

IMPACT OF OUTLINING FACTORS TOWARDS ONLINE GREEN PRODUCTS: AN EMPIRICAL INVESTIGATION ON CONSUMERS' AWARENESS

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ABSTRACT

The ingesting of food has a significant impact on the environment, individuals, and public health. This current study aims to investigate the personal and situational factor/factors that influence to consumer towards buying online green products. The selected factors have been chosen like Online Delivery, Flexible Payment Option, Reasonable Price with Discount, Company Branding, Availability of Products and, Rating and Review with objective to achieve success on factors liable for the acceptance of online buying green products and identify the specific factors like Flexible Payment Option, Availability of Products which influence more to change the buying attitude towards online green products of consumers. In the present study, qualitative data have been collected through a structured questionnaire from 100 respondents in and around Kolkata district. A five-point Likert Scale adopted to collect the data. Well-known statistical methods such as Factor Analysis, Regression Analysis have also been used to analyze the collected data to reach the conclusions. From the findings, the author concluded that the two variables out of six selected variables such as flexible payment option and availability of products significantly influencing the consumers' behaviour towards online purchase of eco-friendly products.

Keywords: *Eco-Friendly Products; Green Marketing; Consumers' Awareness; Emerging Market; Factor Analytic Approach; Regression Model*

INTRODUCTION

The habitat atmosphere with natural resources where all the creatures live is in danger and risk zone. Our economy is gifted with natural resources fulfilling the unlimited wants of the people. Man-made and natural calamities have brought down the valuable resources to a low extent. Environmental issues such as global warming, pollution, change in climate, etc. have arisen as one of the major concerns for the entire society. All these issues related to environment have compelled both the consumer and business house to change their perception towards the products or goods they use in their daily life to save the planet from the activities that cause harm to the environment and the health.

The interest about “Go Green” is consistently increasing among the consumers worldwide. However, it is evidenced that the awareness for green environment is lacking in Indian consumers as compared to the other countries. Presently, responsibilities have been adopted by the Indian

consumers to make the planet eco-friendly (Maheswari, 2014). Firms and the consumers are stepping towards a new emerging and challenging area i.e., Green Marketing.

Green Marketing is a sizzling phenomenon in the present business world. There is an absence of a universal definition of “Green Marketing”. Though, the term eco-friendly products are known to the consumers, still it is an emerging phase in India that need to divert the buyers' perception and the marketers towards decision for purchasing green products online. It refers to a change in the production process, packaging, branding, and advertising of the products that cause less harmful to environment and health of the people. Consumers are more aware of this new term; thinking that it is not only the responsibility of the government to control the environmental issues but also their responsibility to save the green planet. With the increase in the health-related problems as infections, skin disease etc. rise an alarm in the mind of

consumer about the traditional approach of production process (Mishra & Devakumar, 2018).

This, in turn, the marketers started applying green marketing practices in their business activity to make eco-friendly products. Firms have applied green packaging programs through the recommendation of recyclable and reusable packages (Jamal, Islam & Barua, 2016). The practice of green marketing is to identify the consumer need and providing them with valuable goods in sustainable manner (Jaju, 2016).

Research Gap and Problem

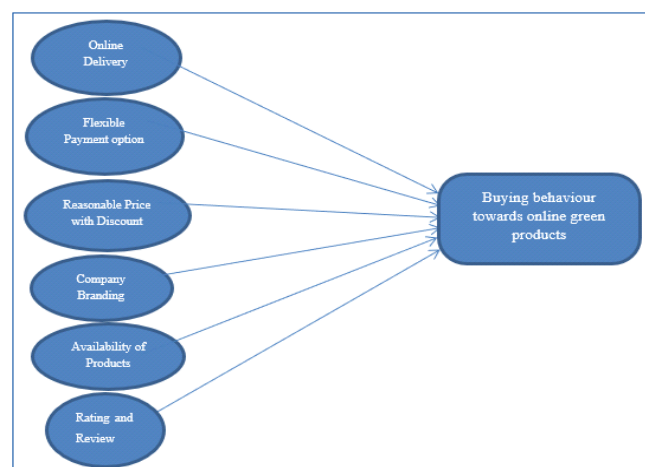
Academicians and scholars have conducted several studies on “Green Marketing”, their articles and research contribute a valuable theoretical concept in the existing literature related to it. But there are limited research works or studies that revealed the factors which changes the mindset of the purchaser (consumer) towards eco-friendly products online. This research gap encourages the authors to try to find out the factor/or factors; selected factors (Time Delivery, Flexible Payment Option, Reasonable Price with Discount, Company Branding, Availability of Products and Rating and Review) that influence the consumer's behaviour regarding buying green products via online.

LITERATURE REVIEW

The green marketing acts as a marketing strategy to increase the competitive advantage according to Yong & Rashad (2015). Both firms and environment benefited from green marketing; enables the firm to reduce cost and creates a positive image on consumers. According to Jaju (2016) probed in their study that green packaging, green branding, and green pricing have a significant positive effect on consumer behaviour resulting a change in the attitude of consumer for e-purchase of eco-friendly products. Siddique & Hossain (2018) scrutinized in the research paper that the promotional activity of green products and references groups significantly affecting the consumer awareness about eco-friendly products. As stated by Daniel (2019) in the study focuses on the product among the four P's of marketing mix to make feel the consumers receiving value for the money spending on the product. Also, adoption of green marketing assists the firm to reduce cost of production in the long run. In the opinion of Kardos, Gabor & Nicoleta (2019) in the case study found that there is a significant difference in the level of education, environmental campaigns, and the form of education

towards personal environmental responsibility. In the research study conducted by Mishra & Devakumar (2018) on factors influencing purchase behaviour of the consumer on organic apparel products in India; authors found that the selected factors such as Green Trust, Green Motive, Green Perceived Value and Green Attitude strongly influencing the buying behaviour of the consumers towards organic apparel products. An empirical study undertook by Ali, Jhony & Ahnaf (2017) on Bangladeshi young consumers' perception towards green practice, the authors constructed that young generation i.e., young consumers shown more interest in eco-friendly products as well as they are immensely satisfied by using green products. A theoretical review on Green Marketing conducted by Bhalerao (2014) where he concluded that the present consumers are highly concern for the environment and the coming or next generation. So, their purchasing behaviour shifts to eco-friendly goods, this leads to a change in the production process of the industry, compelling to adopt “Go Green Strategy” in all aspect of the business. He & Zhu (2020) investigated that minimizing the probability of low-quality green products offered by the e-marketer, encourage consumers gathering in quality observation work together, and nurture their consciousness of safeguarding. Mayank & Amit (2013) observed in their research that the consumers and manufacturers are deeply serious about the environment concerns and green products and practices. Authors unearthed that the green values, eco-friendly products, and practices have a significant effect on the consumers' attitude and persuasion to buy green products (refer to figure 1).

Figure 1: Conceptual Model of Factors Responsible for Online Buying Behaviour towards Green Products



Purpose of the Study

The intention of this present investigation is to fill up the gap of consumer awareness for green products and to identify or pull out the factor/factors that divert the mindset of the consumer for purchase decision of eco-friendly products via online. Specifically, the purposes of the study are as follows:

- To increase the awareness of consumers' online buying behaviour towards green product.
- To identify whether factor/factors plays/play a role in influencing consumers' buying behaviour for green products through online.

Research Questions

Research questions are coming out from the research gap and theoretical framework. From the literature survey it has been observed that there is a gap of factors responsible in the field of online green marketing study on consumers' awareness. So, some questions are arising in the field of online green marketing. They are-

- How to explore the green products via online?
- How to establish the Business of new entrepreneur in the field of Online Green marketing?
- How to apply the new strategy to promoting the business in respect of online portal?
- How to increase the consumers' awareness towards green marketing?

Objectives

The main objective of the research is to come out with the factors that influence the consumer preference or mindset towards the online green marketing. The objectives are divided into two specific objectives. They are:

- To identify the factors liable for the acceptance of online buying green products.
- To find out the impact of specific factors which influence consumer to change their buying attitude towards green products via online.

RESEARCH METHODOLOGY

The research gap is identified by a combination of the findings of previous literature on this subject proposal and a persistent market system in the field of green online marketing in the district of Kolkata, West Bengal, India. For this research, the Methodology part was categorized as follows:

Empirical Study

The research design used in this study was descriptive, analytical, and empirical in nature which analyzed through quantitative method to inform the findings of the study. For this study, sampling frame has been drawn from the population which constitutes the prominent hub under Kolkata District, West Bengal. The target population of this investigation is all about the online users. According to the size of proportionality sample size was designed. To achieve the 1st objective researchers have used the statistical tool SPSS 23 and the statistic method Factor Analysis with VARIMAX procedure which implies to orthogonal rotation. To achieve the 2nd objective researcher have used Regression Analysis Method to describe the specific factor/ factors which influence more to change the buying attitude towards Online Green products of the consumers.

Sampling Design

For this investigation researchers have used the sampling method as 'Simple convenience sampling' because of time and resource constraint. The intention of researcher was for this study to show a well accepting of online green marketing concept. To achieve the objectives the raw data were collected through self-administered questionnaire. The dimension scale has been used to validate with investigation protocol. The questionnaire comprised by 25 questions and sample size for this study was 100 out of 130. The total 30 samples were eliminated for the data redundancy.

Questionnaire Design, Pilot Testing & Data Collection

To develop the questionnaire, the dimensions of the Parsuraman, Zeithaml & Berry (1985) have been taken into consideration. The structured questionnaire was designed with the summated rating scale. The Five-point Likert Scale were used including 25 questions for collecting data from the respondents where 1 referred to as strongly agree and 5 referred to disagree as strongly. Before framing the final questionnaire, it was divided into two languages one local language that is Bengali after that it has been translated into English version to achieve semantic reliability (Singh & Patton, 1985) in between these two languages. The questionnaire was divided in two parts: (a) The demographic details of the online green product consumers, (b) Philosophical statements to work out more important factor/factors influence consumer to buy the green products through online in

relation to change their buying attitude. Initially 130 questionnaires were circulated among the online green product consumers' in different areas of Kolkata district among male and female without any discrimination. It is seen that 100 (total sample) responses were genuine, and they are very active customers' those buy the green products via online.

Study Period

It took about 3 months to complete the research work of the researcher. The journey started from 1st November 2019 to March, 2020.

RESULTS & DISCUSSION

Practical Analysis

In practical analysis, data cleansing, normality test is confirmed. Besides these, descriptive statistics (like mean, median and standard deviation) are also extracted to summarize the factors of respondents. Besides these the acceptable limit regarding the factors extracted is confirmed.

Table 1: Reliability Statistics on 25 Items

Reliability Statistics	
Cronbach's Alpha	No. of Items
0.895	25

Cronbach's alpha test has been used to decide the degree of reliability among the multiple proportions of each factor. Its methods the inter-item reliability of a scale generated from several items. If reliability co-efficient value is > 0.5 it is considered for acceptance that is good indicator (Nunnally, 1978), if the value >0.6 is deemed to be satisfactory (Robinson *et. al.*, 1991). According to George & Mallery (2001) if the alpha value is >0.8 considered as sufficient. For this empirical investigation researcher has got the result of Cronbach's Alpha value, which is 0.895 (refer to table 1), indicate sufficient result for data reliability and sample adequacy (George & Mallery, 2001). The following table shows the result of KMO and Bartlett's Test.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.789	
Bartlett's Test of Sphericity	Approx. Chi-Square	770.838
	Df	190
	Sig.	0.000

Notes: Principal components factor analysis with varimax rotation; KMO measure of sampling adequacy: 0.789; Bartlett test of sphericity: 190; p<0.000 (refer to table 2).

Factor Analysis:

The EFA (Exploratory Factor Analysis) has been done with VARIMAX procedure which implies to orthogonal rotation. To 1st objective researcher have been used Factor Analysis with statistical tool SPSS 23 extracted few factors like on time Delivery, Flexible payment option, Reasonable price with discount, Company Branding, Availability of products and Rating and Review with Principal Component Analysis (PCM) (see table 3).

Table 3: Factors Identified by the Principal Component Analysis

		Factor Loadings
On time Delivery	Privacy home	0.737
	Convenience	0.749
	Delivery time	0.719
Flexible payment option	COD facility	0.924
	Money_back	0.857
	Credit_card	0.824
Reasonable price with discount	Easy price	0.891
	Shopping needs	0.686
	Seasonal_Discount	0.76
Company Branding	Broader product	0.649
	Company_reputati on	0.769
	fills or strings	0.649
Availability of products	Life style	0.807
	Easy use	0.872
	Choice of products	0.711
Rating and Review	Review product	0.854
	time consuming	0.773
	Highly technical	0.661

To reach the 2nd objective researcher have used Regression method to identify the impact of specific factor/factors which influence consumer to change their buying attitude towards Online Green products.

Regression

The regression model is mainly used demonstrate the explanatory variables behind the variables. In this research researcher has been used regression to predict more influencing factor/factors from the consumers' perception towards online green products buying (refer to table 4, 5, 6 and figure 2)

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.911 ^a	0.830	0.828	0.6799
2	0.916 ^b	0.839	0.835	0.6657

a. Predictors: (Constant), Flexible Payment option
 b. Predictors: (Constant), Flexible Payment option, Availability of Products
 c. Dependent Variable: Satisfaction

Table 5: ANOVA to Check the Significant Association

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	221.337	1	221.337	478.801	0.000 ^b
	Residual	45.303	98	0.462		A
	Total	266.640	99			
2	Regression	223.648	2	111.824	252.299	0.000 ^c
	Residual	42.992	97	0.443		
	Total	266.640	99			

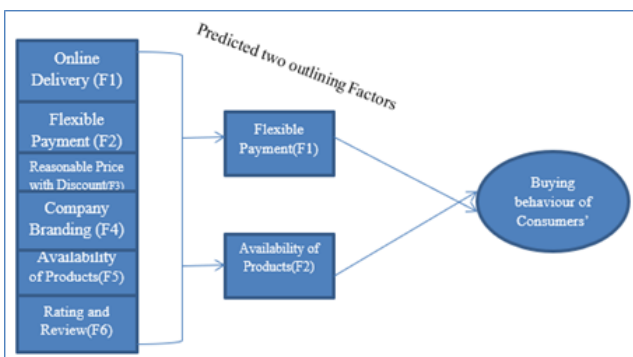
a. Dependent Variable: satisfaction
 b. Predictors: (Constant), Flexible Payment option
 c. Predictors: (Constant), Flexible Payment option, Availability of Products

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance
1	(Constant)	1.399	0.560		2.499	0.014	0.288	2.510					
	Flexible Payment	0.904	0.041	0.911	21.882	0.000	0.822	0.986	0.911	0.911	0.911	1.000	1.000
2	(Constant)	2.175	0.645		3.372	0.001	0.895	3.455					
	Flexible Payment option	0.923	0.041	0.930	22.347	0.000	0.841	1.005	0.911	0.915	0.911	0.959	1.043
	Availability of Products	-0.078	0.034	-0.095	-2.283	0.025	-0.147	-0.010	0.093	-0.226	-0.093	0.959	1.043

a. Dependent Variable: satisfaction

Figure 2: Final Model of Factors Responsible on E-Buying Intention towards Online Green Products



(Six factors extracted through EFA)

CONCLUSION

The online industry has to plan, and they carry out investigation to find out how achievable it is going to be. Adoption of green products via online may not be easy in the short period, but in the process of long time it will have a positive impact on the industry. Green Marketing is still in the stage of childhood in the Indian companies. The lots of opportunities are available in national and international market in the areas of online green marketing. In this investigation researcher has

been used Cronbach's alpha that indicated for further data analysis with further statistical process. The variables have been subjected to data reduction and subsequent rotation based on the variance values. After use of Factor Analysis researcher have obtained few factors that influence consumers to buy the green products via online Like, Ontime Delivery (0.737, 0.749, 0.719), Flexible payment option (0.924, 0.857, 0.824), Reasonable price with discount (0.891, 0.686, 0.70), Company Branding (0.649, 0.769, 0.649), Availability of products (0.807, 0.872, 0.711) and Rating and Review (0.854, 0.773, 0.661) with factors loading value. The conceptual model 8.3 that is describing the outlying factors (Like Flexible Payment and Availability of products) obtained through Regression model which influence more to consumers to buy the green products through online.

Finally, it is concluded that two outlying factors are predicted through regression out of six independent components which influence more on consumer buying behaviour with respect to online green marketing.

Managerial Implications

In terms of hands-on implications, there is still no substantive guide to representative how this

method/technique should be applied to business and industrial situations. In Indian context, this investigation will be value addition for industrialized and pure academic purpose. The findings of this investigation will boost the awareness of green products to the current diversified range of consumer. This study would also assist the Startup Entrepreneur, Established Entrepreneur, Policy Maker and Strategy Maker in extending their online e-green startup worldwide and transforming their purchase decision trend towards green online goods. With regard to the managerial viewpoint, they will adopt those particular factors predicted by the Regression model that impact consumers' regular purchasing of e-green products more often. The inferred results would infuse the idea of wellness with business operations scalability.

Originality / Value:

From the researcher side, this investigation will be value addition to the industry and the academic sectors. By applying, the outcomes of this research, the online shopping portals can improve the sales of green products. Besides these, it will be a step forward for online portals to meet the expectations of consumers at optimized costs and need to adopt the preference factor/factors of consumers.

Limitations and Future Scope

It is always a matter of chance; how much true information are provided by the respondents. Respondents may be biased to fill the questionnaire, or they can share their experience based on online purchase. This research is conducted only in Kolkata District, which is under the state, West Bengal. So, it might not be drawn the proper conclusion regarding the online green products from the consumers' perception.

Respondents could be biased occasionally when information is gathered. Because of the time limit, a sample size of only 100 respondents was considered in the study. This number is not sufficient to reflect the exact picture. There could be scope for the researcher can extend their study in other districts of West Bengal like, Murshidabad, Howrah, Hooghly, North 24 Parganas etc.

Conflict of Interests

The authors declare that they have no conflict of interest.

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