Interdisciplinary Journal of Information, Knowledge, and Management

An Official Publication of the Informing Science Institute InformingScience.org

IJIKM.org

Volume 13, 2018

REINFORCING CONSUMERS' IMPULSIVE BUYING TENDENCIES THROUGH M-DEVICES AND EMAILS IN PAKISTAN

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ABSTRACT

Aim/Purpose	The current study investigates the relationship between mobile and email marketing and consumer impulse buying tendencies in Pakistan.
Background	Technology has become a primary driver for all business operations, which has dramatically transformed the wireless communications marketing paradigm. However, researchers have claimed that further inquiry is still needed to explore the role that distinct and emerging global technologies have on marketing communication strategies. This study explores the linkage of mobile and email marketing on consumers' impulse buying behavior in Pakistan.
Methodology	Primary data were collected through the distribution of 1000 questionnaires among students of different universities within two provinces of Pakistan: Punjab and Khyber Pakhtunkhwa (KPK). The study was conducted between November 2016 and March 2017. The authors received back 950 surveys, which is a very significant rate of return (95%). Of those submitted, 900 surveys were deemed eligible for analysis after improper documents were eliminated. Structure equation modeling (SEM) was utilized to test the study's hypotheses.

Accepted by Editor Ewa Ziemba | Received: November 5, 2017 | Revised: January 17, February 14,, 2018 | Accepted: February 19, 2018.

Cite as: Waheed, A., Yang, J., & Webber, J. (2018). Reinforcing consumers' impulsive buying tendencies through m-devices and emails in Pakistan. *Interdisciplinary Journal of Information, Knowledge, and Management*, *13,* 45-60. https://doi.org/10.28945/3964

Contribution	This study assists organizations in improving marketing campaigns by focusing more on mobile devices (m-devices) and email medium to better comprehend consumers' assessment processes at a lower budgetary cost. Such digital considerations could provide innovative possibilities for marketers in approaching their target market by adopting novel methods for information sharing.
Findings	The findings revealed a positive association between mobile and email marketing on consumers' impulse buying tendencies. The comprehensive analysis affirmed; however, there is a higher positive relationship of mobile marketing results compared to email marketing outcomes. There are favorable benefits in considering such emerging methods in marketing communications as promotional strategies are considered by organizations.
Recommendations for practitioners	Marketers are encouraged to evaluate the potential of using both emerging mediums to take advantage of consumer impulse buying habits where m-devices and emails approaches are utilized.
Future Research	Future inquiries might examine the global influence of m-devices and email technology toward other buying tendencies of consumers: exploratory, online, variety seeking, habitual, and other emerging complex on-demand buying behavior.
Keywords	marketing communications, mobile marketing, email marketing, impulse buying tendencies, Islamic Republic of Pakistan

INTRODUCTION

Diverse, traditional marketing media tools are always available to reach and reinforce distinct tendencies of specific target markets in any organization. However, there is an emerging trend where widespread penetration and acceptance of digital media marketing is used to attract new customers. In fact, the Internet is a core driver of such technological advances when it comes to marketing information sharing in the present digital age (Frost & Strauss, 2000; Vladimir 1996). The trend among consumers has dramatically shifted where product information is now more likely to be obtained using advanced means such as websites, social media, e-newsletters, emails, and m-devices (Bawm & Nath, 2014; Walczak, Kellogg, & Gregg, 2012). There are also other factors such as exploratory information that investigates tendencies and exploratory acquisition tendencies, which usually affect how consumers seek information (Baumgartner & Steenkamp, 1996). Consequently, it is vital for marketers to make plans so consumers are better informed of what products are offered by their organizationso more impulse buying takes place (Constantinides, 2004). Impulse buying behavior is referred as an unplanned behavior to buy a product or service based on occasional buying (Tuyet Mai, Jung, Lantz, & Loeb, 2003).

Impulse buying tendencies are associated with two components: cognitive and affective (Verplanken & Herabadi, 2001). Per Verplanken and Herabadi (2001), the cognitive aspect of impulse buying behavioris defined as being inverse to personal needs while the affective aspect is action oriented. The relationships of numerous rising technologies in promotional activities have been examinedby various experts and are considered as an important success factor. Such technologies include online marketing(Gurafu, 2008), electronic marketing (Coviello, Milley, &Marcolin, 2001; Waheed & Yang, 2017), Internet marketing (El-Gohary, 2012), digital marketing (Brodie, Winklhofer, Coviello, & Johnston, 2007), extranet marketing (El-Gohary, 2012), Email marketing (Wu, Li, & Liu, 2016; Zhang, Kumar, &Cosguner, 2017), Intranet marketing (El-Gohary, 2012), and mobile marketing (Smutkupt, Krairit, &Esichaikul, 2010).This study examined a narrow focus of marketing related to how m-devices and email technologies could strengthen the purchasing decision of consumers'impulse buying. Venkatesh, Morris, Davis, and Davis's (2003) unified theory of acceptance and the use of technology (UTAUT) and Ajzen's (1991) theory of reasoned actions suggest there is a

nexus betweenpredictingthe behavioral intention (BI) of consumersand the adoption of information technology within unlike marketing contexts and perspectives.

Mobile marketing is defined as the extent to which organizations communicate product information using distinct supporting components like Short Messaging Service (SMS), Multimedia Messaging Service (MMS), Bluetooth marketing, Social applications (Apps), Wireless Applications Protocol (WAP), and JAVA marketing (Bauer, Reichardt, Barnes, & Neumann, 2005; Leppaniemi, Karjaluoto, Salo, &Sinisalo, 2006; Smutkupt et al., 2010). According to Smutkupt et al. (2010), mobile marketing includes wireless advertising, mobile advertising, and wireless marketing. However, email marketing is defined as the way written communication takes place using emails that are intended to convey product features that target a particular market (Mullen & Daniels, 2011; Zhang et al., 2017). Email marketing is known as a key success factor for businesses because it is a cost-effective mean of communication (Windham & Orton, 2000). Hence, this study reviews how marketers can pursue more effective marketing practices by reaching out to consumers using electronic means and by reinforcing their impulse buying behavior.

Pakistan is the sixth highest populated country in the world with a 1.97% rate annually growth rate (World Meters, 2017). The population of Pakistanis 196 million where it is believed 71.5% people use mobile devices while 18% use the Internet (Pakistan Advertising Society, 2017; Report of Pakistan Internet User, 2017). In addition, the present study's participants note that almost every student at the university level possesses a mobile device and uses various email services (see Table 1). Such extensive use of mobile devices and email usage unveils the emerging trend among consumers in Pakistan. This tendency seems to indicate greater opportunities for organizations who will approach their target markets using such technologies in a more effective manner. Notably, there was no known study that thoroughly examined the impact of mobile and email marketing to increase the impulse buying habits of consumers in Pakistan. Therefore, this study sought to narrow the literature gap on this subject by emphasizingthe two following core objectives. First, the goal was to investigate the relationship between mobile marketing and consumer's impulse buying behavior. The second aim was to measure the relationship between email marketing and consumer's impulse buying behavior. The rest of the study is outlined as follows. First, the literature is reviewed along with hypotheses formation and the research framework. Thereafter, research methodologies (sampling procedures, analysis techniques, and measures of constructs) are investigated. Subsequently, the results, findings, and hypotheses testing are reported for reviewer consideration. The final section is based on a discussion of the findings, the managerial implication, limitations, and future directions for peer consideration.

LITERATURE REVIEW

Researchers and practitioners have worked on many dimensions of mobile marketing; however, there is still not a common definition of what the term entails (Varnali &Toker, 2010). Previous studies were concerned about consumer's distinct intention such as acceptance, trust, cultural issues, and consumer permission (Basheer & Ibrahim, 2010; Gao, Sultan, & Rohm, 2010; Jayawardhena, Kuckertz, Karjaluoto, & Kautonen, 2009; Muk, 2007). However, Scharl, Dickinger, and Murphy (2005) note mobile marketing concerns media that enables location-sensitivity witha particular target market. Mobile marketing is also considered a two-way means of communication using several supporting features of m-devices such as short messaging services, multimedia messaging services, wireless application protocols, and what one finds in social apps (Scharl et al., 2005).

On the other hand, email marketing is more concerned with advertising where organizations strive to engage diverse consumers for real-time relationships (Pavlov, Melville, & Plice, 2008). The core benefits of email marketing are to enable marketers to transmit information in a bulk approach with a graphic representation of the message in a combination of audio, video, or attachments of corporate messages to consumers (Rettie & Chittenden, 2003; Zhang et al., 2017). In addition, email marketing

facilitates brand awareness and often stimulates consumer interest in a company's product or service (Mullen & Daniels, 2011).

Over the past decades, researchers have suggested the positive relationships between mobile marketing and email marketing on distinct behaviors of consumers indistinct contexts and dimensions across the globe (El-Gohary, 2012; Persaud & Azhar, 2012; Wu et al., 2016; Zhang et al., 2017). Promotions using m-devices and emails facilitate and foster strong and long-term relationships with customers (Waheed & Yang, 2017; Zhang et al., 2017). M-devices and email play a vital role in reinforcing buying behavior of consumers (Hew, Lee, Ooi, & Wei, 2015; Smutkupt et al., 2010). Likewise, theories of reasoned action and belief facilitate how to comprehend the behavioral actions of humans in different aspects and dimensions (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Furthermore, the theory of planned behavior and unified theory of acceptance and use of technology (UTAUT/UTAUT2) assist in predicting the behavioral intention of humans in different situations such as the acceptance and usage of information technology (Ajzen, 1991; Venkatesh, Thong, & Xu, 2003; Venkatesh et al., 2012).Considering such theories, further research is required to consider the significance of such methods on business practices, including marketing communications.

Hence, Figure 1 indicates the framework of the present study, which is based on two core hypotheses. It is proposed in hypothesis one that mobile marketing positively affects consumers' impulse buying tendencies in Pakistan. However, it is proposed in hypothesis two that email marketing positively affects consumers' impulse buying tendencies. The significance of mobile marketing and email marketing is described as follows.

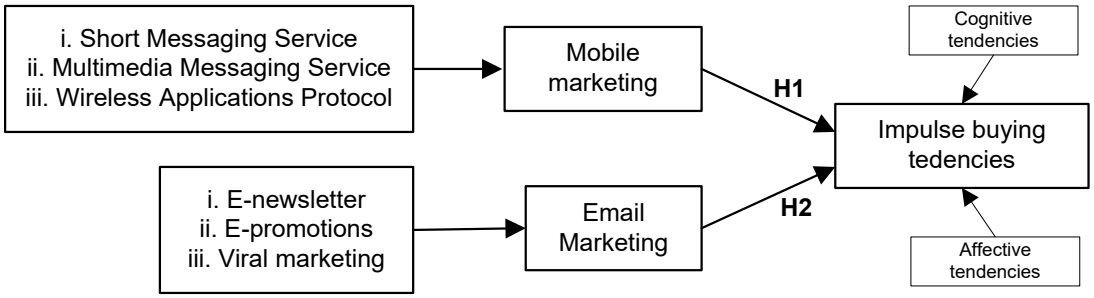


Figure 1. Study framework and hypotheses formation

According to Schooley, Walczak, Hikmet, and Patel (2016), the acceptance tendency of m-devices has dramatically increased even though further research is still needed to evaluate the pros and cons of such revolutionary technology, particularly in the domain of marketing communications. Therefore, experts have suggested more studies be undertaken to understandbetter the consequences of utilizingm-devices as part of future marketing projects (El-Gohary, 2012; Persaud & Azhar, 2012; Schooley et al., 2016; Varnali &Toker, 2010; Wei, Liu, & Koong, 2006). Since consumers use mobile devices in increasing numbers, there are massive opportunities for organizations to disseminate product information anytime, anywhere, and widely (Coviello et al., 2001; Brodie et al., 2007). Marketing campaigns using m-devices and supporting features such as SMS, MMS, or WAP are relatively cost and time effective (Barwise & Strong, 2002; Smutkupt et al., 2010). Hence, mobile marketing could play a dynamic role in achieving a better understanding of consumer's intention and what motivates their impulsive tendencies. To this end, we determined to test those assumptions as it related to the Pakistan marketplace.

Second, email is considered a key driver of information sharing because of its low cost and eases of access (Zhang, Yang, Wang, Zheng, & Sia, 2015). Email marketing is a cost-effective medium in which diverse people, in various target markets, can be sent information in a quick manner (Rettie & Chittenden, 2003). In business activities, particularly in marketing, emails often play a crucial role in information dissemination and relationship management delivery between buyers and sellers (Pavlov

et al., 2008). Email marketing, thus, facilitates a long-term relationship with customers and works to establish the brand image in the mind of the consumer (Bawm & Nath, 2014; Mullen & Daniels, 2011). Per Bawm and Nath (2014), email marketing is the most trusted media over conventional tactics employed in traditional marketing communications. Using the email platform, organizations can disseminate information with diverse attachments of ads, such as audio and video messages, together with comprehensive information on particular products or services (Bawm & Nath, 2014). Since there is an interest in how marketing can be used in this medium, additional studies on email marketing are required across the globe (Mullen and Daniels, 2011; Rettie & Chittenden, 2003). Hence, email marketing could become a very important role to help organizations stimulate impulsive tendencies of the consumers through their marketing efforts.

METHODOLOGIES

The researchers fashioned their study around two primary hypotheses.

> H_1: Mobile marketing has a positive relationship on impulse buying tendencies.
> H_2: Email marketing has a positive relationship on impulse buying tendencies.

The surveys consisted of two key sections: demographic information and core inquiry questions. The demographic attributes were based on five items: age, gender, education level, email usage, and m-devices usage. Second, core questions related to the IV and DV were based on 26 statements (see the Appendix). The questionnaires were randomly given to 1000 university student between November 2016 and March 2017 by personal visits to universities where students were requested to fill the questionnaires. The authors received back 950 surveys (95%) and thereafter 900 (90%) surveys were finally considered for further statistical analysis after the elimination of improper documents. The authors removed all such surveys that were not filled out properly or were missing important and required information.

The data were collected from a diverse set of university students due to several reasons. First, students are more open and efficient to adopt emerging technologies relatively than other individuals (Arif, Aslam, &Ali, 2016). Second, almost every student has mobile phones and frequently uses email for distinct objectives (see Table 1); therefore, data collection from such respondents would more likely respond to our proposed inquiry. Third, data collection from students could be used to represent the rest of the population andgeneralizable statements could be formed (Compeau, Marcolin, Kelley, & Higgins, 2012).There are distinct studies that particularly used a sample of students in their studies between 1990 and 2010 (Compeau et al., 2012). Finally, it was believed that students belonging to dissimilar regions of Pakistan have different norms, values, religion, culture, and races; therefore, data collection from such group could be used to represent the population (Hew et al., 2015; Leong, Hew, Tan, &Ooi, 2013). Hence, it was determined by the researchers that it was justifiable and reasonable to select a student sample to test our proposed inquiry from Pakistan.

Moreover, data were gathered from major cities of Punjab province and Khyber Pakhtunkhwa (KPK); that is, Rawalpindi, Peshawar, Lahore, Kasur, Faisalabad, Multan, and the capital city of Pakistan, Islamabad. The data were collected through distinct possible means; that is, online distribution using "Google doc", personal visits, and personal requests to students and colleagues. However, diaries, pens, and key-chains were also presented to some respondents for their motivations. Such gifts were presented to achieve a higher response rate and to show appreciation that the students had been a part of the study.

Furthermore, all measurement standards were culturally modified and pre-tested to avoid any bias. We applied a reliability test where results were evaluated using Cronbach's alpha values. According to Van Teijlingen and Hundley (2001), it is imperative to conduct a pilot study before performing a study with a large sample size. Therefore, we piloted the study and overall results of Cronbach's alpha (n=50) are presented as follows. The output value after Cronbach's alpha must be >.7 to ensure the reliability (Hair, Anderson, Tatham, & William, 1998). This study's values were above suggested

criteria where mobile marketing stands at α =.81, Email marketing at α =.78, and impulse buying tendencies at α =.80.

We adopted two types of variables where mobile marketing and email marketing were employed as the independent variable (IV) while impulse buying tendencies as the dependent variable (DV). A five-point Likert scale was used ranging from strongly disagree to strongly agree, adopted from previous studies from Persaud and Azhar (2012) and El-Gohary (2012). Nominal and ordinal scales were also used to record the demographic information of the respondents.

The benchmarks for both the IV and DV were adopted from previous studies. First, the measurements of mobile marketing were adopted from Leppaniemi et al. (2006) based on three items: Shore messaging service, multimedia messaging service, and wireless applications protocol. Second, the measures of email marketing were adoptedfrom Sterne and Priore (2000) based on three items: e-promotion, e-newsletters, and viral marketing. However, the benchmarks for impulse buying tendencies were adopted from Verplanken and Herabadi (2001) based on 20 items scales. Verplanken and Herabadi (2001) presented two aspects of impulse buying tendencies: cognitive aspect and affective aspect. Since we adopted both aspects impulse tendencies, 10 items were associated with cognitive aspect while 10 items were used to measure affective aspect.

This study employed Statistical Package for Social Science (SPSS) version 21.0 with utilization of Smart-PLS to test hypotheses. Since we used a five-point Likert scale, incorporating the nominal and ordinal scales: SPSS strongly disagree category was coded as 1, disagree-2, neutral-3, agree-4, and strongly disagree as 5.Similarly, ordinal and nominal scales were coded in SPSS software from a digital classification of 1-5 to calculate the results.

Four statistical techniques were applied to generate results, such as descriptive analysis techniques, Pearson's correlation, confirmatory factor analysis, and structure equation modeling (SEM). First, descriptive statistics were applied to calculate the demographic information of the respondents (age, gender, education level, usage of cell phone, and usage of emails). Descriptive statistics empower the decision of researchers to describe the data comprehensively (Leech, Barrett, & Morgan, 2005). Second, the relationships among variables were determined using Pearson's correlation where Taylor (1990) recommended that the output values of Pearson's statistical tool must stands between -1 and +1. According to Rumsey (2002), 'r' values indicate the strength of the relationships where lower, negative values infer lower, negative effect while higher positive values indicate higher positive effect, respectively. Third, confirmatory factor analysis was employed to estimate the convergent validity and reliability of construct using factor loading, average extracted variance, and composite reliability, respectively. The convergent validity was measured using two modes: factor loadings and average extracted variance in which the output values for both measures must be >.5 as recommended Fornell and Larker (1981) and Kline (2005). However, the values for composite reliability must be >.7 as suggested by Hair et al. (1998). Lastly, a structure equation modeling statistical technique was applied to measure the proposed relationships and interrelationships of each variable. To this end, the overall model fit is calculated using goodness-of-fit (GoF) where Tenenhaus, Amato, and Esposito Vinzi (2004) described that the output value after GoF has three decisional criteria: small, medium, and large. Additionally, values must fall between 0-1 where up to .10 would be considered small, .25-medium, and .36-large.Using such a technique to adopt GoF as the overall model fit index is consistent with the previous related studies of Tenenhaus et al. (2004) and Hew et al. (2015). The summary of overall relationships with respect to assumed relationships is presented in Table 3 below.

RESULTS

Table 1 indicates the demographic information of the target respondents, including their age, gender, and level of education. The findings revealed that among a total of 900 respondents, male respondents were 56% while female were 44%, which affirms a higher ratio of male than female. A second

interesting finding relates to the usage of m-devices and emails, where nearly every student at the university level found to be mobile and email users.

Table 1. Respondents' profiles

CHARACTERISTICS		MALE		FEMALE	
		Frequency	*%*	*Frequency*	*%*
Gender		500	056	400	044
Age	15-20	120	24.0	100	25.0
	21-25	230	46.0	180	45.0
	26-30	100	20.0	090	22.5
	>31	050	10.0	030	07.5
Marital Status	Unmarried	350	70.0	290	72.5
	Married	130	26.0	095	23.8
	Other Status*	020	04.0	015	03.8
Qualification	Bachelor	250	50.0	150	37.5
	Masters	200	40.0	200	50.0
	PhDs	030	06.0	020	05.0
	Others status**	020	04.0	030	07.5
Since from using M-devices	<1 Year	005	01.0	010	02.5
	2-4 Years	020	04.0	050	12.5
	5-7 Years	265	53.0	240	60.0
	>8 Years	210	42.0	100	25.0
Since from using email Services	<1 Year	030	06.0	050	12.5
	2-4 Years	050	10.0	040	10.0
	5-7 Years	230	46.0	200	50.0
	>8 Years	190	38.0	110	27.5

Note. n= 900*; **including widow or divorced; ** including other diplomas or courses holders i.e. CA, ACMA, and ACCA.

Table 2 reports the overall values of means, standard deviation (SD) and correlation matrix for major constructs of this study. Whereas mean values represent central tendency, SD values represents disperse tendencies, and correlation matrix values indicate the correlation and inter-correlation among each variable (Grant, Ries, & Thompson, 2016; Hair et al., 1998; Taylor, 1990).As earlier described, Taylor (1990) noted the values after such analysis technique must fall from -1 to + 1. The negative values indicate negative correlation while positive values indicate positive relationships, respectively (see Table 2).

Table 2. Values for Mean, SD, and Correlation Matrix

	Mean	SD	CDV*	ADV*	SMS1	MMS2	WAP3	EP1	EN2	VM3
CDV	3.42	.931	1							
ADV	3.15	.899	.542*	1						
SMS1	3.54	.935	.455*	.603*	1					
MMS2	3.21	.964	.392*	.598*	.321*	1				
WAP3	3.30	.843	.546*	.582*	.293*	.342*	1			
EP1	3.44	.930	.553*	.497*	.453*	-.250*	.301*	1		
EN2	3.51	.944	.402*	.524*	-.245*	.402*	.273*	.456*	1	
VM3	3.40	.910	.458*	.442*	.243*	.341*	.492*	.501*	.308*	1

Note. n=900; Five-Point Likert Scale was used; $p<0.05$.

*r values

The negative values indicate negative correlation while positive values indicate positive relationships

Key to abbreviations: CDV= Cognitive aspect of DV; ADV= Affective aspect of DV; SMS1= Short messaging service; MMS2= Multimedia messaging service; WAP3= Wireless application protocols; EP1= e-promotions; EN2= e-newsletters; VM3= Viral marketing; SD=standard deviation.

Thereafter, we applied confirmatory factor analysis to determine the convergent validity and reliability of the constructs, as presented in Table 3 below. We explained the criteria in the methodologies section; however, all values of factor loading and average extracted variance are >.5 while values for composite reliability are >.7 per suggested criteria (Fornell & Larker, 1981; Hair et al., 1998; Kline, 2005). All such results affirmed the constructs reliability and ensured the validity of measurement constructs.

Table 3. Output values for reliability and validity analysis

MEASUREMENT	ITEMS	FL	AVEs	CR
Mobile Marketing (MM)*				.81
	SMS1	.632	.793	
	MMS2	.682	.743	
	WAP3	.683	.690	
Email Marketing (EM)*				.79
	EP1	.673	.687	
	EN2	.703	.701	
	VM3	.683	.682	
Impulse Buying Tendencies (IBT)**				.82
i. Cognitive aspects (CDV)				.81
	CDV1	.683	.793	
	CDV2	.603	.700	
	CDV3	.704	.733	
	CDV4	.677	.794	
	CDV5	.732	.741	
	CDV6	.630	.712	
	CDV7	.643	.690	
	CDV8	.763	.732	
	CDV9	.677	.744	
	CDV10	.690	.754	
ii. Affective aspect (ADV)				.83
	ADV1	.633	.730	
	ADV2	.689	.777	
	ADV3	.673	.751	
	ADV4	.739	.703	
	ADV5	.703	.742	
	ADV6	.693	.703	
	ADV7	.702	.756	
	ADV8	.683	.703	
	ADV9	.693	.701	
	ADV10	.693	.709	

Note. FL= factor loadings; AVEs= average extracted variance; CR= composite reliability
*independent variables; **dependent variables

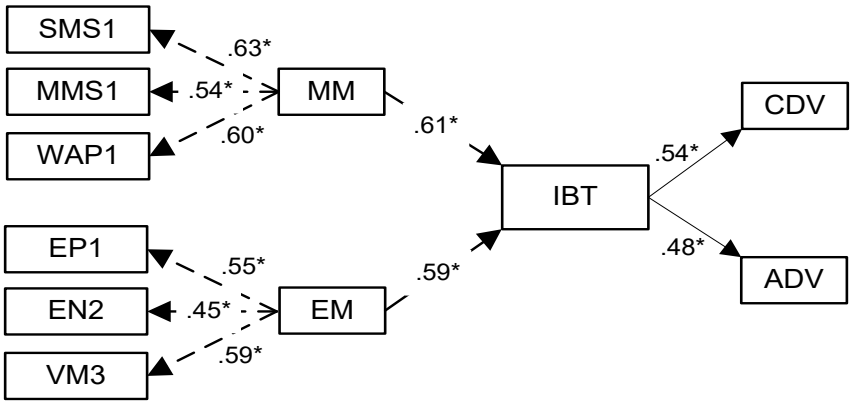
Finally, structure equation modeling (SEM) was applied to ensure the relationships between the independent and dependent variable, together with interrelationships among each sub-metric/latent variables of this study. First, the association among major variable are summarized below in Table 4. Hence, all values as reported below are best fitted where MM at (β=0.619*; $p<0.01$) for H_1 while EM at (β=0.592**; $p<0.01$) for H_2. In addition, the overall model fit value of .364 represents a good fit model per suggested criteria (Tenenhaus et al., 2004).

Table 4. Overall correlation

Assumed relationships	ES	TE	DE	Hypotheses
H_1: MM-->IBT	±	.619*	.619*	Supported
H_2: EM-->IBT	±	.592*	.592*	Supported

Note. ES=expected sign; TE= total effect after SEM; DE= direct effect after SEM; MM= mobile marketing (IV); EM= email marketing (IV); IBT= impulse buying tendencies (DV)
*Significant at p<0.01
Goodness-of-Fit (GoF)= .364

Subsequently, Figure 2 affirms the interrelationships and standardized solutions for each latent variable using the structure equation modeling approach. Such technique ensures the relationship for each adopted variable of this research whether there is a positive association or not.



*p<0.01
Note. SMS1= Short messaging service; MMS2= Multimedia messaging service; WAP3= Wireless application protocols; EP1= e-promotions; EN2= e-newsletters; VM3= viral marketing; IBT= impulse buying tendencies; CDV= Cognitive aspect of IBT; ADV= Affective aspect of IBT.

Figure 2. Standardize solutions using SEM

DISCUSSION

Two types of hypotheses were proposed and subsequently analyzed using SEM as summarized in Table 4. In hypothesis one, it was proposed that mobile marketing has a positive relationship with impulse buying tendencies (IBT). The findings revealed a positive correlation between mobile marketing and IBT (β=0.619*, p<0.01). Such results infer the relationships toward the expected outcome; therefore, hypothesis one is supported. Furthermore, the present findings are closely consistent with the conclusions of previous studies where experts have been claimed that marketing using m-devices often play a dynamic role to reach the consumers in present digital era (El-Gohary, 2012; Persaud & Azhar, 2012; Smutkupt et al., 2010).

It was assumed in hypothesis two that email marketing has a positive relationship on impulse buying tendencies (IBT). The findings confirmed expectations and established a positive relationship between email marketing and IBT of consumers (β=0.592*, p<0.01). Thus, based on such positive outcomes, hypothesis two is also supported. In addition, the findings of this study are consistent with the findings of previous studies in which researchers have been claimed that email marketing often contributes a key role to reinforce the buying behavior of diverse consumers across the globe (Pavlov et al., 2008; Rettie& Chittenden, 2003; Sterne & Priore, 2000; Zhang et al., 2015). Mobile and email approaches are factors of IBT; however, the study determined mobile marketing has a more positive linkage toward IBT than email marketing.

From a managerial standpoint, marketers are encouraged to study these areas further to discover ways to understand better the impulse buying habits of mobile and email users, who otherwise might

be overlooked in their campaigns. For instance, marketers must consider the potential of both mediums. The present study suggests that mobile marketing may have a higher positive effect in achieving consumers' impulse buying tendencies than email marketing. Furthermore, the following consideration must be acknowledged by marketers while disseminating information by either method.

Although researchers suggested that information should be permission-based before disseminating them through mobile devices, emails, or any supporting features particularly SMS, MMS, WAP, e-newsletters, and e-promotions emails (e.g., Amin, Amin, & Patel, 2011;Barwise & Strong, 2002; Jayawardhena et al., 2009;Kent & Brandal, 2003;Pavlov et al., 2008;Persaud &Azhar, 2012).In addition, past studieshave recommendedthat information without a user's permission often leads towards a bad image of a product and usually recipients did not pay serious attention to such information(Barwise& Strong, 2002; Pavlov et al., 2008;Sakkthivel, Bremananth, & Sriram, 2013; Schooley et al., 2016; Zhang et al., 2017). Therefore, it is a best practice to acquire written permission prior to disseminating information using emails and m-devices. Such informed consent may facilitate marketers to better understand consumers' impulse buying tendencies. Moreover, such action may assist in being successful over the consumer in today's business environment.

Marketers should consider what type of message or content would be more appropriate to stimulate a consumer's buying behavior. For instance, the message content should be based on text, video, graphics, or audio. Hence, it is vital to consider before transmit information.

Selection of time is another important element that must be considered by advertisers before informationis shared. It is critically important to observe the time that is most suitable when users would read the provided information. Researchers claimed that marketers should avoid sending access and frequent information because such attitudesirritate users which may lead to a negative perception (Walczak et al., 2012).

Likewise, marketers are advised to consider diverse segmentations of specific target markets before transmitting their information via both emerging tools of marketing communications. This approach is needed to observe consumers' social class, shopping style, perceived values, and prevailing trends of product choice. In the past, experts surmised that occasionally adopting such advertising tactics could result ina negative influence on consumer's behavior (Brengman, Geuens, & Pelsmacker, 2001). Given the results of this study, advertisers are encouraged to evaluate all such approaches while implementing their marketing plans when using mobile devices and emails.

CONCLUSIONS

Utilizing telecommunications tools for more efficient marketing communication can improve the process of information sharing. This study concluded that organizations might improve marketing campaigns by focusing more on m-devices and email mediums to better comprehend consumers' assessment processes at a lower budgetary cost. Such digital considerations could provide innovative possibilities for marketers in approaching their target market by adopting novel methods for information sharing. However, we also believe it is critically essential for marketers to acknowledge their corporate social responsibility in medium engagement before providing specific marketing results, which could include message contacts form, length, and timing. Marketers must avoid sharing information without the permission of the users. Not taking that duty into consideration could cause adverse consumer reactions, which might negatively influence their buying decisions of that organization's specific product in Pakistan.

Despite the excellent perspectives obtained on the subject matter, this study has several limitations which limits the outcomes for future marketing communication considerations. First, this study was limited to a sample size of 1000 people living in two provinces of Pakistan: Punjab and Khyber Pakhtunkhwa (KPK). Second, this study did not measure any moderator among the relationships of mobile marketing; email marketing, and impulse buying tendencies. Third, data were collected only

from university students. Fourth, the study is limited to a business-to-consumer (B2C) perspective that was specifically based only on consumer impulse buying behavior.

Future recommendations for academics and practitioners include:

- First, a study might be conducted with a large sample size to ensure the validity on a more empirical basis.
- The study might be expanded to look at other provinces and regions of Pakistan such as Sindh, Azad Jamu & Kashmir (AJ&K), and Baluchistan to ensure validity of the present findings.
- This study might be expanded to investigate the moderating effects of age, gender, social class, or any environmental or political factor to ensure the moderating roles between mobile marketing (as well as email marketing) and impulse buying behavior.
- A study might be conducted to ensure the relationships of each sub-factor of mobile marketing and email marketing, i.e. SMS, MMS, e-newsletters, e-promotions, and WAP marketing toward IBT within the context of marketing in Pakistan and in other countries across the globe.
- A comprehensive study could be expanded with different domain such as from business-to-business and business-to-government, to ensure the significance of such emerging communication channels in marketing practices.
- Finally, a future study might be considered to examine the influence of m-devices and email technology toward other buying tendencies of consumers, e.g., exploratory, online, variety seeking, habitual, and complex buying behavior within the domain of Pakistan and across the globe.

ACKNOWLEDGEMENT

Authors are immensely thankful to Chinese research findings as partially supported by *National Natural Science Foundation*, No. 71231001 and *Fundamental Research Funds* for central universities, No. FRF-BD-16-006A. Second, authors are immensely grateful to the honorable editor of the *IJIKM* for all the valuable suggestions and comments to improve the quality of the article.

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APPENDIX

	DEMOGRAPHIC ATTRIBUTES
DMO1	Age of respondents
DMO2	Gender of the respondents
DMO3	Marital status
DMO4	Level of qualification
DMO4	Since using mobile devices
DMO5	Since using email service
	Mobile Marketing (MM) *Leppaniemi et al. (2006)*
SMS1	I think, information as received from Short-Message-Service motivate me to buy something
MMS2	I think information as received from Multimedia-Message-Service motivate me to buy something
WAP3	Information being received from Wireless-Applications-Protocol motivate me to buy something
	Email Marketing (EM) *Sterne and Priore (2000)*
EP1	I think, information as received from E-promotions through emails stimulate me to purchase something
EN2	I think, information message as received from E-Newsletters through emails motivate me to buy something
VM3	I think , information which looks viral Marketing often motivate my intention to buy something
	Impulse Buying Tendencies (IBT) *Verplanken and Herabadi (2001)*
CDV	Cognitive aspect of IBT
CDV1	I often think before I purchase something
CDV2	I usually buy such things which intended to purchase
CDV3	If ever I buy something then I often do it spontaneously
CDV4	I usually shop products which are planned
CDV5	I often purchase such things which I really need
CDV6	I compare brands before I purchase that thing
CDV7	I am always careful before buying anything that either I need it
CDV8	I am used to buy things on the spot
CDV9	It is not my style to just purchase a product
CDV10	I usually buy product without proper thinking
ADV	Affective aspect of IBT
ADV1	I think it is not easy to leave nice things which I see
ADV2	I sometimes can't suppress my feeling wanting to buy something
ADV3	I occasionally feel guilty after buying something
ADV4	I think, I cannot fall in love of something in first sight I see in shops.
ADV5	I become not much excited to see the things which I want to buy
ADV6	I always look nice things whenever I pass by different shops
ADV7	I think, it is difficult for me to pass up a bargain
ADV8	I think, I want to buy something if I look something new
ADV9	I think, I am some reckless while buying things
ADV10	I sometimes purchase things because I like to buy rather than because I need it

Key to abbreviations: CDV= Cognitive aspect of DV; ADV= Affective aspect of DV; SMS1= Short messaging service; MMS2= Multimedia messaging service; WAP3= Wireless application protocols; EP1= e-promotions; EN2= e-newsletters; VM3= viral marketing.

BIOGRAPHIES

Abdul Waheed is a PhD student at Donlinks School of Economics and Management,University of Science and Technology Beijing, Beijing-China. Waheed has obtained the degrees of BBA (Hons) and MBA-II with major in marketing from Bahauddin Zakariya University (BZU), Multan-Pakistan in 2010 and 2012, respectively. He has performed the duties as a Lecturer in marketing for more than two years at Mohi-Ud-Din Islamic University, AJ&K, Pakistan. He has been appointed as a Principal for one year at Mohi-Ud-Din Islamic Inter College, AJ&K, Pakistan. Waheed is honorary Director marketing and promotion at more than five educational institutes of Pakistan. Waheed has more than 24 publications in prestigious journals, conference proceedings, and book chapters indexed/ranked includes SSCI, CPCI, ISI, Scopus, EI, ABS, ERA, and ABDC. His teaching and research interests include strategic marketing, promotion management, digital marketing, consumer behavior, and supply chain management.

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