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## Analyzing the Influence of Situational Factors on Online Impulse Buying Behavior: A Study of Pakistani Consumers

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**Abstract** *This study seeks to find out online impulse buying behaviour in the Pakistan e-commerce industry by investigating the contributing factors of money availability, time availability, family influence, serendipitous information and scarcity messages towards online impulse buying behaviour. It investigated the mediating role of the urge to buy impulsively between the factors and online impulse buying behaviour. From a sample of 472 students of 4 Pakistani universities, the data was gathered. Moreover, to analyze the data and to test hypotheses, PLS-SEM was employed, which showed money availability, time availability, scarcity messages, serendipitous information, family influence were significantly related to online impulse buying behaviour. The findings will be helpful for e-retailers in creating e-marketing strategies, delivering their promises and generating sales through effectively designing their promotional plans.*

**Key Words:** Serendipitous Information, Scarcity Messages, Situational Factors, Urge to Buy Impulsively, Online Impulse Buying Behaviour

### Introduction

The e-commerce industry of Pakistan is rapidly emerging, which supports the country's economy in generating more employment opportunities, developing SME's, enhancing exports through online platforms and linking remote areas to mainstream areas of the country. E-commerce activities have recently surged in Pakistan (Khan, 2017). In the last decade, due to the huge population of Pakistan, internet coverage has dramatically expanded as one of the most auspicious locations related to e-commerce (Syed, 2017; Anjum & Chai, 2020).

The largest segment for online shopping in Pakistan is the fashion industry which accounts for 46% of the total e-commerce revenue that comprises electronic & media with 23%, food and personal care with 9%, toys, hobby and DIY with 13%, while furniture and Appliances cover 9% in terms of online shopping (Ecommercedb, 2020). The revenue of Pakistan's e-commerce market is projected to touch US\$3900 million in 2020 (Statista, 2020). The E-retail market of Pakistan is majorly represented by Daraz. pk. Pakistan's first E-commerce index was launched by Daraz in April 2020, which provides consumer behaviour insights and maps out the development of the e-commerce industry. In 2019, active users of this platform increased by two times while the orders through daraz.pk platform increased by three times. This growth was fuelled by a 36% internet penetration rate in 2019. In 2019, 85% of Pakistan's online customers shopped through daraz.pk.

The OIBB research is an emergent field of research; numerous studies inspecting OIBB are still rare (Turkylmaz, Erdem & Uslu, 2015). Previous researchers have reported that greater than 50% of e-shopping has been conducted due to consumer's OIBB (Zheng, Men, Yang, & Gong, 2019; Wu, Chiu, & Chen, 2020). Additionally, it would seem valuable to explore this phenomenon in an online context, considering the significance for companies about impulse buying (Aragoncillo & Orus, 2018). OIBB is a new business model of consumer behaviour; therefore, to deeply understand this phenomenon a lot of attention has been given (Fu, Yan, & Feng, 2018; Yue & Razak, 2018). Moreover, in order to understand OIBB in traditional e-commerce websites, a number of studies have made significant contributions (Luo, 2005; Madhavaram & Laverie, 2004; Wells et al., 2011). Still, there is no comprehensive theoretical framework that best explains OIBB (Styvén et al., 2017; Amos et al., 2014; Atulkar & Kesari, 2018).

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Moreover, there has been little research conducted on situational factors that include serendipitous information and scarcity messages inducing consumer's OIBB ([Chung et al., 2017](#)). Thus, there is a need to study the influence of serendipitous information and scarcity messages on OIBB in more detail.

## Theoretical Foundation

### The S-O-R Model

S-O-R model helps as a supporting theory in this research to investigate consumer's behaviour, comprised of S (Stimulus), O (organism), and R (response) ([Chen, Li & Zhao, 2020](#)). [Mehrabian and Russell \(1974\)](#) were the first who applied the S-O-R model to investigate consumers' behaviour ([Parsad et al., 2019](#)). S-O-R model illustrate that consumer's internal evaluation/states are influenced by environmental that results in consumer's avoidance and approach behaviour. "Stimulus" represents the inducers that encourage consumers to purchase a product or service which are recognized as an internal as well as external stimulus. Internal stimulus refers to the characteristics of the consumer ([Amarnath & Jaidev, 2020](#); [Akram et al., 2017](#)). The external stimulus includes situational, marketing and website factors ([Lee & Gan, 2020](#)).

"Organism" is related to consumer's internal evaluations ([Mehrabian & Russell 1974](#)) that can be characterized as affective and cognitive reactions. The affective reaction is the consumer's emotional responses due to the consumer's interactions with the environment. Whereas the cognitive reaction referred to as a mental process that is due to the consumer's interaction with the stimulus that can be categorized as thinking or evaluation ([Chan et al., 2017](#); [Lee & Gan, 2020](#)). Organism (O) represents the internal structures that intervene among external stimuli comprised of actions or reactions and final responses produced. While "Response" is related to consumers' reaction to OIBB ([Akram et al., 2017](#)).

In this study, the stimulus (S) component refers to situational factors, namely: time availability, money availability, family influence, scarcity messages and serendipitous information. UBI represents the affective aspects of the organism (O) component, as defined by [Bagozzi \(1986\)](#). Prior to the actual impulse purchase behaviour, the consumers' experience UBI. As the urge to buy something increases, the consumer engages more in OIBB ([Lee & Gan, 2020](#)). Consumer's UBI represents an organism which is the positive desire of the consumer to buy a product. While the approach aspect of the response (R) component in this study is represented by OIBB. This study emphasizes positive UBI and approach behaviours (i.e., OIBB) in order to encourage OIBB e-retailers to mostly struggle to generate an e-retail environment to induce positive UBI among consumers.

### Online Impulse Buying Behavior (OIBB)

OIBB is an unplanned buying decision that is influenced by numerous factors comprising of information fit-to-task, utilitarian motivations, hedonic motivations, perceived usefulness, perceived enjoyment, adventure shopping, hedonic motivations, visual appeal, idea shopping and consumer's urge to buy spontaneously ([Xiang et al., 2016](#); [Akram et al., 2018](#)). Therefore, be termed as a "spur-of-the-moment" buying with slight or no intention ([Bellini, Cardinali, & Grandi, 2017](#)) that arises as a result of consumer purchases to buy a product online which is experienced buy a customer, but he/she does not rationally analyze the need of the product ([Chan et al., 2017](#)).

From a normal purchase process, the online impulse buying process is different. Generally, the rational consumer recognizes the need, searches for information to figure out the product he/she wants, evaluates the available substitutes as well as purchase and post-purchase experiences of other customers ([Lamb, Hair, & McDaniel, 2013](#)). Whereas, in the case of the online impulsive buying process, consumer do not search for information or evaluate the available alternatives. Online consumers start with browsing the products online and get awareness about the product. At that moment, consumers are triggered by external stimuli that evoke their UBI ([Awolaja, 2020](#)). Whereas, some scholars contend that offline buyers are less impulsive as compared to online buyers ([Verhagen & Van Dolen, 2011](#); [Park & Noh, 2012](#)).

### Situational Factors

Earlier researchers proposed situational factors that include sales promotion, person's situation, product attributes and store environment that are essential indicators of IBB ([Mattila & Wirtz, 2008](#); [Chavosh et al., 2011](#)). Several situational factors are associated with consumer situation, for instance, time availability, money availability and family influence and the factors that are related to store, including store environment, store ambience, store employees and sales promotion on IBB

([Badgaiyan & Verma, 2015](#)). Furthermore, the consumer interaction with their friends, relatives and customer themselves at the time of shopping compels consumers to stay for a longer duration at the retail store and purchase more ([Atulkar & Kesari 2018](#)).

Moreover, prior studies have also addressed the influence of situational factors on IBB ([Badgaiyan & Verma, 2015](#); [Amos et al., 2014](#)) that comprises the situation a person faces in terms of money availability and time availability ([Chavosh et al., 2011](#)), product attributes comprising of quantity, quality and price of the product ([Muratore, 2016](#)), store environment ([Chang et al., 2014](#); [Jha & Singh, 2013](#)) and the motivational activities comprising of friendly employee behaviour and sales promotions ([Amos et al., 2014](#)).

### Time Availability

Time is the major source that consumer spends during their shopping ([Punj, 2011](#)). The time available is the time that is spent throughout shopping which has been recognized as a factor that influences IBB. There is a higher chance of unplanned buying ([Anić & Radas 2006](#)) when more time is available, particularly in the case when there is no buying task (Mihic & Kursan 2010). The consumers that spent more time during shopping spend more money on store purchases than those consumers who are quick in buying ([Nicholls, 1997](#)). [Khorrami, Esfidani, & Delavari \(2015\)](#) found that consumer's IBB is related to the time spent in shopping, i.e., more time devoted to shopping means involvement in impulse buying. However, some studies have shown contrary results that there is no effect of time availability on IBB was reported ([Maym & Ahmadinejad 2011](#); [Foroughi et al., 2012](#); [Pattipeilohy & Rofiaty 2013](#)).

The above discussion leads to the following hypothesis:

**H1:** Time Availability has a positively significant relationship with UBI.

**H2:** Time Availability has a positively significant relationship with OIBB.

### Money Availability

Money availability is the number of extra funds or budget that a consumer spends while shopping on that day ([Badgaiyan & Verma, 2015](#)). It has a significant role, as it increases the buying power of people by playing the role of a facilitator in the impulse buying process. People will avoid buying and the shopping environment if they do not have the required money ([Foroughi et al., 2012](#)). Money availability increases the chance of an unplanned purchase ([Luo, 2004](#)). When shoppers perceive extra money to spend in shopping, they may feel aroused, which in turns provoke positive emotional states ([Huang & Hsieh, 2011](#)).

Various studies reveal that individuals have money availability which in turns have a positive effect that impacts IBB; however, few studies indicate that money availability is the factor that compels the consumer to avoid buying impulsively ([Heidarizade & Taherikia, 2010](#)). Therefore, this leads to the following hypotheses:

**H3:** Money availability has a positively significant relationship with UBI.

**H4:** Money availability has a positively significant relationship with OIBB.

### Scarcity Messages

Scarcity is actually the strategic limitation of time, product supply, or any other purchase condition related to the product that passes a message to consumers about the low possibility to buy the desirable product ([Aggarwal et al., 2011](#)). The promotional messages on the internet about the supply of products indicate that there is limited availability of product or the product is only accessible within a particular time limit that generate a strong positive impact on consumers (Lin & Lin, 2013). The scarcity messages attract consumers to buy products and services that have a very limited time period ([Chung et al., 2017](#)). Scarcity messages take the forms of limits in terms of quantity and time period ([Rice & Keller, 2009](#)).

[Akram et al. \(2018\)](#) found that scarcity messages influence the consumer's OIBB. The scarcity message pressurizes consumers by raising their UBI. Individuals feel stronger emotion to buy a product when a product becomes rare, and the purchase is limited ([Song et al., 2015](#)). The limited availability of the product stimulates the consumer's positive emotion to purchase the product immediately ([Cialdini, 2008](#)). Likewise, scarcity messages increase consumers UBI emotion ([Farivar & Yuan, 2017](#)).

Therefore, this leads to the following hypotheses:

**H5:** Scarcity Messages has a positively significant relationship with UBI.

**H6:** Scarcity Messages has a positively significant relationship with OIBB.

### Serendipitous Information

Serendipity is a kind of web browsing experience. Therefore, the information that is revealed by chance and is associated with the interest of the consumer is known as serendipity or serendipitous information (Chung et al., 2017). Serendipity involves a surprise or an unusual recommendation (Zhang et al., 2012) or finding something unexpectedly (Foster & Ford, 2003). Serendipity can result in spontaneous and unplanned consumers differently observe the value of shopping as done by rational consumers. Moreover, according to McCay-Peet & Toms (2011), serendipity enhances consumer experience through "Aha! Moment".

Prior studies on serendipity have emphasized both the hedonic (McCay-Peet & Toms 2011; Clegg & Mendonça, 2010) and utilitarian facets (Kim et al., 2013) of serendipitous information. Prior studies have emphasized that serendipity leads to the happiness and satisfaction of consumer by enhancing their experience (Zhang et al., 2012). Serendipity increases consumers experience through the "Aha! -moment" (Clegg & Mendonça, 2010), which leads to UBI emotion (Song et al., 2015) that leads to OIBB (Akram et al., (2018).

The following hypothesis has been established based on the above discussion:

**H7:** Serendipitous Information has a positively significant relationship with UBI.

**H8:** Serendipitous Information has a positively significant relationship with OIBB.

### Family Influence

The role of family members in influencing buying outcomes has also been recognized in many studies which state that friends and relatives may strengthen consumers buying decision that results in more buying (Badgaiyan & Verma, 2014). The presence of family members intensifies the UBI (Parboteeah, 2005). The family members may consider impulse buying as undesirable due to their concern regarding economic issues, which might be the main reason for the negative influence of family members (Luo, 2005).

However, there is an opposing view in the study conducted by Lin and Chen (2012) that increased exposure to family influence results in a larger propensity to IBB. Moreover, the study of Anić and Radas (2006) reveals that the existence of children as companions positively influence purchasing behaviours. Likewise, the collectivists who family-oriented personalities showed more IBB as compared to the individualist's personalities (Badgaiyan & Verma, 2014). Therefore, this leads to the following hypotheses:

**H9:** Family Influence has a positively significant relationship with UBI.

**H10:** Family Influence has a positively significant relationship with OIBB.

### Urge to Buy Impulsively (UBI) as a Mediator

Rook and Fisher (1995) introduced the concept of UBI, which is stated as the feelings that consumers experience after coming across some stimuli. The UBI is the state of desire which is experienced due to the encounter of an object while shopping (Beatty & Ferrell, 1998). When a consumer buys a product, he or she does not consider whether that product is needed or not. Reasonably, it will lead to an instant purchase in order to satisfy the buying obligation that led to impulse buying behaviour (Verhagen & Van Dolen, 2011).

Additionally, it supports and encourages the actual buying behaviour of consumers (Li et al., 2014). Dawson and Kim (2009) found that consumers who possess a higher tendency of UBI experience an absence of self-control relative to consumers who had a comparatively lesser likelihood of UBI (Kazempour & Lotfizadeh, 2017). Prior literature on both consumer behaviour and psychology provides evidence that OIBB and UBI are positively related to each other. Impulse buying arises as an outcome of actual purchase, i.e., when the customers actually buy something. While buying impulse is termed as UBI, which is the desire or feeling of the customer before making the actual purchase (Nawaz, 2018). Additionally, UBI mediates the relationship of stimuli influencing impulse buying and actual purchase behaviour (Li, Deng, & Moutinho, 2014). Zhang et al. (2018) found a positive relationship between UBI and actual IBB. That is, consumers engage in the purchase of a product impulsively due to their higher urge to purchase that product. That is, consumers are more likely to engage in the purchase of a product impulsively due to their higher UBI of a product.

Therefore, this leads to the following hypothesis:

**H11:** Urge to buy impulsively has a positively significant relationship with OIBB.

Thus, to test the mediation effect of UBI on OIBB, the following hypotheses are established:

- H12:** UBI mediates the effect of Time Availability on OIBB.  
**H13:** UBI mediates the effect of Money Availability on OIBB.  
**H14:** UBI mediates the effect of Scarcity Messages on OIBB.  
**H15:** UBI mediates the effect of Serendipitous Information on OIBB.  
**H16:** UBI mediates the effect of Family Influence on OIBB.

## Research Methodology

### Data Collection and Sample

The data was collected from the four largest universities of Pakistan situated in four administrative divisions of Punjab based on three geographical regions: Lahore in the northern region, Rawalpindi in the middle region, while Multan and Bahawalpur in the southern region. The four selected universities were Bahauddin Zakariya University (BZU) from Multan division, the Islamia University of Bahawalpur (IUB) from Bahawalpur division, Fatimah Jinnah Women University (FJWU) from Rawalpindi division and University of Punjab (PU) from Lahore division. In this study, due to the lack of a proper sampling frame with regard to online users in Pakistan, the convenience sampling method was used.

### Measures

To measure the items of the questionnaire, a 5-point Likert scale was used. All the items were adapted from earlier studies, time availability ([Kazempour & Lotfizadeh, 2017](#)) comprising of three items, money availability ([Kazempour & Lotfizadeh, 2017](#)) contains three items, serendipitous information ([Akram et al., 2018](#)). Comprising of three items, scarcity messages ([Akram et al., 2018](#)) contains four items, family influence ([Kazempour & Lotfizadeh, 2017](#)) contains three items, UBI contains four items (Habib & Qayyum, 2017; [Liu, Li & Hu, 2013](#)) and OIBB comprises of six items ([Aragoncillo & Orus, 2018](#)).

This study aims to investigate how situational factors, i.e., time availability, money availability, scarcity messages, serendipitous information, and family influence, effect's OIBB with mediating role of UBI. The study was conducted on the online consumers of Pakistan as the target population. On the basis of sampling guidelines given by [Krejcie and Morgan \(1970\)](#), the sample size was determined; a sample size of 384 was considered as enough. As suggested by Miller and Salikind (2002) and [Keyton \(2015\)](#), the researcher distributed more questionnaires and employed an oversampling method by increasing the sample size by 40 to 50% to address the low response rate problem and the issue of unusable responses. Henceforth, the total sample size of 384 was increased by 50%. Thus, the total questionnaires distributed were 576.

### Data Analysis

PLS-SEM technique was employed in this study to estimate the research model by using Smart PLS ([Ringle, Wende, & Will, 2010](#)) path modelling (Version 3.2.8). To validate a research model, a goodness of fit index is not an appropriate tool ([Hair & Sarstedt, 2014](#)) as opposed to [Henseler and Sarstedt \(2013\)](#), who stated that the goodness of fit index is a suitable tool to validate research model. However, in the current development on the inappropriateness of PLS path modelling and validation of the model, the study adopts a two-step process suggested by [Henseler et al. \(2009\)](#) to analyze and report the results of the PLS-SEM path.

Firstly, the measurement model was assessed for ensuring the construct's reliability and validity. Secondly, the structural model was assessed for the hypothesized structural relationships among constructs ([Hair et al., 2014](#)). Using PLS-SEM by using software, i.e., Smart PLS version 3.2.8 ([Ringle, Wende, and Will, 2005](#)), a validity test was performed, i.e. CFA was performed for validation of measurement model (outer model) by a thorough examination of the relationship between indicators/items and their underlying constructs. The findings revealed almost (51.9%) female and (48.1%) male participation, whereby the age of respondents illustrates that majority of respondents were 20- 30 years old (58.3 %). Furthermore, the majority of respondents belongs to the income group of 50,000 to 99,999 (50.4%).

### Measurement Model

The reliability and validity of the model were ensured by following the suggestions of [Vinzi et al. \(2010\)](#); the items that had lower loading were deleted to improve the data quality ([Hair et al., 2011, 2013](#)). All the items were above 0.6 by meeting the criteria of convergent validity (Hair, Anderson, Babin, & Black, 2010b; Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014), showing the factor loading between 0.673 and 0.945. The result revealed that all the values of composite reliability were

greater than 0.7 (Bagozzi & Yi, 1988; Hair et al., 2011). Additionally, all the variables were highly reliable, showing the AVE values above 0.50, as shown in table 1. Moreover, table 2 (given below) shows that the square roots of AVE values showing that all the variables have adequate validity (Fornell & Larker, 1981)

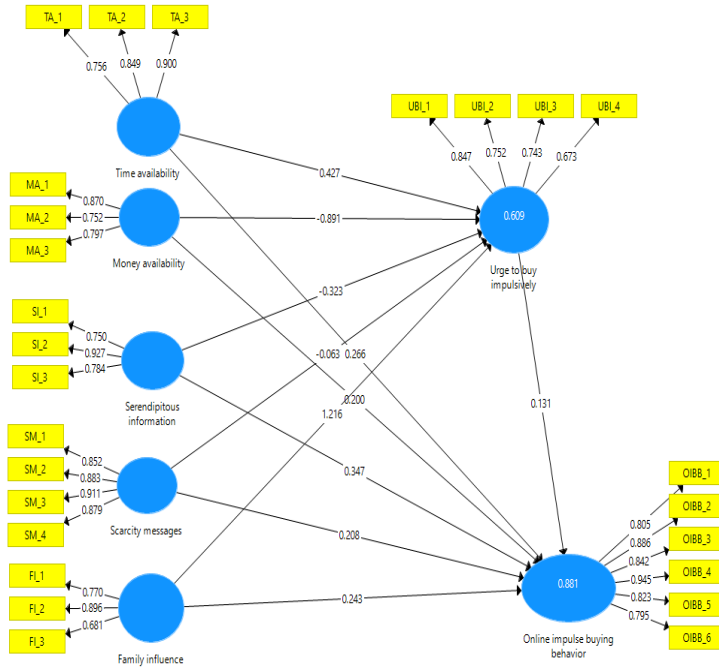


Figure 1: The Measurement Model

Note: TA-Time Availability; MA- Money Availability; SI- Serendipitous Information; SM- Scarcity Messages; FI- Family Influence; UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

Table 1. Results of Measurement Model, Cronbach’s Alpha, CR and AVE

Construct	Items	Loading	Cronbach’s Alpha	CR	AVE
Time Availability (TA)	TA1	0.756	0.784	0.875	0.701
	TA2	0.849			
	TA3	0.900			
Money Availability (MA)	MA1	0.870	0.740	0.849	0.652
	MA2	0.752			
	MA3	0.797			
Family Influence (FI)	FI1	0.770	0.770	0.828	0.619
	FI2	0.896			
	FI3	0.681			
Serendipitous Information (SI)	SI1	0.750	0.775	0.862	0.678
	SI2	0.927			
	SI3	0.784			
Scarcity Messages (SM)	SM1	0.852	0.905	0.933	0.777
	SM2	0.883			
	SM3	0.911			
	SM4	0.879			
Urge to buy Impulsively (UBI)	UBI1	0.847	0.752	0.842	0.572

	UBI2	0.752			
	UBI3	0.743			
	UBI4	0.673			
Online Impulse Buying Behavior (OIBB)			0.923	0.940	0.724
	OIBB1	0.805			
	OIBB2	0.886			
	OIBB3	0.842			
	OIBB4	0.945			
	OIBB5	0.823			
	OIBB6	0.795			

Note: TA-Time Availability; MA- Money Availability; SI- Serendipitous Information; SM- Scarcity Messages; FI- Family Influence; UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

**Table 2:** Discriminant Validity Matrix

	FI	MA	OIBB	SM	SI	TA	UBI
FI	<b>0.787</b>						
MA	0.756	<b>0.808</b>					
OIBB	0.802	0.517	<b>0.851</b>				
SM	0.374	0.079	0.489	<b>0.881</b>			
SI	0.544	0.212	0.771	0.592	<b>0.824</b>		
TA	0.289	0.250	0.546	0.112	0.346	<b>0.837</b>	
UBI	0.471	0.071	0.519	0.221	0.261	0.463	<b>0.756</b>

Note: Entries shown in boldface represent the square root of the AVE

Note: TA-Time Availability; MA- Money Availability; SI- Serendipitous Information; SM- Scarcity Messages; FI- Family Influence; UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

**Structural Model**

The structural model was assessed (Chin, 2010) by running PLS-SEM (PLS algorithm and bootstrapping). The value of R<sup>2</sup> of OIBB was 0.881, and UBI was 0.609, shown in table 3.

**Table 3.** R<sup>2</sup> of Endogenous Latent Constructs

Construct	R Square	Result
OIBB	0.881	Substantial
UBI	0.609	Substantial

Note: UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

The study aimed to examine the direct relationships between the dependent variable, i.e., OIBB and mediating variable, i.e., UBI, and secondly, the hypothesized relationships among the constructs were assessed through the structural model. A total of six (06) direct relationships with OIBB (dependent variable) were tested in this study, and all of them were supported. Further, a total number of five (05) direct relationships with UBI (mediating variable) were tested in which four (4) hypotheses were supported, and one was not supported (see Table 4). The result is shown in table 4 and 5 given below.

**Table 4.** Results of Hypothesis Testing – Direct Relationships

Hypotheses	Relationship	Beta	SE	t-value	P-value
H1	TA->UBI	0.427	0.044	9.737	0.000
H2	TA->OIBB	0.266	0.027	9.919	0.000
H3	MA->UBI	0.891	0.056	16.009	0.000
H4	MA->OIBB	0.200	0.055	3.649	0.000
H5	SM->UBI	0.063	0.039	1.627	0.104
H6	SM ->OIBB	0.208	0.026	8.100	0.000
H7	SI->UBI	0.323	0.044	7.264	0.000
H8	SI->OIBB	0.347	0.019	18.106	0.000
H9	FI->UBI	1.216	0.054	22.393	0.000
H10	FI->OIBB	0.243	0.057	4.284	0.000
H11	UBI->OIBB	0.131	0.034	3.849	0.000

Note: TA-Time Availability; MA- Money Availability; SI- Serendipitous Information; SM- Scarcity Messages; FI- Family Influence; UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

**Table 5.** Results of Hypothesis Testing – Indirect Relationships

Hypotheses	Relationship	Beta	SE	t-value	P-value	Decision
H12	TA->UBI->OIBB	0.056	0.016	3.595	0.000	Mediation
H13	MA->UBI->OIBB	0.117	0.031	3.790	0.000	Mediation
H14	SM->UBI->OIBB	0.008	0.006	1.485	0.138	No Mediation
H15	SI->UBI->OIBB	0.042	0.012	3.604	0.000	Mediation
H16	FI->UBI->OIBB	0.159	0.041	3.928	0.000	Mediation

Note: TA-Time Availability; MA- Money Availability; SI- Serendipitous Information; SM- Scarcity Messages; FI- Family Influence; UBI – Urge to Buy Impulsively; OIBB – Online Impulse buying Behaviour

## Discussion

The results showed that time availability is positively correlated to UBI is discovered to be significant and supported. The money availability increases the likelihood of impulse buying behaviour that is when consumers have extra money to spend in shopping; they may feel aroused, which in turns provoke positive emotional states to perform impulse purchases ([Huang & Hsieh, 2011](#)).

Interestingly, this study has found that scarcity messages have an insignificant relationship with UBI, whereas it has a significant relationship with OIBB. Moreover, serendipitous information is positively correlated to UBI and OIBB. As the outcome are consistent with prior studies of [Song et al. \(2015\)](#) and [Zhang et al. \(2012\)](#). Moreover, findings revealed that family influence has a positive and significant relationship with UBI and OIBB. The study collaborated with the findings of [Parboteeah \(2005\)](#) that family members presences increase UBI. A possible reason for this finding is that the family members opinion is very important to make spontaneous decisions. The results of the study showed that urge to buy impulsively successfully mediates among time availability, money availability, serendipitous information, family influence and OIBB. Surprisingly, this research found that urge to buy impulsively did not mediate scarcity messages and OIBB.

## Managerial Implications

The study offers some valuable managerial implications for e-retailers in creating and delivering their promises to the consumer by preparing the e-marketing strategies that facilitate them in generating sales through online impulse buying by effectively designing their promotional plans.

Moreover, the study could help marketing managers and e-retailers in designing strategies by focusing on the significance of situational factors; specifically, the role of scarcity messages and serendipitous information is essential in OIBB. The e-retailers should design their website in a way that expresses scarcity messages clearly at a glance, and in order to get attention, e-retailers should send emails and set alarms to inform consumers about limited time. Moreover, this study can be beneficial for manufacturers and e-marketers by making them cognizant of the psychological pressure that occurs as a result of scarcity messages and serendipitous information. The advertisements with funny ads, faded words, vivid pictures of the product can help e-retailers to engage consumers in shopping by making them feel that they have a very short time to buy products online. This research provides comprehensive knowledge and a broader perspective for the identification of those situational factors that contribute towards impulsive online purchases.

## Conclusion, Limitation and Future Recommendation

The study was based on the e-commerce industry within one of the developing countries, i.e., Pakistan. There would be a serious implication in making general inference from this study, and caution must be taken in concluding that the outcomes of the study are valid for the whole e-commerce industry in general. As such, findings should be validated in a different setting to find whether findings can be generalized to e-commerce industries in different countries of the world.

Future research may examine the domestic online market place of Pakistan to make a comparison of the OIBB of Pakistani consumers among the domestic and international online market places. Likewise, the study can be extended to find out the role of social media networking sites comprising of Twitter, Facebook, Instagram etc., influencing social media impulsiveness in comparison to the website impulsiveness. Moreover, future researchers would conduct a similar



study in other service sector organizations functioning in Pakistan, such as OIBB in the hospitality sector and tourism, with the view of verifying the current study findings. Finally, future research should add other situational factors, for instance a person's situation, product attributes, convenience and variety seeking. This study identified UBI as a mediator variable in the e-commerce industry. Other mediating variables such as consumer emotions, product involvement or shopping enjoyment could be incorporated to examine their role in the relationship between situational factors and OIBB.

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