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Effects of uses and gratifications on social media use

The Facebook case with multiple mediator analysis

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Abstract

Purpose – Billions of people around the world are experiencing new ways of interacting with people using the social networking sites (SNS). With the heavy traffic and technological capabilities, SNS offers remarkable gratifications to its users, but there is a lack of knowledge about how gratifications play a role in usage intention and whether there are other factors that influence this relationship. Therefore, this study aims to fulfill these research gaps.

Design/methodology/approach – To explore these issues in depth, this study conceptualizes a comprehensive framework based on the theory of uses and gratification (UGT), habit and the subjective norm. Structural equation model is used to analyze the survey data.

Findings – The results of the study reveal that UGT has a significant direct effect on usage intention. Furthermore, user habit and subjective norm play an important mediating role in the relationship between UGT and usage intention.

Originality/value – The proposed framework would extensively contribute to the SNS literature and managerial insights by integrating personal and social factors in determining the user acceptance of the media.

Keywords Subjective norm, Habit, Usage intention

Paper type Research paper

1. Introduction

Social media such as Facebook, WhatsApp, WeChat, YouTube, Line, Instagram, LinkedIn and Google plus, are changing the way of communication through their innovative features and services. Most of these social networking sites (SNS) offer users the opportunity to present individuals and connect them to existing and new social network users. Facebook is well suited to social interaction and information sharing in the virtual world (Al-Jabri *et al.*, 2015). Facebook users can access, share information, photos, or videos, and upload-download information at any time frequently from online groups and communities to fulfill shared interests. Facebook has a decidedly strong social impact, because of the instant presence in the lives of its users. However, with the rapid explosion of the release of new social apps with a wide variety of functions, Facebook has shown a decline in use because of

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privacy issues, especially among teenagers (Cao *et al.*, 2013; Hsiao *et al.*, 2015). Therefore, it is sensible to recognize the factors that affect continuous usage intention of SNS and the factors that intervene in the usage behavior.

In particular, this study examines the usage intention of Facebook users through the judgment of the uses and gratification (UGT) and with some mediation effects in the context. Facebook was the first SNS to surpass 1 billion registered accounts and currently has 2.2 billion active users per month (Statista, 2018). In May 2017, the total number of minutes spent on Facebook every month was 648 million, with an average time spent 18 minutes per visit and 3 million average messages sent in every 20 min (Statistic Brain, 2017).

Few research efforts have invested in studying continuous usage intention of SNS by adopting different theories, such as motivation theory, expectation-confirmation theory, social capital theory and so on. Recently, most SNS studies have incorporated uses and gratification theory (UGT) to measure intention to continue using the SNS (Al-Jabri *et al.*, 2015; Hsiao *et al.*, 2015). Earlier studies have revealed that different gratifications, such as social gratifications, content gratifications, and hedonic gratifications are the driving forces in predicting the behavioral intentions of users. Moreover, previous studies have examined that habit (Limayem *et al.*, 2007; Woisetschlager *et al.*, 2011; Hsiao *et al.*, 2015) and subjective norm (Cheung and Lee, 2010; Choi and Chung, 2013) play a vital role in the formation of usage intention. Indeed, few researchers have discovered separately the effects of UGT, habit and subjective norm on usage intention (Al-Jabri *et al.*, 2015; Gan *et al.*, 2017), but no attention has been paid to habit and subjective norm that these two major variables mediate the usage intention of SNS. Therefore, it would be more relevant to examine the usage intention of SNS under the lens of UGT along with multiple mediation effects.

To fill these research gaps, this study borrows the UGT from the field of media research and integrates the theory of habit and subjective norm into the Facebook context, attempting to examine how the usage intention is measured by UGT with multiple mediating effects. This study, however, advances previous studies and appeals to the following contributions. First, by specifying the systematic classification of Facebook user's motivation based on UGT. Second, this study sheds new light on the mediating role of user's habit and subjective norm in the relationship between UGT and usage intention. Third, the important takeaway from the findings is that taking into account these mediating variables provides an alternative understanding of divergent results in previous research works on usage intention of Facebook, potentially important for other SNSs.

Section 2 presents the historical background and the development of hypotheses. Then, Section 3 puts forward the research design, followed by empirical results in Section 4. The paper concludes in Section 5, with extensive discussions, implications and limitations.

2. Historical background and hypotheses

2.1 Antecedents of uses and gratifications theory and usage intention

The UGT refers to the study of the gratifications or benefits that attract and hold users to different media and various contents that fulfill the user's psychological and social needs (Dunne *et al.*, 2010). The primary objective of UGT is to clarify the causes why people choose a specific type of medium with a view to improving the understanding of social and individual gratifications and also to explain users' motives when interacting with a media. For example, Cheung *et al.* (2011) stated that the UGT explains why people use specific media as an alternative communication medium and discovers the needs that motivate the user to use a particular medium. They also noted that users are very much aware of their needs and their behavior is goal-directed.

Researchers have incorporated UGT to measure the motivations behind using the different traditional media like newspaper, telephones, radios, etc. Recently, it has been

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widely used to explore new media and communication technologies such as SNS (Al-Jabri *et al.*, 2015; Hsiao *et al.*, 2015), mobile SNS (Gan *et al.*, 2017), online games (Li *et al.*, 2015), virtual communities (Cheung and Lee, 2010). The UGT approach facilitates a homological network for research rather than providing a predefined set of constructs. SNS users often intend to meet certain personal and social needs such as information seeking, social interaction, freedom of expression, enjoyment, social presence and belongingness and social identity (Cheung and Lee, 2010; Cao *et al.*, 2013; Al-Jabri *et al.*, 2015). Cheung *et al.* (2011) applied UGT to examine the motivations for using Facebook by students and found that social factors had the most significant impact on the intention to use. Dhir and Tsai (2017) also incorporated UGT to understand the intensity of Facebook use and suggested that UGT process plays a significant role in predicting the intensity of Facebook usage.

In addition, researchers considered different gratifications in predicting the behavioral intention of users. For example, Dhir and Tsai (2017) argued that the intensity of Facebook use is motivated by following gratifications: entertainment, exposure, escape, information seeking and social influence. Similar studies by Cheung *et al.* (2011) conceptualized that we-intention to use online social networks "Facebook" is predicted by UGT paradigm. Another study based on mobile social networks illustrated that user behavior is directed by different types of gratification such as, cognitive gratification, affective gratification, tension-released gratification and social gratification (Gan *et al.*, 2017). In addition, Hsiao *et al.* (2015) proved, the continued use of mobile social applications is measured by utilitarian motivation, hedonic motivation and social motivation. Based on the studies mentioned above, this study expects a significant positive relationship between UGT and usage intention of Facebook. Hereby, it is hypothesized that:

H1. UGT has significant positive direct effect on usage intention.

2.2 The mediating role of habit

Habit is a learned sequence of actions that have automatic responses to certain cues, and that are functional to obtain specific objectives or end-states (Verplanken and Aarts, 1999). From the definition, the first feature of habit indicates a repetition history. The more frequent the behavior of an individual, the more likely it becomes habitual. To explain the use behavior of information technology, the habit has been included in some continuous intention analyzes, and it is found that those who frequently use information technology devices, their behavior becomes automatic manner (Limayem *et al.*, 2007). Current study considers the user's habit in the context of social media as the extent to which users tend to automatically use the SNS (Hsiao *et al.*, 2015).

Habit theory supports the relationship between habit and usage intention with the integration of the UGT approach (Hsiao *et al.*, 2015). In the context of information technology, intention and habit have been considered a major antecedent of behavior; however, the relationship among habit, behavior and intention has been quite controversial (Limayem *et al.*, 2007; Woisetschlager *et al.*, 2011; Hsiao *et al.*, 2015). Habit can have both a direct and interactive effect on behavior. While some researchers such as Hsiao *et al.* (2015) incorporated habit theory into their mobile SNS context and found a significant effect on usage intention. In contrast, some have argued that habit acts as moderating variable in the relationship between intentions and the continued use of WWW (Limayem *et al.*, 2007). They have insisted that habit has relatively less conceptual overlap with intentions that provide additional explanatory power to the use of information technology.

Furthermore, in context of mobile SNS, Gan *et al.* (2017) has incorporated and found significance impact of the habit to measure usage intention, and habit can be predicted through UGT. Limayem *et al.* (2007) have argued that satisfaction leads to habit, since it is

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assumed that satisfactory experiences will lead to repeating the same activity. In contrast, Shiau and Luo (2013) portrayed that habit has a significant effect on satisfaction. The strong argument is that habit and satisfaction are distinct and parallel, so they do not have a causal relationship (Woisetschlager *et al.*, 2011). In the social media context, when users frequently use Facebook, they may use this service without making conscious decisions and their use becomes repetitive, thus increasing the usage intention. Taking into account the conflicting conclusions of previous studies, this study intends to test the effects of habit as a mediating variable on usage intention, and therefore, the following hypothesis is proposed:

H2. Habit has the mediation effect on the relationship between UGT and usage intention.

2.3 The mediating role of subjective norm

Subjective norm is caused by the normative beliefs that the individual characteristics of what relevant others expect of a person with respect to continued use of information technology and their motivation is to comply with those beliefs (Karahanna *et al.*, 1999). According to Choi and Chung (2013), subjective norm refers to the degree to which an individual perceives the demands of significant or referent other individuals on him to use social media. Basically, the subjective norm is the perceived social pressure to act on a certain behavior and the motivation to comply with those pressures (Hyde and White, 2009). In addition, the perceived social pressure is significantly correlated with the behavioral intentions of individual (Teo, 2009). This study considers subjective norm as significantly identical to compliance with the use of social media.

In social media research, the reference is appeared to be dominant. Before users have previous usage experience, second-hand information, especially that of the primary reference group (friends and family), is important for using new media. In this context, accepting and using the SNS is inherently related to other people. Choi and Chung (2013) incorporated the subjective norm in their study of the SNS technology acceptance model, and state that the subjective norm establishes a good predictor of usage intention through perceived usefulness and perceived ease of use. Moreover, Cheung and Lee (2010) have portrayed, we-intention to use of online SNS is most significantly affected by the subjective norm. Similar studies by Teo (2009) and Cheung *et al.* (2011) have incorporated the subjective norm theory to examine the continuous use intention, and found its validation. Managing social networks with others in the virtual world will be considered a universal trend, and the popularity of SNS should generally encourage users to engage in the same activity. However, Karahanna *et al.* (1999) stated that the subjective norm no longer plays an important role in predicting the use decision for experienced users. In this contradictory context, current study expected that a person who perceives the use of the SNS as normative has a stronger intention to engage in the SNS. This study proposes that usage intention could be comprehensively examined by the mediated effect of subjective norm that will provide an additional understanding of the usage intention of SNS and subjective norm. Hereby, it is hypothesized that:

H3. Subjective norm has the mediation effect on the relationship between UGT and usage intention.

3. Research design

3.1 Measures

The survey questionnaire was divided into three main parts; first-order constructs for UGT, higher-order constructs for the measurement model, and the demographic

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elements. UGT has been measured as a second order construct through first-order constructs; enjoyment, passing time, information seeking, self-presentation, social presence and social interaction. The higher-order constructs for the measurement model comprises four constructs; UGT, user habit, subjective norm and usage intention. Basic demographic elements were included to see the descriptive and demographic distribution of respondents. This study derives the measurements of all constructs from previous studies with some modifications to fit the constructs in the market context. The measurement scales of enjoyment, passing time, information seeking, self-presentation, social presence and social interaction are borrowed from Zhou *et al.* (2014); Gan (2017), and Ozanne *et al.* (2017). The measurement of subjective norm, user habit and continuous usage intention of Facebook comes from Al-Jabri *et al.* (2015); Gan *et al.* (2017) and Li *et al.* (2015). Table I shows the detailed view of the measurements objects used in this study. A seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7) with multi-item perceptual scales were used to measure the constructs.

3.2 Data

The empirical data were collected using a structured questionnaire by online survey method. Participants were guided to the online questionnaire by clicking on the questionnaire link provided. The objectives of the study and the instructions were indicated on the first page of the questionnaire, and it was also acknowledged that all the information provided would be kept confidential. Initially, a pilot study was conducted to test the questionnaire whether the instructions and meanings of the questions were simple, clear and beneficial to the subjects. A total of 25 respondents were taken in the pilot study, and changes were made accordingly. All questionnaires were reviewed and incomplete or unlikely responses were removed. The final survey was conducted during the month of January to February 2018 in Bangladesh, and 287 samples were collected using random sampling. After cleaning the data and deleting the invalid responses, 241 valid responses were taken for the final analysis. According to the sample characteristics, 65.97 per cent of respondents are male, 39.83 per cent of them belongs to 23-26 age group. About 84 per cent of respondents spend more than half an hour a day on Facebook, and have over 300 friends on Facebook. Table II presents a detailed view of the demographic profile of respondents.

4. Empirical results

In this study, ten confirmatory factor analysis (CFA) models are developed and examined to investigate the usage intention through UGT along with multiple mediation effects. CFA models are: six first-order measurement models for UGT (enjoyment, passing time, information seeking, self-presentation, social presence, and social interaction), and four higher-order CFA models for measurement model (UGT, user habit, subjective norm, and usage intention).

4.1 First-order measurement model validation for uses and gratification theory

The evaluation of reflective first-order measurement models examines its reliability and validity. To assess the individual item reliability, this study inspects each load of a single item: all items loaded perfectly over 0.60 for the construction to which they belong, thus exceeding the value of suggested thresholds (Fornell and Larcker, 1981). After that, construct reliability is assessed through composite reliability (CR) and Cronbach's alpha, the critical cutoff value for both measures is 0.70. All reflective

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Construct and items	References
Enjoyment	Zhou *et al.* (2014), Li *et al.* (2015), Gan (2017; Ozanne *et al.* (2017)
Facebook is entertaining	
Facebook is pleasurable	
Time passing	
Facebook is a good place for refreshment	
I feel pleased and relaxed time in Facebook using	
Everyone else are use Facebook	
Information seeking	
I want to obtain useful information	
I want to obtain helpful information	
I want to obtain new information	
Self-presentation	
I want others to think me as "sociable" person	
I want others to think me as "grown-up" person	
I want others to think me as "fashionable" person	
Social presence	
I want to give my friends positive support	
I want to give my friends positive reply	
Social interaction	
There is a sense of human contact on Facebook	
There is a sense of human sensibility on Facebook	
User habit	Gan *et al.* (2017)
I use Facebook as a matter of	
Using Facebook is natural to me	
Using Facebook has become automatic to me	
Subjective norm	Al-Jabri *et al.* (2015) and Li *et al.* (2015)
habit Other people thinks, "liking" is important to me	
"Liking" is important to my friends and relatives	
I wish I could have good impression if I "like" others post	
Continuous usage intention	Al-Jabri *et al.* (2015) and Li *et al.* (2015)
I intend to increase my use of Facebook in the future	
I would keep using Facebook as regularly as I do now	
I recommend to use of Facebook among peers and relatives	

Source: Previous research

Table I.
Measurement items

constructs are reliable (Table III). The average variance extracted (AVE) is assessed to measure the convergent validity of the constructs; shows that their respective value is greater than its critical value 0.50, which represents a good convergent validity (Fornell and Larcker, 1981). Additionally, discriminant validity is examined using the suggestions of Fornell and Larcker (1981), the correlations between items in any two constructs should be less than the square roof of the AVE value in a construct. All the square root of AVE exceeds the corresponding correlation, which represents good discriminant validity. Tables III-IV presents the validity and reliability statistics of the first-order measurement model for UGT.

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Measure	Items	Frequency	(%)
Gender	Male	159	65.97
	Female	82	34.02
Age group	Bellow 18	3	1.24
	18-22	42	17.42
	23-26	96	39.83
	27-30	35	14.52
	Above 30	65	26.97
Occupation	Government employed	28	11.61
	Private employed	63	26.14
	Businessman	10	4.14
	Students	130	53.94
	Others	10	4.14
Facebook use per day	Below 30 min	36	14.94
	30-50 min	73	30.29
	50-80 min	53	21.99
	More	79	32.78
Facebook friends	Below 300	37	15.35
	300-600	56	23.23
	600-800	35	15.52
	More	113	46.88

Table II.
Demographic profile (samples size = 241)

Source: Survey data

Construct	Items	Standardized factor loadings	Composite reliability (CR)	Cronbach's alpha (α)	Average variance extracted (AVE)
Enjoyment	2	0.756-0.809	0.76	0.76	0.61
Passing time	3	0.569-0.840	0.79	0.76	0.56
Information seeking	3	0.783-0.892	0.88	0.88	0.71
Self-presentation	3	0.709-0.861	0.85	0.84	0.65
Social presence	2	0.839-0.910	0.87	0.87	0.77
Social interaction	2	0.714-0.803	0.73	0.73	0.58

Table III.
First-order CFA models reliability statistics for UGT

Source: Amos output

Table V presents the overall model fit indices for different models used in this study. The results of the model fit indices are examined by the ratio of chi-square to degrees of freedom (χ^2/d.f = 1.832), root mean square error of approximation (RMSEA = 0.059), comparative fit index (CFI = 0.936), adjusted goodness of fit index (AGFI = 0.840), incremental fit index (IFI = 0.937), Tucker-Lewis index (TLI = 0.927), and normalized fit index (NFI = 0.871) indicate a good model fit (Hu and Bentler, 1999; Hair *et al.*, 2010).

4.2 Higher-order measurement model validation

Tables VI-VII demonstrate the summary of the results of higher-order CFA models designed to measure the antecedents of UGT and its correspondence to user habit, subjective norm, and usage intention. All the diagnostic tests indicate that the model is well suited in terms of validity and reliability. The major goodness fit indices are also within their recommended

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value (Table V). In addition, this study examines the variance inflation factor (VIF); values range from 1.476-1.910 (Table VII), which are below the threshold of 10 (O'Brien, 2007), even less than the conservative threshold of 2, representing no effect of multicollinearity on the variance of the regression coefficient. Tolerance values are ranges from 0.524-0.678, representing additional strength of the model.

4.3 Structural model validation-mediation effect

Baron and Kenny (1986) noted that full mediation exists if there is an insignificant relationship between dependent and independent variables, and significant relationship exists in the indirect path through mediator. Partial mediation takes place; when a significant relationship exists between a dependent and an independent variable, and also has a significant relation in the indirect path through mediator. Bootstrapping produces an empirical representation of the sample distribution of the indirect effect by considering the

Construct	Mean	SD	1	2	3	4	5	6
1. Enjoyment	5.00	1.22	*0.78*					
2. Passing time	4.76	1.26	0.74	*0.75*				
3. Information seeking	5.90	1.09	0.40	0.51	*0.84*			
4. Self-presentation	4.70	1.45	0.45	0.49	0.38	*0.80*		
5. Social presence	5.63	1.24	0.43	0.38	0.50	0.44	*0.88*	
6. Social interaction	5.40	1.17	0.64	0.70	0.60	0.59	0.51	*0.76*

Note: Italic diagonal numbers are the square roots of AVE
Source: Amos output

Table IV.
Discriminant validity of first-order models for UGT

Model	χ^2/d.f. (<3)	RMSEA (<0.08)	CFI (>0.90)	GFI (>0.90)	AGFI (>0.80)	IFI (>0.90)	TLI (>0.90)	NFI (>0.90)
First-order model	2.024	0.065	0.958	0.925	0.879	0.959	0.941	0.921
Higher-order model	1.832	0.059	0.936	0.872	0.840	0.937	0.927	0.871
Total effect model [Figure 1(a)]	1.923	0.063	0.948	0.904	0.872	0.949	0.938	0.899
Mediation effect model [Figure 1(b)]	1.834	0.059	0.936	0.872	0.841	0.937	0.927	0.870

Source: Amos output

Table V.
Model fit indices

Construct	Items	Standardized factor loadings	Average variance extracted (AVE)	Composite reliability (CR)	Cronbach's alpha (α)
Uses and gratification	6	0.599-0.907	0.54	0.89	0.82
User habit	3	0.730-0.829	0.63	0.83	0.83
Subjective norm	3	0.664-0.857	0.59	0.81	0.80
Usage intention	3	0.799-0.826	0.66	0.85	0.85

Source: Amos output

Table VI.
Higher-order measurement model reliability statistics

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original data set as a representation of the population, and the bootstrap function performs the construction of the dataset and data analysis several times (Hayes, 2009). AMOS-24 was used to bootstrapping with 241 samples and the process was repeated 5000 times. The bootstrap results of the 95 per cent confidence interval are shown in Table VIII. The structural model [Figure 1(a) and (b)] demonstrates that all direct paths are significant. The majority of the goodness of fit test indices for the total effect model and the multiple mediation effect models show a good model fit (Table V).

Figure 1(a) and Table VIII show that UGT has a significant total effect (C = 0.788, $p < 0.001$) on usage intention. When the mediators are added in the model [Figure 1(b)], UGT reduces its impact on usage intention, but maintains its significant direct effect ($c' = 0.420$, $p < 0.05$) on usage intention. Therefore, in line with our expectations, UGT has a significant positive effect on usage intention of Facebook (*H1*). Furthermore, the results of study reveal that the two indirect effects of UGT on usage intention are statistically significant. Table IV indicates that both the user habit (a_1b_1) and the subjective norm (a_2b_2) partially mediate the relationship between UGT and usage intention of Facebook, which supports *H2* and *H3*, respectively.

5. Discussions and conclusions

The increased popularity of SNS services in the virtual world encourages users to have greater degree of gratifications, in return SNS developers want to have a higher level of

Table VII.
Higher-order measurement model discriminant validity

Constructs	Mean	SD	Uses and gratification	User habit	Subjective norm	Usage intention	Tolerance	VIF
Uses and gratification	5.23	0.89	*0.74*				0.524	1.910
User habit	5.57	1.26	0.73	*0.80*			0.602	1.661
Subjective norm	4.56	1.52	0.62	0.57	*0.77*		0.678	1.476
Usage intention	4.78	1.37	0.72	0.71	0.67	*0.81*		

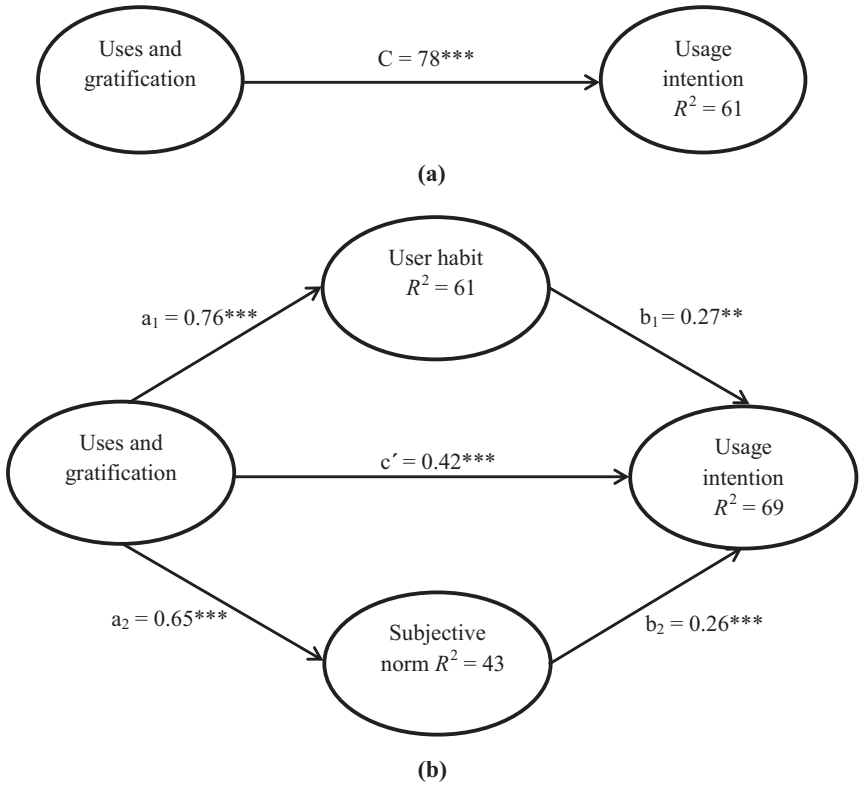
Note: Italic diagonal numbers are the square roots of AVE
Source: Amos output

Table VIII.
Mediation effect analysis

Total effect of UGT on usage intention	Direct effect of UGT on usage intention	Indirect effects of UGT on usage intention			
				Percentile bootstrap[a] 95% confidence interval	
Coefficient	Coefficient	Point estimate		Lower	Upper
C = 0.788***	*H1* = c′ = 0.420**	Total = $a_1b_1 + a_2b_2$	0.367**	0.166	0.589
		H2 = a_1b_1 (via habit)	0.180**	0.026	0.346
		H3 = a_2b_2 (via subjective norm)	0.164**	0.059	0.299

Notes: [a]5000 bootstrap samples; ***$p < 0.001$; **$p < 0.05$
Source: Amos output

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Notes: (a) Total effect model and (b) multiple mediation effect models; ***$p < 0.001$, **$p < 0.01$; *H1*: uses and gratification → usage intention = c′; *H2*: uses and gratification → user habit → usage intention = a_1b_1; *H3*: uses and gratification → subjective norm → usage intention = a_2b_2

Figure 1. Structural model: multiple mediation models

usage by their users. The intention of use should not merely equate to obliging SNS user to stay with the existing service provider rather because of a greater level of gratifications, and the influence of user habit and subjective norm in the context. The purpose of this study was to validate of the UGT and its influence on usage intention through the mediating effect of the habit and subjective norm. The approach presented here is to commit to validate the UGT as a multidimensional constructs, and set as a main antecedents of usage intention, while user habit and subjective norm play mediating role between UGT and usage intention. The results of the study reveal that UGT has a significant total effect on UGT, and user habit and subjective norm partially mediate this relationship.

Therefore, it can be stated that Facebook users fundamentally seek various gratifications to fulfill their needs and wants. The results of the total effect model [Figure 1(a)] presents that the greater the UGT, the greater the usage intention, which is consistent with previous

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studies (Cheung *et al.*, 2011; Dhir and Tsai, 2017; Gan *et al.*, 2017, among others). Total effect model explain 61 per cent of the variance in usage intention, however, the direct of effect of UGT drops in the mediation model [Figure 1(b)], the model accounts for 69 per cent of the variance in usage intention. These reveal that UGT is tremendously important in designing the user's intention in the SNS context. In particular, social interaction, passing time, enjoyment, self-presentation, information seeking and social presence dimensions are sequentially prioritized to form the UGT in this study.

In addition, this study shows that the user habit is an important factor that influences the usage intention, and largely mediates the relationship between UGT and usage intention. The significant relationship between habit and usage intention is consistent with Hsiao *et al.* (2015) and Gan *et al.* (2017). Figure 1(b) shows that UGT has a significant positive effect on user habit ($a_1 = 0.76$, $p < 0.001$), and the habit also has a positive impact on the usage intention ($b_1 = 0.27$, $p < 0.05$). These reveal that gratifications lead to habit that likely to repeat the usage intention, same activity or long-run relationship. If users experience habitual behavior when using SNS, they will likely use this service more frequency and with greater satisfaction, resulting in continued use. In this regard, pre-use, cognitive or social issues could have significant influences to shape habitual behavior.

Similarly, in accordance with our expectations and earlier studies (Teo, 2009; Choi and Chung, 2013), the subjective norm is considered an important determinant of usage intention. The results show that the UGT has a significant positive influence on the subjective norm ($a_2 = 0.65$, $p < 0.001$), and that subjective norm has a significant positive effect on usage intention ($b_2 = 0.26$, $p < 0.001$). Subjective norm is particularly important in determining the user behavior towards the usage intention, which implies that a particular social pressure plays a critical role in Facebook use. The social media user accepting and using SNS is inherently related to the other people. In other words, social media users are strongly influenced by one or more important references, specifically from the primary reference group such as friends and family.

In summary, UGT has significant direct effect on usage intention of Facebook, and user habit and subjective norm are significant mediators in the relationship between UGT and usage intention. User habit and subjective norm in regard to the mediators, represent the good predictors of usage intention in this study, accounting for 61 and 43 per cent of the variance explained, respectively.

Regarding the managerial implications, the results of the study demonstrate that SNS developers, managers or practitioners should focus on the major dimensions of UGT, to maximize user loyalty, minimize irritations or attaining long-run usage intention. To build habitual behavior, service providers should investigate user requirements to spend time on SNS media such as interesting or funny posts, prior use patterns or various social issues. In addition, SNS media mangers need to highlight the reference group, especially the members closest to the user, to broaden their user base.

While this study provides a comprehensive understanding of the UGT, habit, subjective norm and usage intention in the context of Facebook, one must be aware of certain limitations in the interpretation of the results. First, to keep the parsimonious model, the proposed study focuses on the four important variables by self-assessment, which could lead to evidence of bias. Second, this study examines the user habit as one dimension. Although the model shows a higher explanatory power, it could still be better to measure the user habit through past behavior. Third, the study considers only one country (Bangladesh) and one SNS (Facebook). It is therefore advisable to be cautious in generalizing the results to other settings. Current study triggers additional theoretical and empirical investigations to achieve better results through an appropriate longitudinal approach.

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