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**Malika Sharma**  
Research Scholar, the  
University of Burdwan,  
West Bengal, India

**Dr. Uday Krishna Mitra**  
Associate Professor in  
Commerce, Khalisani  
Mahavidyalaya, West Bengal,  
India

**Corresponding Author:**  
**Malika Sharma**  
Research Scholar, the  
University of Burdwan,  
West Bengal, India

## Online shopping behavior of consumers: An empirical study in preference to Kolkata city

**Malika Sharma and Dr. Uday Krishna Mitra**

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### Abstract

Online shopping is a well-known trend for corporate world and consumers. For global marketers, India's online user base is expanding rapidly and West Bengal is not far behind. Consumers are playing symbolic role in online shopping. Technological advancements help consumers to be more aware and more cautious about their purchasing behavior. The present study empirically assessed the consumer online shopping behavior among the internet users of Kolkata city. This study also investigates influential factors and examine its influence on consumer behavior. This research study is a cross-sectional survey and fully based on primary source of data. Stratified random sampling method is used to collect the data by the structured questionnaire. 250 responses have been selected for analysis. Data collected has been analyzed by SPSS software using KMO and Bartlett's Test to identify the effectiveness of factors. Also, to test the internal consistency and reliability, researchers applied Cronbach alpha. The study indicates three dominant factors i.e., Online shopping services, convenience and trustworthy. Besides this findings of the study will be presented and suggestion will be offered so as to make Online shopping more effective in India.

**Keywords:** Electronic commerce, online shopping, consumer behavior, consumer perception, customer satisfaction

### Introduction

Consumer Behavior towards online shopping has been always of great interest to marketers. This information helps the marketers to understand who their customers are in order to identify their needs, how they feel, how they think, what influences them to make a decision to buy and what processes they follow when selecting a product/service.

The term "Consumer" can be defined as the study of the processes involved when individuals or groups that choose, purchase, use the products, services, ideas or experiences to satisfy their needs or desires. On the other hand, Consumer Behavior defined as those acts of individuals directly involved in obtaining, using and disposing of economic goods and services, including the decision making that precede and determine these acts. Consumer purchasing behavior tends to determine what it exactly is that drives consumers when making buying decisions. Consumer Behavior is a complex area, and can be thought of combination of efforts and results related to the consumer's need to solve problems.

Consumer Behavior can be defined as activities of mental, emotional and physical that persons in choosing, buying, using and withdrawal of goods and services to satisfy their needs and their desires are involved (Wilkie, 1995) <sup>[40]</sup>. The study of customer behavior is based on consumer buying behavior, with the customer playing three distinct roles user, payer and buyer. Research has shown that consumer behavior is difficult to predict, even for experts in the field (Armstrong, 1991) <sup>[1]</sup>. A Consumer's Buying Behavior is influenced by cultural, personal, social and psychological factors. Most of these factors are uncontrollable in nature and beyond the hands of marketers but tends have to be considered while determine the complex behavior of the consumers. Also, the knowledge of consumer behavior is required so that marketers can target marketing activities precisely and cost effectively.

### Review of literature

Jozef Bucko *et al.* (2018) <sup>[48]</sup> identified various factors that affect the consumer's willingness to purchase online products.

The articles also focus on the elimination of the number of criteria that affect the online purchase and to create new factors. The study has extracted six RCs from the data. Further analysis confirm that latent variables developed by the analysis were correct. It was concluded that price factor is extremely important variance of the data.

Kavitha Rajayogan and Muthumani (2018) <sup>[19]</sup> the study states that tremendous growth of E-commerce industry has induced to conduct an empirical study to examine the factors influencing the buying behavior the online shoppers in Chennai city. The research was conducted with the primary objective to understand the crucial dimensions and determinants of buying behavior of e-shoppers. The study outcome indicates that time and cost are significantly inducing the online shopping behavior. Furthermore, age, gender, marital status, size of the family and monthly family income has significant association with respect to buying behavior of e shoppers in one of the metropolitan City of Tamil Nadu.

Madasu Bhaskara Rao *et al.* (2018) <sup>[41]</sup> conducted their study to determine the triggers that influence consumer buying behavior in online retail. The study reflects the factors namely easy use and convenience, security, utility and time effectiveness, logistics and feedback as the determinants of female consumer buying behavior online.

Kavitha (2017) <sup>[42]</sup>, in her study analyzed buying behavior of consumers towards online shopping. It also examines the problems faced by consumers while doing online shopping. Based on the survey method, this study is analytical in nature. The study concluded that the major factor that motivates consumers for online shopping is Time saving followed by price and convenience. Also it is reported that problems mostly faced by the consumers is related to quality, color, size and intangibility.

Saranya *et al.* (2016) <sup>[43]</sup> have conducted a survey research among amazon shoppers in order to understand their buying behavior along with the primary objective to examine the awareness and its impact on attitude towards purchase of products exclusively through amazon website. The study reveals that majority of the amazon users are females, aged between 21 and 30 years and are residing from urban areas. The article suggested marketers to educate and enhance the awareness level of the amazon website users to increase purchase intention.

Indrajit *et al.* (2015) <sup>[44]</sup>, investigated the preferences influencing the usage pattern of online shopping in West Bengal. The main aim is to study the customer preferences towards online shopping. The paper concluded that consumers associate the use of online shopping with the following factors: (a) the first factor is the shopping needs which is considered to be prominent for the adoption of online technology, (b) the second factor is convenience and trust. The company must ensure about the services, (c) security and risk are also considered as the third important factor.

Seema Agarwal (2014) <sup>[45]</sup> have conducted an exploratory study to examine the various factors affecting the online shopping behavior in reference to Mumbai Online shoppers. This research was carried with a primary objective to understand the influence of different socio-economic factors and features of online shopping on the behavior of the Mumbai online shoppers. The results reported that demographic factors such as, age, sex, educational qualification and monthly income is significantly inducing

the online shopping behavior. Moreover, the author concluded that, market orientation is the major useful guide in order to understand the market and the behavior of online shoppers residing in Mumbai region.

Hongwei Chris Yand *et al.* (2012) conducted an exploratory research to predict young Chinese consumer's mobile viral attitudes, intents and behavior. The study suggested that constructs developed in western culture such as perceived utility, enjoyment, subjective norm, cost and market maveism can be transplanted to predict mobile viral marketing attitudes, intends and behavior in Asian culture. The results concluded that perceived behavioral control and cost did not significantly predict young Chinese consumer's attitudes. However, perceived utility, usefulness, creditability, self-involved and relevant have positive influence on young Chinese consumers towards viral contents.

Vellido *et al.* (2000) <sup>[46]</sup> studied responses of 2180 individuals to 44 items and extracted nine factors associated with opinions of internet shopping users. Considering all the factors, risk perception was demonstrated to be the main discriminator between those who purchased online and those who did not. Control and Convenience, merchandise affordability, customer service and ease of using shopping websites are other discriminating factors.

### Need of the study

In recent scenario, customers are expecting to consume more and more products and enjoy the services. Internet is helping those customers who prefer variety of products in one single platform to purchase without making any physical visit to shops. There are many online shopping websites and service providers who possessed their own online shopping platform to attract wider range of audience, due to advancement in technology and enhancement in the usage of internet among people over the years. Developments in socio-economic conditions of the common public is drastically changing their lifestyle especially in India. Availability of various brands or products and multiple choices for consumers are becoming more ease of selecting any product and also to an intelligent purchase decision. Moreover, online shopping offers many Discounts, Festive sale discounts, End season sale discounts, coupons, Delivery of product direct to home which helps the consumers to avoid physical visit to the nearest stores.

Therefore, we can say that online shopping is gradually replacing the brick or motor method for purchasing day to day necessities to various luxurious products. When it comes to shopping whether offline or online, consumers are very price sensitive and their behavior is unpredictable. So, marketing research is very important in order to understand the buying behavior of consumers towards online shopping in an exhaustive manner. The effective marketing research will help the marketers to develop their marketing strategies by matching the consumer's expectation.

### Objective of the study

1. To study the buying behavior of online consumers.
2. To study the demographic profile of online shoppers.
3. To identify the factors relating to buying behavior of online consumers.
4. To contribute the suggestions for policy implications to improve the online shopping practices.

**Research Methodology**

**Area of the study:** The geographical territory for the study is restricted to Kolkata City of West Bengal.

**Sampling design:** This study is a cross-sectional survey. Stratified random sampling method have been used to collect the data.

**Source and Tools for data analysis:** First hand and primary information will be collected with the help of well-structured questionnaire incorporated with five-point Likert

scale. Secondary data will be collected from published literature in books, magazines, journals, newspapers and websites. The information collected during data collection has been analyzed by SPSS Software using KMO and Bartlett’s Test to identify effective factors of online shopping.

**Measurement items**

**Sample demographic profile:** Out of total of 250 respondents, male respondents comprise 59.2% and female respondents comprise 40.8% as shown in Table 3

**Table 1:** Online shopping behavior variables measurement and factors

Items Measuring Online Shopping Variables										
Online Shopping Services Factor: OSS1-OSS6					SD	D	N	A	SA	
OSS1	Online Shopping, saves time to purchase									
OSS2	Online Shopping doesn’t waste time									
OSS3	I feel that, while shopping online, less time needed in evaluating and selecting a product									
OSS4	I believe, familiarity with the website before making actual purchase will reduce the risk involved									
OSS5	Clear information and privacy is given, while shopping online									
OSS6	I feel continuous upgrades in online systems									
Convenience Factor: CON1-CON4					SD	D	N	A	SA	
CON1	I can buy the products whenever I want while shopping online									
CON2	Detailed information about the products is available while shopping online									
CON3	Little effort is needed to select and compare while shopping online									
CON4	I get products delivered on time by shopping online									
Trustworthy Factor: TR1-TR3					SD	D	N	A	SA	
TR1	While shopping online, I feel safe and secured									
TR2	Shopping online protects all my information safe									
TR3	I always prefer to shop online from a trustworthy website									
Technical Factor: TEC1-TEC4					SD	D	N	A	SA	
TEC1	The website search capabilities easily meet my needs									
TEC2	While shopping online, I prefer to purchase from a website that is secured and easy to operate									
TEC3	The website design helps in searching and selecting the needed product, while shopping online									
TEC4	I can have online service assistance whenever I want									

**Table 3:** Parameter: gender

	Frequency	Percentage
Male	148	59.2
Female	102	40.8
Total	250	100

As for the age group, there are total of 4 categories. In general, the respondents are mostly younger. 46% of the total respondents belong to the age group 27-34; 21.6% fall under age group 35-43, followed by 18-26 (18%) and age group 44 & above comprise 14.4%. The breakdown of respondent’s age group as in Table 4.

**Table 4:** Parameter age

	Frequency	Percentage
18-26	45	18
27-34	115	46
35-43	54	21.6
44 & above	36	14.4
Total	250	100

**Table 5:** Parameter educational qualification

	Frequency	Percentage
Higher	7	2.8
Secondary	50	20
Graduate	125	50
Post Graduate	68	27.2
Total	250	100

In terms of education, the majority of respondents went through graduation (50%) followed by 27.2% with post-graduation as shown in Table 5.

In Table 6, it shows the most of the respondents are single which comprises 56%, followed by married respondents with 44%. Majority of respondents are single in this study.

**Table 6:** Parameter Marital status

	Frequency	Percentage
Single	140	56
Married	110	44
Divorced	0	0.0
Widowed	0	0.0
Total	250	100

The respondent’s income in the range of 20,000-40,000 was the highest in this study which made up 40% of the total respondents. 23.2% and 23.2% of the respondents have a salary ranging Upto 20,000 and 40,000-60,000 respectively. Only 13.2% of the respondents have salary above 60,000 as illustrated in Table 7.

**Table 7:** Parameter monthly income

	Frequency	Percentage
Upto 20,000	58	23.2
20,000-40,000	101	40.4
40,000-60,000	58	23.2
Above 60,000	33	13.2
Total	250	100

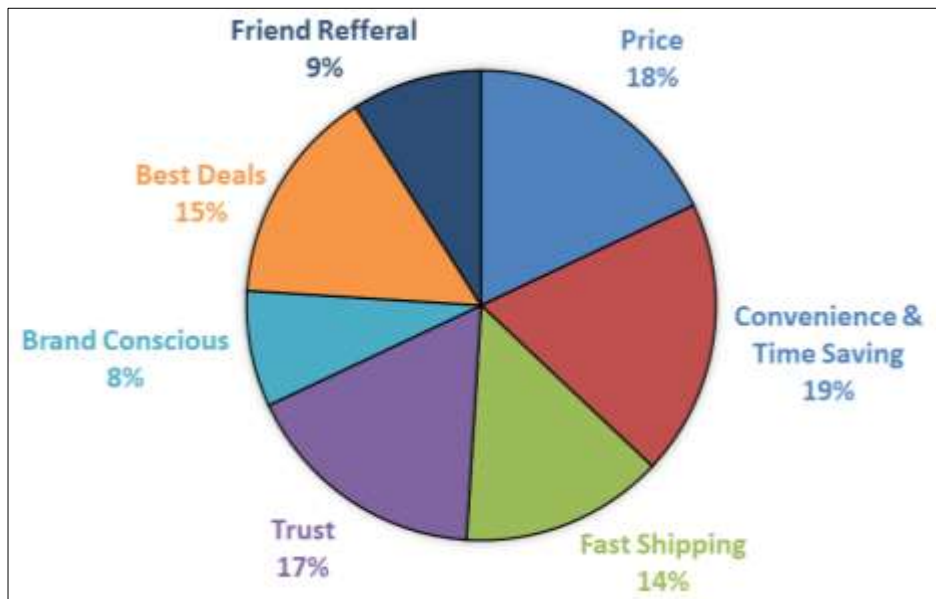
Table 8 show that 19.2% of the sample bought from Amazon website, 14% bought from Flipkart, 14.8% bought from Jabong, 10% from Snap Deal, 18% from Myntra and

24% bought from other websites. This is an important result which indicates that the respondents are familiar with online shopping.

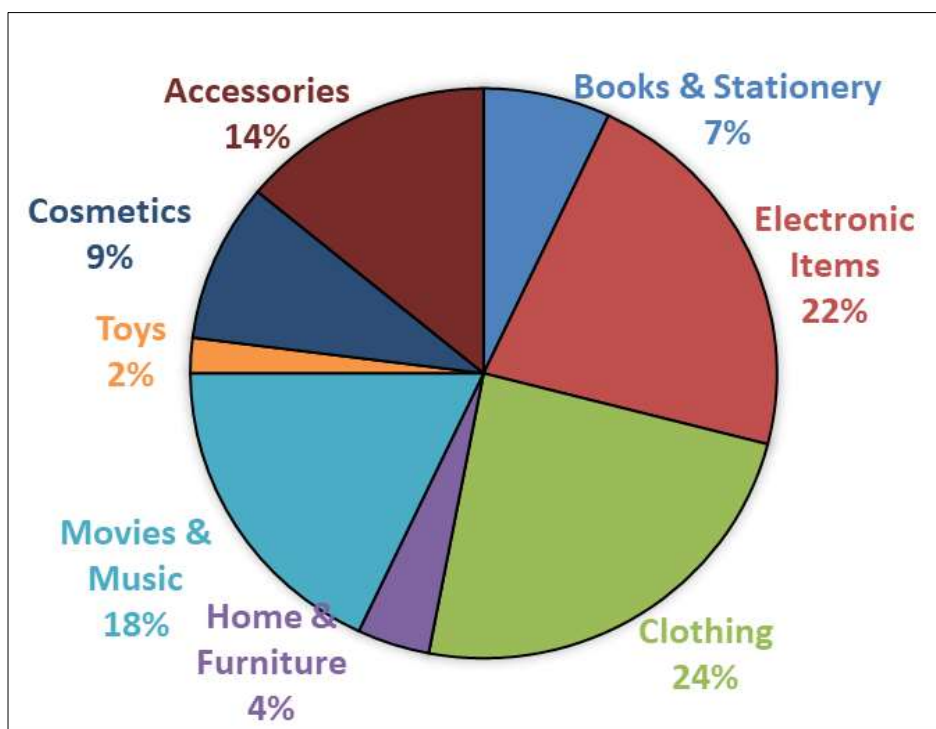
**Table 8:** Parameter most preferred website

	Frequency	Percentage
Amazon	48	19.2
Flipkart	35	14
Jabong	37	14.8
Snap Deal	25	10
Myntra	45	18
Others	60	24
Total	250	100

**Data analysis**



**Fig 1:** Major reason for online shopping



**Fig 2:** Type of products purchased

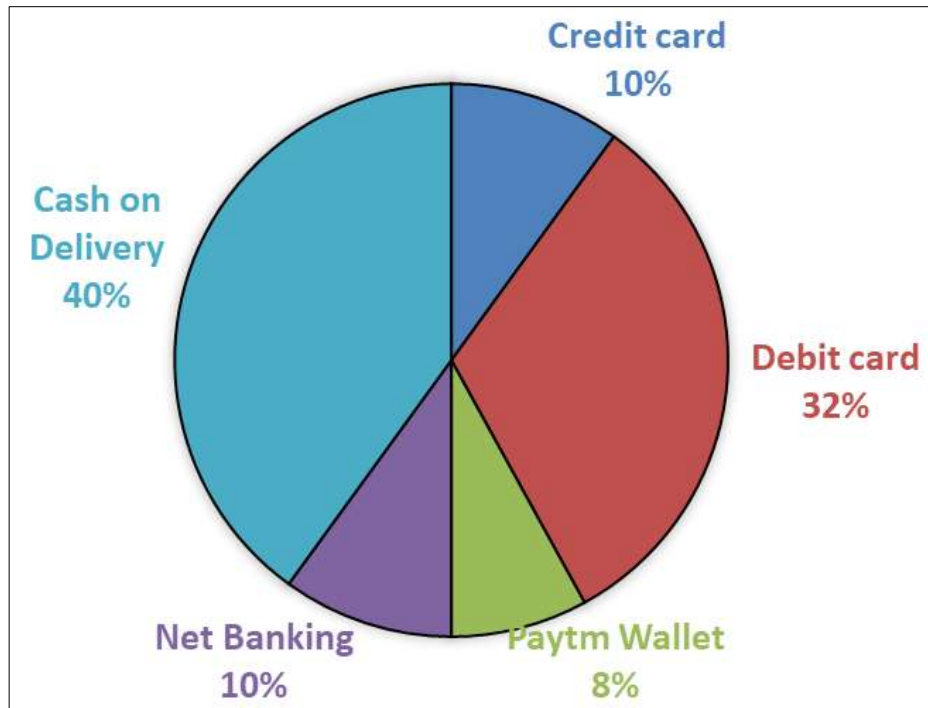


Fig 3: Mode of payment

Factor analysis results

Table 9: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.910	.910	17

Table 10: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.882
Bartlett's Test of Sphericity	Approx. Chi-Square	4706.758
	DF	136
	Sig.	.000

Table 11: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative %
1	6.820	40.116	40.116	6.820	40.116	40.116
2	2.880	16.941	57.057	2.880	16.941	57.057
3	2.044	12.025	69.082	2.044	12.025	69.082
4	1.334	7.845	76.927	1.334	7.845	76.927
5	.658	3.870	80.797			
6	.488	2.872	83.669			
7	.407	2.396	86.065			
8	.400	2.355	88.420			
9	.364	2.143	90.563			
10	.307	1.803	92.367			
11	.247	1.453	93.819			
12	.228	1.343	95.163			
13	.204	1.203	96.365			
14	.181	1.064	97.429			
15	.170	.998	98.428			
16	.158	.930	99.357			
17	.109	.643	100.000			

Extraction Method: Principal Component Analysis

An Exploratory Factor Analysis (EFA) followed by Principal Component Analysis and Varimax with Kaiser Normalization processes were performed in order to reduce data and to observe whether the different items were properly loaded under parent components or not. Close observation did take place on Rotated Component Matrix where factor loading has taken place in order to take a decision about whether regrouping of several items was possible or not. The eigenvalues, variance percentage, the percentage of cumulative, Cronbach's test, Kaiser-Meyer-

Olkin (KMO) measure for sampling adequacy and Bartlett's test of Sphericity were also conducted for the purpose of this study. According to Kaiser and Cerny (1979) [47], the high shared variance and relatively low uniqueness in variance are indicated by the KMO measure for sampling adequacy (0.882). The Bartlett's Sphericity Test where Chi-square value is 4706.758 ( $p < 0.0001$ ) established that distribution is ellipsoid and amenable to data reduction (See Table 10). To test the internal consistency and reliability, researchers applied Cronbach Alfa. Here, Cronbach Alfa is 0.910 (See

Table 9). This value is above than the recommended 0.70. Therefore, the items on the measurement scale are considered to possess high-internal consistency and reliability. Table 11 established that all the factors are properly loaded under four components namely online shopping service factor, convenience factor, trustworthy factor and Technical factor.

**Table 12:** Component Matrix

	Component			
	1	2	3	4
OSS1	.551	-.403	.235	.049
OSS2	.675	-.524	.247	-.050
OSS3	.613	-.507	.227	-.024
OSS4	.661	-.467	.109	-.068
OSS5	.641	-.515	.222	-.003
OSS6	.649	-.546	.217	.034
CON1	.623	.492	.151	-.322
CON2	.732	.452	.132	-.325
CON3	.699	.442	.115	-.411
CON4	.712	.454	.079	-.384
TR1	.571	.307	.249	.485
TR2	.542	.461	.240	.527
TR3	.541	.490	.274	.503
TEC1	.650	-.040	-.515	.044
TEC2	.607	-.072	-.666	.080
TEC3	.633	.024	-.630	.108
TEC4	.626	-.043	-.639	.103

**Extraction Method:** Principle Component Analysis  
a. 4 components extracted

The Rotated Component Matrix shows that the values of all the 17 items are greater than 0.5 which strongly support the recommendation of Nunnally and Bernstein (1994) about the factor loading and cross-loading (See Table 12).

### Findings and Conclusion

Figure 1, reflects the major reasons for doing online shopping. It has been found that Convenience and time saving is highest (19%), followed by Price (18%), Trust (17%), Best deals (15%), Fast shipping (14%), Friend referral (9%) & Brand conscious (8%).

Figure 2, reveals the type of products that are purchased online by consumers. It has been found that clothing purchased is highest (24%), followed by Electronic items (22%), Movies and music (18%), Accessories (14%), Cosmetics (9%), Books and stationery (7%), Home and furniture (4%) and lastly Toys (2%).

In case of mode of payment (Figure 3), depicts that Cash on delivery (40%) is the highest preferred option, followed by Debit card (32%), Net Banking (10%), Credit card (10%) and Paytm wallet (8%).

Referring the Table 1, it is evident that consumers associate their online shopping behavior with the following four factors, i.e., online shopping services factor, Convenience factor, Trustworthy factor and Technical factor.

The first factor extracted from factor analysis comprises of six items which is related to overall service strategy. The factor named as "Online Shopping Services Factor". Customer satisfaction, according to the study, suggest higher satisfaction and loyalty of the customers.

"Convenience Factor" is the second factor considered for this research study which comprises of four factors. Companies must ensure that their services are smooth, easy and ensures sufficient high quality consumer satisfaction.

Tools like easy navigation, fast speed, quick payments and online assistance will certainly help in this regard.

The most challenging and crucial factor for any online website is "Trustworthy Factor". This factor consists of three items. Trust in this context would relate to the security and safety of transacting for consumers while using different portals. Marketers need to provide consumer reassurance and information. The payment gateways still need to be improved.

The last factor includes five items and named as "Technical Factor". The most vital characteristics for adoption of any technology, is generating awareness and educating the consumers. Thus the companies have to focus on simplification of initial process and also provide troubleshooting.

### Limitations and Future scope

The main objective of this research is to study the online buying behavior of consumers in Kolkata city, WB. Researchers used only 250 respondents to draw inference on the selected population which is a very small number as compared to the massive one. Further, future researchers can use the findings of this paper for further research. Also, researchers can extent their studies to other neighboring states like Jharkhand, Orissa, and Chhattisgarh etc. where the adoption of the technology is still in the nascent stage.

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