were selected by easy random sampling method according to Cochran's formula for infinite population. A valid questionnaire was used to collect data; and its reliability was confirmed by Cronbach's alpha. Structural Equation Modelling (SEM) was used to analyse data and examine hypotheses. Statistical SPSS and AMOS software was used as the data analysis tool. Findings indicated that all research hypotheses were confirmed, and this study concluded that factors such as user interface quality, product information quality, variety of choices, security perception, and saving money in online shopping could have positive effects on customer attitude and encourage customers to buy.

**Mallapragada, G., Chandukala, S. R., & Liu, Q. (2016)** explained the understanding of factors that influenced online shopping and managing customer relationships was not a trivial task for firms, considering the many pertinent factors that influence behavior, including the product being shopped (i.e.,

the "what") and the context of the website itself (i.e., the "where"). This study investigated the impact of these characteristics on an online transaction's basket value, after incorporating the role of other aspects of the browsing process including page views and visit duration. The authors estimated a multivariate mixed-effects Type II Tobit model with a system of equations to explain variation in shopping basket value, using data involving 773,262 browsing sessions resulting in 9,664 transactions across Forty Three product categories from 385 unique websites. The conclusion supported the assertions that contextual factors were associated with online browsing. For example, a website's scope in terms of product variety is associated positively with visit durations and basket values but negatively with page views. Furthermore, a website's communication functionality is positively associated with basket value for hedonic products. Insights suggested managerial implications involving product and internet strategies for online retailers.

## 2. Objective

The purpose of this research paper is to analyze the various factors influencing the online shopping behavior of the consumers towards electronic gadgets

## 3. Research Methodology

**(a) Research Design:** - To have a better understanding about the issue descriptive research design was used. To get the primary data close ended questionnaire was administrated.

**(b) Sample Design:** - 450 customers of online shopping were selected through convenience sampling.

**(c) Analysis:** - The data collected was analyzed with the help of various statistical tools like Weighted Arithmetic mean, factor analysis.

## 4. Analysis & Interpretations

### **Factors affecting Online Shopping behavior of Respondents**

Respondents were asked to indicate the influence of the factors affecting their online shopping decision on five point scale starting from extremely influential (5) to not at all influential (1). Final ranking is obtained with the help of weighted arithmetic mean. The table 1 shows that, the "24 X 7 Shopping facility" was the most influencing factor affecting the respondents' decision of online shopping with a weighted mean score of 4.34 followed by Cash on Delivery facility (Weighted Mean score = 4.20). Saves Time ranked 3<sup>rd</sup> with a Weighted Mean score of 4.15, followed by More Relaxing Shopping that ranked 4<sup>th</sup> with a weighted mean score of 4.13. Availability of Variety of Products was the fifth influencing factor of online shopping with weighted mean score of 4.11 trailed by Convenient Delivery at 6<sup>th</sup> rank with a weighted mean score of 3.98.

Schemes & Offers graded at 7<sup>th</sup> place with a weighted mean score of 3.93, trailed by Saves Money at 8<sup>th</sup> rank with a weighted mean score of 3.92. Advanced Searching Options ranked as 9<sup>th</sup> influencing factor affecting respondents' decision of online shopping with a weighted mean score of 3.90. The weighted mean score of Product Description was 3.82 and

ranked at 10<sup>th</sup> place followed by Competitive Pricing (rank=11) with a weighted mean score of 3.80.

Product Return facility ranked at 12<sup>th</sup> position with a weighted mean score of 3.73 demonstrating it as a one of the somewhat influencing factor of online shopping. Exchange Facility ranked at 13<sup>th</sup> position with a weighted

mean score of 3.61 followed by Customer Care Facility at 14<sup>th</sup> rank with a weighted mean score of 3.53.

Website Design ranked at 15<sup>th</sup> with a weighted mean score of 3.50, Reliability of Manufacturers ranked at 16<sup>th</sup> with a weighted mean score of 3.46 and After Sales Service was ranked at 17<sup>th</sup> with a weighted mean score of 3.28 which was the least influencing factor of online shopping.

**Table 1: Factors affecting Online Shopping Behavior of Respondents**

Weights	1	2	3	4	5	Total	Weighted Total	Weighted Avg.	Rank
Level of Influence	Not at All Influential	Slightly Influential	Somewhat Influential	Very Influential	Extremely Influential				
Factors									
Saves Time	9	32	58	134	217	450	1868	4.15	3
Saves Money	2	43	94	163	148	450	1762	3.92	8
More Relaxing Shopping	12	22	62	152	202	450	1860	4.13	4
Convenient Delivery	16	31	85	130	188	450	1793	3.98	6
Reliability of Manufacturers	21	51	135	184	59	450	1559	3.46	16
Availability of Variety of Products	3	29	72	158	188	450	1849	4.11	5
Schemes & Offers	5	17	126	159	143	450	1768	3.93	7
Cash on Delivery facility	4	13	85	136	212	450	1889	4.20	2
Competitive Pricing	6	28	121	191	104	450	1709	3.80	11
Advanced Searching Options	9	34	85	187	135	450	1755	3.90	9
Exchange Facility	17	54	105	185	89	450	1625	3.61	13
Website Design	8	73	131	164	74	450	1573	3.50	15
After Sales Service	39	54	154	149	54	450	1475	3.28	17
24 X 7 Shopping facility	5	9	48	154	234	450	1953	4.34	1
Product Return facility	4	50	90	227	79	450	1677	3.73	12
Product Description	5	33	98	216	98	450	1719	3.82	10
Customer Care Facility	27	27	164	146	86	450	1587	3.53	14

**Factor Analysis**

To reduce the number of variables in terms of relatively few new categories factor analysis is performed. These new categories are termed as factors, which also indicate the

percentage of variance explained. The results are presented in table 2. Result shows that the total variance explained are 54.057%. This is appropriate for factor analysis. The 54.057% variance was explained by the 4 extracted components.

**Table 2: Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.726	29.025	29.025	5.726	29.025	29.025	3.804	19.293	19.293
2	1.78	10.093	39.118	1.78	10.093	39.118	2.159	12.595	31.888
3	1.515	7.888	47.006	1.515	7.888	47.006	1.932	11.782	43.67
4	1.331	7.051	54.057	1.331	7.051	54.057	1.845	10.387	54.057
5	1.158	6.263	60.32						
6	1.106	5.026	65.346						
7	1.003	4.003	69.349						
8	0.921	4.001	73.35						
9	0.901	3.995	77.345						

10	0.832	3.902	81.247
11	0.739	3.521	84.768
12	0.694	3.155	87.923
13	0.585	2.657	90.58
14	0.573	2.603	93.183
15	0.541	2.458	95.641
16	0.507	2.303	97.944
17	0.452	2.056	100

The most important tool in interpreting factors is factor rotation. The term rotation means the reference axes of the factors are turned about the origin until some other position has been reached. Factor rotation assists in the interpretation

of the factors by simplifying the structure through maximizing the significant loadings of a variable on a single factor.

Table 3 explains that the factor analysis has grouped the 16 variables into four factors. The first, third & fourth factors consist of 4 variables each and 3<sup>rd</sup> factor has 5 variables

**Table 3: Rotated Component Matrix**

Component	Factors			
	1	2	3	4
1		0.38		
2	0.713			
3		0.695		
4		0.607		
5				0.521
6			0.628	
7	0.614			
8	0.506			
9	0.722			
10			0.462	
11			0.674	
12				0.698
13				0.382
14		0.668		
15			0.612	
16			0.553	
17				0.611

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

On the basis of loading of the variables they are explained below in table 4. The factors are named on the basis of the nature of variables included in it.

**Table 4: Factors Extracted**

Factor	Variables	Loading
<b>Factor 1 (Price &amp; payment)</b>	Saves Money	0.713
	Schemes & Offers	0.614
	Cash on Delivery facility	0.506
	Competitive Pricing	0.722
<b>Factor 2 (Time Facility)</b>	Saves Time	0.38
	More Relaxing Shopping	0.695
	Convenient Delivery	0.607

	24 X 7 Shopping facility	0.668
<b>Factor 3 (Product Facility)</b>	Availability of Variety of Products	0.628
	Advanced Searching Options	0.462
	Exchange Facility	0.674
	Product Return facility	0.612
	Product Description	0.553
<b>Factor 4 (Other Services)</b>	Reliability of Manufacturers	0.521
	Website Design	0.698
	After Sales Service	0.382
	Customer Care Facility	0.611

### **Factor 1: Price & payment**

This factor is responsible for 19.293% variance of total variance. Four variables are grouped in factor 1 out of which two variables are related to pricing strategy & payment options i.e. Saves Money, Schemes & Offers, Cash on Delivery facility and Competitive Pricing.

### **Factor 2: Time Facility**

This factor is explaining 12.595% variance of total variance. Five variables are grouped in factor 2 which are related to time facility given to customers i.e. Saves Time, More Relaxing Shopping, Convenient Delivery and 24 X 7 Shopping facility

### **Factor 3: Product Facility**

This factor is responsible for 11.782% variance of total variance. The variables which are grouped in factor 3 are related with product facility. This factor says that while doing online shopping customers get influenced with Availability of

Variety of Products, Advanced Searching Options, Exchange Facility, Product Return facility and Product Description.

### **Factor 4: Other Services**

This factor is explaining 10.387% variance of total variance. Four variables are grouped in factor 4 and maximum are related to Post purchase experience of customers. Customers generally expect After Sales Service and Customer Care Facility. Another two variables are Website Design and Reliability of Manufacturers.

## **5. Conclusion**

From this research it can be concluded that 24 X 7 Shopping facility and Cash on Delivery facility are two major parameters affecting the online shopping behavior of respondents however Website Design, Reliability of Manufacturers and After Sales Service are the least influencing factor of online shopping.

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