

# CONSUMER BUYING BEHAVIOR ON E-MARKETING AND ITS OPERATIONS: A CASE STUDY ON AMAZON, INDIA

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## ABSTRACT

The continuous improvement of online business and increasing rate of internet access and the use of smartphones in emerging markets have been the main handler for e-commerce industry. Online shopping is a process of purchasing and selling products and services through Internet. It is basically a Web Rooming where consumers can purchase the products with just a click of mouse, using internet. It is a growing technology and it is changing the Business Model and Business Strategy for online marketer.

In the present study, an attempt has been made for association checking among the demographic profiles of Amazon users, analyzing their perceptions, identifying the factors which influence Amazon buyer to buy the products frequently and recognize what are the exact factors that influence highly to buy the products.

For this study, the researcher had taken few psychological factors through Rotated Component Matrix, which is the use of Factor Analysis to examine the impact of buying attitude towards online industry: Amazon. Again, Factor analysis is used to find out the high and low influencing factors that help the new marketer or entrepreneur to make a new decision strategy for market penetration.

For this study, the researcher had collected 100 samples and given a positive conclusion from the consumer view, preferences about demographic factors from the capital city of West Bengal, Kolkata, India. The result will help the online marketers to design their marketing strategies, innovative ideas, preference-factors regarding Amazon India and provide significant input to Decision Support System.

**Keywords:** *Demographic Study, Customer Preferences, Start-Up Business, Buying Behavior, DSS*

## INTRODUCTION

Amazon is the largest online retailer company in the recent era, that started its business from an online book store and later diversified to too many segments. Now this tech giant through its many advanced technologies like cloud computing has widely diversified to many parts of the world and has become the second largest internet retailer after Alibaba in terms of total sales.

Amazon is one of those who has very innovate ideas as well as long innovative story and has experienced great success and failure. Amazon.com is a typical B2C (business to consumer) company. It sells products and services directly to customers, and that always happens on the internet. So, in this thesis we chose China and Amazon.com as a research topic. Besides, we also chose Jingdong Mall (China B2C Company) as a comparison subject.

E-commerce business have many advantages because of which an increasing number of consumers are preferring online shopping (Sharma & Mittal, 2009). Through internet retailing or e-commerce, a customer can access the product or service 24x7 from any location and can compare the products and services

based on their price and/or quality and read the unbiased feedback/comments and review the products as well (Gangeshwer, 2013). Even for the organizational point of view, organizations can expand the customers to international level, paperless digital transaction and promotes 'pull' type supply management leading to JIT manufacturing efficient operations to delight its consumers. In this empirical research we have chosen China Amazon.com as the researching subject because the required information is much more easily available from homepage of Amazon (2012) than other businesses.

Though in the US, Amazon has become mature, but in China as a developing country, more new e-commerce companies have been developed and many comparisons have been made. So, in this situation, for a fast and steady growth, the companies should synchronize the operations between e-commerce and logistics (Mitra, 2013). This is the reason why the above as the research subject was chosen.

## LITERATURE REVIEW

Gurleen (2012), proposed that various consumer specific options in internet motivate people to search

and use online shopping portals to purchase. Increasing internet penetration have added more to business. People who use internet for 5 to 7 hours a day were found to be adopters of online shopping. The major factors that move online shopping significantly are price consciousness, convenience and variety, and easy payment options.

Goswami, Baruah & Borah (2013), concluded that online customers are satisfied by various aspects like Price, Quality of products, and Ease of use in mobile platform and Timely Delivery at remote areas. The study indicated that price factor and after sales factor are the two factors on which the online marketer should lay emphasis to increase their business as well as customer satisfaction.

According to Dhevika, Latasri & Karmugil (2014) the security is one of the important factors influencing online shopping along with trust worthy shopping and website design/features. The way of shopping by bargaining is the least important factor influencing the online shopping. On the other hand, security and website design/features have no significant association and impact between the respondents and their overall online buying behavior (Hyde *et al.*, 2017).

As stated by Pant (2014), the impact of a successful web store is not limited to just good-looking web design but also on building long term relationship of trust and need of the customer along with business growth in terms of money. Moreover popularity, brand image, transparent operations policy along with customer relationship affect the growth of e-trailer companies in India.

Saravanan & Devi (2015), focused on online shoppers' preferences and problems on various online shopping marketers. Increasing rate of computer literacy makes internet shopping smarter as well as equipping the consumer to identify their products easily and strengthening their decision for buying. Mohanapriya & Anusuya (2014), deliberated that flexibility in time and location of e-transactions have led to the increasing popularity of online shopping as they can be accessed from office, work or any place. But security from consumer's as well as organization's point of view is the matter of concern.

The policy making bodies must improve security laws and tighten our cyber security system so that the online customers can use debit card, credit card or online payments in a secured way.

## OBJECTIVES

- To analyze factors influencing buying attitudes of

customers to purchase through Amazon India.

- To predict to what extent the descriptive factors impact more to buy products through Amazon.

## RESEARCH METHODOLOGY

### Data collection methodology and sample plan

**Research type:** Empirical in nature.

**Population:** Customers who buy the products through Amazon online portal.

**Research design:** The study has been partly descriptive and partly analytical. The study is based on both primary and secondary data.

**Sampling method:** Multistage Sampling was used to collect the data for this study. The questionnaire was distributed to both the users and non-users of online-marketing. A total of 100 questionnaires were distributed among the customers of different areas of Kolkata City (West Bengal, India).

**Tools for data Collection:** Questionnaire based on 5-point Likert Scale and Questionnaire consists of 15 questions and distributed among male and female online users.

**Sampling Area:** The area around urban in the city Kolkata (West Bengal, India) was the sampling area for this survey.

**Sampling Frame:** Used the concept of Purposive sampling from the different areas of Kolkata.

**Sample Units:** Amazon buyers (Online).

**Sample Size:** 100

### **Data Collection Methodology:**

The study consisted of both primary and secondary data.

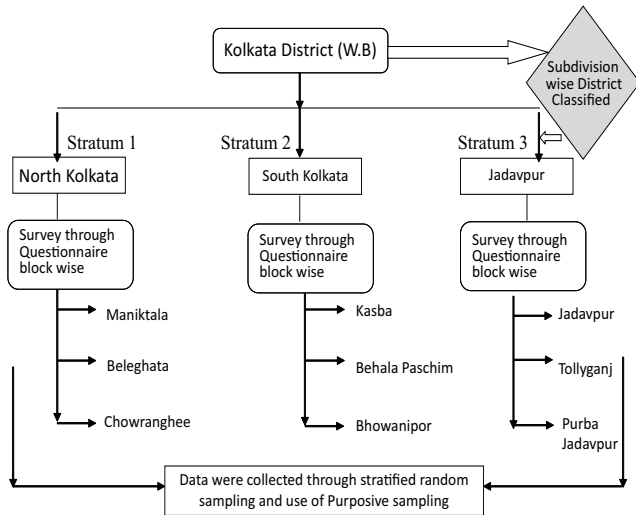
**i) Primary Data Collection:** This data was collected through well-structured close ended questionnaire from those customers who buy products through Amazon.

**ii) Secondary Data Collection:** The data from secondary sources was collected through books, journals, research studies, internet sources.

**Sampling:** Multistage Sampling Technique was used for this study. Based on the single district, it has been classified into 3 subdivisions, and each subdivision has 3 Blocks. Out of four sub divisions, researchers have taken only three sub divisions randomly and the lottery method data was collected for each division. That's why 100 respondents have been collected for the sample

size. The District is divided into 3 Stratum: Stratum 1: North Kolkata, Stratum 2: South Kolkata, Stratum 3: Jadavpur. Each sub division was divided into 3 Blocks. Use of **Stratified Random sampling** and **Purposive Sampling** technique researcher has collected data from 3 sub divisions.

**Figure 1: Diagram of Sample Design**



**Data Analysis Methodology**

The data for the survey were collected from those who buy products through Amazon portal and have been subjected to data cleaning to identify missing value, data redundancy, sample characteristics and meet the assumptions of normality. After the data redundancy, descriptive statistics were used to summarize the respondents' demography. The researcher will make sure that all items meet the acceptable limit level.

Reliability test on 100 samples with 15 Items

**Table 1: Case Processing Summary**

		N	%
Cases	Valid	100	100.0
	Excluded	0	0.0
	Total	100	100.0
a. List wise deletion based on all variables in the procedure			

**Table 2: Reliability Statistics**

Cronbach's Alpha	N of Items
0.813	15

Reliability statistics shows that the Cronbach's Alpha for the analysis tool applied is 0.813 (greater than 0.7) and hence accepted for the current analysis.

**Sample Design and Analysis for the objective 1**

To analyze those factors influencing buying attitude of customers to purchase through Amazon India.

**Table 3: Sample Design and Analysis (1)**

Sample Size	100
Sample unit	Amazon Users (Online)
Sampling Frame	Customer List (s) of the selected customers from different areas of Amazon Offices in Kolkata.
Test	Factor Analysis through SPSS 19.0

**Table 4: KMO and Bartlett's Test<sup>a</sup>**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.606
Bartlett's Test of Sphericity	Approx. Chi-Square	618.394
	df	105
	Sig.	0.000

a. Based on correlations

**Table 5: Correlation Matrix**

		Exact time	Information avail	24*7 delivery	Product variation	New website	Safety & save	Easy to access	Right prod	Risk deduction	Merchandise figure	COD facility	Moneyback	Cyber crime	Customer preferences	Short time
Correlation	Exact time	1.000	0.212	0.404	0.136	0.296	-0.057	0.321	0.114	-0.042	0.197	0.235	0.308	0.292	0.129	0.249
	Information avail	0.212	1.000	0.191	0.525	0.024	0.211	0.235	0.251	-0.099	0.336	0.546	0.192	0.286	0.682	0.170
	24*7 delivery	0.404	0.191	1.000	0.465	0.365	0.309	0.417	0.307	-0.015	0.450	0.462	0.318	0.304	0.331	0.181
	Product variation	0.136	0.525	0.465	1.000	0.385	0.206	0.287	0.225	-0.004	0.126	0.592	0.285	0.087	0.442	0.145
	New website	0.296	0.024	0.365	0.385	1.000	0.232	0.144	0.007	0.015	0.217	0.104	0.323	0.240	0.032	0.102
	Safety & save	-0.057	0.211	0.309	0.206	0.232	1.000	0.249	0.339	0.216	0.520	0.154	-0.067	0.170	0.144	0.063
	Easy to access	0.321	0.235	0.417	0.287	0.144	0.249	1.000	0.119	0.255	0.362	0.481	0.178	0.257	0.289	0.309
	Right prod	0.114	0.251	0.307	0.225	0.007	0.339	0.119	1.000	0.329	0.228	0.356	0.052	0.083	0.200	0.403
	Risk deduction	-0.042	-0.099	-0.015	-0.004	0.015	0.216	0.255	0.329	1.000	0.292	0.162	0.020	0.023	0.126	0.324

	Merchandise figure	0.197	0.336	0.450	0.126	0.217	0.520	0.362	0.228	0.292	1.000	0.227	0.176	0.566	0.455	0.390
	COD facility	0.235	0.546	0.462	0.592	0.104	0.154	0.481	0.356	0.162	0.227	1.000	0.359	0.141	0.411	0.095
	Moneyback	0.308	0.192	0.318	0.285	0.323	-0.067	0.178	0.052	0.020	0.176	0.359	1.000	0.230	0.185	-0.147
	Cyber crime	0.292	0.286	0.304	0.087	0.240	0.170	0.257	0.083	0.023	0.566	0.141	0.230	1.000	0.283	0.313
	Customer preferences	0.129	0.682	0.331	0.442	0.032	0.144	0.289	0.200	0.126	0.455	0.411	0.185	0.283	1.000	0.245
	Short time	0.249	0.170	0.181	0.145	0.102	0.063	0.309	0.403	0.324	0.390	0.095	-0.147	0.313	0.245	1.000
Sig. (1- tailed)	Exact time		0.017	0.000	0.089	0.001	0.288	0.001	0.129	0.339	0.025	0.009	0.001	0.002	0.101	0.006
	Information avail	0.017		0.029	0.000	0.405	0.018	0.009	0.006	0.163	0.000	0.000	0.028	0.002	0.000	0.046
	24*7 delivery	0.000	0.029		0.000	0.000	0.001	0.000	0.001	0.442	0.000	0.000	0.001	0.001	0.000	0.036
	Product variation	0.089	0.000	0.000		0.000	0.020	0.002	0.012	0.482	0.105	0.000	0.002	0.196	0.000	0.075
	New website	0.001	0.405	0.000	0.000		0.010	0.076	0.471	0.442	0.015	0.152	0.001	0.008	0.375	0.155
	Safety & save	0.288	0.018	0.001	0.020	0.010		0.006	0.000	0.016	0.000	0.063	0.255	0.045	0.077	0.268
	Easy to access	0.001	0.009	0.000	0.002	0.076	0.006		0.119	0.005	0.000	0.000	0.039	0.005	0.002	0.001
	Right prod	0.129	0.006	0.001	0.012	0.471	0.000	0.119		0.000	0.011	0.000	0.303	0.206	0.023	0.000
	Risk deduction	0.339	0.163	0.442	0.482	0.442	0.016	0.005	0.000		0.002	0.053	0.423	0.412	0.106	0.001
	Merchandise figure	0.025	0.000	0.000	0.105	0.015	0.000	0.000	0.011	0.002		0.012	0.040	0.000	0.000	0.000
	COD facility	0.009	0.000	0.000	0.000	0.152	0.063	0.000	0.000	0.053	0.012		0.000	0.081	0.000	0.173
	Moneyback	0.001	0.028	0.001	0.002	0.001	0.255	0.039	0.303	0.423	0.040	0.000		0.011	0.033	0.072
	Cyber crime	0.002	0.002	0.001	0.196	0.008	0.045	0.005	0.206	0.412	0.000	0.081	0.011		0.002	0.001
	Customer preferences	0.101	0.000	0.000	0.000	0.375	0.077	0.002	0.023	0.106	0.000	0.000	0.033	0.002		0.007
	Short time	0.006	0.046	0.036	0.075	0.155	0.268	0.001	0.000	0.001	0.000	0.173	0.072	0.001	0.007	

After KMO test on 100 sample with 15 variables it has been observed that Sampling Adequacy result is 0.606. So, it is >0.50 means acceptable.

**Total Variance Table**

The variance table explained by the initial solution, extracted components and rotated components is displayed. The first column indicates the Initial Eigenvalue.

The total column gives the eigenvalue, or amount of variance in the original variables accounted by each component. The percentage of Variance column which is under Initial Eigenvalues gives the ratio, specified the percentage of the variance accounted by each component to the total variance in all the variables. The Cumulative % column gives the percentage of variance accounted by the first n components.

7	0.820	5.464	80.026						
8	0.772	5.148	85.174						
9	0.545	3.631	88.805						
10	0.515	3.435	92.240						
11	0.355	2.368	94.608						
12	0.292	1.947	96.554						
13	0.257	1.712	98.266						
14	0.140	0.933	99.200						
15	0.120	0.800	100.000						

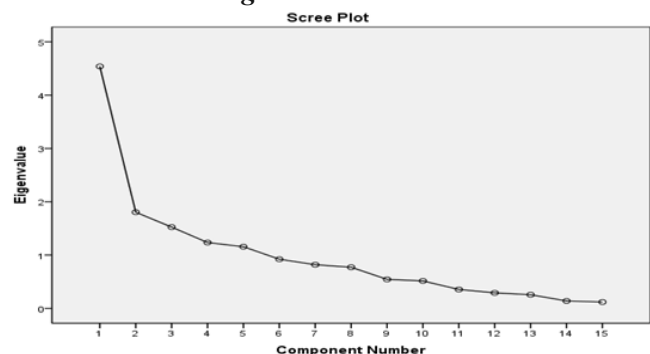
**Table 6: Total Variance Explained**

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	4.539	30.262	30.262	4.539	30.262	30.262	2.640	17.602	17.602
2	1.804	12.028	42.290	1.804	12.028	42.290	2.369	15.793	33.394
3	1.525	10.168	52.458	1.525	10.168	52.458	1.977	13.183	46.577
4	1.236	8.239	60.697	1.236	8.239	60.697	1.933	12.889	59.467
5	1.157	7.712	68.409	1.157	7.712	68.409	1.341	8.943	68.409
6	0.923	6.152	74.562						

**Scree Plot**

The Scree Plot displays the number of Factors versus its corresponding Eigen Value, when no rotation is done, the Eigen values of the correlation matrix equal the variances of the factors.

**Figure 2: Scree Plot**



The above scree plot shows that 5 factors are extracted from the graph after the factor analysis. Following Matrix shows the five important factors:

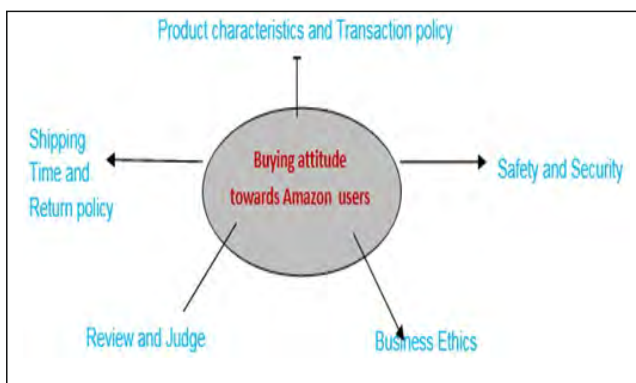
**Rotated Factor Matrix**-This table contains the rotated factor loadings (factor pattern matrix), which represents not only how the variables are weighted for each factor but also the correlation between the variables and the factors. Because these are correlations, possible values range from -1 to +1.

**Table 7: Rotated Component Matrix**

	Component				
	1	2	3	4	5
Exact time		0.573			
Information avail	0.883				
24*7 delivery		0.662			
Product variation	0.657				
New website		0.736			
Safety & save					0.852
Easy to access					
Right prod			0.678		
Risk deduction			0.766		
Merchandise figure				0.725	
COD facility	0.693				
Moneyback		0.663			
Cyber crime				0.815	
Customer preferences	0.775				
Short time			0.652		

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 9 iterations.

**Figure 3: Conceptual Diagram**



Five factors have been adopted from the above analysis, the following explanation is more important to understand the factor that influence the Amazon customers more:

**1) Product Characteristics and Transaction Policy:** It is the variable for this research study. Quality and

variety of products have changed the lifestyle of human being. Amazon has unique marketing strategy (e.g. RACE - Research Act. Convert. Engage) and understands the customers' needs accordingly. It researches its customer both through online and offline communications and have greater variety of product availability. Customers also opt for Amazon due to its unique transaction policy, payment systems or services like Pay Pal.

**2) Shipping Time and Return Policy:** Amazon India has standardized their delivery time/shipping speed and follows a customer centric approach to follow this. It has even customized its delivery time for its prime members which makes its customers to repeatedly purchase from their portal. The return is safely operationalized without any failure as it has transparent policy regarding this.

**3) Review and Judge:** User reviews are proven sales drivers, and something most customers will want to see before deciding to make a purchase. In accordance to this, Amazon also reveals the review/feedback of various products. This helps in eliminating any doubt that it's potential customer might have and give them a trusted platform to buy repeatedly.

**4) Business Ethics:** Online industry has increased curiously over the last era, yet consumers are very much concerned about ethical issues surrounding e-commerce, which continues to grow. Amazon has maintained consistency in their operations to meet the e-ethics parameters. Many researches based both on primary and secondary data have indicated that Amazon has improved their rating on the **Customer Perception Regarding the Ethics of Online Retailing (CPEOR)** and have good reputation in international and domestic market.

**5) Safety and Security:** It is an important variable for these researches. Amazon has unique tiered Security system through which it protects the transaction data, monetary details, financial data and demographic details of the customers. Till date no prominent complaint has been received regarding this compromise of data theft. No cases of email spoofing have been reported as my research is concerned. This sense of trust prompts the Indian customers to opt for Amazon which is further heading for mouth to mouth trust-based customer loyalty.

**Sample Design and Analysis for the objective 2**

To predict to what extent the descriptive factors are impacting more to buy products through Amazon.

**Table 8: Sample Design and Analysis (2)**

Sample Size	100
Sample unit	Amazon Users (Online)
Sampling Frame	Customer List (s) of the selected customers from different areas of Amazon Offices in Kolkata.
Test	Regression Analysis through SPSS 19.0

Reliability test on 6 output variables including total dependent variable consumption.

**Table 9: Reliability Statistics**

Cronbach's Alpha	No. of Items
0.802	6

**Table 10: Model Summary**

Target	Total Consumption
Automatic Data Preparation	On
Model Selection Method	Forward Stepwise

**Table 11: Regression model (Variables Entered/Removed)**

Model	Variables Entered	Variables Removed	Method
1.	Business Ethics	-	Stepwise (Criteria: Probability-of-F-to-enter <= 0.050, Probability-of-F-to-remove >= 0.100).
2.	Safety security	-	Stepwise (Criteria: Probability-of-F-to-enter <= 0.050, Probability-of-F-to-remove >= 0.100).
3.	Product characteristics and Transaction policy	-	Stepwise (Criteria: Probability-of-F-to-enter <= 0.050, Probability-of-F-to-remove >= 0.100).

a. Dependent Variable: Total consumption

**Table 12: ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46076.598	1	46076.598	40591.656	0.000 <sup>a</sup>
	Residual	111.242	98	1.135		
	Total	46187.840	99			
2	Regression	46130.563	2	23065.282	39061.874	0.000 <sup>b</sup>
	Residual	57.277	97	0.590		
	Total	46187.840	99			
3	Regression	46187.840	3	15395.947	-	-
	Residual	0.000	96	0.000		
	Total	46187.840	99			

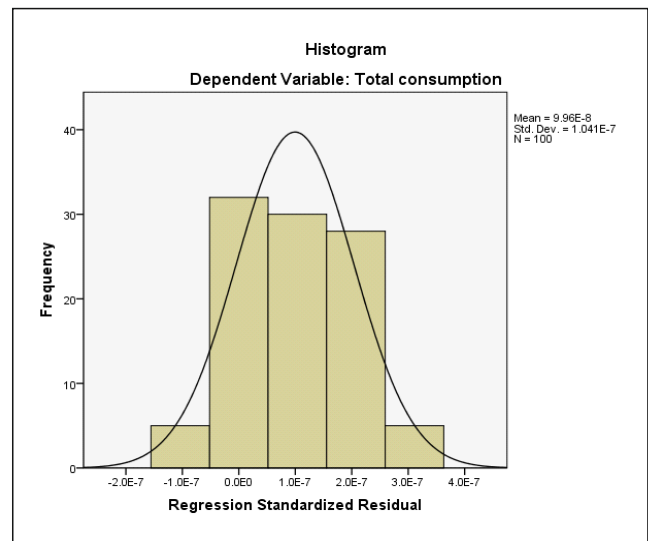
- a. Predictors: (Constant), Business Ethics
- b. Predictors: (Constant), Business Ethics, Safety\_security
- c. Predictors: (Constant), Business Ethics, Safety\_security, Product characteristics and Transaction policy
- d. Dependent Variable: Total consumption

**Table 13: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1.	(Constant)	5.197	0.511		10.162	0.000
	Business ethics	2.215	0.011	0.999	201.474	0.000
2.	(Constant)	0.895	0.582		1.538	0.127
	Business Ethics	2.221	0.008	1.002	279.215	0.000
	Safety_security	0.950	0.099	0.034	9.560	0.000
3.	(Constant)	1.776E-14	0.000		0.000	1.000
	Business Ethics	2.000	0.000	0.902	4.718E8	0.000
	Safety_security	1.000	0.000	0.036	56382534.678	0.000
	Product characteristics and Transaction policy	1.000	0.000	0.106	55227338.461	0.000

a. Dependent Variable: Total consumption

**Figure 4: Dependent Variable - Total Consumption**



The above plot is a check on normality, the histogram should appear normal; a fitted normal distribution aids us in our consideration. Serious departures would suggest that normality assumption is not met.

**Result from the objective 2:**

From the above analysis it has been observed that 3 Factors have been predicted out of 5 variables and their influencing rate is higher rather than others.

**CONCLUSION AND RECOMMENDATION**

From the objective 1 it has been observed that five factors have been generated out of 15 variables, they are:

- 1) Product Characteristics and Transaction Policy
- 2) Shipping Time and Return Policy
- 3) Review and Judge
- 4) Business Ethics
- 5) Safety and Security

From the objective 2 it has been concluded that three factors have been predicted out of 5 output variables and it was indicating that their influencing is high rather than other 2 factors. They are:

- 1) Business Ethics
- 2) Safety & Security
- 3) Product Characteristics and Transaction Policy

#### **LIMITATION AND FUTURE SCOPE OF THE STUDY**

The study was confined in the Kolkata area and their surrounding area in the field of customer preferences and their perception of Amazon portal. In future, researchers can extend their area of study to other districts or even other states. In future, researchers will explore their innovative ideas and will continue to find out more influencing factors to help the industry to reach their destination and they will share their innovative finding to the society.

#### **REFERENCES**

- Dhevika, V.P.T., Latastri, O.T.V. & Karmugil, S. (2014). Factors Affecting Online Shopping of Customers. *Research Journal' Journal of Marketing*, 4(2), pp 220-235.
- Gangeshwer, D.K. (2013). E-Commerce or Internet Marketing: A Business Review from Indian Context. *International Journal of u- and e-Service, Science and Technology*, 6(6), pp 187-194.
- Goswami, A., Baruah, P. & Borah, S. (2013). Customer Satisfaction Towards Online Shopping with Special Reference to Teenage Group of Jorhat Town. *PARIPEX- Indian Journal of Research*, 3(4), pp 239-241.
- Gurleen, K. (2012). Consumers Perception Towards Online Shopping- The Case of Punjab. *International Journal of Management & Information Technology*, 1(1), pages 6.
- Hyde, A.M., Jain, D., Verma, S.K. & Jain, A. (2017). A Study of Exploratory Buying Behavior Tendencies in FMCG Sector. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 1(2), pp 16-27.
- Mitra, A. (2013). E-Commerce in India: A Review. *International Journal of Marketing, Financial Services & Management Research*, 2(2), pp 126-132.
- Mohanapriya, S. & Anusuya, D. (2014). A Study on Customer Preferences and Satisfaction Towards Selected Online Websites with Special Reference to Coimbatore City. *PARIPEX-Indian Journal of Research*, 3(11), pp 45-46.
- Pant, A. (2014). An Online Shopping Change the Traditional Path of Consumer Purchasing. *International Journal of Business and Management Invention*, 3(3), pp 39-42.
- Saravanan, S. & Brindha, D.K. (2015). A Study on Online Buying Behavior with Special Reference to Coimbatore City. *International Journal of Commerce, Business and Management*, 4(1), pp 988-995.
- Sharma, S. & Mittal, S. (2009). Prospects of e-commerce in India. *Asian Journal of Management and Research*, 3(2), pp 396-408.