An investigation of user's continuance intention towards Mobile Social Network Sites (SNSs)

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ARTICLE INFO	ABSTRACT
	In recent years, the popularity of Smartphone social networking sites has exploded, however, in prior studies the link between users' values, satisfaction, and continued desire to use SNSs was viewed as having little attention. The objective of this research is to establish a model that explores users' value and satisfaction as key antecedents of continuance intention towards the usage of mobile SNSs. Data was collected through a paper-based survey from a university and 532 valid responses from students were used for analysis. To validate our proposed model, and test the hypothesis, the Partial least square technique has been applied through smart pls. The empirical results revealed that both Hedonic value and Utilitarian value were significant antecedents of intention to continuance. Moreover, satisfaction was also found important determinant of intention to continue. The findings of this study will be helpful for marketers, web designers, and researchers to understand the importance of users' value and satisfaction in the context of mobile SNSs. Research implications are presented and directions for future studies are also suggested at the end of the study.

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1. Introduction

In recent years, the stimuli of consumption have been developing and changing at a breakneck pace. Earlier, consumers used to make a decision based on utilitarian and hedonic values but this is no longer case nowadays. In today's age, customers anticipate simple and unique solutions to their problems. Generally, consumer believes that users' value not only entertains them while solving their issues but also take into account their emotional needs and wants. This shift in consumer behavior, compel the researcher to investigate "hedonic and utilitarian values" deeply and how it impacts traditional outcomes like loyalty(Hew, Lee, Ooi, & Lin, 2016), intention to purchase(Webster, 2020), and quality perceptions(Dhir, Khalil, Kaur, & Rajala, 2019) among others. Moreover, in today's technologically advanced world, Academicians and marketing researchers are focusing their efforts to dig out the influence of utilitarian and hedonic motivations on the usage of online services(Chan & Leung, 2018).

In addition, Social Networking Sites (SNS) provide a platform where the perception of both "Hedonic" and "Utilitarian" values can be assessed easily. According to several studies, the users of social media are influenced by these factors at large(Chan & Leung, 2018; Raj, Bhattacherjee, & Mukherjee, 2018). Indeed, the website owner, designers, developers managers, and even users of social media are getting many advantages from SNS like as the sustainability of social and business relationships(Aharony, 2016), interaction with others (Kaur, Dhir, Rajala, & Dwivedi, 2018) and more importantly getting feedback which may be in form of opinion, critics, advice, etc., on some shared information(Chaouali, 2016). Conversely, some recent studies demonstrate that SNSs are also a source of gratifications, amusement,

pleasure, and entertainment (Bao, 2016). Nowadays it has been noticed that most consumers tried to approach SNSs using their mobile devices and tablets (Lee & Kim, 2017; Xie, 2014). Kumar, Adlakaha, and Mukherjee (2018)And many other academic researchers explored that in terms of functions and features, mobile SNSs are completely different from regular or traditionally-accessed social network sites. This provides an opportunity and sets a stage for researchers to look more deeply into matter and grasp the idea that how the responses of mobile SNSs users are different.

The present study reviews the literature regarding the continuance usage of mobile social network sites and mobile value. After that, we propose a conceptual model to examine the relationship between the Utilitarian and Hedonic Value with satisfaction as well as continuance intention to use mobile SNS. The primary objective of this study is to explore Utilitarian value and Hedonic Value as influencers of satisfaction and continuance intention to the usage of mobile SNS. The current research also offers certain implications that could be helpful for the users, marketers, and managers in the context of mobile social network sites. Moreover, the findings of the study are beneficial for academicians, practitioners, web designers, and web developers.

The remainder of this paper is divided as: After discussion of the introduction, literature review regarding continuance intention of usage and mobile value. This was followed by the development of a hypothesis and methodology. After then, analysis and results are presented in detail. Finally, the limitations and future research recommendations are given at the end of this study.

2. Literature Review
2.1 Continuance intention of Usage
The marketing managers' efforts result in several positive results, one of which is consumer support. Previous studies have sufficient shreds of evidence to prove that, serving and pleasing new customers is much harder than attracting new ones.(Leong, Ibrahim, Dalvi-Esfahani, Shahbazi, & Nilashi, 2018). Likewise, businesses need to keep their customers and encourage them to keep buying. Customer satisfaction and perceived values have been found two important determinants of the continuance behavior of the customers. Many researchers like, Zhang, Li, Wu, and Li (2017)and Bae (2018)exposed in their studies that the continuance usage of products/services is directly influenced by consumer perceived value. Moreover, prior studies also confirmed that in e-commerce contexts like as self – service technology(Daneji, Ayub, & Khambari, 2019), mobile payment service(Yuan, Liu, Yao, & Liu, 2016), and access to web 2.0 services (Susanto, Chang, & Ha, 2016), satisfaction is an important antecedent of continuance behavior. As researches related to the mobile application of SSNs are still underway, hence significant research gap in literature needs to be filled.

2.2 Mobile Value
Mobile users of every brand give huge importance to mobile technology and it has become a focal point for all users. In a study, Tran, Pham, and Le (2019)witnessed that majority of users access internet services through their cell phones. In the present era, the latest mobiles have been equipped with advanced features like large screen size, android system, high connectivity with Wi-Fi or LAWNS systems, and many more, which provide a joyful experience to users(Tran et al., 2019). Undoubtedly, it has been developed from prior literature that a major antecedent of consumers' satisfaction with internet usage and intention to continue to use is the perception of internet quality(Lu, Yu, Liu, & Wei, 2017). It is therefore not surprising that there is a need to explore and understand the perceived value gained from the use of mobile internet service in the consumer context(Martins, Oliveira, Thomas, & Tomás, 2019). This is known to be "Mobile Value". Susanto et al. (2016), stated that in consumer behavior studies, Mobile value has discoursed from the perspective of Utilitarian Value and Hedonic Value (Hew, Tan, Lin, & Ooi, 2017). Furthermore, customer satisfaction (Kim, Lee, & Contractor, 2019) and internet adoption (Seol, Lee, Yu, & Zo, 2016) were found two important predictors of perception of the mobile value.

2.3 Hypotheses Development of Study
In consumer behavior literature, Hedonic value is referred to as, "consumer's enjoyment from shopping experience"(Webster, 2020). Engagement with a brand or activity is a strong motivator for such value. Studies regarding information system suggested that the

usage of an entertaining information system are highly influenced by hedonic value(Kim, Lee, & Bonn, 2017). Interestingly,Qin, Kim, and Tan (2018), identified that the users whose hedonic values are high are always found to be active and engaged on the company's Facebook page, and always have much intention to buy as compared to utilitarian users who are silent browsers. Consequently, it is clear that there is a significant relationship between hedonic value and consumer's buying behavior, but how this relationship does work in various context is remain unexplored. Although Wang, Asaad, and Filieri (2020) reported that hedonic value had more effect on satisfaction than utilitarian value. In a similar fashion, Hew et al. (2016)observed that hedonic value is an important predictor of consumers' intention towards continuance, however, their findings cannot generalize in the mobile SNS context. Therefore, the current study looks for that:

H_1:   Hedonic value is a significant antecedent of user satisfaction.
H_2:   Hedonic value is significant antecedent of user continuance intention.

Conversely, Utilitarian value is referred to as just "practical, accomplished from user's frame of mind and conduct" i.e. when a consumer is rational and efficient and, his / her focus is only on task completion(Hew et al., 2016). In a virtual setting, the utilitarian consumer is less engaging with the brand or actively. Academicians and marketers have been working on the utilitarian behavior of consumers for the last couple of decades but remain unable to explain consumption patterns comprehensively (Chaouali, 2016; Gan & Li, 2018), Furthermore, Dalvi-Esfahani, Wai Leong, Ibrahim, and Nilashi (2020) observed that the role and significance of the Utilitarian values in the context of social network sites as well as an antecedent of continuance behavior is still uncontested. . For instance, Qin, Kim, and Tan (2018), pointed out that the strongest motivation of utilitarian consumer to visit retail pages on Facebook is just for accessing information and time savings.

On the other hand, both Li et al. (2018)and(Huang, Chen, & Kuo, 2017)argued that utilitarian value has a more influential effect on satisfaction than hedonic value. Nevertheless, as far as continuance intention to use was concerned, Huang et al. (2017)examined that it is greater among utilitarian consumers in the restaurant sector as compared to other businesses and organizations. Only limited studies are available in mobile SNS context, therefore present study postulates that:

H_3:   Utilitarian value is a significant antecedent of user satisfaction.
H_4:   Utilitarian value is significant antecedent of user continuance intention.

2.4   Satisfaction (SAT)

Satisfaction is referred to as "consumer's assessment of an actual product or service as concerning their desire of it (Abosag, Ramadan, Baker, & Jin, 2020). Satisfaction has been found an important aspect of marketing, as it allows managers and marketers to anticipate a variety of other factors that affect businesses (Vate-U-Lan, 2020).Customer satisfaction is exclusively dependent on their opinion about the value they have received.

Figure 1: Purposed Research Model
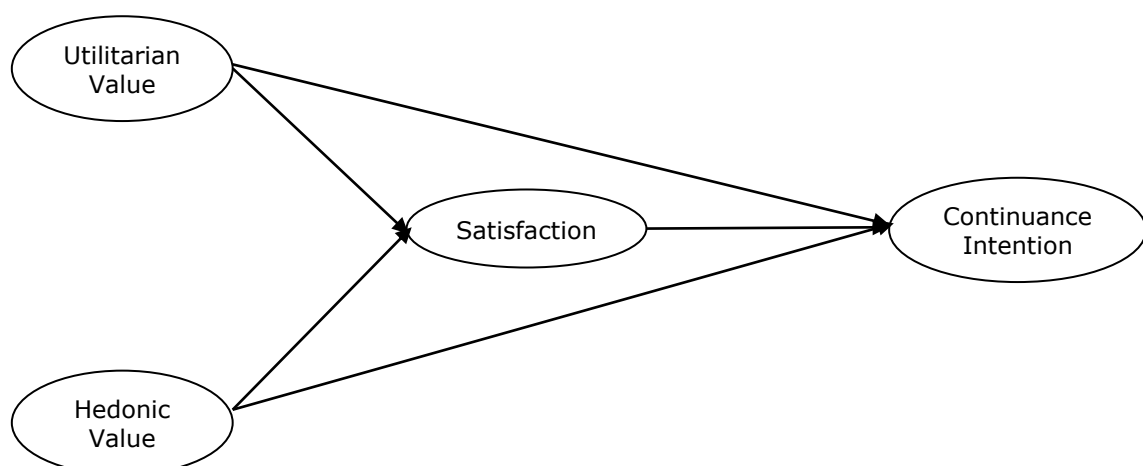
According to the existing marketing literature, satisfaction may be frequently tied up with continuance intention(Seol et al., 2016). It has been confirmed by numerous researchers that the repurchase of a particular product or service is only possible if the consumer got valued. Many researchers like(Kaur et al., 2018; Kumar et al., 2018; Lee & Kim, 2017) and (Tran et al., 2019)have advocated the idea that there is a strong relationship between satisfaction and intention to continuance usage of product or service.   In the context of mobile SNS, this relationship has not been confirmed yet. Therefore, the present study proposed that:

H$_5$:   Satisfaction is a significant antecedent of a user's continuance intention.

3.   Methodology
3.1   Measures
          To validate the purposed model, a structured questionnaire was developed and empirical data was collected through a paper-based survey. In total questionnaire was consisted of 18 items other than demographic questions. All four constructs presented in our conceptual model were measured via multiple items, while each item was assessed on a five-point- Likert scale anchoring from strongly disagree (1) to strongly agree (5). Items were adapted from prior studies, after making some revisions to suit the specific context of the mobile social network sites (SNS). To measure the hedonic value and utilitarian value, the scale established by Lin, K.-Y., Lu, H.-P (2015) was adopted. While to address satisfaction and continuation intention, items were carried out from Bhattacherjee (2001).

3.2   Data Collection
          To ascertain the validity and reliability of our instrument, a pilot study was conducted among a group of 20 students and after getting feedback minor changes has been made in the wording of measurement items. As mentioned earlier, a paper-based survey was conducted among three private sector universities of Lahore, Pakistan. Data collection lasted for a couple of weeks. In total, six hundred questionnaires were distributed initially, while five hundred and sixty-two were eventually returned. Because of incomplete responses and/or having the same answers to all questions, thirty questionnaires were discarded; hence, the final number of questionnaires included in the analysis was 532.

          The gender makeup of our sample was boys 244 (45.86%) and girls 288 (54.14%). More than half of the respondents 56.23 % were aged from 19-22 years old. The highest percentage 279 (52.44%) of students were doing their bachelor's degree while 253(47.56%) were doing a master's degree. Most of the 310 (58.27%)have been using the internet for more than 3 years, whereas those who have been utilizing the internet more than 2 years are accounted for 146 (27.44%), followed by those who have been using the internet less than 2 years were recorded only 76 (14.29%).

4.   Results and Analysis
          To test our purposed model, the SEM model has been employed using smart pls. Afthanorhan (2013), stated that the analysis performed using SmartPLS is more reliable and valid. Moreover, according to Gefen, Rigdon, and Straub (2011) and Hair, Ringle, and Sarstedt (2011), PLS-SEM does not require the assumption of normality of data or large data set, useful for prediction purpose and also provide robust results. Hence this technique and software are suitable for this technique.   The layout of the theoretical model used in this research is displayed using SmartPLS in figure 1.

          Firstly, we have tested Reliability and Validity in the measurement model. Reliability was assessed from internal consistency based on Cronbach's Alpha "α" value. Table –I indicates that the Cronbach's α value is between 0.754 and 0.813, meeting an acceptable level of reliability. The reliability could also be assessed by composite reliability (CR). As shown in Table 1, for each construct the value CR exceeds a threshold value of 0.70, satisfying the criteria of reliability (Fornell and Larcker, 1981).

Figure 2: Display of Structural Model in Smart PLS
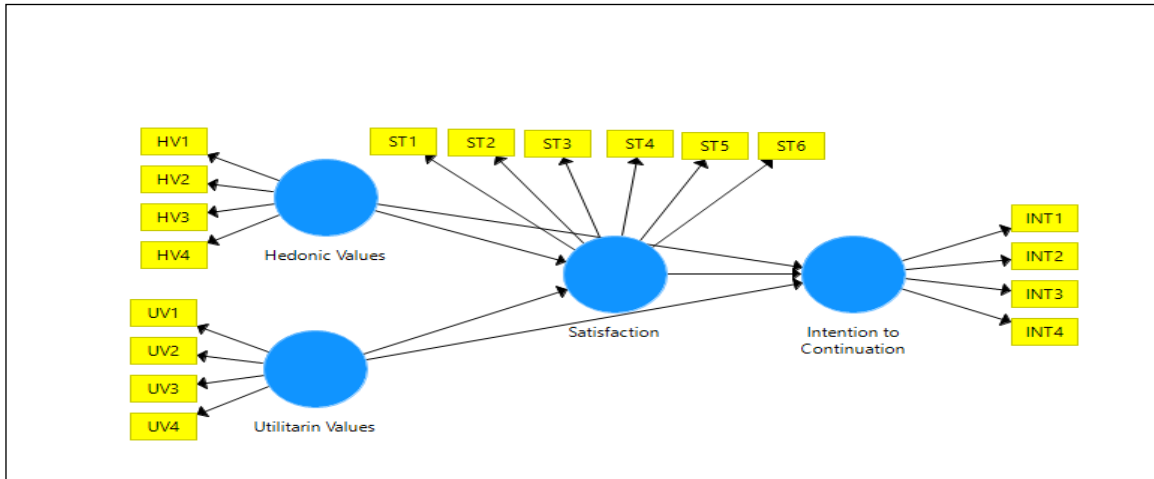
Convergent Validity can be appraised by using two methods. Firstly, it can be measured by verifying whether all factor loadings on their respective constructs must be greater than 0.60 (Hong et al., 2017) and secondly it can be assessed by checking the Average Variance Expected (AVE) (Fornell and Larcker, 1981). As it can be seen from table-I, all the factor loadings on their respective constructs are more than 0.60, moreover, AVE for each construct is beyond the suggested threshold value of 0.50, representing good convergent validity.

Table 1: Results of Measurement Model

Factors	Statements/ Items	Factor Loadings	Alpha	CR	AVE
Hedonic Values (HV)	Source:Lin and Lu (2015)				
	Interacting with others using mobile SNSs is a fun (HV1)	0.778			
	Its great enjoyment for me to use mobile SNS (HV2)	0.769	0.809	0.836	0.562
	For me it's a source of enjoyment to use mobile SNSs (HV3)	0.728			
	I get bored while using mobile SNSs (Reversed) (HV4)	0.782			
Utilitarian Values (UV)	Source: Lin and Lu (2015)				
	By using Mobile SNSs, I can get a huge amount of information very instantly (UV1)	0.854			
	Usage of mobile SNSs helps me to improve my efficiency in information sharing and contacting with my social circle (UV2)	0.849	0.786	0.818	0.671
	Mobile SNSs are very helpful for contacting others (UV3)	0.842			
	With the help of Mobile SNS we can easily interact with friends (UV4)	0.829			
	My overall experience of Mobile SNSs use is very satisfying (ST1)	0.861			
Satisfaction (ST)	Source: Bhattacherjee (2001)				
	My overall experience of Mobile SNSs use is very pleasing (ST2)	0.725			
	My overall experience of Mobile SNSs use is very contented (ST3)	0.763			
	My overall experience of Mobile SNSs use is very delighted (ST4)	0.753	0.754	0.769	0.56
	My overall experience of Mobile SNSs use is very Joyful (ST4)	0.766			
	Usage of the Mobile phone always makes me happy and relaxed (ST6)	0.791			
Intention to Continuance (IC)	Source:Bhattacherjee (2001)				
	I intended to continue using Mobile SNSs rather than discontinue their use (IC1)	0.934			
	My intention is to continue using Mobile SNSs rather than using alternative traditional SNSs (IC2)	0.923	0.813	0.881	0.535
	I plan to keep using Mobile SNSs (IC3)	0.937			
	If I could, I would like to continue the use of Mobile SNSs (IC4)	0.914			

Discriminant Validity can also be assessed by employing two different assessments. First, Fornell and Larcker (1981), recommended that the factor loading of each item or measured variable on its respective factor should be greater than its loading on other factors. Second, all the correlations between factors and other factors should be less than the square root of AVE for a factor (Chin, 1998) Chin. It is obvious from Table 2; results of the present study met the conditions of discriminant validity very satisfactorily.

Table 2: Fornell and Larcker Criteria (Construct Correlate and Square Root of AVE)

	HV	UV	ST	IC
HV	**0.929**			
UV	0.614	**0.981**		
ST	0.549	0.637	**0.884**	
IC	0.312	0.456	0.456	**0.904**

Note: Diagonal values are presenting the Square root of AVE.

The results assessed from SmartPLS are displayed in figure-2. The results represent the estimated values of path coefficients of the purposed hypothesis in the model along with values of t-test and R^2 (Pursnani et al., 2015). The significance of path co-efficient is measured using the bootstrap resampling procedure. All the paths in the purposed model were found statistically significant and supported our hypothesis.

Figure 2 indicates that user's Hedonic Values has great impact on satisfaction (β = 0.325, p-Value=0.020). Also, the relationship between Hedonic Values and intention to continuance was found positive and significant with (β = 0.388, p-Value=0.000). Furthermore, User's Utilitarian Value found positively and significantly correlated with satisfaction (β = 0.228, p-Value=0.000). Moreover, it has been revealed from results that, Utilitarian value is a positive and significant predictor of intention to continuance (β = 0.175, p-Value=0.010). Finally, satisfaction is found positive and significant antecedent of intention to continuance (β = 0.420, p-Value=0.000).

In summary, all hypotheses purposed in this study were supported. Among three antecedents, user satisfaction was found most significant. As far as, explanatory power R^2 is concerned, for satisfaction and intention to continuance were observed 25.47% and 48.58% respectively. Falk and Miller (1992), suggested that the threshold value of R^2 is 10%. Therefore, the study results revealed that the explanatory power of the research model was substantially higher than the stated criteria and all three antecedents included in the model have good predictive powers.

Figure 3

5. Conclusion and Practical Implications

From a theoretical perspective, this study contributes existence literature on mobile social network sites. This research emphasizes the role of users' values and satisfaction in SNSs context. This work was aimed to explore the impact of users' perception of hedonic and utilitarian values on satisfaction and intention to the continuance of mobile SNSs. All the hypotheses, purposed in this study were supported empirically. It was found that three factors: Hedonic values, Utilitarian value, and satisfaction have a direct and indirect relationship with intention to continuance. More interestingly, hedonic value has a stronger impact on both satisfaction and intention to continuance as compared to utilitarian values. A similar type of results was found byChaouali (2016) and Tran et al. (2019) but in a different context.

Therefore, it is suggested that, in order to attract potential consumers and satisfy the existent customers, organizations and brands should make ensure that their SNSs pages are more practical, informative and useful. In addition to this, marketers should also provide more hedonic value on web pages, so that shopping becomes delightful experience, source of pleasure, and enjoyment for online shoppers.

This paper has some limitations that could be addressed in future studies. First, the present study has focused only on mobile SNSs, so the results of the study cannot generalize to other technological contexts or traditional SNSs. Second, this study was conducted among university students, future researches can be replicated by considering customers having different backgrounds and cultures. Furthermore, comparisons can also be made among consumers on demographic basis. Third, as in our study, we have used cross-section design, the result might be interesting and different if future studies consider the longitudinal design.

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