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Drivers for Online Shopping: Considering the Most Important Factors in Dhaka Metropolis, Bangladesh

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In Bangladesh, online shopping is gaining in motion. Various drivers are there for online shopping and the goal of this study has been set to explore drivers of online shopping according to their dominance among the young in the city of Dhaka. Adhering to a set of objectives; this study first identified a set of six motivational factors from among 21 variables (key factors for online shopping) with the help of an exploratory factor analysis. Then, a binary logistic regression was performed to find significant drivers for online shopping decision and the dominance of those drivers has been explored thereafter using marginal effect. In the aftermath, educational attainment as a socio-economic factor, and perceived risk (security), website factors, and product varieties as motivational factors have been found to be statistically significant drivers for online shopping. Considering the marginal effects, website factors, perceived risk, product varieties, and educational attainment have been found to have relevant effects. In this case, a Receiver Operating Characteristic curve (ROC) suggests that the fitted model has excellent discriminant power.

Keywords: *online shopping, dominant drivers, factor analysis, logistic regression, marginal effect*

JEL Classification: *C38, M31, M37*

1. Introduction

The high level of internet penetration gives the fierce competitive traders a way to market their products directly to potential customers. A huge number of marketers are coming with virtual (pure play) shops where they conduct their business operations solely online. Many traditional brick-and-mortal stores have started using internet as an additional marketing channel. Actually, the e-commerce industry around the world has seen unprecedented growth in last few years. In 2019, an estimated 1.92 billion people worldwide purchased online according to Statista.com (2019). During the same year, retail e-commerce sales worldwide amounted to 3.53 trillion US dollars and e-retail revenues are projected to grow to 6.54 trillion US dollars in the year 2022. Despite all the evidence concerning the growth of the sector, there are a number of internet subscribers who do not shop online.

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Previous studies that have discussed consumers' online shopping behavior, have also pointed to different drivers on which consumers focus during their online purchase decisions and such drivers range from consumers' resources, age, education to website factors, perceived risk, service quality etc. Drivers that attract online subscribers to shop online are many including trust, convenience, information, available products and service, cost and efficiency, website design characteristics etc. (Katawetawaraks and Wang, 2011; Ranganathan and Ganapathy, 2002; Lee and Lin, 2005; Clemes et al., 2014; Vegiayan et al., 2013; Padmaja and Mohan, 2015). It is reported that top factors that increase consumers' trust levels in online stores are guarantee and insurance policy, security and privacy seals, pictures of products, company address and contact details, necessary details about the company and privacy policy, overall service quality and customer satisfaction. Moreover, trust is significantly related to customer purchase intentions (Huseynov and Yıldırım, 2014; Lee and Lin, 2005). On the contrary, there are some drivers that make impediment for customers to buy online include perceived risks or security issues, the intangibility of online product, social contact and dissatisfaction, lack in physical interaction etc. (Katawetawaraks and Wang, 2011; Huseynov and Yıldırım, 2014). Furthermore, it is reported that security and privacy have a more important influence on consumers' intentions to shop online when compared to the design and information content of the website (Ranganathan and Ganapathy, 2002).

However, the implementation of information system depends on specific social, cultural, economic, legal and political context, which may differ significantly from one country to another country and hence, it is necessary to contextualize it to explore drivers that magnetize online shopping behavior in the setting of Bangladesh. In Bangladesh, the total number of internet subscribers has reached to 99.984 million at the end of February, 2020 according to the Bangladesh Telecommunication Regulatory Commission (BTRC, 2019) out of 142 million populations, a provisional estimate by Bangladesh Bureau of Statistic, (BBS, 2011). But, according to UNCTAD, only 23% of internet users shop online in Bangladesh (B2C UNCTAD eCommerce Index, 2016). With the advancement of internet infrastructure and improving economic condition, we may say that Bangladesh, being a developing country, is little slow to catch up on the online shopping spree. Consumers from developing countries can be categorized to some extent as price sensitive along with risk averse in nature (Tabassum et al., 2017). So, perceived risk and differentiated price of the same product between pure play and brick-and-mortar shops may be two vital causes of the slow progress in online shopping, in case of Bangladesh.

For Bangladesh, several studies have found that website reliability, website design, customer service and website competency influence consumer to shop online (Mahmud and Hossain, 2014; Uddin and Sultana, 2015). The study developed by Rahman et al. (2018) revealed that consumers shop online to save time and both male and female shoppers have the same type of behavior towards certain liking and disliking factors; they appreciate the home delivery feature and they dislike the inability to touch and feel the product. They acquire online shopping information from websites especially from the social network and purchase apparels, accessories mostly through cash on delivery method of payment. Most of the consumers are found concerned about the security of the payment system, and their overall online shopping satisfaction is mixed. Similarly, Hoque et al. (2015) noted that perceived usefulness appeared as the most critical factor in describing the user's adoption of e-commerce in Bangladesh. In essence, motivational factors play significant role to engage in online shopping in the case of Bangladesh. So, the aim of this study was to find the drivers and their dominance for online shopping among socio-economic, demographic, and motivational factors considering the young population in the study area. To achieve this aim of this study, the main research question focused on determining whether motivational factors alone play a significant role in engaging in online shopping.

Although, in the case of Bangladesh, drivers related to online shopping decision are sought out in several studies, there has been no visible attempt to find out dominant drivers from different factors for online shopping decision. So, in this study, we have utilized factor analysis to turn pulling factors into motivational factors and then did binary logistic regression accumulating all those motivational factors with other socio-economic and demographic variables found appropriate from bivariate analysis. From the logistic regression analysis and using marginal effect thereafter, this study has ended up with the dominant drivers for online shopping for young people in Bangladesh, particularly in Dhaka metropolis.

2. Methodology

2.1 Sampling and sample size

For this study, a total of 350 self-administered questionnaire were sent to different people through friends and family memebers and students from June 10-25, 2019 . But, only 220 questionnares could be collected in usable form from those who agreed to participate in the research. So, our effective sample size can be written as n= 220. However, respondents were selected using non probabilistic sampling employing a structured questionnaire comprised of both closed and open-ended questions.

2.2 Data and Measurement

As we were interested in receiving responses from young population, age of our target population was ranging from 18-45. Questions were asked in four sections. In the first section, questions were asked on whether the respondent shopped online at least 10 times in last one year or not. This cut off point was taken presumably to ensure the reliability and trustworthiness of the consumers on online shopping. It was found that many people engage in online shopping twice or thrice in a year, but do not rely on that. So, those who engaged online shopping at least ten times in last one year have been considered real online shoppers in this study. In the second and third sections, attitude towards online shopping using scale were collected using 1-7 scale, ranging from strongly disagree (1) to strongly agree (7) through 21 factors respectively. In the last section, some demographic and socio-economic characteristics about the respondents were sought out.

2.3 Data Analysis Techniques

2.3.1 Factor Analysis

In this study, factor analysis has been considered to find out a small set of motivational factors (mostly uncorrelated) from among a set of variables (extracted factors) which are of most importance in relation with online shopping which could be done with the help of exploratory factor analysis (EFA) or confirmatory factor analysis (CFA). CFA, generally, tests theories related to latent process and typically used in structural equation modeling. EFA, on the contrary, is used when there is no or a little pre-defined idea we have of the structure or how many dimensions are in a set of variables. As the underlying structure for this exploratory study is not known, EFA was employed for this research. Between two variants of EFA, this study relied on the principal component factor analysis to drive the minimum number of factors and to explain the maximum portion of variance in the original variables.

1. **Appropriateness of Factor Analysis -** Reliability of factor analysis depends on the appropriateness of data. Without proper checking of the appropriateness of the data, the factor analysis can be misleading and inappropriate. So, to test the appropriateness of the data, this study relied on Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy which is with different indexes ranging from 0 to 1. Hair et al. (2014) suggests that the KMO value should always be above 0.5 to proceed with factor analysis.
2. **Criteria for number of factors to extract -** In factor analysis, a large set of variables is factored until the smallest number of factors of the variance is explained. According to Hair et al. (2014), latent root approach performs well if the number of variables under study is more than 20 and less than 50. If the number of variables is less than 20, the tendency is for this method to extract a conservative number of factors (too few). On the other hand, scree test is based on the plot between latent roots obtained from decomposition of the correlation and covariance matrix. The point at which the curve first begins to straighten out is considered to indicate the maximum number of factors to extract (Hair et al., 2014). However, combination of both criteria has been incorporated for developing the factor analysis in this study.
3. **Factor Rotation -** Two types of factor rotation are available- one is orthogonal and the other one is oblique. However, this study relied on PROMAX rotation among different variants of oblique rotation.
4. **Internal consistency reliability -** Cronbach's alpha is the most popular measurement of internal consistency for testing scale reliability. Though it is better to have Cronbach's alpha over 0.7 to have internal consistency at acceptable level, this study has set lower limit 0.6 not to miss any factor important for online shopping decision.

2.3.2 Logistic Regression

Logistic regression examines the influence of various factors on a dichotomous outcome by estimating the probability of the event's occurrence (Hosmer and Lemeshow, 2000). In this study, influential factors for online shopping have been warranted using logistic regression.

1. **Explained Variable -** In this study, adhering to the objectives, to find out dominant drivers for online shopping decision, online shopping(1) and no online shopping(0) have been used as two distinct categories for online shopping decision which has been considered as the explained variable.
2. **Explanatory Variables -** It is instinctual that online shopping behavior can be influenced by several forces ranging from age or sex of customers to service quality or product information. So as explanatory variables, motivational factors determined from factor analysis i.e., Perceived Risk, Web Site Factors, Product Varieties, Service Quality, Convenience, Ease of Life and some demographic and socio-economic variables i.e., Age of Respondent, Sex of Respondent, Educational Attainment, Income of Respondent and the Occupation of Respondent have been considered.
3. **Fitted Model -** However, in fitting the logistic regression, suppose we have a collection of explanatory variables denoted by $X = (X_{i1}, X_{i2}, \ldots X_{ip})$. Let Y be the dichotomous explained variable which takes values 1 & 0 i.e.,

$$y_i = \begin{cases} 1, \text{ if the respondent engages in online shopping} \\ 0, \text{ if otherwise} \end{cases}$$

for i= 1,2,……..n

Now, we can define,

$$\pi(x_i)=p(y_i=1/X) = exp\ (\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_p x_{ip})/1 + exp\ (\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_p x_{ip})$$

= conditional probability that the respondent engages in online shopping

again, $1- \pi(x_i)= p(y_i=0/X)= 1/1 + exp\ (\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_p x_{ip})$

=conditional probability that the respondent does not engage in online shopping.

Now, logistic regression model, being a part of generalized linear model (GLM), can be linearized with the help of logit link function (Hosmer and Lemeshow, 2000). The approach defines structural portion of the model in terms of a function of the response function mean. Let,

$$\eta=\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_p x_{ip}$$

be the linear predictor where η is defined by the transformation

$$\eta = ln\ [\pi(x_i)/1 - \pi(x_i)]$$

This transformation is called the logit transformation (Hosmer and Lemeshow, 2000). This is also known as log odds.

Now, if we describe the response probability as

$$\Pr(y_i = 1/x) = \Lambda(\beta' x)$$

Where $\Lambda(\beta' x)$is the cumulative logistic function with values on interval [0,1] for all real numbers.

To have effect of Δx_k on response probability $\Pr(y_i = 1/x)$, we have

$$\delta\ Pr(y_i = 1/x)/\delta x_k = \delta\Lambda(\beta' x)/\delta x_k = e^{\beta' x}\beta_k/\left(1 + e^{\beta' x}\right)^2$$

This is often known as marginal effect (Hosmer and Lemeshow, 2000).

3. Results and Discussion

3.1 Descriptive Statistics

Descriptive statistics for the participants (online shoppers and non-online shoppers) are shown in Table 1. Of the 220 respondents, 55 (25%) were online shoppers while the remaining 165 (75%) were not online shoppers according to the selection criteria.

Table 1. Descriptive statistics

Variable		**Total Respondents (n=220=100%)**		**Online shoppers (n=55=25%)**		**Non-online shoppers (n=165=75%)**	
		Frequency	%	Frequency	%	Frequency	%
Gender	Male	127	57.7	33	15	94	42.7
	Female	93	42.3	22	10	71	32.3
Age	18-25	126	57.3	24	10.9	102	46.4
	26-45	94	42.7	31	14.1	63	28.6
Educational attainment	Upto HSC*	45	20.5	5	2.3	40	18.2
	Graduate	175	79.5	50	22.7	125	56.8
Occupation	In Service	84	38.2	30	13.6	54	24.5
	Not in-service	136	61.8	25	11.4	111	50.5
Household Income before tax in BDT (in US $)	≤ 30000 (355)	117	53.2	28	12.7	89	40.5
	30001-50000 (355-592)	72	32.7	10	4.5	62	28.2
	≥ 50000(592)	31	14.1	17	7.7	14	6.4

Note: Higher Secondary School Certificate (HSC)
Currency conversion rate, 2019: 1US $=84.43 BDT

3.2 Factor Analysis

3.2.1 Assessment for Factor Analysis

For this study, the overall KMO was found to be 0.7828 suggesting the data is appropriate for factor analysis. On the other hand, result retrieved from latent root criterion suggested that (see table 2) the 21 pulling factors submitted for factor analysis could be used to form six dimensions under this study which accounts for 55 percent of the variation in the data.

Table 2. Results from latent root criteria

Factor	**Eigenvalue**	**Difference**	**Proportion**	**Cumulative**
Factor 1	4.06	1.23	0.19	0.19
Factor 2	2.82	1.44	0.13	0.32
Factor 3	1.38	0.16	0.06	0.39
Factor 4	1.21	0.16	0.05	0.45
Factor 5	1.04	0.03	0.04	0.50
Factor 6	1.01	0.05	0.04	0.55
Factor 7	0.96	0.03	0.04	0.59
Factor 8	0.92	0.07	0.04	0.63
Factor 9	0.85	0.07	0.04	0.68
Factor 10	0.77	0.08	0.03	0.71
Factor 11	0.69	0.02	0.03	0.75
Factor 12	0.67	0.02	0.03	0.78
Factor 13	0.64	0.03	0.03	0.81
Factor 14	0.61	0.02	0.02	0.84
Factor 15	0.59	0.04	0.02	0.87
Factor 16	0.54	0.03	0.02	0.89
Factor 17	0.51	0.04	0.02	0.92
Factor 18	0.47	0.01	0.02	0.94
Factor 19	0.46	0.06	0.02	0.96
Factor 20	0.39	0.07	0.01	0.98
Factor 21	0.32		0.01	1.00

Source: Author's compilation from collected data

Results from *scree* test also suggested the same to form six factors as six factors' eigenvalues were greater than 1 from 21 variables (see figure 1).

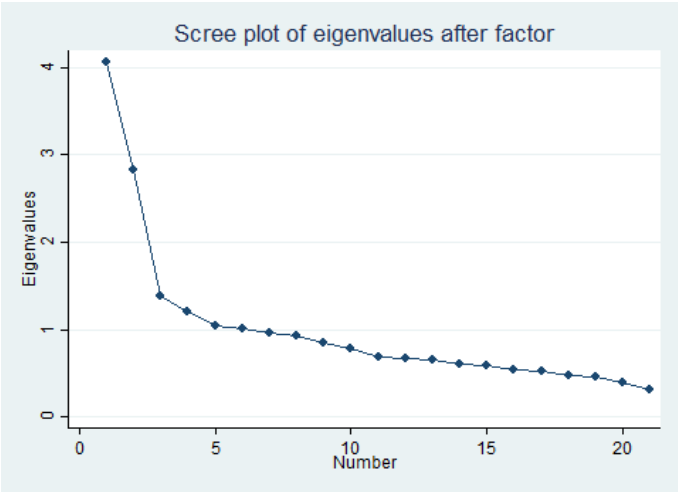

Figure 1. Scree plot of eigenvalues
Source: Author's compilation from collected data

3.2.2. Rotation Results

If the simple structure is clear, any of the more popular procedures (orthogonal or oblique) can be expected to lead to the same interpretations. Tabachnick and Fiddell (2013) argued that the best way to decide between orthogonal and oblique rotation is to develop the oblique rotation and look at the correlations among factors. Here, the suggested least cut off point is 0.32. Hair et al. (2014), on the same idea, argued that the oblique rotational method is more flexible, however, because the factor axes need not be orthogonal. It is also more realistic because the theoretically important underlying dimensions are not assumed to be uncorrelated with each other.

In this study, Promax rotation (oblique rotational method) has been used with factor loading (>0.3) and none of the variable was excluded from factor structure since each of them loaded on the six identified dimensions. However, from the factor analysis, all those 21 extracted factors were sorted into 6 motivational factors as suggested in the following table 3.

Table 3. Factors identified from Factor Analysis

Motivational Factors	**Variables**	**Cronbach's Alpha**
Factor 1 *Perceived Risk*	confidence of info security online and traditional shopping both are secured online retailers honor their guarantor similarities in between ordered and received product good quality of after sales service lowering price compared to retail store persuasion from friends/family	0.7227
Factor 2 *Website Factors*	retailer's website is easy to navigate website id aesthetically attractive easy process to have transaction through website allure for well-known brand ease multi task in online shopping persuaded by ad and promotion	0.7371
Factor 3 *Product Varieties*	allure for well-known brand ease multi task in online shopping lowering price compared to retail store variety of products in online shopping better availability of products than retail shop persuaded by ad and promotion	0.6219

Factor 4 *Service Quality*	similarities in between ordered and received product received product within distinct timeframe prompt response in inquiries	0.5495
Factor 5 *Convenience*	good quality of after sales service convenience of online shopping over traditional retail shopping comparison of alternative product is easy in internet save money not due to travel variety of products in online shopping	0.5519
Factor 6 *Ease of life*	website provides in depth information save money not due to travel	0.52

Source: Author's compilation from collected data

While searching for reliability coefficient, the Cronbach's alpha, it was evident that none of the values were less than 0.5. It is very common to accept the value of Cronbach's alpha with value >0.7, but it may decrease to 0.6 in exploratory research (Hair et al., 2014). Hence, Perceived Risk, Website Factors and Product Varieties have been selected as the candidates for motivational factors in the binary logistic regression analysis.

3.3. Empirical Findings from Binary Logistics Regression

To identify factors that determine online shopping and their corresponding dominance, multivariate logistic regression model has been used. To do so, firstly, bi-variate analysis (measure of association using χ^2 test statistic) between explained variable and explanatory variables (demographic and socio-economic) is sought out and the estimated results have been presented in Table 4. As per screening the criterion, a variable is a candidate for the multivariate model when its p-value <0.25 (Hosmer and Lemeshow, 2000). A relatively high significance level is chosen not to miss any possible variable associated with online shopping.

Table 4. Explanatory variables and their relevant significance

Explanatory Variables	P- value	Comments
Sex of Respondent^{cat} Male Female	0.694	Should not be included in the model
Age of Respondents^{cat} 18-25 26-45	0.015	Should be included in the model
Educational Attainment^{cat} Upto HSC Graduate	0.016	Should be included in the model
Occupation of Respondent^{cat} Not in Service InService	0.004	Should be included in the model
Household Income before tax in BDT (in US $)^{cat} ≤ 30000 (355) 30001-50000 (355-592) ≥50000 (592)	<0.001	Should be included in the model

Note: Cat stands for categorical variables

From table 3, it is observed that other variables, except Sex of Respondent, are significantly associated with online shopping. Now, estimated results from multivariate logistic regression model have been presented in table 5.

Table 5. Summary results from logistic regression for the effect of explanatory variables on online shopping decision

Variables	Estimated Coefficient $\widehat{\beta}$	Marginal Effect (ME)
Age of Respondents		
[18-25^a]	-	-
[26-45]	-0.12	-0.007
Educational Attainment		
[Upto HSC^a]	-	-
[Graduate]	1.79**	0.073**
Occupation of Respondent		

[Not in Service[a]]	-	-
[In Service]	-0.26	-0.015
Household Income before tax in BDT(in US $)		
[≤ 30000 (355)[a]]	-	-
[30001-50000 (355-592)]	-0.418	-0.02
[≥50000 (592)]	0.85	0.07
Perceived Risk	-1.55***	-0.09***
Website Factors	2.10***	0.12***
Product Varieties	1.40***	0.08**
McFadden's adj R^2	0.498	
-2 log likelihood	105.6	

Notes: *p<0.1, **p<0.05, ***p<0.01: [a] Reference group

From table 5, it is evident that educational attainment, perceived risk, web site factors, product varieties are significantly associated with the online shopping decision among young-aged people in Dhaka city. In case of educational attainment, it is found that graduates are more likely to shop online than non-graduates. This finding conforms to the findings of some other studies (Gong et al., 2013; Osman et al., 2010; Khatibi et al., 2006 and Kanchan et al., 2015). In case of perceived risk, it is noticed that this factor has significant but negative effect on online shopping decision. That means high perceived risk can impede online shopping decision. This result is supported by many other studies, for example, Ranganathan & Ganapathy, 2002; Clemes et al., 2014; Xu and Huang, 2015; Hansen et al., 2004; Miyazaki and Fernandez, 2001; Swinyard and Smith, 2003; Doolin et al., 2005; Kuhlmeier and Knight, 2005; Rajamma et al., 2009; Chang and Wu, 2012; Swaminathan et al., 1999; Dai et al., 2014; Mahmud and Hossain, 2014; Katawetawaraks and Wang, 2011; Huseynov and Yıldırım, 2014. On the other hand, website factors are also significantly related with online shopping decision. This finding conforms to the findings of Ranganathan and Ganapathy, 2002; Clemes et al., 2014; Gao and Wu, 2010 and Keisidou et al., 2011. Product varieties also have significance here. That means bigger product assortment can provoke to shop online. This result is supported by many other studies (Clemes et al., 2014; Borle et al., 2005; Bansal et al., 2004; Koo, 2006; Lim and Dubinsky, 2004).

However, to evaluate the extent of a fitted binary logistic model to distinguish observed online shopping (Y=1) and no online shopping (Y=0), receiver operating characteristic curve (ROC) and the area under the ROC curve have been used. Figure 2 reveals that the area under the ROC curve is 0.9506 which suggests that the model fitted is excellently discriminating according to Kleinbaum and Klein, 2010.

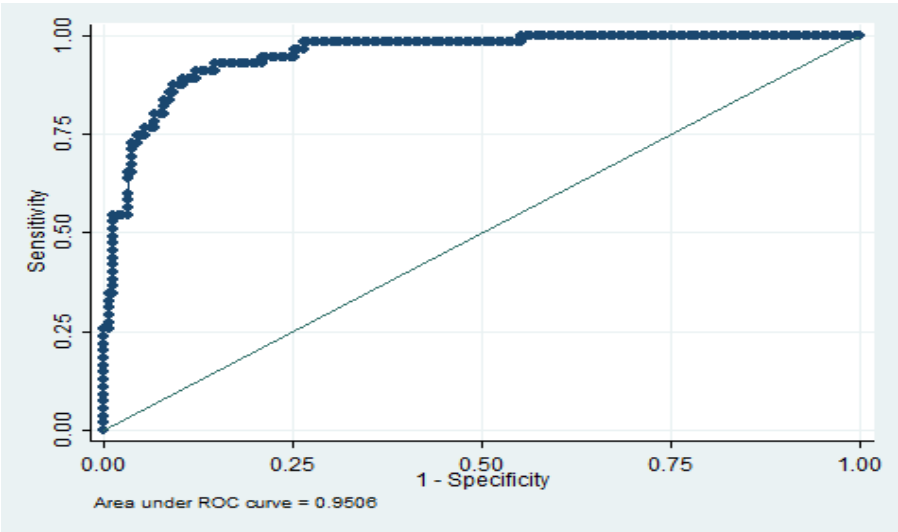

Figure 2. Receiver Operating Characteristic (ROC) Curve for Logistics Regression
Source: Author's compilation from collected data

4. Conclusions and Managerial Implications

One of the important contributions of the research is demonstrating dominant drivers for online shopping in case of Bangladesh, in particular reference to young people living in the mega city of Dhaka. Our results contribute to the limiting research that examine dominant drivers mathematically and statistically for online shopping decision. This research confirms that, from the marginal effect, motivational factors are the most dominant in case of online shopping decision. However, from among motivational factors, website factors has the strongest influence on consumers' decision to shop online ($|ME|$ = 0.125). Website factors like easy navigation, aesthetical attractiveness, easy transaction process, multi-tasking dimension, availability of branded products and also the advertising and promotion of the website appeal the online subscribers. So to attract more potential consumers, online marketers must ensure usability, simplicity, speed, proper maintenance at every foot of customers at the website. Aesthetic attractiveness of website should be considered by the marketers as that give consumers their first impressions. Various types of Image Interactivity Technology (IIT) like, zoom-in functions, image rotation, mix-and-match functions, 3D virtual models can be used to amplify customers' online shopping experience. In many cases, people may prefer video content to others; hence, e-marketers can use videos at their sites. Real-time communication with the consumers should be ensured by the marketers at the site. Without any options, marketers should make their website mobile-friendly. As customers are influenced by advertising and promotion, marketers can consider social media sites like Facebook, Twitter, Instagram, YouTube for their advertising and promotion because these are extremely admired by the young-aged now-a-days. Beside, by placing advertisements on social media, marketers can ask satisfied customers to give positive reviews at social media or can ask them for quotes which marketers can use on their websites.

On the other hand, perceived risk i.e., information security, after-sales services, guarantees, price issues, similarities in between ordered and received products, family and friends' persuasion has second largest effect here ($|ME|$ = 0.09). Increase of this perceived risk makes hesitation in the mind of online shoppers extremely. To ensure more consumers' participation, this perceived risk should be reduced by the tech-entrepreneurs. To safeguard information security of consumers, e-marketers can use Secure Sockets Layer (SSL) technology. This will encrypt the private data sent between marketer's site and consumer's web browser and form a basic layer of protection. Professional security audit on marketer's business network can be done occasionally as a proactive measure. Marketers can share their data management policy with consumers to reassure consumers about their information security. In order to reduce the product risk, marketers can offer excellent product warranty, guarantee, exchange and other after-sale service policies. Cash-on-delivery system can reduce perceived risk to some extent. If the e-marketers can afford, they can send alternative products to the customers to choose from options as inability to physically inspect the product is a crucial issue in e-commerce. Marketers should try to give value to the consumers to their level best that can enable to create Word-of-Mouth Marketing (WOM Marketing). This type of marketing communication can give customers a psychological support as that is communicated through their family and friends.

According to the marginal effect, product varieties have the third largest effect ($|ME|$ = 0.08). More variety, better availability of products than retail shops and allure for well-known brands may attract customers to go for online shopping. So, online retailers can offer a number of product types and brands available at their e-shop to render hedonic stimulation for online shoppers.

Educational attainment, here in this study, has the fourth largest effect ($|ME|$ = 0.07). According to the marginal effect results of this research, graduated customers are more willing to accept online shopping as compared with the non-graduated. Higher education is influential in this case. Online marketers need to be careful in dealing with that type of customers as they employ higher level of discretion in making purchase decisions. So marketers' promotional mix should be informative enough and other elements of the marketing mix should appeal to sophisticated customers.

In conclusion, from our results it can be said that motivational factors alone do not play a significant role in case of online shopping decision. Socio-economic condition (e.g., educational attainment) of the young people has also the significant role in deciding for online shopping. However, motivational factors are influential in the decision making process for engaging in online shopping.

4.1 Limitation and Future Research

Findings from this study may have some limitations and are embedded with some future scope of research. For instance, external validity of factor analysis has not been done. For this, factor structure stability or detection of influential observations can be assessed further. Again, the whole procedure of data reduction was developed with Principal Component Analysis. Another limitation is that our study was conducted on young aged people (age in between 18-45). But people below 18 years or more than 45 years of age also engage in online shopping more frequently. This aspect has been neglected in this study and should be considered for further work.

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