

# Online Impulsive Buying Behavior: A Model and Empirical Investigation

Muhammad Danish Habib\* and Abdul Qayyum†

## Abstract

*Impulsive buying in online setting has become a phenomenon to be reckoned with as it has captured a sizeable proportion of online shopping. Impulsive buying behavior has thus acquired a huge potential for future research, hence under the constant focus of research scholars. Moreover, it has also gained the attention of online sellers as it accounts for significant amount of profits for firm. It is therefore, of utmost necessity to examine impulsive buying behaviors in online setting. For this reason, this study seeks to model and empirically examine key website use variables (web site communication style, informativeness, ease of use, merchandise attractiveness and entertainment) on impulsive buying behavior through web browsing in online context. A total of 372 survey responses from shoppers of online stores were used to empirically test the measurements and propositions through structural equation modeling. On the basis of data from online shoppers, a significant model emerged. In general, results were in support of the assertions that web site use variables lead toward web browsing that ultimately contributes in developing impulsive buying behaviors. This study offers valuable insight and solid grounds to academicians as well as practitioners concerning online impulsive buying behavior by presenting empirical findings and important implications.*

**Keywords:** Web site communication style, informativeness, ease of use, merchandise attractiveness and entertainment, online impulsive buying behavior

## Introduction

Impulse buying behavior is considered as hedonically complex, compelling and unplanned buying behavior characterized by subjective bias and rapid decision-making for immediate possession (Chan, Cheung, & Lee, 2017; Olsen, Tudoran, Honkanen, & Verplanken, 2016; H. J. Park & Dhandra, 2017). Impulse buying behaviors accounted for a noteworthy proportion of consumer purchases, hence such unreflective and unintended purchases are under constant consideration of academicians as well as practitioners (Bellini, Cardinali, & Grandi, 2017; Flight, Rountree, & Beatty, 2012). Hausman (2000) noted that 30–50% sales at retail store are impulse purchase. Additionally, Ruvio and Belk

---

\* Muhammad Danish Habib, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Islamabad. Email: [mrdee\\_87@yahoo.com](mailto:mrdee_87@yahoo.com)

† Abdul Qayyum, Riphah International University, Islamabad Pakistan

(2013) documented that about 80% sales in luxury products and about 62% in super markets is attributed to impulsive buying. Merzer (2014), during a survey of US customer also found that 75% of the respondents reported an impulse purchase.

Chan et al., (2017) described that with the rapid growth in e-commerce and advancements in information technology, impulsive buying in online setting has become an epidemic. Sales of social commerce which is also known as one sort of e-commerce that use customer participation, customer participation, and social networks to facilitate online selling reached the amount of \$5 billion in 2015, with sharp increase expected in future (Chung et al., 2017). In present era, consumers are more inclined toward hedonic and experimental consumption such as impulsive purchase (Novak, Hoffman, & Duhachek, 2003) as they have more tendency toward enjoyment of shopping than their actual need (Beatty & Ferrell, 1998). The frequency of this pattern is common in social comers as it allows easy access of searching and buying (e.g., social pressure, limited operating hours and inconvenient store locations) with convenient payment modes (Song, Chung, & Koo, 2015).

In support of the fact that 40% of online customer expenditures are the result of impulsive purchases, Liu, Li and Hu (2013) argued that online shopping environment is more favorable for impulsive consumption as compared to its offline counterpart. For these reasons, impulse buying behaviors offer plentiful avenues for academicians who are interested in consumer behavior research, additionally practitioners are also interested in exploration of this phenomenon as it accounts for significant amount of profits for firm. A plethora of consumer behavior concerning decision making process is explored under the view point of conscious behavior theories, for instance ‘theory of reasoned action’ (TRA) and ‘theory of planned behavior’ (TPB) and its descendants (i.e. UTAUT and TAM) are extensively used theoretical frameworks under these schools of thought (Aubert, Schroeder, & Grimaudo, 2012; Lee & Rao, 2009; Miniard & Cohen, 1981; Zhou, 2013). However, inspired by current developments in consumer psychology on unplanned, spontaneous and as a result of stimulus decision making patterns, plenty of research studies attempt to examine the phenomenon of impulse buying behavior in online context (Chan et al., 2017; Lim, Lee, & Kim, 2017; Liu et al., 2013; Vonkeman, Verhagen, & van Dolen, 2017). For instance, research scholars investigate the impact of environmental factors like virtual layout schemes (Lin & Lo, 2016); atmospheric cues (Floh & Madlberger, 2013); informativeness (Li, Cui, & Cheng, 2016) merchandise attractiveness, ease of use, enjoyment and website

communication style (Verhagen & van Dolen, 2011); web browsing (Rezaei, Ali, Amin, & Jayashree, 2016).

Despite abundant research on impulsive buying behavior in online context, research scholars demand for further research for better understanding of the phenomenon (Chan et al., 2017; Lin & Lo, 2016; Olsen et al., 2016). Like Chan et al., (2017) call for more empirical research studies as there is insufficient empirical evidences available for a comprehensive meta analysis. Moreover, Rezaei et al., (2016) and (Richard & Chebat, 2016) recommend to examine the impact of web browsing on impulse buying to have clear insight of the conversion processes of browsing into purchases. Richard and Chebat (2016) also heightened the need to model the process of key variables of web site using like cognition (e.g. informativeness), entertainment and purchase intentions in online setting. Liu et al., (2013) argued that integration of information systems and marketing wisdom would enrich the domain of knowledge concerning online impulse buying behavior.

Aforementioned in view, it is a worthwhile research initiative to model and empirically test key web site use variables that evoke online impulsive purchase through web browsing. Derived from the Cognitive Emotion Theory (CET; Verhagen & van Dolen, 2011), Emotion Action Tendency (EAT; Dholakia, Bagozzi, & Pearo, 2004) and User Gratification Theory (UGT; Hausman, 2000; Kim & Eastin, 2011). This research attempts to examine the impact of website use variables (web site communication style, informativeness, ease of use, merchandise attractiveness and entertainment) on impulsive buying behavior through web browsing in online setting. This research contributes in marketing as well as consumer behavior literature more specifically, in decision support literature by elucidate impulsive buying behavior in online context.

### **Literature Review**

Impulsive buying behavior is recognized as a spontaneous response to a stimulus resulted in persistent urge to buy a specific product or a brand, wherein there is no prior intent or need to buy (Chan et al., 2017; Chung et al., 2017). Moreover, it is not consider as reminder or habitual response. This sudden and powerful urge to buy has been associated with a multitude of antecedents that can be placed under two broader categories; individual led factors and market driven factors (Mittal, Chawla, & Sondhi, 2016). The former delved into the consumer psychology that leads toward behaviors. The later compromised of external factors for instance situational or product related factors along with the categorization of impulsive buying and differentiation in

impulse and non-impulsive buying. First research stream focuses on differentiating planned buying from impulse buying and identification of product characteristics that enables an impulse purchase ( Park & Lennon, 2006; Stern, 1962). Later research explore the assortment of stimulus to include product appearance, design and style like an innovative packing or attractive product display (Hubert, Hubert, Florack, Linzmajer, & Kenning, 2013).

Additionally, role of situational factors for example, atmospheric cues (Floh & Madlberger, 2013), store environment (Mohan, Sivakumaran, & Sharma, 2013); economic wellbeing, time and money (Badgaiyan & Verma, 2015) and social influences (Amos, Holmes, & Keneson, 2014) and services quality (Pornpitakpan, Yuan, & Han, 2017) were also found as contributing factor towards impulse buying behavior. In a meta-analysis of consumer buying behavior Amos et al., (2014) suggested that interplay of socio-demographic, situational, and dispositional variables can craft a conducive environment for encouraging impulsive buying. Contrary to this Verplanken & Sato (2011) argued that psychological functioning, in particular as a form of self-regulation can be useful for understanding impulsive buying behavior.

Jones, Reynolds, Weun, and Beatty (2003) documented that consumer often tend to make immediate and unintended purchase in an online context; their intentions might be derived from the complexity or simplicity of the web site (Wu, Chen, & Chiu, 2016). In this context, consumer purchase behavior is derived from spontaneous reaction, low cognitive control and emotions (Sharma, Sivakumaran, & Marshall, 2010). As the aforementioned perspective tend to weigh in support that impulsive buying behaviors are driven by appealing objects, in the extension of impulse buying episodes scholars argued that as compared to traditional shoppers online shoppers are more spontaneous (Park, Kim, Funches, & Foxx, 2012). Marketing stimuli evoke a sense of risk aversion in initial search of shoppers and make it easy to purchase impulsively (Chung et al., 2017).

A plenty of literature concerning impulse buying behavior explore the website related factors and their role in developing impulsive buying behavior. For example, Adelaar, Chang, Lancendorfer, Lee, and Morimoto (2003) examined the impact of media formats (i.e. video, still images, and text) on impulsive buying behavior. Furthermore, Wells, Parboteeah and Valacich, (2011) documented a significant influence of personal traits and web site quality on urge to buy impulsively. Floh & Madlberger, (2013), on the grounds of S-O-R model found that atmospheric cues and website navigation has positive impact on

impulsive buying through shopping enjoyment. Moreover, Turkyilmaz, Erdem, and Uslu (2015) highlighted the importance of web site personality characteristics and proposed that informational and emotional web contents leads towards browsing behavior that resulted in online impulsive buying behavior (Rezaei et al., 2016).

*Theoretical framework and hypotheses development*

The theoretical model is depicted in Figure 1, drives from the reflections of Cognitive Emotion Theory (CET) and Emotion–Action Tendency (EAT) link and User Gratification Theory (UGT), which are rooted in impulsive buying literature. Following the conceptualization of aforementioned theories like UGT with the view point that customer actively seek out media for the fulfillment of their specific needs (Hausman, 2000; Kim & Eastin, 2011). Furthermore, stimulus and its consequent formation causes emotion (CET) which led to impulsive action tendencies (EAT) and thus to an impulsive purchase (Verhagen & van Dolen, 2011). So it was proposed that key website elements (website communication style, informativeness, ease of use, merchandise attractiveness and entertainment) precede impulsive actions (web browsing and impulsive buying behavior). On the basis of online impulsive buying behavior, a series of hypotheses have been developed.

*Website communication and Web Browsing*

Website communication is “subjective perception about the communication style of website for its services”(Keeling, McGoldrick, & Beatty, 2010, p). McColl-Kennedy and Sparks (2003) argued that fair and friendly website communication styles gain more positive evaluation of the customers. Consequently, if consumers rating for website communication styles are high, they are more inclined to spend more time on browsing that website.

*H<sub>1</sub>: Web site communication style has a positive effect on web browsing*

*Informativeness and Web Browsing*

Research scholars acknowledged that websites are developed to provide the information and awareness to the customers (Richard & Chebat, 2016). Therefore managers believe that customers give a lot of importance to the information available on the website. As the informativeness is regarded as the way to present the information on website that make a sense of value for the customers. Thus the high rating of informativeness from consumers raise the tendencies towards web browsing.

*H<sub>2</sub>: Informativeness has a positive effect on web browsing*

*Ease of use and Web Browsing*

The positive perceptions regarding the ease of navigation the online store is important. Nah and Davis (2002) pointed out the importance of good navigation and documented that ease of navigation allow users to spend minimal mental efforts in searching relevant information for decision making and provide a sense of control over interface. For this reason, ease to use and well-designed website create a flowing and seamless environment and with minimum effort to acclimate web design and acquire necessary information results in fascinating experience by the user. In other words, website with difficult web designs seem challenging while browsing require more mental efforts to acquire information and completion of the task (Rezaei et al., 2016). Thus web sites with positive perceptions regarding the ease of use are more likely to develop positive perception about browsing.

*H<sub>3</sub>: Ease of use has a positive effect on web browsing*

*Merchandise attractiveness and Web Browsing*

Merchandise attractiveness is the perception about the attractiveness and size of the product assortment which include number of products, product fit to customer interest, value for money, and interesting offers (Verhagen & van Dolen, 2011). Literature concerning impulsive buying behavior acknowledges that website with interesting product assortment are suitable with customer interest produce more positive perceptions and emotions. Parboteeah, Valacich and Wells (2009) on the base of S-O-R model and Verhagen & van Dolen, (2011) with the support of CET, proposed merchandise attractiveness as a significant precursor of affective reactions.

*H<sub>4</sub>: Merchandise attractiveness has a positive effect on web browsing*

*Entertainment and Web Browsing*

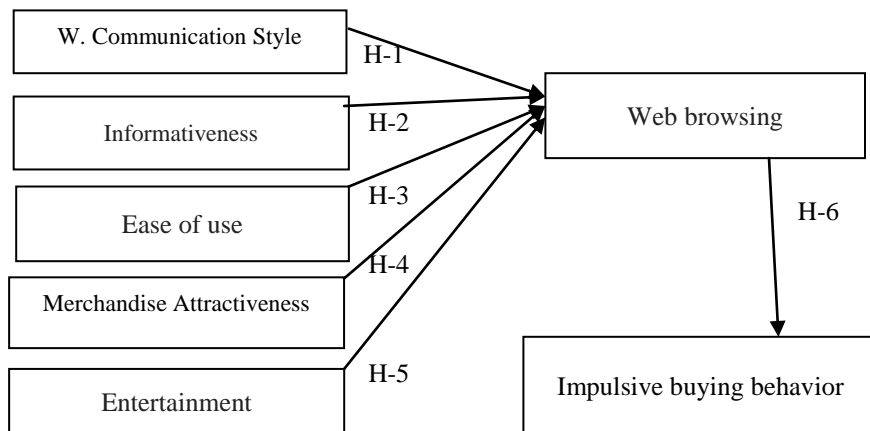
Entertainment is sense of experience in which people get some amount of release or pleasure (Karat et al., 2002). Appealing designs, nice graphics and interesting themes may get high ratings on entertainment by the customer (Chakraborty, Lala, & Warren, 2003). As a result website with high score on entertainment is more likely to be recognized as website with positive attributes (McMillan, Hwang, & Lee, 2003), thus shoppers are more apt toward browsing these sites.

*H<sub>5</sub>: Informativeness has a positive effect on web browsing*

*Web Browsing and Impulsive buying*

Motives behind the online shopping entails searching for benefits like entertainment, fun and uniqueness (Ha & Stoel, 2012). Madhavaram and Laverie (2004) affirmed that online medium like internet facilitates the browsing of online merchandise for utilitarian and/or hedonic purposes. Easy buying (click), easy access to products, absence of delivery efforts and less social pressures provide a space for generating online decisions more impulsively (Rezaei et al., 2016). In different episodes of impulsive buying behavior, scholars confirmed the significant impact of web browsing on impulsive buying behavior (Gohary & Hanzae, 2014; Kim & Eastin, 2011; Joohyung Park & Ha, 2012; Rezaei et al., 2016; Verhagen & van Dolen, 2011)

*H<sub>6</sub>: Impulsive buying is directed by web browsing*



*Figure 1 Theoretical Framework*

**Method**

With the intent to empirically test the proposition and theoretical model, a quantitative research methodology was employed. Cross sectional data with the help of online survey questionnaire was collected that offers several advantages to test the structural relationship among variables (Rezaei et al., 2016). Young consumer engage in online buying was the subject of investigation, so the target population for this study consisted of consumers of online store like isshopping, pakstlye, lootlo, daraz, kaymu and telemart. 372 useable responses from university students were collected by adopting convenient sampling technique. Young consumer (university students) were considered more suitable for this research, as university students spend plenty of time on internet and are more inclined to access online media and shopping products online

(Kim & Eastin, 2011). The sample consisted of 44 percent female and 56 percent male which represented almost equal representation of gender. Most of the respondents (80 percent) were from the age group of 20 to 30 years. Most of the respondents had graduation degree (62 percent), while 34 percent had masters/MPhil, whereas only 4 percent were PhD. Representing income, 26 percent had monthly income less than 50,000 thousand, 41 percent (50,001-100,000), 26 percent (100,001-150,000) and only 7 percent were above 150,000 thousands. Demographic statistics showed that sample fairly represents the target population of online young shoppers.

#### ***Measures***

To collect the data regarding to online impulsive buying from shopping websites, three sections were designed. The first section was about the screening questions to ensure that respondents have experience of an online buying from shopping websites during last three months. Second section was designed to empirically test the structural relationships. Multiple items from existing validated scales were adopted to measure the constructs. Last section was designed to collect the information regarding respondents' profile, for instance gender, age, education and monthly income. Website communication was measured on three items, ease of use was measured on four, merchandise attractiveness was measured on four and web browsing was measured on four items adopted from Verhagen and van Dolen (2011). Informativeness was measured on three items and entertainment was measure on five items adopted from Richard and Chebat (2016). Online impulse buying behavior was measured on five items adopted from Rezaei et al., (2016).

#### ***Data analysis***

Descriptive statistics and correlation for all variables were reported in Table 1. Results showed that mean for all variables ranged between 3.02 to 3.61 and standard deviation for all variables ranged between .40 to 1.01. The values of skewness and kurtosis for all variables fell within the range of  $\pm 3$  an indication of the normality of the data. Results regarding correlation revealed significantly positive association among web site use variables (merchandise attractiveness, ease of use, informativeness, entertainment and web site communication style) web browsing and impulsive buying behavior.

**Table 1**

*Descriptive statistics and Correlations analysis of study variables*

	Mean	SD	SKW	KURT	WCOM	INFO	EASE	MATT	ENT	WEBBR	IMPB
<b>WCOM</b>	3.61	0.76	-1.02	0.67	<b>(.851)</b>						
<b>INFO</b>	3.22	0.98	-0.53	-0.42	0.09	<b>(.889)</b>					
<b>EASE</b>	3.32	1.01	-0.91	-0.49	-0.06	0.08	<b>(.921)</b>				
<b>MATT</b>	3.37	.984	.226	-1.203	-.019	.047	-.037	<b>(.850)</b>			
<b>ENT</b>	3.23	0.76	-0.20	-0.74	.497**	0.05	-0.03	-.044	<b>(.865)</b>		
<b>WEBBR</b>	3.49	0.47	-0.19	-0.12	.336**	.331**	.184**	.289**	.340**	<b>(.889)</b>	
<b>IMPB</b>	3.02	0.40	0.00	1.74	.385**	.300**	.168**	.280**	.340**	.745**	<b>(.949)</b>

**Note 1:** Values in parentheses “( )” are the square root values of AVE of given variables.

**Note2:** \*\* Correlation is significant at the 0.01 level (2-tailed)

**Measurement model**

Two steps structural equation modeling technique was used with the help of IBM SPSS AMOS 20. First measurement model was estimated and re-specified before estimating structural model (Anderson & Gerbing, 1988; Sethi & King, 1994). Measurement model was assessed and constructs were validated whether the Goodness of model fit, Cronbach's alpha (greater than 0.7), composite reliability (greater than 0.7) and average variance extracted (AVE) (greater than 0.5) met the criteria of recommended values for the establishment of convergent/ discriminant validity and composite reliability (Chung et al., 2017). The results of measurement model were shown in Table 2 and Figure 2. The goodness-of-fit indices were quite satisfactory after the respecification of the model and provide additional validation of measurement model ( $\chi^2/df = 1.550$ ; GFI = .929; AGFI = .908; NFI = .906; CFI = .964; RMSEA = .039). In the analysis one of the each measurement items of informativeness, ease of use, merchandise attractiveness and entertainment were dropped due to low factor load.

Results in Table 2 were in support of reliability and convergent validity as the factor loads, composite reliability, AVE, and cronbach alpha were found to exceed the recommended threshold values. Cronbach Alpha of website communication style was .64 which is less than the threshold value of .70, however Sekaran (2006) suggested that the alpha value greater than .60 is acceptable. Furthermore, the square roots of the AVE of each variable exceeded the correlation coefficient of that variable with other variables (Table 1), which ensure the discriminant validity of the variable. Since all the estimated were in support of reliability and convergent/discriminant validity, so analysis for structural model can be conducted.

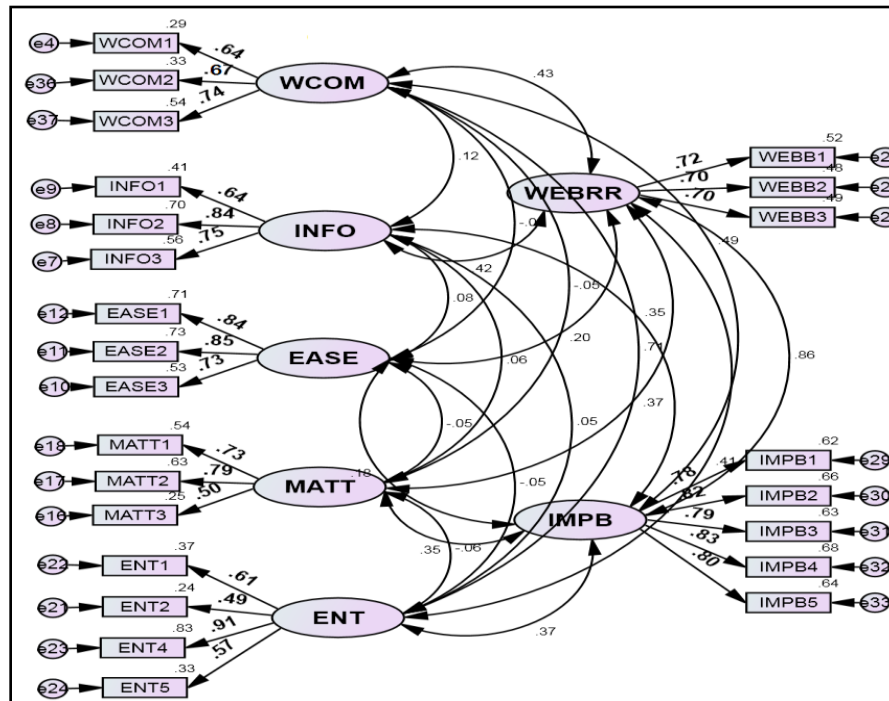
**Table 2**  
*Verification of measurement model for convergent/ discriminant validity and composite reliability*

Factor	Measurement Items	Estimate	No of Items	AVE	CR	Alpha
WCOM	WCOM1	.64	3	.468	.725	.64
	WCOM2	.68				
	WCOM3	.73				
INFO	INFO1	.64	4	.559	.790	.781
	INFO2	.84				
	INFO3	.75				
	INFO4	-				
EASE	EASE1	.84	4	.654	.849	.847
	EASE2	.85				
	EASE3	.73				

**Future of Marketing and Management (FMM 2017)**

	EASE4	-				
MATT	MATT1	.74	4	.474	.723	.712
	MATT2	.79				
	MATT3	.50				
	MATT4	-				
ENT	ENT1	.61	5	.441	.749	.722
	ENT2	.50				
	ENT3	-				
	ENT4	.91				
	ENT5	.57				
WEBBR	WEBBR1	.72	3	.499	.750	.747
	WEBBR2	.70				
	WEBBR3	.70				
IMPB	IMPB1	.79	5	.647	.901	.901
	IMPB2	.81				
	IMPB3	.79				
	IMPB4	.83				
	IMPB5	.80				

Note: CMIN = 359.252, CMIN /df = 1.555,  $p \leq 0.00$ ; df = 231, GFI= .929, AGFI= .908, NFI= .906, CFI= .964, RMSEA = 0.039



**Figure 2: Measurement model**

**Common method Variance**

Common method variance was estimated by adopting Harman’s single-factor. Results are depicted in Table 3. Results showed that the first and largest factor accounted for 23.812% of variance which is less than the threshold value of 50% (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), indicating that data is free from common method biases.

**Table 3: Results of CMV analysis (Total Variance Explained)**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.905	23.812	23.812	6.905	23.812	23.812	5.577	19.232	19.232

*Extraction Method: Maximum Likelihood.*

**Test for Multicollinearity**

Variance inflation factor (VIF) was estimated to diagnose the issue of multicollinearity. Collinearity statistics (VIF and tolerance ) were reported in Table 4 showed that the VIF values for study variables ranged between 1.006 to 1.421 and tolerance for all variables ranged between .636 to .994 were under the range recommend by O’brien (2007), illustrated that data is free from the concern of multicollinearity.

**Table 3**  
*Multicollinearity Analysis for study variables*

	Collinearity Statistics			
	Tolerance		VIF	
	WEBBR <sup>a</sup>	IMPB <sup>b</sup>	WEBBR <sup>a</sup>	IMPB <sup>b</sup>
<b>WCOM</b>	.746	.709	1.340	1.411
<b>INFO</b>	.982	.881	1.018	1.135
<b>EASE</b>	.987	.933	1.014	1.072
<b>MATT</b>	.994	.873	1.006	1.146
<b>ENT</b>	.752	.704	1.330	1.421
<b>WEBBR</b>	-	.636	-	1.573

*a. Dependent Variable: WEBBR*

*b. Dependent Variable: IMPB*

**Structural model**

In order to assess the proposed structural path (H<sub>1</sub> – H<sub>6</sub>) structural equation modeling was performed. Results were shown in Table 5 and Figure 3. Results revealed positive and significant impact of web site use variables on website browsing. For instance web site communication style ( $\beta = .386, p < .01$ ), informativeness ( $\beta = .303, p < .01$ ), ease of use ( $\beta = .228, p < .01$ ), merchandise attractiveness ( $\beta = .392, p < .01$ ) and entertainment ( $\beta = .210, p < .01$ ) showed a significantly positive impact of website browsing and in as support of H<sub>1</sub> to H<sub>5</sub>. Similarly for Website browsing and impulsive buying behavior ( $\beta = .887, p < .01$ ), in support of H<sub>6</sub> and indicated a positive and significant impact of website browsing on impulsive buying behavior.

**Table 4**  
Testing of Structural Model

	Estimate	S.E.	C.R.	P
WEBBR ← WCOM	.386	.077	3.359	***
WEBBR ← INFO	.303	.026	5.580	***
WEBBR ← EASE	.228	.027	4.501	***
WEBBR ← MATT	.392	.057	5.819	***
WEBBR ← ENT	.210	.044	2.078	.038
IMPB ← WEBBR	.887	.059	12.920	***

Note: CMIN = 421.734, CMIN /df = 1.779, p ≤ 0.00; df = 237, GFI= .920, AGFI= .899, NFI= .891, CFI= .948, RMSEA = 0.046

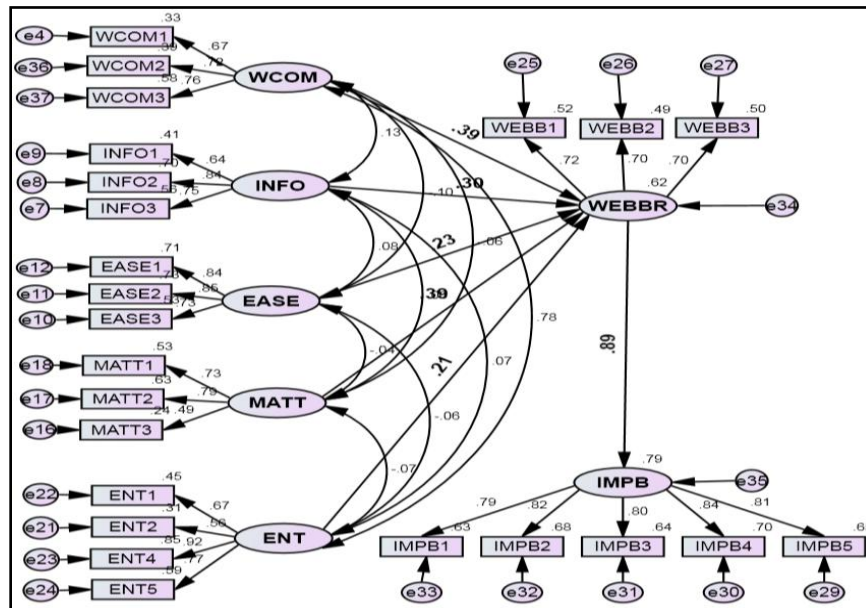


Figure 3: Structural Model

### **Discussion**

In order to develop a deep insight regarding the role of key web site use variables and web browsing in developing impulsive buying behaviors in online context this study model and empirically test the study variables. On the basis of the data from online shoppers, a significant model has emerged. In general, all the web site use variables leads towards web browsing that ultimately contribute in developing impulsive buying behaviors.

The findings regarding significantly positive impact of website communication style on web browsing are consistent with previous studies e.g. Mallapragada, Chandukala and Liu (2016); Park, Kim, Funches and Foxx, (2012); Rezaei et al., (2016); and Verhagen and van Dolen (2011). This positive impact has revealed that online shoppers tend to spend more time on a clear and user-friendly web sites. Furthermore, if online shopping website communicate knowledgeable contents to its visitors than visitors devote plenty of time to the items they have interest or planned to buy.

The findings regarding positive impact of informativeness on web browsing are in line with the view point of Hausman and Siekpe (2009; Hsieh, Hsieh, Chiu, and Yang (2014); Richard and Chebat (2016). From the results it can be figured out that richness and amount of information on a website exert an important impact on customers' perceptions toward a website. As a result, informativeness is a key driver that makes a feel to its visitors that web site has communicated something of value. Consequently, web sites with high score of informativeness is considered as more useful and grant them a sense of confidence to spent more time on the website.

Results regarding the relationship between ease of use and web browsing depicted a significantly positive influence of ease of use on web browsing and validating the view point of (Floh & Madlberger, 2013; Lin & Lo, 2016; Rezaei et al., 2016). From the results, it can be comprehended that an organized web site with ease of navigation and ease of use allow its shoppers to spend more time on browsing such sites and probe into the items they have interest in. So ease of use is an indicator that may shape out the web browsing activities of the shoppers and can develop favorable perception regarding the browsing of that website.

It was proposed that merchandising attractiveness has a positive and significant impact on web browsing. Results found were in support of the proposition and consistent with the pervious literature e.g. Chan et al., (2017); Madhavaram and Laverie (2004); and Verhagen and van Dolen (2011). Results can be interpreted as shoppers are more inclined to

use web sites with variety of interesting offers. Moreover, web sites having good alignment with shoppers' interests seek the shoppers' interest and allow a space to spend more time on browsing that website.

Entertainment was found a significant and positive predictor of web browsing and results of this study are in line with the study of Hsieh, Hsieh, Chiu, and Yang (2014); and Richard and Chebat (2016). The results are helpful in understanding that website with flashy, entertaining, imaginative, exciting and funny attributes are rated high on entertainment. From the results it can be drawn that if a web site offers entertaining experiences to their visitors, they are more likely to credit website with positive attributes.

Website browsing was hypothesized as a significant precursor of impulsive buying behavior. Finding illustrated as significant and positive impact of web browsing on impulsive buying behavior. These results are consisted with the previous studies e.g. Mallapragada et al., (2016); Park et al., (2012); and Rezaei et al., (2016). These results implies that consumer are more likely towards an impulsive purchase if they have frequent visit of shopping websites and spend more time on such websites. Thus, browsing activates are easily converted into purchases if web sites are credit high positive attributes by the customer.

The results of this research study offer significant implications for practitioners concerning online impulse buying behavior. The outcome of this research will facilitate the practitioners (online retailers and marketing managers) and web site developers to understand the importance of key web site use variables in developing favorable perceptions towards web browsing that resulted in an online purchase. The findings of the study suggest managers and online retailer to design a user friendly website with rich amount of information. Additionally, website should contain entertaining, imaginative, exciting and funny attributes with variety of interesting offers to convert the web browsing into online purchasing. Managers and online retailers can use the results of this reach to develop the strategies for gaining a competitive advantage.

#### **Limitations and future recommendations**

While this research has a valuable contribution, this study has some notable limitations that should be considered while generalizing the findings. The primary limitation is sample size of 372, which is not large enough to reflect the accurate and realistic image of online shoppers in Pakistan. Secondly, this study was conducted with the help of online survey, a field study or experimental context (e.g. use of e-coupons; Lin & Lo, 2016) may present a better insight of the phenomenon. Student sample is used in this study as a subject of the study, future research may

### **Future of Marketing and Management (FMM 2017)**

---

consider other sample and online setting to increase the generalizability of this study. Finally, future research can also consider some other variables, for instance situation variables (money and time), trait affect and pre-shopping tendencies that may affect impulsive buying behavior. Furthermore, operationalization of web browsing into hedonic web browsing and utilitarian web browsing (Rezaei et al., 2016) may also offer some useful findings as for some products impulsive buying is because of hedonic drivers while in other it may be due to utilitarian drivers.

**References**

- Adelaar, T., Chang, S., Lancendorfer, K. M., Lee, B., & Morimoto, M. (2003). Effects of media formats on emotions and impulse buying intent. *Journal of Information Technology*, 18(4), 247–266.
- Amos, C., Holmes, G. R., & Keneson, W. C. (2014). A meta-analysis of consumer impulse buying. *Journal of Retailing and Consumer Services*, 21(2), 86–97.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411.
- Aubert, B. A., Schroeder, A., & Grimaudo, J. (2012). IT as enabler of sustainable farming: An empirical analysis of farmers' adoption decision of precision agriculture technology. *Decision Support Systems*, 54(1), 510–520.
- Badgaiyan, A. J., & Verma, A. (2015). Does urge to buy impulsively differ from impulsive buying behaviour? Assessing the impact of situational factors. *Journal of Retailing and Consumer Services*, 22, 145–157.
- Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, 74(2), 169–191.
- Bellini, S., Cardinali, M. G., & Grandi, B. (2017). A structural equation model of impulse buying behaviour in grocery retailing. *Journal of Retailing and Consumer Services*, 36, 164–171.
- Chakraborty, G., Lala, V., & Warren, D. (2003). What do customers consider important in B2B websites? *Journal of Advertising Research*, 43(1), 50–61.
- Chan, T. K., Cheung, C. M., & Lee, Z. W. (2017). The state of online impulse-buying research: A literature analysis. *Information & Management*, 54(2), 204–217.
- Chung, N., Chung, N., Song, H. G., Song, H. G., Lee, H., & Lee, H. (2017). Consumers' impulsive buying behavior of restaurant products in social commerce. *International Journal of Contemporary Hospitality Management*, 29(2), 709–731.
- Dholakia, U. M., Bagozzi, R. P., & Pearo, L. K. (2004). A social influence model of consumer participation in network-and small-group-based virtual communities. *International Journal of Research in Marketing*, 21(3), 241–263.
- Flight, R. L., Rountree, M. M., & Beatty, S. E. (2012). Feeling the urge: Affect in impulsive and compulsive buying. *Journal of Marketing Theory and Practice*, 20(4), 453–466.

- Floh, A., & Madlberger, M. (2013a). The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications*, 12(6), 425–439.
- Floh, A., & Madlberger, M. (2013b). The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications*, 12(6), 425–439.
- Gohary, A., & Hanzaae, K. H. (2014). Personality traits as predictors of shopping motivations and behaviors: a canonical correlation analysis. *Arab Economic and Business Journal*, 9(2), 166–174.
- Ha, S., & Stoel, L. (2012). Online apparel retailing: roles of e-shopping quality and experiential e-shopping motives. *Journal of Service Management*, 23(2), 197–215.
- Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, 17(5), 403–426.
- Hsieh, J.-K., Hsieh, Y.-C., Chiu, H.-C., & Yang, Y.-R. (2014). Customer response to web site atmospherics: Task-relevant cues, situational involvement and PAD. *Journal of Interactive Marketing*, 28(3), 225–236.
- Hubert, M., Hubert, M., Florack, A., Linzmajer, M., & Kenning, P. (2013). Neural correlates of impulsive buying tendencies during perception of product packaging. *Psychology & Marketing*, 30(10), 861–873.
- Jones, M. A., Reynolds, K. E., Weun, S., & Beatty, S. E. (2003). The product-specific nature of impulse buying tendency. *Journal of Business Research*, 56(7), 505–511.
- Karat, C.-M., Karat, J., Vergo, J., Pinhanez, C., Riecken, D., & Cofino, T. (2002). That's entertainment! Designing streaming, multimedia web experiences. *International Journal of Human-Computer Interaction*, 14(3–4), 369–384.
- Keeling, K., McGoldrick, P., & Beatty, S. (2010). Avatars as salespeople: Communication style, trust, and intentions. *Journal of Business Research*, 63(8), 793–800.
- Kim, S., & Eastin, M. S. (2011). Hedonic tendencies and the online consumer: an investigation of the online shopping process. *Journal of Internet Commerce*, 10(1), 68–90.
- Lee, J., & Rao, H. R. (2009). Task complexity and different decision criteria for online service acceptance: A comparison of two e-government compliance service domains. *Decision Support Systems*, 47(4), 424–435.
- Li, W., Cui, H., & Cheng, Y. (2016). The impact of atmospherics in virtual community on online impulse buying intention: The

- moderating effect of product types. In *Service Systems and Service Management (ICSSSM), 2016 13th International Conference on* (pp. 1–5). IEEE. Retrieved from <http://ieeexplore.ieee.org/abstract/document/7538572/>
- Lim, S. H., Lee, S., & Kim, D. J. (2017). Is Online Consumers' Impulsive Buying Beneficial For E-Commerce Companies? An Empirical Investigation Of Online Consumers' Past Impulsive Buying Behaviors. *Information Systems Management*, (just-accepted). Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/10580530.2017.1254458>
- Lin, S.-W., & Lo, L. Y.-S. (2016). Evoking online consumer impulse buying through virtual layout schemes. *Behaviour & Information Technology*, 35(1), 38–56.
- Liu, Y., Li, H., & Hu, F. (2013). Website attributes in urging online impulse purchase: An empirical investigation on consumer perceptions. *Decision Support Systems*, 55(3), 829–837.
- Madhavaram, S. R., & Laverie, D. A. (2004). Exploring impulse purchasing on the internet. *NA-Advances in Consumer Research Volume 31*, 59–66.
- Mallapragada, G., Chandukala, S. R., & Liu, Q. (2016). Exploring the effects of “What”(product) and “Where”(website) characteristics on online shopping behavior. *Journal of Marketing*, 80(2), 21–38.
- McColl-Kennedy, J. R., & Sparks, B. A. (2003). Application of fairness theory to service failures and service recovery. *Journal of Service Research*, 5(3), 251–266.
- McMillan, S. J., Hwang, J.-S., & Lee, G. (2003). Effects of structural and perceptual factors on attitudes toward the website. *Journal of Advertising Research*, 43(4), 400–409.
- Merzer, M. (2014, November 23). Survey: 3 in 4 Americans make impulse purchases. Retrieved April 3, 2017, from <http://www.creditcards.com/credit-card-news/impulse-purchase-survey.php>
- Miniard, P. W., & Cohen, J. B. (1981). An examination of the Fishbein-Ajzen behavioral-intentions model's concepts and measures. *Journal of Experimental Social Psychology*, 17(3), 309–339.
- Mittal, S., Chawla, D., & Sondhi, N. (2016). Segmentation of impulse buyers in an emerging market—An exploratory study. *Journal of Retailing and Consumer Services*, 33, 53–61.

- Mohan, G., Sivakumaran, B., & Sharma, P. (2013). Impact of store environment on impulse buying behavior. *European Journal of Marketing*, 47(10), 1711–1732.
- Nah, F. F.-H., & Davis, S. (2002). HCI research issues in e-commerce. *Journal of Electronic Commerce Research*, 3(3), 98–113.
- Novak, T. P., Hoffman, D. L., & Duhachek, A. (2003). The influence of goal-directed and experiential activities on online flow experiences. *Journal of Consumer Psychology*, 13(1–2), 3–16.
- O'Brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, 41(5), 673–690. <https://doi.org/10.1007/s11135-006-9018-6>
- Olsen, S. O., Tudoran, A. A., Honkanen, P., & Verplanken, B. (2016). Differences and Similarities between Impulse Buying and Variety Seeking: A Personality-based Perspective. *Psychology & Marketing*, 33(1), 36–47.
- Parboteeah, D. V., Valacich, J. S., & Wells, J. D. (2009). The influence of website characteristics on a consumer's urge to buy impulsively. *Information Systems Research*, 20(1), 60–78.
- Park, E. J., Kim, E. Y., Funches, V. M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research*, 65(11), 1583–1589.
- Park, H. J., & Dhandra, T. K. (2017). Relation between dispositional mindfulness and impulsive buying tendency: Role of trait emotional intelligence. *Personality and Individual Differences*, 105, 208–212. <https://doi.org/10.1016/j.paid.2016.09.061>
- Park, J., & Ha, S. (2012). Understanding pro- environmental behavior: A comparison of sustainable consumers and apathetic consumers. *International Journal of Retail & Distribution Management*, 40(5), 388–403. <https://doi.org/10.1108/09590551211222367>
- Park, J., & Lennon, S. J. (2006). Psychological and environmental antecedents of impulse buying tendency in the multichannel shopping context. *Journal of Consumer Marketing*, 23(2), 56–66.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Pornpitakpan, C., Yuan, Y., & Han, J. H. (2017). The effect of salespersons' retail service quality and consumers' mood on impulse buying. *Australasian Marketing Journal (AMJ)*, 25(1), 2–11. <https://doi.org/10.1016/j.ausmj.2016.12.003>

- Rezaei, S., Ali, F., Amin, M., & Jayashree, S. (2016). Online impulse buying of tourism products: The role of web site personality, utilitarian and hedonic web browsing. *Journal of Hospitality and Tourism Technology*, 7(1), 60–83.
- Richard, M.-O., & Chebat, J.-C. (2016). Modeling online consumer behavior: Preeminence of emotions and moderating influences of need for cognition and optimal stimulation level. *Journal of Business Research*, 69(2), 541–553.
- Ruvio, A. A., & Belk, R. W. (2013). *The Routledge companion to identity and consumption*. Routledge. Retrieved from [https://books.google.com.pk/books?hl=en&lr=&id=rVJCjkLnjOkC&oi=fnd&pg=PP2&dq=Ruvio+and+Belk+\(2013\)+impulsive+buying&ots=24jX2WvKFW&sig=YtUSGYcZTcOCgHo8FGHxy-gvs5k](https://books.google.com.pk/books?hl=en&lr=&id=rVJCjkLnjOkC&oi=fnd&pg=PP2&dq=Ruvio+and+Belk+(2013)+impulsive+buying&ots=24jX2WvKFW&sig=YtUSGYcZTcOCgHo8FGHxy-gvs5k)
- Sekaran, U. (2006). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sethi, V., & King, W. R. (1994). Development of measures to assess the extent to which an information technology application provides competitive advantage. *Management Science*, 40(12), 1601–1627.
- Sharma, P., Sivakumaran, B., & Marshall, R. (2010). Impulse buying and variety seeking: A trait-correlates perspective. *Journal of Business Research*, 63(3), 276–283.
- Song, H. G., Chung, N., & Koo, C. (2015). Impulsive Buying Behavior of Restaurant Products in Social Commerce: A Role of Serendipity and Scarcity Message. In *PACIS* (p. 113). Singapore. Retrieved from [http://pacis2015.comp.nus.edu.sg/\\_proceedings/PACIS\\_2015\\_submission\\_400.pdf](http://pacis2015.comp.nus.edu.sg/_proceedings/PACIS_2015_submission_400.pdf)
- Stern, H. (1962). The significance of impulse buying today. *Journal of Marketing*, 26(2), 59–62.
- Turkylmaz, C. A., Erdem, S., & Uslu, A. (2015). The effects of personality traits and website quality on online impulse buying. *Procedia-Social and Behavioral Sciences*, 175, 98–105.
- Verhagen, T., & van Dolen, W. (2011). The influence of online store beliefs on consumer online impulse buying: A model and empirical application. *Information & Management*, 48(8), 320–327.
- Verplanken, B., & Sato, A. (2011). The psychology of impulse buying: An integrative self-regulation approach. *Journal of Consumer Policy*, 34(2), 197–210.

- Vonkeman, C., Verhagen, T., & van Dolen, W. (2017). Role of local presence in online impulse buying. *Information & Management*. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0378720617301246>
- Wells, J. D., Parboteeah, V., & Valacich, J. S. (2011). Online impulse buying: understanding the interplay between consumer impulsiveness and website quality. *Journal of the Association for Information Systems*, 12(1), 32.
- Wu, L., Chen, K.-W., & Chiu, M.-L. (2016). Defining key drivers of online impulse purchasing: A perspective of both impulse shoppers and system users. *International Journal of Information Management*, 36(3), 284–296.
- Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. *Decision Support Systems*, 54(2), 1085–1091.