



# The Effect of Digital Medium as a Facilitator of Appliances Buying Decisions in NOIDA

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Paper ID: 13A6T

Volume 13 Issue 6

Received 06 January 2022

Received in revised form 06  
May 2022

Accepted 13 May 2022

Available online 20 May  
2022

## Keywords:

Digital medium;  
Facebook; Twitter;  
YouTube; Indian online  
customers; Buying  
decision; Python 3.

## Abstract

This research was to find the effect of digital medium on buying decisions of customers in the appliance industry. The researcher could conclude the degree of effect major digital medium elements had on the appliances buying decisions of LG Electronics in NOIDA. This study used the explanatory research design and multilinear regression model run by the programming language Python 3. To achieve the paper's purposes, this study collected the information from LG Electronics customers by designing a questionnaire according to the hypotheses of this study. The questionnaire was distributed to a sample of 384 by random sampling. The studied model concludes that Facebook and YouTube are the most critical digital medium elements for customers, in influencing their buying decisions. Twitter has the lowest impact on the buying decisions.

**Disciplinary:** Business Management & Application of Information Technology

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## Cite This Article:

Bali, N. (2022). The Effect of Digital Medium as a Facilitator of Appliances Buying Decisions in NOIDA. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 13(6), 13A6T, 1-8. <http://TUENGR.COM/V13/13A6T.pdf> DOI: 10.14456/ITJEMAST.2022.125

## 1 Introduction

The purpose of this research is to examine the role of using Digital Medium (Facebook, Twitter, and YouTube) in consumers' buying decisions, especially in the electrical appliances sector that is focused in this research by LG Electronics Company.

Digital marketing is increasing its relevance as an important influence in customer buying decisions this study tries to find the degree of impact of various important digital media on buying decisions for LG Electronics appliances in Noida, India.

Buying decisions have many stages and if enforcement by digital media happens then the conversions from leads increases and thereby the sales.

## 1.1 Digital Medium

A digital medium is an electronic medium that is cost-effective as compared to traditional advertising which uses News Paper, Television, Magazines, and Radio.

Traditional marketing focuses on mass communication but digital marketing can be used to target the audience as per the requirement, so your advertising campaign is more effective in terms of cost and conversions.

## 1.2 Importance of Digital Medium for Business

‘Channel 4’s chief marketing officer Dan Brooke provided a bird’s eye view of the digital transformation behind the scenes of one of the country’s favorite TV channels. He explained how digital has taken a firm grip on most aspects of broadcasting – Facebook, distribution, visitor engagement, and marketing. Brooke pointed out how the entertainment industry – known for its creativity – embraced the science behind numbers. Apart from viewership figures providing more accurate targeting to advertisers, data is also increasingly being used to serve up seemingly serendipitous recommendations based on predictive modeling.’ (Wolny, 2014)

‘Online social media has become a phenomenon that connects internet users. The continuous and rapid technological evolution has led to the development of numerous online social media types. The goal is usually to develop online communities that enable users to come together to exchange and share information that suits their interests or activities. It is a communication channel through new media that is highly popular. This has led to the culture of using the internet today (Thitimachima, 2010). Banthathong (2014) and Hemmin (2013) defined the behavior in using online social media as the experience in using and the characteristics of using the services of online social media. This includes a channel of use, frequency of use, length of time of use, the objective of use, most liked quality, and source of interest. This includes activities that have been carried out to serve their needs or interactions that could be observed in using online social media.’ (Euajarusphan, 2021)

## 1.3 The Effect of Online media on Consumer Purchase Decision

Here’s how social media influences consumer behavior:

- Majority consumers’ purchasing decisions are influenced by their friends’ social media posts.
- Social Media is a major influence in buying decision.
- Face book is a major player amongst all social media in influencing buying decisions.
- Tweeting is used for supporting or pushing the buying decisions of the customers at the last stage.

After the corona virus pandemic the influence of Digital medium has increased manifolds in influencing buying decisions. ’ (Nosto, 2021)

The objectives of this study is to identify the impact of social media on the purchasing decisions of LG electronics in appliances in NOIDA.

The importance of this research can be noticed through the stunning development of information technology and communications in the recent times as well as its ability to affect the consumer's buying decisions through the features that are provided by these channels, in terms of time, cost and speed of access to information. In addition, addressing several variables related to using such websites, especially in the field of advertising and promotion via Facebook, Twitter, and Youtube to various Indian businesses is necessary to identify and bring Facebook to the customers, and know to what extent the client would accept this idea as well as how will the customer react and how to create the need through the influence of this channel. Finally, this research would help researchers, managers, and marketers to consider the real value of Digital mediums when it's used as E- channels.

## 2 Literature Review

Gupta & Chopra (2020) focused on web-based social networking that has engaged purchasers, as advertisers have no control over the substance, timing, or recurrence of online discussions among shoppers. Results show that social media usage influences consumer satisfaction in the stages of information search and alternative evaluation, with satisfaction getting amplified as the consumer moves along the process towards the final purchase decision and post-purchase evaluation. However, this paper is not focusing on LG electronics in particular.

Voramontri & Klieb (2019) researched empirically the role of social media in consumers' decision-making process for complex purchases – those characterized by significant brand differences, high consumer involvement, and risk, and which are expensive and infrequent. The model used the information search, alternative evaluation, and purchase decision stages from the classical EBM model. A quantitative survey investigates to what degree experiences are altered by the use of social media. Results show that social media usage influences consumer satisfaction in the stages of information search and alternative evaluation, with satisfaction getting amplified as the consumer moves along the process towards the final purchase decision and post-purchase evaluation. The research was done among internet-savvy consumers in South-East Asia, and only considered purchases that were made by consumers, not including searches that were abandoned. resulting in other cultures, so the Digital, economic, and cultural differences should be considered. However, the research is on the impact of social media on decision-making and is generic and does not focus on LG electronics.

Ramsunder (2011) investigated the Effect of Digital Medium on a consumer's purchase decision in the South African tyre industry addressing traditional strategies, the consumer's purchase decision journey, and Digital Medium strategy. The research instrument used in this research was a questionnaire which was designed specifically for this research. The questionnaire was based on the literature review and specifically addressed that the main purpose of Digital Medium is connectivity; the ability to meet new people, create new contacts and develop networks and create new customers and business associates. If managed and maintained appropriately, organizations can utilize the power of Digital Medium to promote their brand, gain insight into the

market and assess how consumers feel about their brands. As thousands of users visit Digital Medium platforms daily, Digital Medium allows marketers to reach and talk to a mass audience at little or no cost. This study's geography and industry are different and the focus was on SouthAfrica and the tyre industry respectively.

Azzam & Mizeed, (2021); This study talks about the positive effect of digital marketing on the Purchase Decision among the students of Jordanian universities. Although the study puts light on digital marketing's impact on buying behavior nevertheless the dependent variable was different, which was 'Purchase Decision among the students of Jordanian universities'

Kumar (2013) talked about the Social media role in LG products sales but a regression model which is ideal for finding the impact was not used.

Although there are many related types of research, there is no existing research in the exact title covered by this study. In most of the research, the industry or the methodology, or the variables differs compared to this study. Therefore there is a need to conduct this research to fill the gap.

### 3 Method

#### 3.1 Conceptual Framework

From structured interviews and literature, Figure 1 posed the conceptual framework

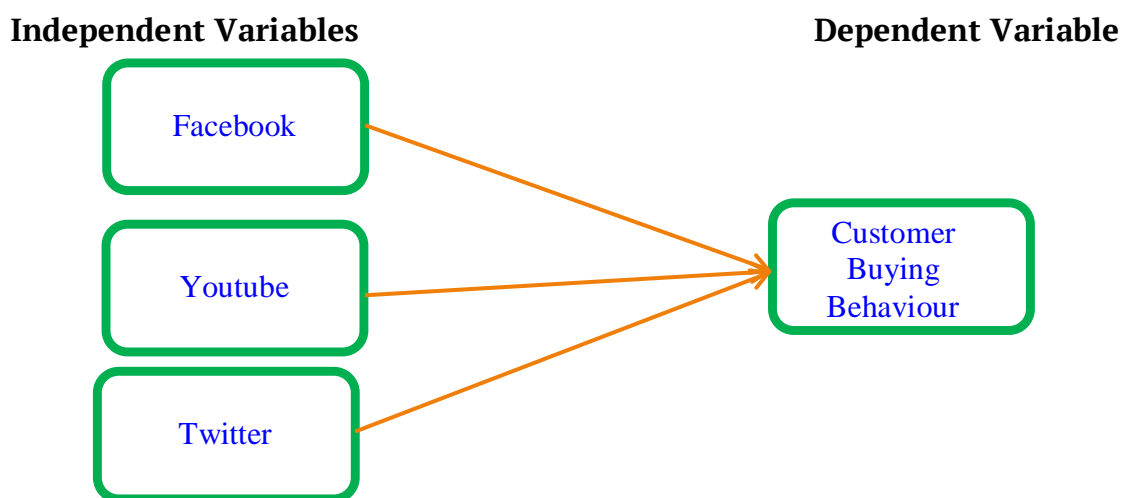


Figure.1: Research Conceptual Framework

#### 3.2 Hypotheses

The hypotheses are tested in this study.

**Hypothesis-1:** There is a statistically significant impact of the Facebook on organization Buying Decisions in LG Electronics company.

**Hypothesis-2:** There is a statistically significant impact of the Twitter on organization Buying Decisions in LG Electronics company.

**Hypothesis-3:** There is a statistically significant impact of the Youtube on organization Buying Decisions in LG Electronics company.

## 4 Methodology

### 4.1 Population and Data Collection

Our required sample size will be around 384 for your population with a 5% margin of error and a 95% confidence level. Basing on the formula (Z-score is 1.96 for a 95% confidence level)  $SS = (Z\text{-score})^2 * p*(1-p) / (\text{margin of error})^2 = (1.96)^2 * 0.5*(1-0.5) / (0.05)^2 = 384.2$ . Thus, for the case of unknown population, a minimum of 384 questionnaires are sufficient.

### 4.2 Validity and Reliability

From Table1 we can conclude that .908 Cronbach alpha Reliability Statistics confirms that our model is reliable.

Table 1:-Reliability Statistics

Cronbach's Alpha	No of Items
.908	4

For the validity test, the questionnaires were given to a few respondents and compared with expected results from the known facts. The response was as per expectation.

## 5 Result and Discussion

### 5.1 Regression Analysis

Table 2 shows regression analysis which helps us to conclude that –all of the independent variables are at a significant level and the MLR model helps to predict the dependent variable.

Adjusted R-squared concludes that the model predicts the dependent variables with 65% accuracy. F-statistical probability is less than 0.05 which makes the model valid.

Table 2: Multi Linear Regression (n = 383).

Dep. Variable:	Buying					
R-squared:	0.657					
Model:	OLS					
Adj. R-squared:	0.654					
Method:	Least Squares					
F-statistic:	241.6					
Prob (F-statistic):	1.37E-87					
Log-Likelihood:	-575.91					
AIC:	1160					
Df Residuals:	379					
BIC:	1176					
Df Model:	3					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	1.691	0.666	2.538	0.012	0.381	3.001
Facebook	0.386	0.045	8.6	0	0.298	0.474
Twitter	0.256	0.052	4.876	0	0.153	0.359
Youtube	0.271	0.051	5.355	0	0.172	0.371
Omnibus:	84.631		Durbin-Watson:		2.198	
Prob(Omnibus):	0		Jarque-Bera (JB):		255.71	
Skew:	-1.003		Prob(JB):		2.9E-56	
Kurtosis:	6.464		Cond. No.		376	

One unit change in Facebook leads to a 0.3859 change in Buying Decisions, keeping all other Explanatory variables constant, which is the maximum positive impact among all Independent variables.

From the regression Table-2, we can conclude that all p-values are less than alpha (.05) so we accept (claim) all the research hypotheses, that all independent variables have a significant impact on the dependent variable Buying Decisions.

Confidence Interval- Table 2 also shows the confidence interval at 95%, which has no zero values, which again confirms that there is a 95% chance that the coefficients of independent variables lie within the interval and have an impact on the dependent variable.

**Table 3: Heat map of the correlation between variables**

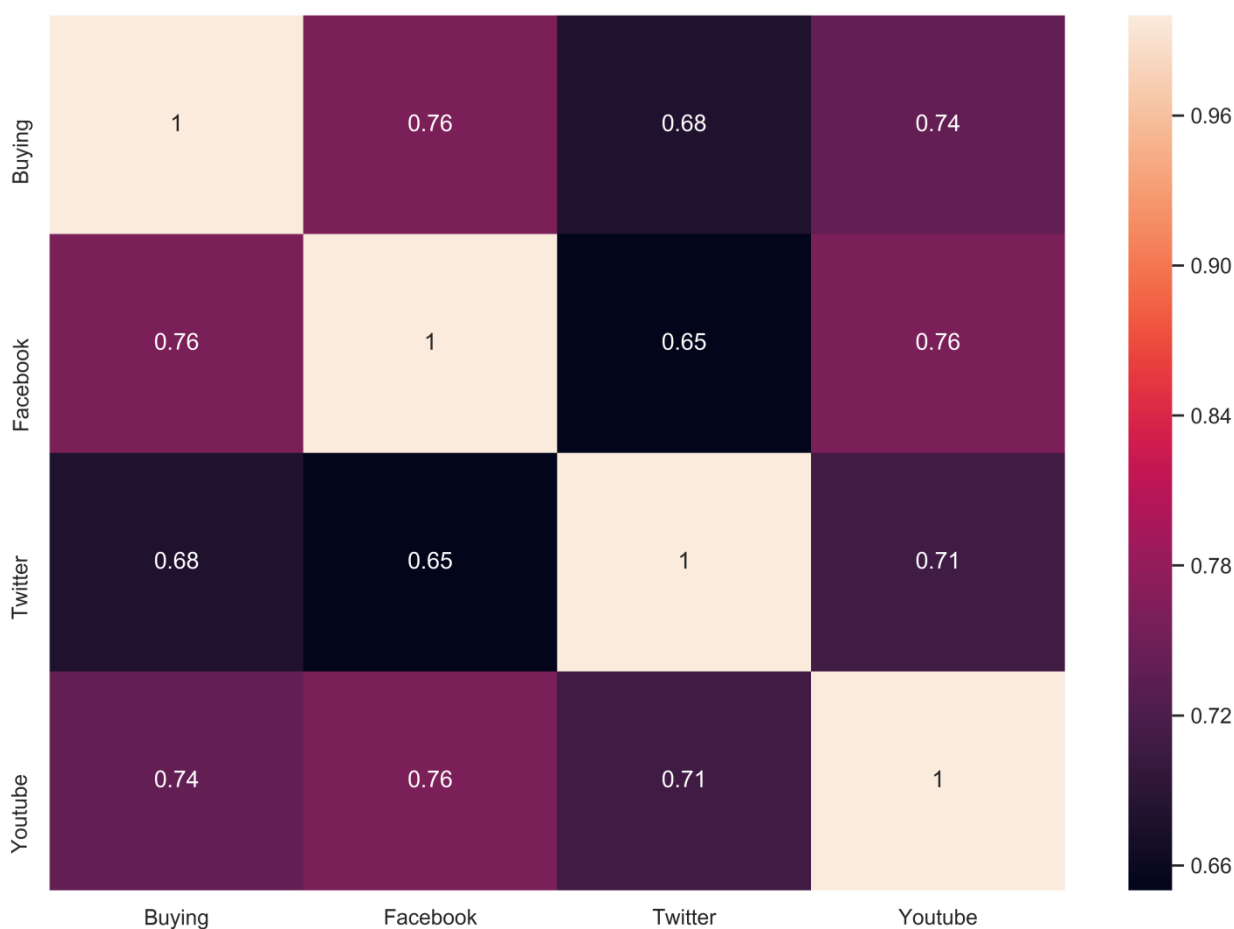


Table-3 shows there is a significant relationship between the dependent variable and all independent variables under study. It can be observed that Organization Buying Decisions has a maximum correlation with YouTube and Facebook.

### 4.2 MLR Assumptions

Assumption of Linearity, Assumption of Equal Variability, Assumption of Homoscedasticity, Assumption of Linearity between Dependent and Independent Variables are met by the Regression Model in this study.

### 4.2.1 Assumption of Co Linearity

Table 4 shows Co linearity diagnostic test of the predicted variable: The variance inflation factor (VIF) should be less than or between 3 to 10 for no co-linearity. From table 4 we can say, all Independent Variable's VIF is less than 3.5, which means that independent variables have negligible co-linearity.

**Table 4:** The variance inflation factor (VIF).

const	141.99
Facebook	2.49
Twitter	2.16
Youtube	2.88
dtype:	float64

## 6 Conclusion

Our Model concludes that Facebook and YouTube are the most critical digital medium elements for customers, in influencing their Buying Decisions. Twitter has the lowest impact on the Buying Decisions as per the regression model, used in the study. Organizations are recommended to have a strong digital media strategy to influence buying decisions of their customers. Digital medium contributes to the buying decision of LG Electronics Company and therefore they should continue their strategy.

## 7 Availability of Data and Material

Data can be made available by contacting the corresponding authors.

## 8 Acknowledgment

The researcher is thankful to the customers of LG electronics who gave their valuable feedback.

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