

Impact of Marketing Mix Factors on online Purchase Decision: Study on Electronic Product Buyers

¹Shikha Chauhan & ²Dr. Balgopal Singh

¹Research Scholar, FMS WISDOM Banasthali Vidhyapith (India)

²Associate professor, FMS WISDOM Banasthali Vidhyapith (India)

ARTICLE DETAILS

Article History

Published Online: 15 April 2019

Keywords

Purchase decision, Online buying.

ABSTRACT

The study contributes to deeper understanding of the impact of different marketing mix factors on consumer online purchase decision of electronic products. It analyses the relationship between several independent variables of marketing mix factors such as product, price, promotion, place and online purchase decision (as the dependent variable) of electronic goods.

The purpose of this study is to determine the factors of marketing mix affecting online purchase decision of electronic products. The data employed to analyze the factors influencing consumers' purchase decision-making processes were obtained through a questionnaire that was collected in January 2019 from online buyers from Delhi in India. The major findings of the study indicated that, overall, the set of independent variables are strongly associated with online purchase decision of consumers or not. These analyses make it possible to discover consumer decision-making rules. The results may assist producers and retailers in understanding consumer online purchase decision and improving consumer satisfaction.

1. Introduction

Now a day's internet is an important element for every dimensions of people's life such as communication, profession, study, entertainment, shopping, business, travelling, security, governance and everything. In India e-commerce has transformed the way business is done. E-commerce offers many online marketing opportunities to companies worldwide and along with high rapid growth of online shopping; it has impressed many retailers to sell products and web services through online channel to expand their market. The Indian e-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017. Increasing penetration of internet and Smartphone triggered the growth of e-commerce industry. The ongoing digital transformation in the country is expected to increase India's total internet user's base to 829 million by 2021 from 560.01 million as of September 2018. India's internet economy is expected to double from US\$ 125 billion as of April 2017 to US\$ 250 billion by 2020, majorly backed by e-commerce. India's e-commerce revenue is expected to jump from US\$ 39 billion in 2017 to US\$ 120 billion in 2020, growing at an annual rate of 51 per cent, the highest in the world. (CAGR report: December 2018).

Currently the largest segment in e-commerce with a share of 47 percent in India is of electronic goods and is expected to grow at a CAGR of 43 percent by 2020. The apparel segment has the second highest share of 31 percent. The penetration of India's online retail from total retail market is expected to rise from 2.5 percent in 2016 to 5 percent by 2020.

Out of total e-commerce retail logistic market in India 29 percent is of electronic goods in 2016 which is going to increase by 31 percent in 2020. This internet penetration is

expected to lead to growth in e-commerce and have great opportunity for the electronic goods industry market.

2. Literature Review

2.1 - Marketing mix

Harvard business school, USA, first applied the term marketing mix which explains the range of marketing decisions and elements that must be balanced to achieve maximum impact.

According to Kotler (2003) marketing mix is a set of selling tools for helping companies to aim the target customer in market. The most well known marketing strategy tools are the marketing 4 P model. The 4 P models that the marketing strategy encompasses 4 factors, such as product, price, place and promotion, are suggested by McCarthy and Perrault, (1964).

According to Palmer, 2004, marketing mix is not a scientific theory, but merely a conceptual framework that identifies the principal decision making managers make in configuring their offerings to suit consumer needs. To create an effective marketing mix strategy- product, price, place and promotion need to be considered.

Product- According to Eavani and Nazari, 2012, a good or service offered by the organization which satisfies the need of a certain group of people is termed as product.

Price- price is directly related to money, Kotler and Armstrong (2016), defines price as the sum of money or the sum of value that consumers are willing to scarifies in exchange for a product or service.

Place- Creswell (2009), defines place as a territory with combination of location, locale and sense of place, it refers to distance as well as ease to reach the place.

Promotion- Kotler and Armstrong (2016), define promotion as communication channel to promote product.

2.2 – Online purchase decision

Kotler (1994) defines consumer behaviour as the study of how people buy, what they buy, when they buy and why they buy and the action of purchasing is comprehension of buyer's decision making process. There are numerous factors which influence consumer purchasing decision, among which marketing mix applied by companies for a particular product is the main factor (Furaji et. al. 2012).

Engel et. al. (1973), clarifies that purchase decision is a part of traditional consumer behaviour which constitutes of five stages – Information search, alternative evaluation, purchase decision and post purchase behaviour. Consumer behaviour in online context lays beyond traditional marketing and to understand it there must be adopted a vision that online consumers are simultaneously IT users.

2.3- Marketing mix and online purchase decision

According to Payson and Karunanithy(2016), marketing mix and consumer buying behaviour has a large positive relation. In their research which is carried out to measure the impact of marketing mix on perception among motorbike purchase in Jaffna District, their objective was to measure the relationship between sub variable of marketing mix and perception. Certain tools were used to identify the impact of marketing mix on perception correlation shows that there is a positive relationship between overall marketing mix and perception. In another objective regression analysis indicates that marketing mix contributes significantly to increase the perception of people which shows marketing mix has significant impact on perception of people.

According to furaji, latuszynska and wawrzyniak,(2012), marketing mix elements are strongly associated with the buying behaviour of electronic products of Iraqi consumer.

According to Sen (2014), cost or price factor, convenience factor, product factor and seller factor are the four factors which influence online purchase of products in Kolkata.

According to Dr. Isita Lahiri (2018),the online purchase of home appliances is the happening form of shopping due to its diversity of products and promotion activities. Majority of customers have never conducted online purchase of home appliances but maximum of the prospective customers are interested to buy all the three categories of home appliances, major appliances – air conditioner, refrigerators etc., small appliances – fan, juicer, deep fryer etc and consumer electronics – laptops, desktops, cameras etc.

2.4 Objective of the study

The empirical study aims to analyze the influence of marketing mix and its sub variables on the online purchase decision of electronic products.

- To understand the impact of marketing mix and its sub variables (product, price, place and promotion) on consumer online purchase decision of electronic goods.

- To analyze which sub variable under marketing mix has minimum impact on online purchase behaviour of consumer regarding electronic products.

3. Research Methodology

The dependent variable is "online purchase decision" and the independent variable is "Marketing mix". There are four sub variables of the independent variable: product, price, place and promotion. The following hypotheses were developed;

H1: Marketing mix is positively correlated with online purchase decision.

H_{1a}: Product sub variable is positively correlated with online purchase decision.

H_{1b}: Price sub variable is positively correlated with online purchase decision.

H_{1c}: Place sub variable is positively correlated with online purchase decision.

H_{1d}: Promotion sub variable is positively correlated with online purchase decision.

H2: marketing mix has an impact on online purchase decision.

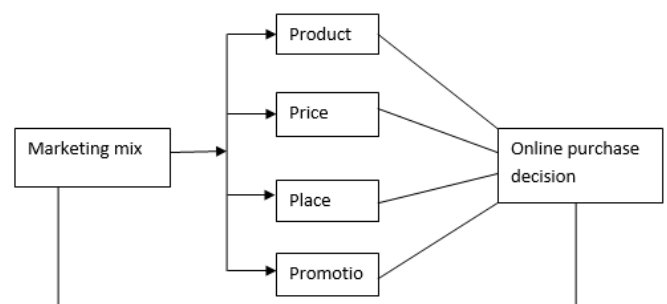
H_{2a}: There is an impact of product on online purchase decision.

H_{2b}: There is an impact of price on online purchase decision.

H_{2c}: There is an impact of place on online purchase decision.

H_{2d}: There is an impact of promotion on online purchase decision.

3.1- Conceptualization:-



(Fig. 1)

3.2-Methods of data collection

The purpose of this empirical study is to understand the effect of marketing mix on online purchase intention of consumer with regards to electronic products through a questionnaire survey. The questionnaire includes two parts – first part is used to know about the demographic details of respondents, which clarify that either they are using online purchasing for electronic products or not. The second part investigates the reasons by which they go for online purchasing of electronic products. The close ended questionnaire with five point Likert scale ranging from 1- strongly agree to 5 – strongly disagree is prepared and which is administered to 250 persons of more than 20 years of age living in metro city Delhi having experience of online purchasing of electronic products.

4. Data presentation and analysis

4.1-Data presentation:-

This part of research presents the profile of the respondents with regard to age, gender, educational qualification, occupation, income and how the demographic characteristics of respondents relate with the level of marketing mix and online purchase decision.

4.2-Data analysis:-

In this research work the researcher tries to identify to what extent the marketing mix affect online purchase decision of consumer. There are many statistical analysis techniques which are used to assess the hypothesis; those are formulated in the previous part. These statistical tools are correlation analysis, regression analysis, one way ANOVA.

4.3-Reliability analysis of questionnaire:-

Table: 1 Reliability analysis

Scale	Cronbach's Alpha	No. of items
Questionnaire	0.922	26
Marketing mix	0.945	20
Online purchase decision	0.895	6
Product	0.918	5
Price	0.797	2
Place	0.914	7
promotion	0.904	6

The reliability analysis of whole questionnaire and of dependent and independent variables are obtained through

Table: 3Factor loading, variables of marketing mix

Cronbach's Alpha as shown in table (1), which are greater than 0.75 (Cronbach, 1951), hence measurement tools and measure of the items are reliable and valid.

Factor analyzes of questionnaire:-

To determine the sub variables of marketing mix, exploratory factor analysis is conducted to determine various dimensions in which the factors contributing to marketing mix can be grouped. Factor analysis is a statistical tool which separates the interconnected variables into fewer dimensions called factor. In the present study the four factors contributed towards marketing mix are suggested by McCarthy(1964).

Table: 2 KMO and Bartlett's Test

Kaiser -Meyer – Olkin Measure of sampling		.865
Bartlett's Test of Sphericity	Approx Chi-Square	5.331E3
	Df	325
	Sig.	.000

Above table presents the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. The KMO statistics varies between 0 and 1. A value of 0 indicates factor analysis to be inappropriate, and 1 indicates factor analysis yield distinct and reliable factors. Here the KMO is .865, which is good and this conclude that factor analysis is appropriate for the data.

Questions	Factor loading	Factor extracted	construct
The web page of e-retailer load quickly. (V8).	.767	Factor1	place
The link to the business website can be accessed from some websites. (V9).	.785		
The web page of e-retailer is simple and attractive. (V10).	.620		
Prefer to purchase the product only when purchase process is simple. (V11).	.801		
The product items can be available through the shopping page of search engine. (V12).	.654		
I prefer online shopping because it is easy to navigate through website. (V13).	.803		
Customer should feel safe in their transactions with the online stores. (V14).	.628		
Advertisement help in selecting perfect online store. (V15)	.621	Factor 2	promotion
Online stores give various discount coupons to buyers of electronic products. (V16).	.815		
Online stores provide guaranties and warranties on electronic goods to buyers. (V17).	.829		
Allowing free home delivery. (V18).	.713		
All products should be delivered undamaged. (V19).	.734		
Online stores provide prompt service to the customer (V20).	.825	Factor3	online purchase decision
The 24 hours operation attracts me to shop online as it is convenience. (V21).	.810		
The availability of stock affects my purchase decision of electronic products. (V22).	.800		
The availability of after sales service (exchange and refund) affects my purchase decision. (V23).	.804		
The quality of product affects my online purchase decision (V24).	.815		
Regular promotion activities of online seller affect my online purchase decision. (V25).	.825		
Secured online transactions affect my online purchase decision. (V26)	.781		
Availability of broader range of products. (V1).	.793	Factor4	Product
Get unique (new) products which are not easily available in the nearby market. (V2).	.798		
Detailed product information available online. (V3).	.637		
Online stores have modern looking products. (V4).	.805		
Tool that can allow viewing a product image closely from different angles. (V5).	.821		
Price of electronic products in online stores is less than traditional stores. (V6).	.810	Factor 5	Price
The price of product items can be changed in response to changing supply and demand conditions. (V7).	.824		

The table(3) shows the component matrix after rotation of the factors has classified the variables. There are five factors and items loaded with their factors very highly. From the table, the item that loaded in the first factor are V8, V9, V10, V11, V12, V13, V14, which is place, items in second factors are V15, V16, V17, V18, V19, V20, which is promotion, the items come in to third factor which is online purchase decision are V21, V22, V23, V24, V25 and V26, the items of fourth factor are V1, V2, V3, V4, V5, which is product and the items of fifth factor which is price are V6 and V7.

Relationship between marketing mix and online purchase decision:-

In this section the relationship between marketing mix and online purchase decision analyzed in order to test the following hypothesis-

H1: marketing mix is positively correlated with online purchasing decision.

The following model is formulated to find out the relationship between marketing mix and online purchasing decision for the purpose of testing above hypothesis, online purchase decision is depending on marketing mix.

$$\text{Online purchase decision} = f(\text{marketing mix})$$

In the following table the correlation between marketing mix and online purchase decision depicts-

Table: 4 Correlations between marketing and online purchase decision

		Online purchase decision	marketing mix
Online purchase decision	Pearson's Correlation	1	.609
	Sig. (2- tailed)		.000
	N	211	211
Marketing Mix	Pearson's Correlation	.609	1
	Sig. (2- tailed)	.000	
	N	211	211

Source: Survey Data **Correlation is significant at the 0.01level (2-tailed)

From the above table it can be observed that there is a positive relationship between marketing mix and online purchase decision. The correlation value is .609 ** and which is significant at the level of 0.01%. According to the value of correlation the hypothesis is accepted. There is a strong positive correlation between both the factors.

Regression Analysis:-

By using correlation analysis it can be found that how the relationship between marketing mix and online purchase decision. Correlation analysis is not a proper way to describe

the exact relationship between marketing mix and online purchase decision. Therefore regression analyses are the most suitable way in order to find out the exact relationship. The equation made in regression analysis describes the relationship between these variables. From this analysis the dependent variable can be forecasted through the independent variable, regression line was- $Y = a + bX$,

Here regression summary output is obtained through the statistical analysis.

Table: 5 Impact of marketing mix on online purchase decision

Model Summary				
Model	R	R Square	Adjusted R square	Std. error of the Estimate
1	.609	.370	.367	.44090

a. Predictor: (Constant), Marketing mix

In this section the impact of marketing mix on online purchase decision is analyzed for the purpose of testing the following hypothesis-

H2: Marketing Mix has an impact on online purchase decision.

The following equation is formulated in order to test the above hypothesis-

Online purchase decision = $\beta_0 + \beta_1$ (marketing mix)

[Where β_0, β_1 are the regression coefficient]

Table: 6 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F- Value	Sig.
1	Regression	23.899	1	23.899	122.94	.000 ^a
	Residual	40.628	209	.194		
	Total	64.527	210			

a. Dependent Variable: online purchase decision

b. Predictors: (Constant), Marketing mix

Analysis of variance indicates the relationship between marketing mix and online purchase decision. The analysis with ANOVA (F value) indicates the most possible combination of predictor variable that could contribute to the relationship with the dependent variable. For mode 1-F value is 122.94 (P =

0.000, < 0.05). This concluded that the corresponding value of F is significant in respect to their consequent values. From here it should be noted that some other variables which may have impact on online purchase decision, need to be studied.

Table: 7 Coefficients^a

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.067	.104		10.265	.000
	Marketing mix	.524	.047	.609	11.088	.000

a. Dependent Variable: Online purchase decision

Following regression equation formed to assess the impact of marketing mix on online purchase decision.

$$\text{Online purchase decision} = 1.067 + .524(\text{marketing mix})$$

This equation shows that if marketing mix is changed by 1 unit than online purchase decision will be changed by .524.

This analysis clarifies, the hypothesis H2 is accepted and the marketing mix has impact on online purchase decision.

H_{2a}: There is an impact of Product on online purchase decision.

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F- Value	Sig.
1	0.426 ^a	.181	.178	.50272	46.320	.000 ^a

a. Predictors: (Constant), Product source: Survey data

The above table shows that 18.1% of product on online purchase decision. Which is significant at 5% level, because P value is less than 0.05 (P < 0.05). So H_{2a} is accepted.

H_{2b}: There is an impact of Price on online purchase decision.

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F- Value	Sig.
1	0.152 ^a	.023	.018	.54923	4.913	.028 ^a

a. Predictors: (Constant), Price source: Survey data

The above table shows that 2.3% of impact of price on online purchase decision. Which is not significant at 5% level, because P value is less than 0.05 (P < 0.05). So H_{2b} is not accepted.

H_{2c}: There is an impact of place on online purchase decision.

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F- Value	Sig.
1	0.569 ^a	.324	.321	.45692	100.070	.000 ^a

a. Predictors: (Constant), Place source: Survey data

The above table shows that 32.4% of impact of place on online purchase decision. Which is significant at 5% level, because P value is less than 0.05 (P < 0.05). So H_{2c} is accepted.

H_{2d}: There is an impact of promotion on online purchase decision.

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F- Value	Sig.
1	0.599 ^a	.358	.355	.44507	116.744	.000 ^a

a. Predictors: (Constant), Promotion source:

The above table shows that 35.8 % of impact of place on online purchase decision. Which is significant at 5% level, because P value is less than 0.05 (P < 0.05). So H_{2d} is accepted.

5. Conclusion and discussion

In present research, the researcher analyzed the result on the basis of data presentation and analysis by using correlation, regression and percentage analysis. The researcher conducts the research to measure the impact of marketing mix on online purchase decision of consumers among electronic products in Delhi. The objective of the research was to calculate the relationship between sub variables of marketing mix and online purchase decision. Some statistical tools were used to calculate the impact of marketing mix on online purchase decision. On analyzing correlation a positive relationship between overall marketing mix and online purchase decision comes out. Sub variables of marketing mix, product, place and promotion are significantly correlated with online purchase decision. At the same only price variable shows weak relationship with the online purchase decision which is dependent variable. Another

objective was to find out at what extent marketing mix influences the online purchase decision of customer, for which regression analysis is done which shows that marketing mix affects significantly to increase the online purchase decision of customer of Delhi at 37% and remaining 63% can be contributed by other factors. This indicates that marketing mix has significant impact on online purchase decision.

Every sub variable of marketing mix also has significant impact on online purchase decision except price which concludes that in taking online purchase decision of electronic products price factor affect very less to customer. They are highly affected by promotion and place as the values shows 35.8% and 32.4% respectively. The product factor affect some less 18.1% because the product they decide to purchase is their need and the price factor which comes 2.3% have not much affect on online purchase decision.

References

1. CAGR report, (2018, december).
2. Creswell, T. (2009). Place. University of London. Egham: Elsevier Inc.
3. Cronbach, L. J. (1951, September). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16(3).
4. Eavani, F., & Nazari, K. (2012, August). Marketing Mix: A Critical Review of The Concept. *Journal of Marketing Management*, 49, 9914-9920.
5. Engel, J. F., Kollat, D. T., & Blackwell, R. D. (1973). *Consumer behavior*. New York: Holt, Rinehart and Winston.
6. Furajji, F., Łatuszyńska, M., & Wawrzyniak, A. (2012). An empirical study of the factors influencing consumer behaviour in the electric appliances market. *Contemporary Economics*, 6(3), 76-86.
7. Kotler, P. (1994) *Marketing Management. Analysis, Planning, Implementation, and control* (8th edition) *Prentice hall*.
8. Kotler, P., & Armstrong, G. (2016). *Principles of Marketing* (16th ed.). Boston: Pearson Education Limited.
9. Kotler, P. (2003), *Marketing Management*, 11th ed., Prentice-Hall International Editions.
10. Lahiri, I & Sarkar, J.B. (2018), Consumer online buying behaviour: A study with reference to home appliances in Kolkata. *IJBMI*, 7(12), 01-08.
11. Likert, R. (1932, June). A Technique for The Measurement of Attitudes. *Archives of Psychology*, 22(140), 5-55.
12. McCarthy, E.J. (1964), *Basic Marketing, A Managerial Approach*, Homewood, IL, Irwine.
13. Palmer, A. (2004). *Introduction to Marketing - Theory and Practice*. UK: Oxford University Press.
14. Payson, S.P. & Karunanithy, M. (2016), Impact of marketing mix on buying behaviour- A case study of motorbike buyer in Jaffna district. *EPRI, International journal of Economics and Business Review*, 4(1). 132-138.
15. SenRahul Argha (2014). Online Shopping: A Study of the Factors Influencing Online Purchase of Products in Kolkata. *International Journal of Management and Commerce Innovations*, Vol. 2, No. 1, 44-52.