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Can "Liking" Behavior Lead to Usage Intention on Facebook? Uses and Gratification Theory Perspective

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Abstract: The "like" feature on Facebook has emerged as a commonly used paralinguistic tool for communicating, and its importance as an indication of positive feelings toward the posts of others is likely to increase. Comprehensive research is needed into why and how users are motivated toward 'liking' behavior, and whether this behavior generates an intention to continue using Facebook over time. This study combines the theory of uses and gratification and a subjective norm perspective to create an integrated model that predicts liking behavior and usage intentions on Facebook. The research model is tested with data collected from online users of Facebook and the proposed model is supported by a measurement and structural model analysis based on empirical data collected from 267 Facebook users. The findings indicate that the most salient motivations for users to liking behavior are enjoyment, information seeking, social interaction, and subjective norms, and that they subsequently reinforce their continuous intention toward the Facebook. The results also revealed that subjective norms contribute strongly to the projections of liking behavior and continuous usage intention. The proposed research model contributes to global marketing research and information-technology service management by integrating personal and social motivators to understand the acceptance of social networking technologies by users in Asia. In particular, the outcomes stand to enhance the current state of knowledge of social networking site developers, managers, and organizations to improve acceptance of their services or products, development of customer support, advertising, and/or product development. The present results lay the foundation for uses and gratification theory and subjective norms model that have important theoretical and practical implications and may guide future research efforts in this context.

Keywords: uses and gratification; subjective norms; liking behavior; usage intentions; Facebook

1. Introduction

The "like" feature is increasingly popular and ever more widely accepted, allowing users to express positive feelings about messages, photos, or anything that others publish on social networking services (SNS) by clicking the like button. Liking works as a paralinguistic digital affordance (such as greeting or waving through symbolic expression), which enables communication and interaction on social media without employing a specific language [1]. A modest and quick click (e.g., the Facebook "like" button) has become universal in new media stages, and the meaning of "liking" is different from phenomena observed among friends, organizations, or brands [2]. Due to ease of use and a rich variety of potential meanings, the Facebook like button enables users to interact pro-socially when there is nothing particularly rewarding to contribute to a conversation [3]. People with high self-esteem, emotional stability, diligence and low subjective norm clicked on "like" to express their enjoyment [2].

Excessive use of the "like" feature, however, has the potential to change actual meaning or make SNS interaction less about liking [4] and sometimes go beyond the scope of superficial sociability into behavior that is more purposeful [3].

While "liking" behavior is a mode of communication that has shaped the daily lives of SNS users, little research has been done to elucidate this social media communication behavior [5]. The current study focuses in particular on the world's most popular social media platform, Facebook. Facebook allows users to interact with large audiences using simple status updates and innovative features for efficient communication. Among other SNS players, Facebook is the most popular and influential, reporting more than 2.20 billion active users per month and 1.45 billion active users per day in April 2018 [6]. Due to innovative features such as the posting of text, photos, videos, and the sharing of significant moments, Facebook is certainly beloved by users with social ties in the real world seeking to share personal content online across geographic distances and time zones. Facebook allows users to like and comment on the posts of other users, which ensures the likelihood of Facebook networks comprising real-life friends and social connections. In comparison to other SNSs, there are popular special features on Facebook to remind most virtual friends of the context of reality [7].

Liking behavior across different SNSs has received much attention from marketing perspectives in terms of how liking behavior affects the purchase intentions of consumers [2,8]. Facebook's marketing efforts do not necessarily result in direct purchases, but may impact intangible assets such as the brand and develop customer-brand interactions that may lead to word-of-mouth behavior [9]. However, few studies have investigated users' motivations to like the posts of others on SNSs, especially Facebook. Similarly, early research has focused on general social media usage behavior [10] and psychological aspects of SNS usage [2,11], but has largely ignored the motives behind the use of SNS specific features. It has been suggested that the theory of uses and gratifications (U&G) may be useful to predict the liking behavior of WeChat users [7]. Social presence, primary and secondary influence, habit and self-efficacy significantly affect Facebook "like" continuation [12]. While some research has explored SNS liking behavior in terms of U&G theory, subjective norm approaches have been overlooked in the SNS context. Therefore, the current study appears to satisfy a set of research questions that aims: (a) to understand the motivations behind the liking behavior of Facebook users; and (b) to examine how U&G theory relates to liking behavior in Facebook users. Additional research questions can be posed including: (c) are subjective norms responsible for liking behavior in Facebook users; and (d) can continuous usage intention is achieved through liking behavior? The current study investigates the liking behavior of Facebook users under the framework of U&G theory and subjective norms. Specifically, the study sets out to determine which types of gratification and subjective norms influence liking behavior in Facebook users, together with how long-term usage intentions are achieved from these relationships.

The contributions of this study are three-fold. First, to the best of our knowledge, this is a first attempt to measure what drives individual liking behavior in Facebook users under the lens of U&G. The results are expected to provide important insights into the relationship between U&G and liking behavior. Second, we identified subjective norms as other important determinants of measuring these relationships, hoping to provide additional insight into liking behavior. Third, the current study strengthens the SNS model structure by showing continuous usage intentions through liking behavior and subjective norms. The results of this study stand to be generalized, to contribute considerably to the existing literature, and to provide numerous suggestions to practitioners in the context.

The paper is organized as follows. The next section explains our theoretical framework and hypotheses. Research design and empirical results are presented in Sections 3 and 4, respectively. Section 5 discusses the results of the study. Finally, Section 6 offers conclusions with managerial implications and guidelines for future research.

2. Theoretical Background and Hypotheses

2.1. Uses and Gratification Theory

The U&G approach to media use, which emerged in the late 1940s, aims to explore how individuals use media to gratify needs and to understand the motivations of individuals for media use [13]. This theory assumes that media users are aware of their needs, motivations, and expectations of the media, leading to media choice and gratification. To measure the motivations of individuals for using media, U&G theory has been widely applied to different media such as newspapers [14], television [15], smartphones [16], and internet options [17].

In the current environment of robust SNS research, U&G theory has extensively explored the reasons for individuals' use of different SNSs including Facebook [2,18], WeChat [7], Twitter [19], social virtual worlds [10], and social networking games [12,20] (see Table 1). Table 1 summarizes the major findings of studies on U&G theory in the SNS context. The work of Papacharissi and Mendelson [21] applies U&G to examine motivations for the use of Facebook, finding nine motives including the use of Facebook as a habitual pastime, relaxing entertainment, for expressive information sharing, as a source of cool and new trends, escape, professional advancement, companionship, new friendships, and social interaction. In addition, De Oliveira and Huertas [22] suggested that subjective norms, social identity, group norms, entertainment, and interpersonal interconnectivity positively impact user satisfaction on Facebook.

Table 1. Related studies on U&G theory in SNS research.

Study	Context	Hypotheses
Gan [7]	WeChat	Passing time → Liking behavior Enjoyment → Liking behavior* Social support → Liking behavior* Information seeking → Liking behavior* Self-presentation → Liking behavior
Li et al. [20]	Social networking games	Enjoyment → Continuance intention* Social interaction → Continuance intention* Escapism → Continuance intention Fantasy → Continuance intention Social presence → Continuance intention Self-expression → Continuance intention Achievement → Continuance intention
Al-Jabri et al. [19]	Twitter	Self-presentation → Usage of Twitter* Social interaction → Usage of Twitter Freedom of expression → Usage of Twitter Enjoyment → Usage of Twitter
Cheung and Lee [23]	Online social networks	Subjective norms → We-intention toward SNS* Group norms → We-intention toward SNS Social identity → We-intention toward SNS*
Zhou et al. [10]	Social virtual worlds	Utilitarian benefit → Satisfaction* Hedonic benefit → Satisfaction* Social benefit → Satisfaction* Satisfaction → Continuance intention
Ozanne et al. [11]	Facebook	Presentation of self → Use of the Like Presentation of extended self → Use of the Like Social obligations → Use of the Like Entertainment → Use of the Like Bonding → Use of the Like Self-identification → Use of the Like Information/discovery → Use of the Like

Source: Survey of studies.

Moreover, a number of studies have empirically validated SNS research stating that user behavioral intentions are predicted by different aspects of gratification, such as hedonic gratification, content gratification, utilitarian gratification, and social gratification [11,20,24]. Different research points out that each gratification contains different dimensions. Liu et al. [24], for example, show that content gratification includes self-documentation, information sharing, and self-expression, that social gratification includes social interaction, and that process gratification is related to passing time and entertainment. Li et al. [20] explain that hedonic gratification consists of entertainment, escapism, and fantasy, that social gratification couples social presence and social interaction, and that utilitarian gratification is associated with achievement. Most importantly, Gan [7] explained the mechanisms by which the liking behavior of WeChat users is predicted by different dimensions of gratification. Therefore, it is rational to assume that the "liking" behavior and its consequences can be examined by the U&G theory in SNS context.

2.2. Research Model

Given the importance of earlier SNS research and the contributions of gratification dimensions to user behavior, three types of gratification including hedonic gratification, utilitarian gratification, and social gratification are suggested as a preliminary basis to measure the "liking" behavior of Facebook users and to propose a research model (Figure 1). The research model and its hypothetical paths are illustrated in Figure 1. According to the model, hedonic gratification refers to fulfilling users' hedonic expectations of entertainment and passing time [7,20]. Utilitarian gratification refers to the fulfillment of users' utility expectations, which consist of information seeking and self-presentation [21,24]. Social gratification refers to the meeting of users' social expectations of social interaction and social presence.

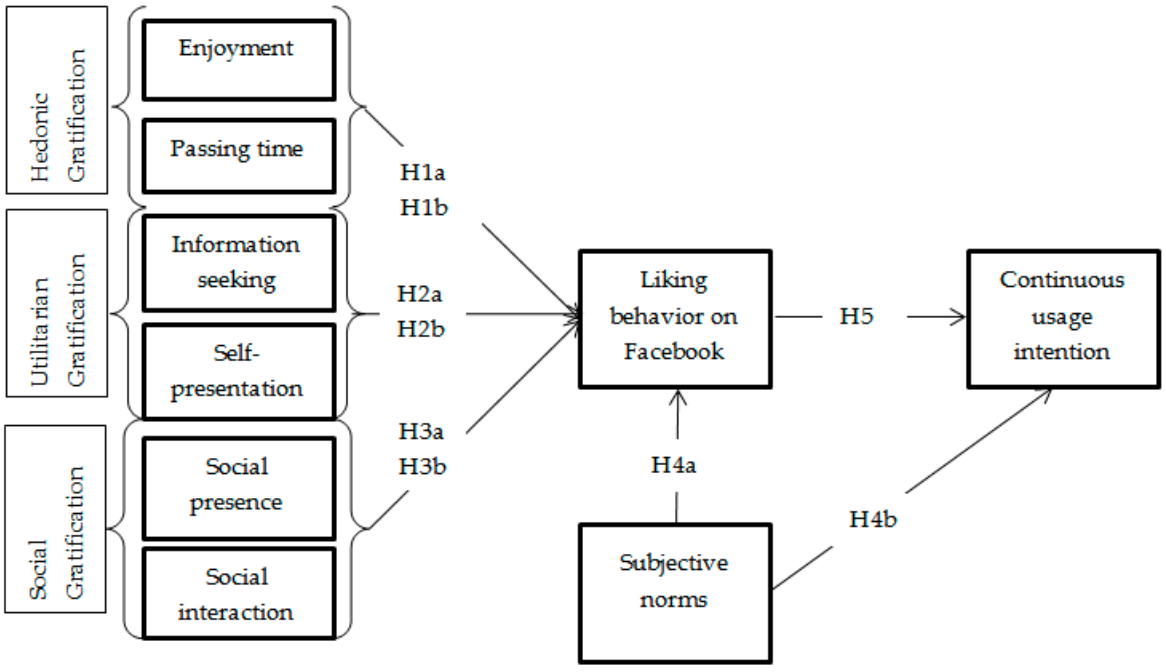

Figure 1. Proposed research model.

In addition, the proposed model has been supplemented with subjective norm and continuing usage intentions. To complete the research model and to increase our understanding of liking behavior and its consequences, the model also explores the outcomes of liking behavior on continuous usage intentions and inserts subjective norm into the context. Subjective norms refer to social pressures to perform desired behaviors to meet the expectations of others with significant roles in our social lives, which affect liking behaviors on Facebook [2]. In research about online social networks, Cheung and

Lee [23] state the importance of subjective norms for explaining intentional social actions. A large amount of SNS research in marketing literature has suggested that liking behavior leads to purchase intentions in users [2]. Cheung and Lee [23] have also stated that our collective intention (termed we-intention) to use online social networks is influenced by subjective norms. Since SNS liking behavior tends to stimulate purchase decisions, it might be feasible to measure continuous usage intentions of SNS users as well, thereby fitting this topic within the current research context.

2.3. Hypotheses Development

For its theoretical background, the current study explores U&G theory including hedonic gratification (the use of Facebook for enjoyment and as a pastime), utilitarian gratification (the use of Facebook for information seeking and self-presentation), and social gratification (the use of Facebook to assert social presence and for social interaction). Previous research about SNSs has shown that SNS liking behavior and user satisfaction are highly dependent on these three types of gratification [7,10,19,21]. Hedonic gratification refers to users' hedonic expectations to be entertained, to have a pleasant pastime, for escapism, and fantasy. Papacharissi and Mendenson [21] identified two salient motives for the use of Facebook including as a pastime and for entertainment, reflecting a ritualistic use of Facebook. Li et al. [20] revealed that continuing intentions to play online games are positively affected by enjoyment and escapism. In particular, SNS liking behavior was confirmed by the effects of hedonic gratification as well as by dimensions of passing time and entertainment [7]. Therefore, this study considers two dimensions of hedonic gratification (entertainment and passing time) that characterize liking behavior in Facebook users, and proposes the following hypotheses:

Hypotheses 1 (H1): *Hedonic gratification dimensions (H1a—Enjoyment and H1b—Passing time) have significant positive effects on liking behavior in Facebook users.*

Utilitarian gratification is related to the cognitive evaluation of utility from media use. A significant amount of research has suggested a positive impact of utilitarian gratification on user satisfaction [10,19]. Al-Jabri et al. [19] showed that self-presentation has been seen as an important dimension of utilitarian gratification, representing self-status and having a positive influence on Twitter usage. Ronda and Derek [8] assumed that SNS users are able to satisfy their information needs through information seeking, which in turn affects user behavior. In addition, Gan [7] asserted that self-presentation and information seeking are the dominant determinants of liking behavior in SNS users. Specifically, Bunker et al. [25] argued that useful information leads to clicking the "like" button and generating word-of-mouth communication. Therefore, the following hypotheses are proposed:

Hypotheses 2 (H2): *Utilitarian gratification dimensions (H2a—Information seeking and H2b—Self-presentation) have significant positive effects on liking behavior in Facebook users.*

Social gratification refers to the maintenance of social relationships, and is perhaps the key factor in the application of U&G theory to SNS. Social media can provide bi-directional ways for users to receive and return social support. Users of SNS media are connected to their friends and family and to other virtual users. Social interaction and social presence are heavily used in existing SNS literature. Some recent studies have found a positive association between social gratification and SNS usage [7,10,23]. Xu et al. [26] explored social presence theory, which refers to the degree to which a specific media allows users to establish a personal connection with others and to feel a sense of human contact through the use of media. The authors argued that SNS media use intentions are significantly determined by social presence. Moreover, social interaction and social presence are significant predictors of continuous SNS use [20]. Predictions of user liking behavior in particular have been made from social support theory in the SNS context [7]. Thus the following hypotheses are proposed:

Hypotheses 3 (H3): *Social gratification dimensions (H3a—Social presence and H3b—Social interaction) have significant positive effects on liking behavior in Facebook users.*

In the context of SNS research, processes of compliance appear to be dominant. A series of SNS research considers subjective norms as positively associated with user attitudes toward SNSs and the subsequent use of these SNSs [2,23]. Before using any media, subjective norms are predicted to be important decision-making factors, particularly among friends and family [23]. Previous research suggests that stronger subjective norms tend to lead to a higher level of we-intention toward a given SNS. According to Lee et al. [2], subjective norms are positively associated with the behavioral attitudes of users toward Facebook and the result of virtual endorsement on Facebook. In particular, social obligations are identified as important underlying factors in the liking behavior of users on Facebook [11].

Hypotheses 4 (H4): *Subjective norms have significant positive effects on* ***(H4a)*** *liking behavior in Facebook users and* ***(H4b)*** *continuous usage intentions in Facebook users.*

Moreover, existing marketing literature has argued that consumer purchase decisions are stimulated by liking behavior on SNS pages [2]. Ronda and Derek [8] have investigated how liking behavior affects brand recall in users together with future purchasing intentions in the context of Facebook, showing that there is a rational relationship between them. Liking behavior on SNS appears to function as a response action. Combined with user motivations, liking behavior aligns with the way people feel, how they spend time, what they enjoy, and the extent to which they connect with others on SNS. These motivational factors lead to liking behavior, which stands to affect continuous usage intentions in users of specific media. Liking behavior on Facebook tends to stimulate buying intention through hedonic and utilitarian gratification [20]. Cheung and Lee [23] have argued that collective intention (we-intention) to use an SNS is influenced by subjective norms and social identity. Therefore, we assume that subjective norms have a significant positive influence on liking behavior and continuous usage intentions in SNS users, and that continuous usage intentions for Facebook depend to a large extent on liking behavior and subjective norms. Thus, the following hypothesis is proposed:

Hypotheses 5 (H5): *Liking behavior has significant positive effects on continuous usage intentions in Facebook users.*

Figure 1 sets the hypotheses within the research model.

3. Research Design

3.1. Measures

The constructs of interest in this study are uses and gratifications: specifically, hedonic gratification (enjoyment and passing time), utilitarian gratification (information seeking and self-presentation), social gratification (social presence and social interaction), liking behavior, subjective norms, and continuous usage intentions. All the reflective constructs in the model are measured through multiple-item measurement scales. We have derived the established and validated measures from existing literature with minor modifications. The measurement scales of enjoyment, passing time, information seeking, self-presentation, social presence, and social interaction are adopted and modified from Zhou et al. [10], Gan [7], and Ozanne et al. [11]. The measurement of liking behavior is modified from Gan [7] and Ozanne et al. [11], and the measurement scales of subjective norms and continuous usage intentions for Facebook come from Al-Jabri et al. [19] and Li et al. [20]. Appendix A illustrates the measurement items used to measure each construct in this study. All constructs are measured using multi-item perceptual scales and are rated on a seven-point Likert scale, with scores ranging from "strongly disagree" (1) to "strongly agree" (7).

3.2. Data

An online survey method was conducted to test our research model. Specifically, we posted survey links on Facebook pages, and interested users were asked to click the links and fill out questionnaires. Our research purposes were disclosed on the first page of the posted questionnaire. Respondents were asked to answer freely based on their own experience and were assured of the privacy of their responses. The appropriateness and clarity of the questionnaire items were examined through pretests with two professionals in this field. Following the confirmation of scale consistency, the questionnaire was pretested with a sample of 22 Facebook users. Feedback from the pretests showed that questionnaire instructions and questionnaire clarity were sound.

Thereafter, the survey ran from January to February 2018, and 295 samples were collected using a random sampling method. The strengths of random sampling include the method's ability to collect sufficient data in a relatively limited time, the minimization of invalid responses and ensuring generalizability. To achieve multivariate normality and eliminate missing and incorrect responses, 28 samples were removed from the final samples. Noting the importance of representativeness, we consider a total of 267 valid Facebook users from Bangladesh. Facebook is currently the most popular SNS worldwide, and as of September 2017, Bangladesh was reported to have 97% of total SNS users [27]. Among the respondents, 65.55% were males, 40% were between 23 and 26 years of age, and most respondents reported spending more than 30 minutes on Facebook every day. Table 2 presents a detailed view of respondent demographics including respondent age, sex, occupation, Facebook use per day, and number of Facebook friends.

Table 2. Respondent demographics (N = 267).

Measure	Items	Frequency	Percentage (%)
Sex	Male	175	65.55
	Female	92	34.45
Age group (years)	Under 18	3	1.12
	18-22	50	18.8
	23-26	107	40
	27-30	38	14.23
	Over 30	69	25.85
Occupation	Public sector	30	11.23
	Private sector	66	24.71
	Business	32	11.98
	Student	117	43.82
	Other	22	8.23
Facebook use per day	Less than 30 minutes	41	15.35
	30-50 minutes	80	29.97
	50-80 minutes	56	20.97
	More	90	33.70
Facebook friends (no.)	Fewer than 300	43	16.10
	300-600	65	24.34
	600-800	39	14.60
	More	120	44.96

Source: Survey results.

4. Data Analysis and Results

A structural equation model (SEM) was used to examine the psychometric characteristics of the measurement scales and to test the proposed hypotheses. The SEM method is appropriate when the objective is to maximize the accuracy of prediction by an explained variance and when cross-sectional survey data are used. Amos 24 software was used for estimation.

4.1. Scale Validation: Measurement Model

In order to test the validity of the measurement model, confirmatory factor analysis was conducted. The first step was to examine convergent validity by inspecting each load of a single item. In our analysis, all items loaded well over 0.60 for the construct to which they belong, thereby exceeding the suggested thresholds value [28]. Thereafter, we examined the construct reliability of each construct through average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha. All were above thresholds, with values over 0.50 for AVE, over 0.70 for CR, and over 0.70 for Cronbach's alpha, thus representing good internal consistency in the measurement model. Table 3 details measurement objects with respective standardized factor loadings, AVE, CR, and Cronbach's alpha values of the measurement model.

Table 3. Measurement items, standardized estimates, and reliability statistics

Construct	Items	Standardized Factor Loadings	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha (α)
Enjoyment	2	0.753-0.852	0.65	0.79	0.78
Passing time	3	0.666-0.808	0.56	0.79	0.73
Information seeking	3	0.750-0.915	0.71	0.88	0.87
Self-presentation	3	0.681-0.846	0.63	0.83	0.83
Social presence	2	0.837-0.901	0.76	0.86	0.86
Social interaction	2	0.838-0.873	0.73	0.85	0.84
Subjective norms	3	0.617-0.834	0.52	0.77	0.76
Liking behavior	4	0.674-0.827	0.54	0.82	0.82
Usage intentions	3	0.768-0.789	0.61	0.82	0.82

Source: SEM-Amos and Reliability analysis results.

A method from the work of Fornell and Larcker [28] was used to prove discriminant validity. With respect to discriminant validity, the correlations between items in any two constructs should be lower than the square root of the AVE shared by items within a construct (shown in bold on the diagonal in Table 4). All the square root of AVE values were shown to exceed the corresponding correlation, representing good discriminant validity in the measurement model. Discriminant validity statistics for the measurement model are presented in Table 4.

Table 4. Discriminant validity

Construct	1	2	3	4	5	6	7	8	9	VIF
1. Enjoyment	**0.80**									1.59
2. Passing time	0.72	**0.75**								1.81
3. Information seeking	0.25	0.34	**0.84**							1.49
4. Self-presentation	0.31	0.34	0.40	**0.80**						1.75
5. Social presence	0.25	0.33	0.52	0.39	**0.87**					1.38
6. Social interaction	0.37	0.49	0.42	0.57	0.41	**0.85**				1.53
7. Subjective norms	0.35	0.40	0.22	0.61	0.33	0.44	**0.72**			1.76
8. Liking behavior	0.47	0.46	0.26	0.50	0.30	0.44	0.69	**0.73**		1.63
9. Usage intentions	0.47	0.52	0.33	0.57	0.35	0.51	0.68	0.67	**0.78**	

Note: The diagonal letters in boldface are the square root of AVEs.

To assess how well the model fit the data, several model fit indices were examined. Each result of model fit indices including the ratio of chi-square to degrees of freedom (x^2/d.f. = 1.712), root mean square error of approximation (RMSEA = 0.052), comparative fit index (CFI = 0.948), adjusted goodness of fit index (AGFI = 0.851), incremental fit index (IFI = 0.949), and the Tucker-Lewis index (TLI = 0.935) was shown to indicate a good model fit [29,30]. Table 5 presents the overall model fit for the measurement and structural models. In addition, Harman's one factor test was employed to examine common method variance (CMV). Analysis revealed more than a single factor, with the first factor accounting for 33.75% of the variance, lowers than the threshold value of 50% [28]. The CMV

was rechecked using variance inflation factor (VIF), which ranged from 1.384 to 1.815 (less than 5, see Table 4) representing no CMV issues [31,32]. We therefore conclude that CMV is unlikely to be a serious concern [28,31,32].

Table 5. Model fit indices

Model	x^2/d.f. (<3)	RMSEA (<0.08)	CFI (>0.90)	AGFI (>0.80)	IFI (>0.90)	TLI (>0.90)
Measurement model	1.712	0.052	0.948	0.851	0.949	0.935
Structural model	1.762	0.054	0.943	0.846	0.944	0.930

Source: SEM-Amos output.

4.2. Scale Validation: Structural Model

Having assessed the measurement model, we constructed a structural model to examine the hypothesized paths. The structural model was also shown to have a good model fit (x^2/d.f. = 1.762; RMSEA = 0.054; CFI = 0.943; AGFI = 0.846; IFI = 0.944; TLI = 0.930), with data in Table 5.

To examine the structural model, we employed the maximum likelihood method: six out of nine hypotheses were found to be significant and in line with our expectations. Table 6 summarizes the hypothesis results. The structural model indicates that enjoyment (β = 0.222, p < 0.05), information seeking (β = 0.320, p < 0.001), and social interaction (β = 0.230, p < 0.005) significantly affect liking behavior in users of Facebook, thus H1a, H2a, and H3b are supported. However, passing time, self-presentation, and social presence are not significant for liking behavior in Facebook users, thus H1b, H2b, and H3a are rejected. Subjective norms show significant effects on liking behavior (β = 0.536, p < 0.001) and usage intentions (β = 0.457, p < 0.001) in Facebook users, supporting H4a and H4b. Furthermore, liking behavior shows a significant influence on usage intentions (β = 0.372, p < 0.001), which supports H5. The structural model explains 57% of the variance in Facebook liking behavior and 59% of the variance in continuous usage intentions in users of Facebook.

Table 6. Summary of results

Hypothesis		Path		Path Coefficient	Result
H1a	Enjoyment (HG)	—>	Liking behavior	0.222 **	Accepted
H1b	Passing time (HG)	—>	Liking behavior	$0.023^{n.s}$	Rejected
H2a	Information seeking (UG)	—>	Liking behavior	0.320***	Accepted
H2b	Self-presentation (UG)	—>	Liking behavior	$0.038^{n.s}$	Rejected
H3a	Social presence (SG)	—>	Liking behavior	$0.013^{n.s}$	Rejected
H3b	Social interaction (SG)	—>	Liking behavior	0.230**	Accepted
H4a	Subjective norms	—>	Liking behavior	0.536***	Accepted
H4b	Subjective norms	—>	Usage intention	0.457***	Accepted
H5	Liking behavior	—>	Usage intention	0.372***	Accepted
Variance explained:		R squared			
Liking behavior of Facebook		57%			
Continuous usage intention		59%			

Note: *** p < 0.001, ** p < 0.01, n.s. not significant.

5. Discussion

The motivation behind this study is to explore the role of U&G theory in Facebook liking behavior, which is likely to boost continuous usage intentions in users of Facebook. In addition, we aim to discover the influence of subjective norms on liking behavior and usage intentions. The results show that three types of gratification, including hedonic gratification (enjoyment), utilitarian gratification (information seeking), and social gratification (social interaction), have a significant impact on liking behavior in users of Facebook. Information seeking exerts the largest positive impact on liking behavior, followed by social interaction and enjoyment. These results are consistent with the findings of previous

studies [7,8,19,20] and other studies. These results reveal that SNS users feel satisfied when finding useful and valuable information from the posts of others, which encourages liking behavior in users. Users communicate and interact with one another via Facebook, showing that they feel close to one another and liking one another's posts in the context. In addition, users perceive the usage of Facebook as pleasant, interesting, and enjoyable when they encounter the posts of others, and thus are likely to engage in liking behavior to interact with others.

In accordance with our expectations and with the findings of previous studies [2,23], subjective norms were shown to have significant positive effects on liking behavior and usage intentions in Facebook users. It is revealing that Facebook users perceive other users as important to them and that user behavior is influenced by the way in which they believe others. This study finds that subjective norms had the strongest impact on liking behavior in Facebook users, which shows that the compliance process appeared to be important in the information systems context. Furthermore, we find a high association between liking behavior and continuous usage intentions in users of Facebook. This result shows that the greater the liking attitude, the longer the usage intention in users of Facebook, which ultimately indicates higher user satisfaction. As a paralinguistic feature with great ease of use, the "like" feature on Facebook enables users to proactively communicate and interact with one another on an ongoing basis.

Contrary to our expectations, passing time, self-presentation, and social presence were not found to have significant impacts on liking behavior in Facebook users. A possible reason could be that Facebook users do not consider it necessary to like the posts of others in order to assert themselves, or do not desire to deliberately devote their time to online social interaction. In other words, these users may depend entirely on enjoyment, information seeking, or on real-world social interactions in regard to these particular dimensions of gratification. Whenever users have nothing to do or feel bored, they may browse or scroll through Facebook posts instead of clicking the "like" button to demonstrate intentional interaction with a message. Another possible reason could be that users are not enthusiastic about using the like feature excessively, or they may think that over-liking might change the actual meaning of posted messages. Therefore, passing time, self-presentation, and social presence are not among the major issues shown to affect liking behavior in this study.

6. Conclusions

This study contributes to existing SNS literature by exploring the impacts of U&G theory and subjective norms on Facebook liking behavior and by measuring the impacts of liking behavior and subjective norms on continuous usage intentions in Facebook users. The most salient user motivations for liking behavior are enjoyment, information seeking, and social interaction, together with subjective norms. This study reveals that the Facebook "like" feature functions as an important motivation for long-term use. Social network developers, managers, and/or organizations stand to benefit from the insights herein to improve user acceptance of social network services or products, and to build customer support, advertisement, and product development.

The results of the study demonstrate the strong explanatory power of liking behavior and usage intentions in users of Facebook, and offer several interesting insights into user liking behavior leading to usage intention. First, the findings of the study contribute to an evolutionary understanding of the role of U&G theory and its antecedents in liking behavior. Basically, Facebook users click "like" when they encounter content they find enjoyable, informative, or worthy of interaction. Beyond the existing literature, this study contributes to our understanding of individual motivations to "like" content on Facebook. Second, the findings herein contribute to the existing literature by verifying an interesting influence of subjective norms on liking behavior and continuous usage intentions in users in the SNS context. Third, while previous studies primarily focus on different dimensions of gratification on user adoption of SNSs and liking behavior, the current study extends this line of research by examining the effects of liking behavior on continuous usage intentions in SNS users. The current study provides evidence of a deterministic understanding of liking behavior and long-term usage intentions in the SNS context.

Furthermore, the study offers some managerial insights for social media managers, developers, or practitioners on how to attract and retain users. The results of the study show that different gratification dimensions including hedonic, utilitarian, and social dimensions have significant positive impacts on liking behavior in SNS users. Therefore, it is important for managers or practitioners to incorporate multi-dimensional features into SNSs to promote user acceptance. In particular, enjoyment, information, and social interaction have a big influence on liking behavior. Because subjective norms are the driving force of user liking behavior and usage intentions, social media managers should pay attention to this paradigm. The study provides important information to service firms who want to understand the motivational models to retain existing customers and attract new ones. These companies need to focus on providing social interaction, enjoyment, and desired information through their platforms or services. The social influence that underlies subjective norms, which reflects the importance of meeting the expectations of people with significant roles in our social lives, should be emphasized in understanding user acceptance in the SNS context. Accordingly, this study shows that users' virtual endorsement in "liking" can affect larger network behaviors, such as usage intention and buying intention. Interacting with online content via the "like" button is an expression of popularity, interest, success, or other visible measures of positive support for users of SNS media. The results of the study could be useful for information interface designers and technology developers, as it can provide information on the development of new features that can meet the needs of social interaction, habit, information, and entertainment of their users.

Despite the significant contributions of this study, there are a few limitations herein. First, the sample is not cross-national and thus, generalizing the findings to other countries must be done with caution. Second, the sample respondents were predominantly younger and male, thereby potentially further limiting the study. Third, although socio-psychological factors accounted for 57% and 59% of the variance in liking behavior and usage intentions of respondents, other factors were potentially ignored in this study (e.g., user habits, stickiness, and other possible factors). Future studies should focus on a more diverse intercultural sample with other important factors in a more longitudinal way in order obtain more robust results.

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Appendix A.

Construct and Items	References
Enjoyment	Zhou et al. [10], Li et al. [20], Gan [7], Ozanne et al. [11].
Facebook is entertaining	
Facebook is pleasurable	
Passing time	
Facebook is a refreshing place	
I feel pleased and relaxed when using Facebook	
Everyone else uses 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 of me as a "sociable" person	
I want others to think of me as a "grown-up" person	
I want others to think of me as a "fashionable" person	

Construct and Items	References
Social presence I want to give my friends positive support I want to give my friends positive replies **Social interaction** There is a sense of human contact on Facebook There is a sense of human sensibility on Facebook	Zhou et al. [10], Li et al. [20], Gan [7], Ozanne et al. [11].
Subjective norms Other people think "liking" is important to me "liking" is important to my friends and relatives I aim to make a good impression when I "like" the posts of others	Al-Jabri et al. [19] and Li et al. [20].
Liking behavior I frequently click "like" on Facebook I always click "like" on Facebook when a post gives me a pleasant feeling In general, I would like to click "like" on Facebook I frequently comment on Facebook posts	Gan [7] and Ozanne et al. [11].
Continuous usage intentions I intend to increase my use of Facebook in the future I intend to keep using Facebook as regularly as I do now I recommend Facebook for peers and relatives	Al-Jabri et al. [19] and Li et al. [20].

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