



## Relationship of Advertising Appeals and Impulsive Purchasing Inclination: Role of Self-Control and Marital Status as Moderators

**Haider Iqbal**

Lecturer, Department of Business Administration, Jinnah University for Women, Karachi, Pakistan.  
[haider.iqbal@juw.edu.pk](mailto:haider.iqbal@juw.edu.pk)

**Danish Ahmed Siddiqui**

Associate Professor, Karachi University Business School, University of Karachi, Karachi, Pakistan.  
[danishsiddiqui@uok.edu.pk](mailto:danishsiddiqui@uok.edu.pk)

**Sherbaz Khan**

Managing Editor, IoBM-CBM Karachi Pakistan.  
[Email: analyzeus@gmail.com](mailto:analyzeus@gmail.com)

### Abstract

*The purpose of this research is to identify the relationship between advertising appeals and impulse purchase inclination in the presence of self-control and marital status as moderators. A pre-designed questionnaire was used to collect data. PLS-SEM (Partial Least Squares Structural Equation Modelling) is used to determine the nature of the link between the mentioned variables, as well as the function of self-control as a moderator. A multi-group analysis is conducted to see how the model varies from gender variation. Furthermore, Andrew F. Hayes Process Macro is also utilized as a data analysis approach. According to the findings of Andrew F. Hayes Process Macro, self-control has a considerable negative influence on impulse purchase inclination. According to PLS-SEM findings, entertaining advertising appeal has a considerable positive influence on the cognitive element of impulsive purchasing tendency, but informative advertising appeal has a significant positive impact on both the cognitive and affective aspects of impulse buying tendency. Surprisingly, irritating commercial appeal has a large favorable influence on the cognitive aspect of impulse purchasing inclination. However, the study discovered a minor complimentary function of self-control in the relationship between advertising appeals and impulse purchase inclination. The results of a multi-group investigation show that the influence of advertising value ad appeal on the emotive aspect of impulse purchase inclination vary greatly depending on gender. The study is significant for marketers because it shows that self-control acts as a barrier in the route of impulsive buying.*

**Keywords:** Advertising appeals, impulse buying inclination, self-control, marital status.



## Introduction

### Background of the Study

Advertising has a significant impact on customers (Qader et al., 2022). The effectiveness of advertising has been the subject of heated debate for years. As advertisers struggle to increase the effectiveness of communication, advertising appeal's type to target each group must be carefully considered (Akbari, 2015). One of the most important aspects of advertising is its appeal, which is presented in such a way as to impact people's perceptions (Raza et al., 2019). The message strategy, often known as the appeal, refers to the general style taken by the advertisement (Akbari, 2015). Advertising appeals signify the characteristics of a product, its benefits, and the brand image that marketers want to portray (Kim et al., 2020). Impulse buying has been discussed by researchers in modern/ organized retail settings as well as in the online environment (Badgaiyan et al., 2016). Advertising consumes an important share of the promotion budget. The use of internet-based media channels for advertisement is rising (Sama, 2019).

### Statement of the Problem

An estimated \$4 billion is spent impulsively each year, and around 62 percent of market revenues in superstores and around 80 percent of revenues in luxurious products are attributable to impulse purchasing (Badgaiyan et al., 2016). These figures indicate the significance of impulse purchases. Self-control is also discussed with impulse buying in the research world (Sun et al., 2023). It is claimed that impulse purchasing is a consequence of a deficiency of self-control (Barber et al., 2009). Besides, advertising has a significant impact on customers (Tallón-Ballesteros, 2023). Advertising consumes an important share of the promotion budget (Sama, 2019). As advertisers struggle to increase the effectiveness of communication, advertising appeal's type to target each group must be carefully considered (Akbari, 2015). One of the important aspects of advertising is its appeal (Pittman et al., 2022), which is presented in such a way as to impact people's perceptions (Raza et al., 2019). Impulse buying has been discussed in the studies with several variables (Chauhan et al., 2023; Redine et al., 2023; X. Zhang et al., 2023). The research adds to the present stock of knowledge by studying the influence of advertising appeals on impulse purchase inclination in the presence of self-control and marital status as moderators.

### Gap Analysis

According to (Husnain & Akhtar, 2016), marketers may reinforce and sustain impulse purchase behaviour through clever branding, attractive packaging, and labelling. The study's first restriction is that the study's respondents were all university students from the same



location, thus they do not reflect a varied community as a whole (Zaman, Khan, Shah, & Anwar, 2023). More geographically diversified samples, comparisons between nations, and an even more diverse global shopper representation are required. Secondly, the findings are limited to the FMCG shopping context (Zaman, Khan, Zaman, & Khan, 2023).

The existence of an entertaining, pleasant, and appealing in-store shopping environment, according to the findings of (Ali & Hasnu, 2013), enhances the chance of impulsive purchase among customers. This study, however, has an extremely small sample size and is geographically restricted to Abbottabad and Islamabad. A broader sample of data from other cities might produce different conclusions. A sample of roughly 350 people from Karachi was recruited for our study.

Lim & Kim, (2021) discovered that consumers who are not psychologically stable are more likely to exhibit traits associated with purchasing impulsivity, emotional attention to the visual appeal of shopping websites, and the urge to make impulsive purchases in the context of online shopping.

(Deshpande et al., 2022) shows that humour (scarcity) enhances impulse purchase of vice (virtue) items (sense of uniqueness) through anticipation of enjoyment. This research has limits despite its great contributions. First, in line with other studies, student samples from Indian institutions were utilised in this investigation (Zafar, ul Haque, & Khan, 2023).

Advertising consumes an important share of the promotional budget (Sama, 2019) and has a significant impact on consumer behavior (Deshpande et al., 2023; Y. Zhang & Yang, 2023). Advertisers struggle to increase communication effectiveness and appropriate advertising appeal plays an important role in this regard (Akbari, 2015). The concept of impulsive purchasing has been discussed in the studies with several variables (Bashar et al., 2022). The research contributes to the present knowledge by studying the impact of advertising appeals on impulse purchasing propensity in the presence of self-control and marital status as moderators (Si, Jalees, Zaman, Kazmi, & Khan, 2023).

### **Objectives of the Study**

The major objective of the research is to identify the impact of advertisement appeals on impulse buying inclination in the presence of self-control as a moderator. The research is also intended to examine how these relations change with varying marital status.

### **Significance of the Study**

An estimated \$4 billion is spent impulsively each year, with impulsive buying accounting for around 62 percent of market revenues in superstores and almost 80 percent of revenues in luxurious items. (Badgaiyan et al., 2016). The study is useful to advertisers because it



indicates the effectiveness of different advertising appeals in encouraging impulse purchases which have been proved as a phenomenon generating massive revenues and profits for various industries and businesses.

### **Literature Review**

Businesses expend a noteworthy share of their budget on creating and running ads to communicate info about their organization and goods (Luzon et al., 2022). Businesses expect that customers would purchase their goods as an outcome of advertising that carries messages regarding a certain product and its items (Yang et al., 2022). Advertising has a significant impact on customers and frequently increases consumer demand (K, 2023). According to Kim et al. (2020), both rational and emotional appeals have noteworthy effects on the value–satisfaction–trust–WOM setting, according to research. It is revealed by the studies discussed that both emotional and rational appeals are important for the factors including advertising attitudes, purchase intention, customer satisfaction etc. (Kim et al., 2020).

Consumers who collaborate on the attainment and distribution of resources for consumption in return for some kind of return are known as collaborative consumers. It has become the primary sustainable consumption form in the sharing economy (Rashid, Khan, Rasheed, & Amirah, 2023). According to researchers, the tourism industry has given sustainable consumption a lot of consideration. Though, from the standpoint of theoretical science, the mental process of collaborative consumption as the key method of sustainable consumption has not been fully understood (H. Zhang et al., 2020). The researchers investigate the influence of advertisement appeals on customers' inclination to engage in collaborative consumption (Raees, Khan, & Zaheer, 2023). Via two mental studies, it is assumed that, in comparison to the rationality-based appeal, the emotions-based appeal will positively impact customers' inclination to participate in collaborative consumption, and mental ownership will mediate this association (Khan, Ayub, Khan, & Khan, 2023). The result is inconsistent with the research conducted by Kim et al. (2020) where both types of appeals are found important for several factors. An estimated \$4 billion is spent impulsively each year, and around 62 percent of market revenues in superstores and around 80 percent of revenues in luxurious products are attributable to impulsive buying (Badgaiyan et al., 2016).

The phenomenon of impulse purchasing is exciting since it is impacted not just by internal psychological variables nonetheless also by outside, market-related inducements (Iyer et al., 2020). Impulse purchase behavior is a characteristic that most commonly affects groups of people who have recently begun to make money in urban areas (Jamil, Khan, & Seraj, 2023).



It is evident from the literature that different advertising appeals are effective for different products, however, their collective importance in enhancing sales cannot be denied and ignored (Jamil, Khan, Khan, & Yousuf, 2023). This is the reason companies expend a significant share of their budget on creating and running promotional commercials to communicate information about their organization and products. There is evidence in the impulsive buying literature and business data that impulsive purchasing is responsible for more than half of all buying indicating the worth of impulse purchases. Moreover, impulse purchasing has also been outlined as a consequence of a lack of self-control (Hyder, Khan, & Rasheed, 2023).

### **Theoretical Framework**

#### **Advertising Value**

Advertising value is an individual evaluation of advertising's comparative value or usefulness to customers. An advertisement that provides useful information is considered favorable (Redondo & Aznar, 2018).

#### **Informativeness**

Informativeness refers to an advertiser's capacity to give up-to-date, conveniently available, precise, and promptly available information (Fung & Lee, 1999). Ads that are informative lead to a more optimistic attitude in the consumer towards them, that helps to promote brand loyalty (Wang et al., 2009).

#### **Deceptiveness**

From a consumer's perspective, it's important to be aware of advertisement deceptiveness, which happens when customers come to believe apparently false information as a result of exposure to commercial (Olson & Dover, 1978).

#### **Entertainment**

When viewers who watch an ad experience a sense of pleasure, the effect is called entertainment (Ünal et al., 2011). Ads that are not entertaining are generally skipped by viewers, while ads that are entertaining are typically watched (Jeon et al., 2019). Entertainment is playing a role in the increased viewing of in-stream ads (Joa et al., 2018).

#### **Irritation**

An advertisement that is irritating to viewers may cause them to feel irritated (Ducoffe, 1995), distressing (Chungviwatanant et al., 2016), or diverting (Chen & Wells, 1999). Irritation is the negative attitude of consumers toward useless messages (Aslam et al., 2016).



### **Cognitive and Affective Factors of Impulse Buying**

The tendency to impulsively buy is a measure of how often an individual makes unintended and instant purchases (Rook & Fisher, 1995). It is believed that impulse purchasing is a function of affect (feelings) and cognition (thinking) (Youn, 2000).

#### **Self-Control (Moderator)**

Self-control is the ability of beings to resist urges from within and from outside of themselves that might get in the way of their long-term objectives (Tangney et al., 2018). The empirical data reveals that those with good self-control perform better in a variety of aspects of life (Tangney et al., 2018).

#### **Hypothesis Development**

Advertising value influences viewer attitudes positively which has an immediate effect on customer behavior (Tsang et al., 2004). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Abstract goals lead to impulse purchases (Bell et al., 2011). Furthermore, impulse purchasing is a function of cognition and affect (Youn, 2000). Hence:

**Hypothesis-1:** Advertising value has a significant positive influence on the affective factor of impulse purchasing tendency.

**Hypothesis-2:** Advertising value has a significant positive influence on the cognitive factor of impulse purchasing tendency.

The negative attitude stem mostly from the belief that advertising is dishonest and annoying (Chan & McNeal, 2003). A negative attitude can give rise to impulse buys. Hence:

**Hypothesis-3:** Deceptiveness has a significant positive influence on the affective factor of impulse purchasing tendency.

**Hypothesis-4:** Deceptiveness has a significant positive influence on the cognitive factor of impulse purchasing tendency.

Consumers will develop positive attitudes toward advertisements if they see them as entertaining (Aslam et al., 2016). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Abstract goals lead to impulse purchases (Bell et al., 2011). Hence:

**Hypothesis-5:** Entertainment has a significant positive influence on the affective factor of impulse purchasing tendency.

**Hypothesis-6:** Entertainment has a significant positive influence on the cognitive factor of impulse purchasing tendency.



Customers develop a favorable attitude towards advertisements when they believe they are informative (Tsang et al., 2004). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Hence:

**Hypothesis-7:** Informativeness has a significant positive influence on the affective factor of impulse purchasing tendency.

**Hypothesis-8:** Informativeness has a significant positive influence on the cognitive factor of impulse purchasing tendency.

Irritation can be defined as customers' negative attitudes regarding useless messages (Aslam et al., 2016). Impulsive buying may result from a negative attitude. Hence:

**Hypothesis-9:** Irritation has a significant positive influence on the affective factor of impulse purchasing tendency.

**Hypothesis-10:** Irritation has a significant positive influence on the affective factor of impulse purchasing tendency.

Advertising value influences viewer attitudes positively which has an immediate effect on customer behavior (Tsang et al., 2004). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Abstract goals lead to impulse purchases (Bell et al., 2011). Research reveals that self-control can reduce impulse buying tendencies (Sultan et al., 2012). Hence:

**Hypothesis-11:** *Self-Control significantly moderates the relation of advertising value and the affective factor of impulse purchasing tendency.*

**Hypothesis-12:** *Self-Control significantly moderates the relation of advertising value and cognitive factor of affective factor of impulse purchasing tendency.*

The negative attitude stem mostly from the belief that advertising is dishonest and annoying (Chan & McNeal, 2003). A negative attitude can give rise to impulse buys. Also, research reveals that self-control can reduce impulse buying tendencies (Sultan et al., 2012). Hence:

**Hypothesis-13:** *Self-Control significantly moderates the relation of deceptiveness and affective factor of impulse buying tendency.*

**Hypothesis-14:** *Self-Control significantly moderates the relation of deceptiveness and cognitive factor of impulse buying tendency.*

Consumers will develop positive attitudes toward advertisements if they see them as entertaining (Aslam et al., 2016). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Research reveals that self-control can reduce impulse buying tendencies (Sultan et al., 2012). Hence:



**Hypothesis-15:** *Self-Control significantly moderates the relation of entertainment and the affective factor of impulse purchasing inclination.*

**Hypothesis-16:** *Self-Control significantly moderates the relationship between entertainment and cognitive factor of impulse buying tendency.*

Customers develop a favorable attitude towards advertisements when they believe they are informative (Tsang et al., 2004). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Research reveals that self-control can reduce impulse buying tendencies (Sultan et al., 2012). Hence:

**Hypothesis-17:** *Self-Control significantly moderates the relation of informativeness and the affective factor of impulse purchasing inclination.*

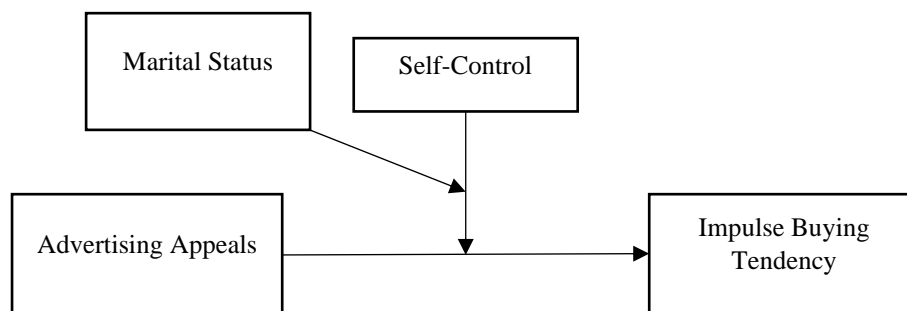
**Hypothesis-18:** *Self-Control significantly moderates the relationship between informativeness and cognitive factor of impulse buying tendency.*

Irritation can be defined as customers' negative attitudes regarding useless messages (Aslam et al., 2016). Impulsive buying may result from a negative attitude. Also, research reveals that self-control can reduce impulse buying tendencies (Sultan et al., 2012). Hence:

**Hypothesis-19:** *Self-Control significantly moderates the relation of irritation and the affective factor of impulse purchase inclination.*

**Hypothesis-20:** *Self-Control significantly moderates the relationship between irritation and cognitive factor of impulse buying tendency.*

Figure 1  
*Conceptual Model of the Study*



### Research Methodology

The research approach is qualitative, while the data is analyzed using quantitative methods. Advertising appeals and impulse buying tendency are taken as independent and dependent variables respectively (Arif, Shah, & Khan, 2023). Furthermore, self-control and marital status are taken as moderators. Convenience sampling is used to collect data from approximately 350 respondents via predesigned questionnaire containing closed-ended





questions, the response rate is above 95% for almost all the questions. To measure the impulse buying tendency, cognitive and affective factors of the variable are used with each factor having 4 items (Badgaiyan et al., 2016). The scale covering 36 items is used to measure the self-control of the respondents (Tangney et al., 2018). Moreover, advertising appeals include advertising value, informativeness, deceptiveness, entertainment, and irritation, each appeal comprises 3 items (Ducoffe, 1995). These scales have been used by various similar research and are considered as valid and reliable.

The major reason behind the usage of convenience sampling is that in today's era of ever-increasing advertising and promotion by the brands, everyone is being targeted by the marketers by one way or another. Moreover, impulse purchasing is also the phenomenon quite common among all the masses.

Google forms, containing the questionnaire, were sent to the respondents approached through various social media platforms. To ascertain the nature of the association between advertising appeals and the propensity for impulse purchase as well as the function of self-control as a moderator of the relationship, partial least square structural equation modelling (PLS-SEM) is utilized. To determine how the model varies from gender variation, a multi-group study is conducted. Furthermore, self-control and marital status are regarded as the primary and secondary moderators of the connection, respectively, in the Andrew F. Hayes Process Macro data analysis approach. Besides, Smart PLS, SPSS, and MS-Excel software are used for data management and analysis.

## Data Analysis and Results

### Demographic Analysis

Table 1. Demographics of the Respondents (n = 346)

Demographics	Frequency	Percentage
<b>Gender</b>		
Male	144	41.6
Female	202	58.4
<b>Age</b>		
18-24	207	59.8
25-34	106	30.6
35-44	25	7.2
45-54	5	1.4
55-64	3	.9
<b>Marital Status</b>		
Single	264	76.3
Married	78	22.5



Divorced	3	.9
Separated	1	.3
<b>Education</b>		
Intermediate	48	13.9
Bachelors	168	48.6
Masters	110	31.8
Master's above	20	5.8
<b>Family Size</b>		
1-3	40	11.6
4-6	201	58.1
7-9	75	21.7
10 and above	30	8.7

Source: Authors' Computation

Table 1 depicts the demographic profile of the respondents. In total, approximately 42% are male and 58% are female. The largest chunk of the respondents is from the age bracket of 18-24 (around 60%) while about 30% are from the next age bracket (25-34), high contribution is seen from the respondents having bachelor's level education (48.6%) followed by the respondents having the education of masters level (31.8%). Most of the respondents are single (75%), while above 20% are married. Moreover, the majority of the respondents (around 60%) have a family size of 4-6 members following the family size bracket of 7-9 members (approximately 20%).

### Measurement Model Analysis

Table 2.

Measurement Model Assessment

	Items	Loadings <sup>a</sup>	AVE <sup>b</sup>	CR <sup>c</sup>	Rho A <sup>d</sup>
Advertising Value	AA1	0.871	0.663	0.854	0.798
	AA2	0.829			
	AA3	0.736			
Informativeness	AA4	0.758	0.621	0.831	0.706
	AA5	0.812			
	AA6	0.793			
Deceptiveness	AA7	Single Item	Single Item	Single Item	Single Item
	AA10	0.851	0.745	0.897	0.829
Entertainment	AA11	0.906	0.675	0.861	0.764
	AA12	0.830			
	AA15	Single Item			
Irritation	IBT2	0.921	0.823	0.903	0.797
	IBT3	0.893			
	IBT5	0.838			
Affective Factor	IBT6	0.825	0.675	0.861	0.764
	IBT8	0.800			
	SC6	0.741			
Self-Control	SC31	0.814			
	SC32	0.781			

Source: Authors' Computation



Items removed include AA8, AA9, AA13, AA14, SC1, SC2, SC3, SC4, SC5, SC7, SC8, SC9, SC10, SC11, SC12, SC13, SC14, SC15, SC16, SC17, SC18, SC19, SC20, SC21, SC22, SC23, SC24, SC25, SC26, SC27, SC28, SC29, SC30, SC33, SC34, SC35 as indicator items loadings were lesser than 0.5. All item loadings > 0.5 indicates indicator reliability (Hulland, 1999). All Average Variance Extracted (AVE) > 0.5 indicates convergent validity (Bagozzi & Yi, 1988). All Composite Reliability (CR) > 0.7 indicates internal consistency (Gefen et al., n.d.). Furthermore, all Rho A > 0.7 indicates indicator reliability (Henseler et al., 2015) (Table 2). Indicator reliability signifies how much of the variation in an item is explained by the construct. The degree to which the construct converges to explain the variance of its indicators is known as convergent validity. The degree to which indicators measuring the same construct are related to one another is known as internal consistency reliability.

Table 3

Cross Loadings criterion result

	AV	AF	CF	Dec	Ent	Inf	Irr	SC
AA1	<b>0.871</b>	0.042	0.176	0.086	0.228	0.314	0.044	0.016
AA2	<b>0.829</b>	0.092	0.129	0.159	0.157	0.274	0.025	0.102
AA3	<b>0.736</b>	0.036	0.090	0.051	0.202	0.296	-0.003	0.038
IBT5	0.016	<b>0.838</b>	-0.269	0.068	0.061	0.082	0.045	0.320
IBT6	0.085	<b>0.825</b>	-0.196	0.091	0.133	0.184	0.015	0.322
IBT8	0.068	<b>0.800</b>	-0.048	0.134	0.130	0.177	0.146	0.363
IBT2	0.197	-0.165	<b>0.921</b>	0.059	0.167	0.219	0.221	0.062
IBT3	0.104	-0.194	<b>0.893</b>	0.091	0.198	0.185	0.168	-0.022
AA7	0.127	0.123	0.081	<b>1.000</b>	0.113	0.104	0.189	0.089
AA10	0.176	0.114	0.166	0.097	<b>0.851</b>	0.123	0.022	0.057
AA11	0.223	0.140	0.162	0.096	<b>0.906</b>	0.231	-0.119	0.053
AA12	0.216	0.095	0.188	0.098	<b>0.830</b>	0.245	-0.090	0.029
AA4	0.318	0.144	0.130	0.016	0.176	<b>0.758</b>	-0.086	0.093
AA5	0.274	0.155	0.199	0.107	0.196	<b>0.812</b>	0.016	0.061
AA6	0.264	0.139	0.191	0.110	0.179	<b>0.793</b>	0.013	0.086
AA15	0.032	0.089	0.216	0.189	-0.074	-0.018	<b>1.000</b>	0.089
SC6	0.104	0.308	0.045	0.074	0.030	0.046	0.096	<b>0.741</b>
SC31	0.005	0.325	0.023	0.026	0.077	0.054	0.074	<b>0.814</b>
SC32	0.040	0.327	-0.007	0.109	0.018	0.131	0.038	<b>0.781</b>

Source: Authors' Computation

Table 3 reveals that all the items have the highest loadings on their respective construct. The results depict that discriminant validity has been achieved. The purpose of discriminant validity is to determine how unique the study's constructs are. It demonstrates that each study construct has a distinct identity and is not overly connected with other study constructs.

Table 4

HTMT Results

	Advertis ing value	Affectiv e factor	Cogniti ve factor	Decepti veness	Enterta inment	Inform ativeness	Irritati on	Self- control
Advertising value								
Affective factor	<b>0.089</b>							
Cognitive factor	<b>0.205</b>	<b>0.271</b>						
Deceptiveness	<b>0.139</b>	<b>0.136</b>	<b>0.093</b>					
Entertainment	<b>0.303</b>	<b>0.165</b>	<b>0.249</b>	<b>0.124</b>				
Informativeness	<b>0.503</b>	<b>0.246</b>	<b>0.295</b>	<b>0.118</b>	<b>0.304</b>			
Irritation	<b>0.034</b>	<b>0.096</b>	<b>0.242</b>	<b>0.189</b>	<b>0.098</b>	<b>0.058</b>		
Self-control	<b>0.114</b>	<b>0.568</b>	<b>0.077</b>	<b>0.109</b>	<b>0.078</b>	<b>0.150</b>	<b>0.109</b>	

Source: Authors' Computation

Table 4 reveals that all the values are either < 0.850 or < 1. As per Henseler et al. (2015), the discriminant validity has been attained.

**Structural Model Analysis**

Table 5

Complete Hypothesis Testing Results

Relationship	Coef.	T Stat	Decision	
			p-Value	Outcome
Advertising Value -> Affective Factor	-0.024	0.384	<b>0.701</b>	Unsupported
Advertising Value -> Cognitive Factor	0.067	1.131	<b>0.258</b>	Unsupported
Deceptiveness -> Affective Factor	0.066	1.185	<b>0.236</b>	Unsupported
Deceptiveness -> Cognitive Factor	-0.016	0.298	<b>0.765</b>	Unsupported
Entertainment -> Affective Factor	0.085	1.542	<b>0.123</b>	Unsupported
Entertainment -> Cognitive Factor	0.159	2.883	<b>0.004</b>	Supported
Informativeness -> Affective Factor	0.121	2.214	<b>0.027</b>	Supported
Informativeness -> Cognitive Factor	0.168	2.685	<b>0.007</b>	Supported
Irritation -> Affective Factor	0.062	1.218	<b>0.223</b>	Unsupported
Irritation -> Cognitive Factor	0.230	4.008	<b>0.000</b>	Supported
Self-Control * Advertising Value (A) -> Affective Factor	0.070	0.945	<b>0.344</b>	Unsupported
Self-Control * Advertising Value (C) -> Cognitive Factor	0.051	0.799	<b>0.424</b>	Unsupported
Self-Control * Deceptiveness (A) -> Affective Factor	-0.048	0.917	<b>0.359</b>	Unsupported
Self-Control * Deceptiveness (C) -> Cognitive Factor	-0.012	0.260	<b>0.795</b>	Unsupported
Self-Control * Entertainment (A) -> Affective Factor	-0.056	1.057	<b>0.290</b>	Unsupported
Self-Control * Entertainment (C) -> Cognitive Factor	0.025	0.435	<b>0.664</b>	Unsupported
Self-Control * Informativeness (A) -> Affective Factor	-0.013	0.233	<b>0.816</b>	Unsupported
Self-Control * Informativeness (C) -> Cognitive Factor	-0.021	0.357	<b>0.721</b>	Unsupported
Self-Control * Irritation (A) -> Affective Factor	-0.070	1.277	<b>0.201</b>	Unsupported
Self-Control * Irritation (C) -> Cognitive Factor	0.090	1.549	<b>0.121</b>	Unsupported

Source: Authors' Computation

The findings of the hypothesis test are displayed in Table 5. The findings show that informative advertising appeal has a considerable favorable influence on both the cognitive

and emotional aspects of the impulsive purchasing propensity, whereas entertaining advertising appeal has a large positive impact on the cognitive aspect. All other hypotheses are shown to be rejected by the data, whereas annoying ad appeal also has a strong beneficial influence on the cognitive element of impulse purchase inclination.

### Multi-Group Analysis (MGA)

Figure 2  
 PLS-SEM Model for the Marital Status (Single)

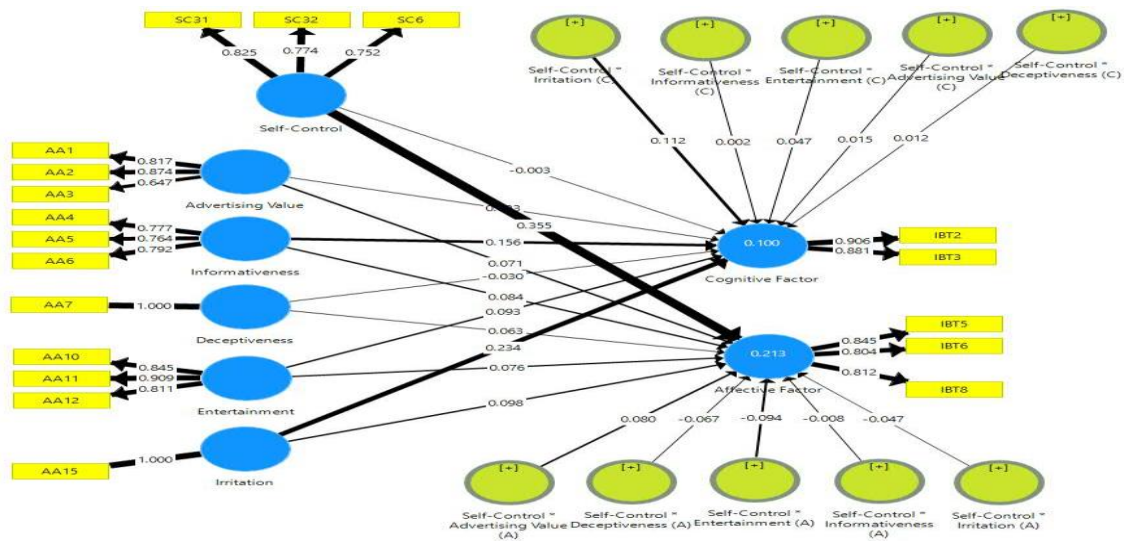
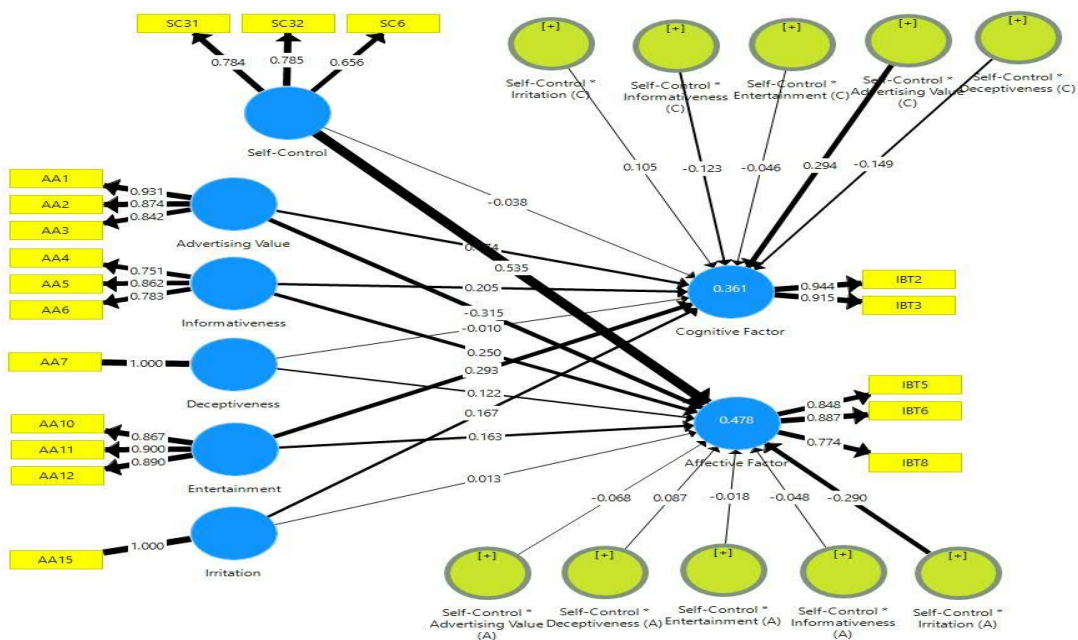


Figure 3  
 PLS-SEM Model for the Marital Status (Married)





Figures 2 and 3 are the PLS-SEM models for the marital status of single and married respectively. The thickness of the arrows from one variable to another reveals the strength of the relationship between them. A comparison of the models shows how the strength of the relationships differs in each of the cases.

Table 6

PLS-MGA Results

	Path Coefficients-diff (Single - Married)	p-Value original 1-tailed (Single vs Married)	p-Value new (Single vs Married)
Advertising Value -> Affective Factor	0.3866	0.0093	0.0187
Advertising Value -> Cognitive Factor	-0.1415	0.8175	0.3649
Deceptiveness -> Affective Factor	-0.0586	0.6847	0.6306
Deceptiveness -> Cognitive Factor	-0.0199	0.5539	0.8922
Entertainment -> Affective Factor	-0.0869	0.7308	0.5383
Entertainment -> Cognitive Factor	-0.1997	0.9234	0.1532
Informativeness -> Affective Factor	-0.1665	0.8444	0.3112
Informativeness -> Cognitive Factor	-0.0488	0.6173	0.7654
Irritation -> Affective Factor	0.0841	0.2925	0.5849
Irritation -> Cognitive Factor	0.0664	0.3155	0.6309
Self-Control * Advertising Value (A) -> Affective Factor	0.1484	0.2334	0.4669
Self-Control * Advertising Value (C) -> Cognitive Factor	-0.2794	0.8592	0.2816
Self-Control * Deceptiveness (A) -> Affective Factor	-0.1548	0.8553	0.2894
Self-Control * Deceptiveness (C) -> Cognitive Factor	0.1616	0.1891	0.3782
Self-Control * Entertainment (A) -> Affective Factor	-0.0754	0.7094	0.5812
Self-Control * Entertainment (C) -> Cognitive Factor	0.0924	0.2739	0.5479
Self-Control * Informativeness (A) -> Affective Factor	0.0397	0.4234	0.8468
Self-Control * Informativeness (C) -> Cognitive Factor	0.1257	0.2346	0.4692
Self-Control * Irritation (A) -> Affective Factor	0.2433	0.0970	0.1941
Self-Control * Irritation (C) -> Cognitive Factor	0.0073	0.5169	0.9661

Source: Authors' Computation

According to Table 6, the effect of advertising value and appeal on the emotional component of impulse purchase tendency differs dramatically from gender differences.



**Andrew F. Hayes Process Macro Analysis**

$F(7,338) = 10.2845, p < 0.001, R^2 = 0.1756$

Advertising appeals  $b1 = -.0035, t(338) = -.0439, p = .9650$

Self-control  $b2 = -.6642, t(338) = -8.0429, p < 0.001$

Marital Status  $b3 = -.0708, t(338) = -1.1410, p = .2547$

Int\_1  $b4 = -.2572, t(338) = -1.3652$

Int\_2  $b5 = -.0168, t(338) = -.1056$

Int\_3  $b6 = .2003, t(338) = 1.2260$

Int\_4  $b7 = .2550, t(338) = .6461$

Product terms key:

Int\_1: Advertising appeals x Self-control

Int\_2: Advertising appeals x Marital status

Int\_3: Self-control x Marital status

Int\_4: Advertising appeals x Self-control x Marital status

Equivalent test of moderated moderation depicting 3-way interaction  $X*W*Z F(1,338) = .4175, p = .5186$

p value of F statistics depicts that model is significant. Self-control has a significant impact; however, advertising appeals and demographic variables (marital status) have an insignificant impact on impulse buying tendency, p value reveals. Moreover, all the interactions are also found insignificant.

Table 7

Conditional effect of self-control at different marital status

<b>Conditional effect of self-control at different marital status</b>	
<b>Marital Status: Single</b>	
Effect	Indifferent
<b>Marital Status: Married</b>	
Effect	Indifferent
<b>Marital Status: Others</b>	
Effect	Indifferent

Source: Authors' Computation

Table 7 depicts that the conditional effect of self-control at different marital statuses is indifferent.



Table 8

Conditional effect of advertising appeals with interactions of self-control and different marital status

<b>The conditional effect of advertising appeals to interactions of self-control and different marital status</b>	
<b>Marital Status: Single</b>	
Low self-control	Insignificant effect
Average self-control	Insignificant effect
High self-control	Insignificant effect
<b>Marital Status: Married</b>	
Low self-control	Insignificant effect
Average self-control	Insignificant effect
High self-control	Insignificant effect
<b>Marital Status: Others</b>	
Low self-control	Insignificant effect
Average self-control	Insignificant effect
High self-control	Insignificant effect

Source: Authors' Computation

Table 8 reveals that the conditional effect of advertising appeals with interactions of self-control and different marital status is insignificant.

## Conclusion and Discussion

### Discussion

It is claimed that impulse purchasing is a consequence of a deficiency of self-control (Barber et al., 2009). The results of Andrew F. Hayes Process Macro are consistent with the claim. Additionally, the findings of a multi-group research demonstrate that the influence of advertising value and appeal on the emotional element of impulse purchasing tendency considerably varies by gender. Moreover, it is claimed that consumers who are in a good mood spend more money (Murray et al., 2010). This may be the likely cause that deceptiveness and irritation in advertising appeal do not have a significant positive influence on impulsive purchase.

In general, impulse purchases have negative normative consequences (Miao & Mattila, 2013). However, impulse buying can have a positive impact; for example, if consumers purchase virtue goods like yoghurt and healthful cookies on the spur of the moment, it is beneficial to them. The discussion shows that self-control reduces undesirable outcomes while impulse may have desirable consequences as well, this may be the possible reason that self-control is not significantly moderating the relationships between various advertising appeals and impulse buying tendencies.





An advertisement that provides useful information is considered favorable (Redondo & Aznar, 2018). Most people associate impulsive purchases with pleasure (Verplanken & Sato, 2011). The act of purchasing on impulse may therefore be to feel happy and to get rid of any negativity in the attitude and advertising value, as well as entertainment both, are considered favorable for the customers which eventually create positivity in their attitude.

Customers develop a favorable attitude towards advertisements when they believe they are informative (Tsang et al., 2004). When customers feel good, they shift their attention away from particular objectives and towards vague ones (Hicks & King, 2007). Abstract goals lead to impulse purchases (Bell et al., 2011). PLS-SEM findings support this, revealing that informative advertising appeal has a considerable favorable influence on both cognitive and emotional components of impulse purchase inclination. As argued previously, consumers will develop positive attitudes toward advertisements if they see them as entertaining (Aslam et al., 2016). The findings also indicate that amusing advertising appeal has a strong favorable effect on the cognitive aspect of impulsive purchase. Impulsive buying may result from a pessimistic mindset. The PLS-SEM findings support the assumption and show that annoying ad appeal significantly influences the cognitive component of the impulse purchase tendency.

### **Conclusion and Recommendations**

Advertisers struggle to increase communication effectiveness and appropriate advertising appeal plays an important role in this regard (Akbari, 2015). Ad appeal is among the most important aspects of advertisement, which is shown in such a way as to impact people's perceptions (Raza et al., 2019). The message strategy, often known as the appeal, refers to the general style taken by the advertisement (Akbari, 2015) Advertising consumes a major share of the promotional budget and has a significant impact on consumer behavior (Sama, 2019). It indicates the significance of impulse purchases. Besides, it is also claimed that impulse purchasing has been framed as an outcome of a deficiency of self-control (Barber et al., 2009). The research contributes to the present knowledge by studying the impact of advertising appeals on impulsive purchasing inclination in the presence of self-control and marital status as moderators. The study will be beneficial for the advertisers because it reveals the effectiveness of various advertising appeals in persuading impulse buying. Customers have a favorable attitude towards advertisements when they believe that they are informative. Moreover, it is claimed that consumers will develop positive attitudes toward advertisements if they see them as entertaining. Besides other findings, the results also reveal that informativeness and entertainment in ad appeals can play a vital role in boosting impulse



buying. Therefore, the advertisers should include these two ad appeals appropriately in their ads to get maximum benefits from their advertising expenditures and efforts.

### References

- Akbari, M. (2015). Different Impacts of Advertising Appeals on Advertising Attitude for High and Low Involvement Products. *Global Business Review*, 16(3), 478–493. <https://doi.org/10.1177/0972150915569936>
- Akram, U., Hui, P., Kaleem Khan, M., Tanveer, Y., Mehmood, K., & Ahmad, W. (2018). How website quality affects online impulse buying: Moderating effects of sales promotion and credit card use. *Asia Pacific Journal of Marketing and Logistics*, 30(1), 235–256. <https://doi.org/10.1108/APJML-04-2017-0073>
- Ali, A., & Hasnu, S. (2013). AN ANALYSIS OF IN-STORE SHOPPING ENVIRONMENT ON CONSUMERS' IMPULSE BUYING: EVIDENCE FROM PAKISTAN. Retrieved On, 560–570.
- Arif, M., Shah, A., & Khan, S. (2023). Embracing the Future: Evaluating the Strategic Impact of Digital Supply Chain Integration on Business Performance. *Journal of Asian Development Studies*, 12(3).
- Arif, M., Shah, A., & Khan, S. (2023). Strategic Impact of Industry 4.0 and Big Data on Supply Chain Efficacy in Pakistani Manufacturing. *The Asian Bulletin of Big Data Management*, 3(1), 56-78.
- Arif, M., Shah, A., & Khan, S. (2023). THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN SHAPING SUSTAINABLE AND RESILIENT DIGITAL SUPPLY CHAINS. *Pakistan Journal of International Affairs*, 6(3).
- Aslam, W., Batool, M., & Haq, Z. U. (2016). Attitudes and behaviors of the mobile phones users towards SMS advertising: A study in an emerging economy. *Journal of Management Sciences*, 3(1), 63–80.
- Badgaiyan, A. J., Verma, A., & Dixit, S. (2016). Impulsive buying tendency: Measuring important relationships with a new perspective and an indigenous scale. *IIMB Management Review*, 28(4), 186–199. <https://doi.org/10.1016/j.iimb.2016.08.009>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>
- Barber, L. K., Munz, D. C., Bagsby, P. G., & Grawitch, M. J. (2009). When does time perspective matter? Self-control as a moderator between time perspective and academic achievement. *Personality and Individual Differences*, 4. <https://doi.org/10.1016/j.paid.2008.10.007>
- Bashar, A., Singh, S., & Pathak, V. K. (2022). A bibliometric review of online impulse buying behaviour. *International Journal of Electronic Business*. <https://www.inderscienceonline.com/doi/10.1504/IJEB.2022.121963>
- Bell, D. R., Corsten, D., & Knox, G. (2011). From point of purchase to path to purchase: How preshopping factors drive unplanned buying. *Journal of Marketing*, 75(1), 31–45.
- Chan, K., & McNeal, J. U. (2003). Parental concern about television viewing and children's advertising in China. *International Journal of Public Opinion Research*, 15(2), 151–166.
- Chauhan, S., Banerjee, R., & Dagar, V. (2023). Analysis of Impulse Buying Behaviour of Consumer During COVID-19: An Empirical Study. *Millennial Asia*, 14(2), 278–299. <https://doi.org/10.1177/09763996211041215>
- Chen, Q., & Wells, W. D. (1999). Attitude toward the site. *Journal of Advertising Research*, 39(5), 27–38.



- Chungviwatanant, T., Prasongsukarn, K., & Chungviwatanant, S. (2016). A study of factors that affect consumer's attitude toward a "skippable in-stream ad" on YouTube. *AU-GSB e-JOURNAL*, 9(1), 83–83.
- Deshpande, B., Kaur, P., Ferraris, A., Yahiaoui, D., & Dhir, A. (2023). The dark side of advertising: Promoting unhealthy food consumption. *European Journal of Marketing*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/EJM-08-2021-0659>
- Deshpande, B., Pradhan, D., Sivakumaran, B., & Lyngdoh, T. (2022). The impact of advertising appeals on impulse buying. *Marketing Intelligence & Planning*, 40(3), 358–371. <https://doi.org/10.1108/MIP-11-2021-0390>
- Dodoo, N. A. (n.d.). Exploring the antecedent impact of personalised social media advertising on online impulse buying tendency. 23. <https://doi.org/10.1504/IJIMA.2019.097905>
- Ducoffe, R. H. (1995). How Consumers Assess the Value of Advertising. *Journal of Current Issues & Research in Advertising*, 17(1), 1–18. <https://doi.org/10.1080/10641734.1995.10505022>
- Fung, R., & Lee, M. (1999). EC-Trust (Trust in Electronic Commerce): Exploring the Antecedent Factors. *AMCIS 1999 Proceedings*. <https://aisel.aisnet.org/amcis1999/179>
- Gefen, D., Straub, D., & Boudreau, M.-C. (n.d.). *Structural Equation Modeling and Regression: Guidelines for Research Practice*. 4, 78.
- Haque, I. U., Khan, S., & Mubarik, M. S. (2023). Effect of Social Media Influencer on Consumer Purchase Intention: A PLS-SEM Study on Branded Luxury Fashion Clothing. *Journal Of Mass Communication Department, Dept of Mass Communication ...*, 2.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hicks, J. A., & King, L. A. (2007). Meaning in life and seeing the big picture: Positive affect and global focus. *Cognition and Emotion*, 21(7), 1577–1584.
- Hulland, J. (1999). Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal*, 20(2), 195–204. <https://www.jstor.org/stable/3094025>
- Husnain, M., & Akhtar, M. W. (2016). Impact of Branding on Impulse Buying Behavior: Evidence from FMCG'S sector Pakistan. *International Journal of Business Administration*, 7(1), p59. <https://doi.org/10.5430/ijba.v7n1p59>
- Hyder, M., Khan, S., & Rasheed, R. (2023). An In-Depth Exploration of The Societal Impact Of Athletic Events In A Developing Country–A Study Of University Students. *Propel Journal of Academic Research*, 3(1), 119-143.
- Iyer, G. R., Blut, M., Xiao, S. H., & Grewal, D. (2020). Impulse buying: A meta-analytic review. 21. <https://doi.org/10.1007/s11747-019-00670-w>
- Jamil, S., Khan, M. I., Khan, S., & Yousuf, M. (2023). Change in Institutional Policies and its Impact on Employees' Performance During Covid-19 Pandemic: An Analysis of The Higher Education Sector in Pakistan. *Propel Journal of Academic Research*, 3(1), 56-85.
- Jamil, S., Khan, S., & Seraj, S. S. (2023). An SEM-based study on Intrinsic Motivation in the Education Sector: The role of GHRM Practices. *Voyage Journal of Educational Studies*, 3(2), 305-325.
- Jeon, Y. A., Son, H., Chung, A. D., & Drumwright, M. E. (2019). Temporal certainty and skippable in-stream commercials: Effects of ad length, timer, and skip-ad button on irritation and skipping behavior. *Journal of Interactive Marketing*, 47, 144–158.



- Joa, C. Y., Kim, K., & Ha, L. (2018). What makes people watch online in-stream video advertisements? *Journal of Interactive Advertising*, 18(1), 1–14.
- K, D. K. (2023). IMPACT OF ADVERTISEMENTS ON CONSUMER BUYING BEHAVIOUR-AN EMPIRICAL STUDY OF LIFE INSURANCE POLICY HOLDERS OF MANGALORE CITY. *EPR International Journal of Research and Development (IJRD)*, 8(3), Article 3.  
<https://eprajournals.net/index.php/IJRD/article/view/1662>
- Khan, M. I., Ayub, R., Khan, S., & Khan, Y. (2023). Link between Financial Literacy and Financial Inclusion: A Case of Urban Areas of Karachi, Pakistan. *International Journal of Social Science & Entrepreneurship*, 3(2), 500-522.
- Kim, C., Jeon, H. G., & Lee, K. C. (2020). Discovering the Role of Emotional and Rational Appeals and Hidden Heterogeneity of Consumers in Advertising Copies for Sustainable Marketing. 20. <https://doi.org/10.3390/su12125189>
- Lim, S. H., & Kim, D. J. (2021). The effect of unmindfulness on impulse purchasing behaviours in the context of online shopping from a classical attitude theory perspective. *Behaviour & Information Technology*, 1–18.  
<https://doi.org/10.1080/0144929X.2021.1996630>
- Luzon, Y., Pinchover, R., & Khmelnsky, E. (2022). Dynamic budget allocation for social media advertising campaigns: Optimization and learning. *European Journal of Operational Research*, 299(1), 223–234. <https://doi.org/10.1016/j.ejor.2021.08.019>
- Miao, L., & Mattila, A. S. (2013). Impulse buying in restaurant food consumption. *Journal of Foodservice Business Research*, 16(5), 448–467.
- Murray, K. B., Di Muro, F., Finn, A., & Leszczyc, P. P. (2010). The effect of weather on consumer spending. *Journal of Retailing and Consumer Services*, 17(6), 512–520.
- Olson, J. C., & Dover, P. A. (1978). Cognitive effects of deceptive advertising. *Journal of Marketing Research*, 15(1), 29–38.
- Pittman, M., Oeldorf-Hirsch, A., & Brannan, A. (2022). Green Advertising on social media: Brand Authenticity Mediates the Effect of Different Appeals on Purchase Intent and Digital Engagement. *Journal of Current Issues & Research in Advertising*, 43(1), 106–121. <https://doi.org/10.1080/10641734.2021.1964655>
- Pradhan, V. (2018). Study on Impulsive Buying Behavior among Consumers in Supermarket in Kathmandu Valley. *Journal of Business and Social Sciences Research*, 1, 215.  
<https://doi.org/10.3126/jbssr.v1i2.20926>
- Qader, K. S., Hamza, P. A., Othman, R. N., Anwer, S. A., Hamad, H. A., Gardi, B., & Ibrahim, H. K. (2022). Analyzing different types of advertising and its influence on customer choice. *International Journal of Humanities and Education Development (IJHED)*, 4(6), Article 6. <https://doi.org/10.22161/jhed.4.6.2>
- Raes, M., Khan, S., & Zaheer, K. (2023). Impact of Social Media Marketing on Consumer Purchase Intention: A SEM Based Study of Attitude towards Information. *International Journal of Social Science & Entrepreneurship*, 3(2), 523-544.
- Rais, M., Khan, S., & Zaheer, K. (2023). The Impact of Brand Equity on Purchase Intentions: Investigation from Pakistan Automobile Industry. *International Journal of Social Science & Entrepreneurship*, 3(4), 158-178.
- Rashid, A., Khan, S., Rasheed, R., & Amirah, N. A. (2023). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes*, 52(5), 1720-1744.
- Raza, S. H., Abu Bakar, H., & Mohamad, B. (2019). The effects of advertising appeals on consumers' behavioural intention towards global brands: The mediating role of attitude and the moderating role of uncertainty avoidance. *Journal of Islamic Marketing*, 11(2), 440–460. <https://doi.org/10.1108/JIMA-11-2017-0134>



- Redine, A., Deshpande, S., Jebarajakirthy, C., & Surachartkumtonkun, J. (2023). Impulse buying: A systematic literature review and future research directions. *International Journal of Consumer Studies*, 47(1), 3–41. <https://doi.org/10.1111/ijcs.12862>
- Redondo, I., & Aznar, G. (2018). To use or not to use ad blockers? The roles of knowledge of ad blockers and attitude toward online advertising. *Telematics and Informatics*, 35(6), 1607–1616. <https://doi.org/10.1016/j.tele.2018.04.008>
- Rook, D. W., & Fisher, R. J. (1995). Normative influences impulsive buying behavior. *Journal of Consumer Research*, 22(3), 305–313.
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42(1), 5.
- Sama, R. (2019). Impact of Media Advertisements on Consumer Behaviour. *Journal of Creative Communications*, 14(1), 54–68. <https://doi.org/10.1177/0973258618822624>
- Si, K., Jalees, T., Zaman, S. I., Kazmi, S. H. A., & Khan, S. (2023). The role communication, informativeness, and social presence play in the social media recruitment context of an emerging economy. *Cogent Business & Management*, 10(3), 2251204.
- Sultan, A. J., Joireman, J., & Sprott, D. E. (2012). Building consumer self-control: The effect of self-control exercises on impulse buying urges. *Marketing Letters*, 23(1), 61–72.
- Sun, J., Li, T., & Sun, S. (2023). Factors affecting users' impulse purchases in online group buying: Online consumer reviews, countdowns and self-control. *Asia Pacific Journal of Marketing and Logistics*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/APJML-07-2022-0560>
- Tallón-Ballesteros, A. J. (2023). *Modern Management Based on Big Data IV: Proceedings of MMBD 2023*. IOS Press.
- Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In *Self-regulation and self-control* (pp. 173–212). Routledge.
- Tsang, M. M., Ho, S.-C., & Liang, T.-P. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce*, 8(3), 65–78.
- Ünal, S., Ercis, A., & Keser, E. (2011). Attitudes towards mobile advertising—A research to determine the differences between the attitudes of youth and adults. *Procedia-Social and Behavioral Sciences*, 24, 361–377.
- Verplanken, B., & Sato, A. (2011). The Psychology of Impulse Buying: An Integrative Self-Regulation Approach. *Journal of Consumer Policy*, 34(2), 197–210. <https://doi.org/10.1007/s10603-011-9158-5>
- Wang, Y., Sun, S., Lei, W., & Toncar, M. (2009). Examining beliefs and attitudes toward online advertising among Chinese consumers. *Direct Marketing: An International Journal*.
- Yang, Y., Zhao, K., Zeng, D. D., & Jansen, B. J. (2022). Time-varying effects of search engine advertising on sales—An empirical investigation in E-commerce. *Decision Support Systems*, 163, 113843. <https://doi.org/10.1016/j.dss.2022.113843>
- Youn, S. H. (2000). The dimensional structure of consumer buying impulsivity: Measurement and validation. University of Minnesota.
- Zafar, A., ul Haque, I., & Khan, S. (2023). Ethnographical Research On Gender-Based Buying Behavior In Traditional And Electric Vehicles (EVs). *Pakistan Journal of Gender Studies*, 23(2), 23-52.
- Zaman, S. I., Khan, S., Zaman, S. A. A., & Khan, S. A. (2023). A grey decision-making trial and evaluation laboratory model for digital warehouse management in supply chain networks. *Decision Analytics Journal*, 100293, 7.



- Zhang, H., Mou, Y., Wang, T., & Hu, J. (2020). The Influence of Advertising Appeals on Consumers' Willingness to Participate in Sustainable Tourism Consumption. *Complexity*, 2020, 1–10. <https://doi.org/10.1155/2020/8812560>
- Zhang, X., Cheng, X., & Huang, X. (2023). “Oh, My God, Buy It!” Investigating Impulse Buying Behavior in Live Streaming Commerce. *International Journal of Human–Computer Interaction*, 39(12), 2436–2449. <https://doi.org/10.1080/10447318.2022.2076773>
- Zhang, Y., & Yang, Y.-C. (2023). Exploring the role of green animation advertising influencing green brand love and green customer citizenship behavior. *BMC Psychology*, 11(1), 22. <https://doi.org/10.1186/s40359-023-01050-4>