



PARTICIPATION BEHAVIOR IN SOCIAL NETWORKING SITE COMMUNITIES: AN EMPIRICAL STUDY BASED ON SOCIAL EXCHANGE AND SOCIAL CAPITAL THEORY



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ABSTRACT

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Social networking site (SNS) communities provide a popular social environment in which people interact through sharing resources such as ideas, information, and advice for their mutual interests. Despite the growing importance of these communities, this area is less focused, therefore, further research is needed to shed new light on understanding the factors determine individual's participation intention and actual behavior in SNS communities. The study developed and validated a research model adopting social exchange and social capital theory. Data were collected by online survey with a self-administered questionnaire and a structural equation model is used to test the hypothetical relationships. The results found that social exchange dimensions; perceived reciprocity, perceived benefits (e.g., utilitarian, hedonic, and social), and social capital dimensions (e.g., tie strength and trust) are positively associated with participation intention, which in turn affect participation behavior in SNS communities. This study also examines the moderating effects of exchange ideology in the relationship between perceived reciprocity, perceived benefits, and participation intention and found the negative moderating effect in the relationship between perceived reciprocity and participation intention. However, individual exchange ideology has no direct effect on participation intention in SNS communities.

Contribution/ Originality: The study contributes in the existing literature of SNS communities by elucidating an integrated model of factors affecting participation intention in SNS communities and explaining the moderating effect of exchange ideology. Further, it proposed several practical implications for SNS service providers in fostering and maintaining stronger participation behavior in the communities.

1. INTRODUCTION

Social networking site (SNS) communities have gained access to people's daily life surreptitiously and gradually become an essential social platform in computer-mediated communication. SNS community is considered as a medium for developing new social relationships through Internet-based technology. For example, activities in SNS communities range from chatting, creating friendship, exchanging ideas, and sharing knowledge on particular topics. All these computer-mediated communications have led individuals to change their methods of communication and collaboration (Lin, 2006).

Nowadays, thousands of people are connecting to SNS communities, these communities have a major impact on improving the user experience in online. However, some sites disintegrate rapidly after their launch owing to the incapacity in engendering enough value features for users to take part in long-term activities, therefore, there is an

emerging necessity to apprehend users' continuance participation intention and behavior at a deeper level (Al-Debei *et al.*, 2013). Examining the social and psychological factors affecting user intentions to continue or not to continue in SNS communities is becoming a vital research topic in the Information Systems arena (Zhou *et al.*, 2010; Gharib *et al.*, 2017). Very few researches has empirically examined the reasons why users choose to remain active and continue participating in SNS communities, although it has existed for more than a decade. Fostering participation in SNS communities is a concern and challenge for researchers and practitioners alike. Considering these matters, it is deemed trivial as sustaining an effective operation of any SNS community depends mostly on the engagement of its own users and continuance usage behavior. In this manner, users' participation behavior in SNS communities is a crucial performance indicator and a vital success factor for these sites.

Moreover, a number of studies have explored the factors that influence participation intention and behavior using theory of planned behavior (Al-Debei *et al.*, 2013) social identity theory (Zhou, 2011) social capital theory (Zhou *et al.*, 2010) and social exchange theory (Gharib *et al.*, 2017). Most of them have focused on developed countries like, the United States (US), China, Korea, which restricts the applicability and validity of their findings in emerging countries. Therefore, this study focused on the user behavior of SNS community in an emerging country context like Bangladesh. In Bangladesh, 80% internet users are engaged in SNS such as Facebook, YouTube, Twitter, Instagram and others. Considering the enormous use of SNS, users have adequate opportunities to engage in different SNS communities. Insights into the users' participation intention and behavior of SNS communities could be an important phenomenon in understanding the new digital marketing media. The dominance of SNS usage indicates its substantial relevancy to the present study. This research gap, with a great deal of user base in Bangladesh, can provide a unique opportunity to identify the users' participation intention and actual behavior in the context. In particular, if we want to use these new digital social media in a sustainable way, it is crucial to understand the determinants of users' participation intention and behavior.

The purpose of this study is to examine whether and how participation intention and behavior in SNS communities are influenced by the incorporation of social exchange dimensions (perceived reciprocity, perceived hedonic, social, and utilitarian benefits), and social capital dimensions (tie strength and trust). In addition, this study also focuses on the moderating effect of exchange ideology in the relationship between perceived reciprocity, perceived benefits and participation intention. As per social exchange theory, individual exchange orientation influences the social exchange relationship (Witt and Wilson, 1990). In several variables determining individual exchange orientation, exchange Ideology (EI) is measured as a critical moderator, stating the strength of the participants' belief that work effort (e.g., helping other members in their queries) should depend on the treatment by the community (Sinclair and Tetrick, 1995). As a result, this study considers exchange ideology as a moderator variable. Moreover, the results of the study would have significant contributions in the design and effectiveness of SNS community to provide comprehensive social and commercial services.

The rest of the paper is organized as follows. Section 2 contains theoretical background and development of hypotheses of this study. Section 3 reports methodology of the research. Data analysis and results are presented in section 4, after that discussion of these results and theoretical and managerial implications are shown in section 5. Section 6 summarizes the conclusions of the paper.

2. THEORETICAL BACKGROUND AND HYPOTHESES

Participation behavior or post-adoption behavior refers to the use of a specific information system after acceptance or initial adoption. As a result, post-adoption decisions are independent of those related to initial acceptance or adoption (Al-Debei *et al.*, 2013). In the context of post-adoption, past experiences of users with a specific information system play an important role in the decision-making process related to continuous use.

In the area of information technology usage behavior analysis, researchers propose numerous theories (such as the technology acceptance model and the theory of planned behavior) in order to measure the continuance usage

intention of particular products or services. In recent years, while networked research viewed the social implications of their research in context, SNS communities and social capital have become major issues (Lin and Lu, 2011). Many researchers believe that social capital not only establishes close relationships among members, but also encourages communication, identification and trust. Therefore, social capital is a vital resource in constructing a community. Chiu *et al.* (2006) mentioned that the information generated by potential SNS, social capital significantly influences users' continued participation intention and behavior to use the site.

On the other hand, Gharib *et al.* (2017) pointed out that social exchange theory (SET) is one of the most influential theories and provides a proper theoretical lens for successfully investigating the participation behavior phenomenon in several SNS communities, as participation in SNS communities has been considered as social exchange. For this reason, this study identified the factors influencing the participation intention and behavior in SNS communities from social exchange and social capital point of view.

Based on the social exchange and social capital theory, Figure 1 shows the research model and proposed hypotheses of the study. In order to better understanding the driving factors that promote SNS communities participation intention and behavior, this study incorporates perceived reciprocity, exchange ideology, and perceived benefits (e.g., hedonic, social, and utilitarian) constructs from social exchange theory and tie strength and trust from social capital theory. This study also tries to explore the moderating effect of individual differences i.e., exchange ideology in the relationship between perceived reciprocity, perceived benefits and participation intention.

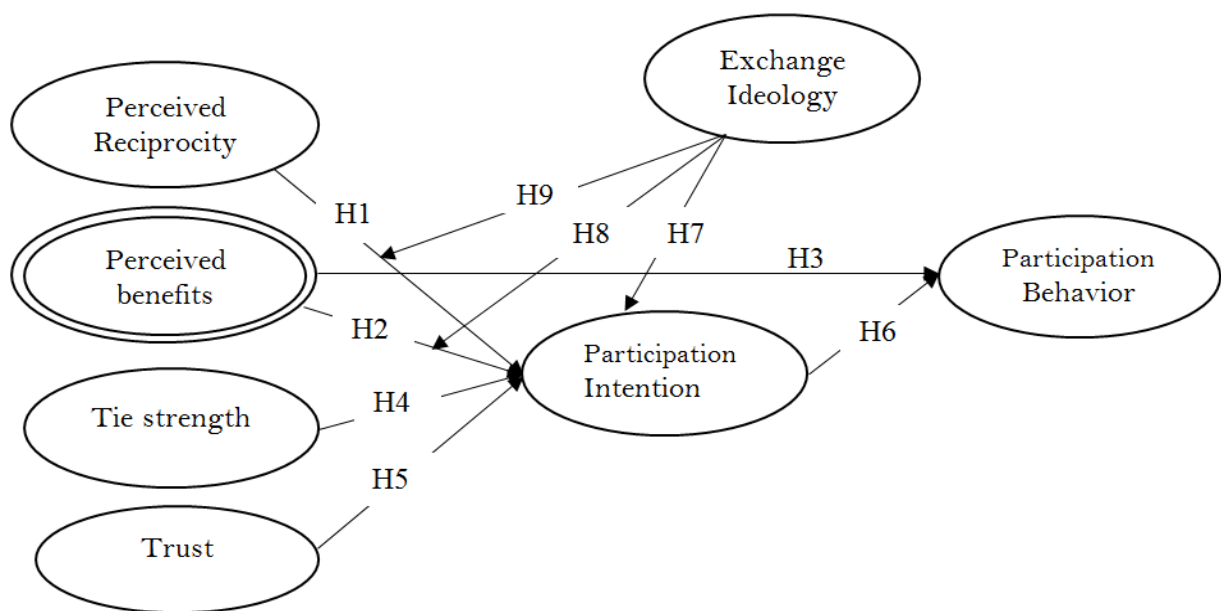


Figure-1. The research model.

According to SET, human relationships are formed by cost-benefit analysis and comparison of alternatives (Blau, 1964). The theory considers SNS community as a place to exchange resources (e.g., information and knowledge) among its participants (such as, individuals, groups or companies). In SNS communities, a member may decide to help other members (for example, by responding messages posted) if he received help (for example, received answered questions he has asked) in the past or expects to receive help in the future. For the contributor, the time spent responding to the messages of others can be seen as cost and the responses received can be considered as benefits. On the other hand, Blau (1964) stated that the activities of social exchange can provide intangible benefits including friendships, respect, and concern from others. In recent years, social exchange theory was excessively used to investigate participation intention and behavior in the context of SNS community. In this regard, Gharib *et al.* (2017) indicated that generalized reciprocity has a significant effect on active participation in online B2B community's perspective. Kuo and Feng (2013) posit that perceived benefits (e.g., hedonic, social and

learning) are positively associated with online brand community commitment. Moreover, Zhang *et al.* (2017) pointed out that perceived benefits (social and hedonic) are positively associated with continuance participation intention in SNS (WeChat). In addition, Al-Debei *et al.* (2013) mentioned that perceived value is positively associated with continuance participation intention and participation behavior in Facebook based communities.

H1: Perceived reciprocity has a positive association with participation intention in SNS communities.

H2: Perceived benefits has a positive association with participation intention in SNS communities.

H3: Perceived benefits has a positive association with participation behavior in SNS communities.

Furthermore, the relationship between social capital and SNS community participation intention was examined by a number of researchers who proposed that users participate in SNS communities to enhance social capital. Nahapiet and Ghoshal (1998) defined social capital as the sum of the actual and potential resources included in, available through and derived from the network of relationships owned by a social unit. It consists of structural, relational, and cognitive attributes. Structural dimension includes tie strength, represents the relationship strength, amount of time spent, and frequency of communication among members in the SNS communities. Trust, a significant facet of relational dimension, is a set of beliefs focuses on integrity, which means the expectation of an individual that members in an online community will follow a generally accepted set of norms, values and principles. In the study of Lin and Lu (2011) tie strength and trust are found to have significant positive influence on participation intention in Facebook fan pages. Basing on this, following hypothesis is proposed:

H4: Tie strength has a positive association with participation intention in SNS communities.

H5: Trust has a positive association with participation intention in SNS communities.

Behavioral intention deals with motivational factors when a person intends to perform a particular behavior (Al-Debei *et al.*, 2013). According to theory of planned behavior, users' behavioral intention is the most important construct that directly affects their actual behavior. Existing studies have found that behavioral intention is a major determinant of actual behavior (Kim *et al.*, 2008; Sia *et al.*, 2009). Therefore, it is suggested that the probability of performing a certain behavior increases when the intention of an individual to perform the behavior is stronger. In this study, the role of behavioral intentions in the prediction of the actual behavior is examined and it is hypothesized that the intentions of continuing the behavior have a positive influence on the participation behavior on SNS communities.

H6. Participation intention has a positive association with participation behavior in SNS communities.

EI is termed as a dispositional orientation that relates to the relationship between what individuals get from a community and what they provide the community in return (Witt and Wilson, 1990). Although social exchange is an association between individual and a community, EI refers to a pre-existing general belief system that brings individuals into an exchange relationship with the community (Sinclair and Tetrick, 1995). Moreover, individuals can be sensitive to the EI and decide to continue their participation intention in a community only after perceiving mutual benefits between them and their community. For instance, a person with low EI may participate in the community without considering what they receive, others having high EI can be sensitive with the outcomes. Basing on this view, this study proposed the following hypothesis:

H7. EI has a positive association with participation intention in SNS communities.

On the other hand, although there are different findings in online community knowledge sharing context (Zhang *et al.*, 2009) it is assumed that EI has a significant moderating effect in the relationship between perceived reciprocity, perceived benefits and participation intention in SNS communities. The study of Ladd and Henry (2000) found the positive relationship between perceived members' support and organizational citizenship behavior. The study finding helps to understand the benefit perceptions of individuals for exerting effort towards the organization. For example, individuals may expect reciprocity, social or economic benefits from SNS community members. In this aspect, individuals with high EI will be very sensitive with these benefits comparing with individuals with low EI

and shrink participation intention to the community in absence of reciprocal benefits. Therefore, this study proposes the following hypotheses:

H8. The relationship between perceived reciprocity and participation intention is moderated by EI in SNS communities.

H9. The relationship between perceived benefits and participation intention is moderated by EI in SNS communities.

3. RESEARCH METHODOLOGY

3.1. Instrument Development

The research model comprises seven constructs and each construct is measured with several items. All measurement items were adopted from former literature to ensure the content validity (Straub *et al.*, 2004). The study questionnaire was developed in English and experts' opinions were taken to assess the format suitability and wording of items. Then some items were revised according to experts' valuable remarks to ensure better understandability and clarity of the items. A total of 50 graduate students were used as sample for pilot study, who have rich SNS community usage experience. The results exhibited that each construct had Cronbach's alpha value of 0.80, which exceeded the standard value of 0.70 proposed by Hair *et al.* (2010). Therefore, some items were deleted for poor Cronbach's alpha value. All questionnaire items were measured using seven-point Likert scale, where 1 representing "strongly disagree" and 7 representing "strongly agree".

Table-1. Demographic profile of participants (sample size=332).

Measures/ items	Frequency (%)
Gender	
Female	145 (43.7)
Male	187 (56.3)
Age group	
Below 20	12 (3.6)
20-25	195 (58.7)
26-30	104 (31.3)
31-35	12 (3.6)
36-40	5 (1.5)
Above 40	4 (1.2)
Educational level	
High school	9 (2.7)
College	5(1.5)
Undergraduate	136(41)
Graduate	168(50.6)
PhD or more	14(4.2)
Employment	
Student	232 (69.9)
Govt. employee	24 (7.2)
Private employee	19 (5.7)
Business	22 (6.6)
Others	35(10.5)
SNS community name	
School and campus community	95(28.6)
Educational community	85(25.6)
Business community	24(7.2)
Health community	14(4.2)
Games and sports	25(7.5)
Brand and electronic products	34(10.2)
Movies and entertainment	40(12.1)
Others	10(3.01)
Tenure of participation	
Less than 6 months	8(2.4)
6 months – 1 year	73(22)
1–3 years	110(33.1)
3–5 years	78(23.5)
More than 5 years	63(19)

Items measuring perceived reciprocity and participation behavior were adopted from Gharib *et al.* (2017). Items measuring exchange ideology were taken from Ladd and Henry (2000). Items measuring tie strength, trust, and participation intention were adopted from Lin and Lu (2011). Items of three dimensions measuring perceived benefits were adopted from Kuo and Feng (2013).

3.2. Data Collection

Data were collected from Bangladesh through online and manual survey. Respondents were asked to fill the questionnaire on the basis of their favorite SNS community usage experience. Initially, 370 complete samples were collected, after data cleaning (eliminating responses with same and missing values, duplicates, outliers, and normality test), a total of 332 samples were valid. In regard to demographic distribution 43.7% were male and 56.3% were female see Table 1, 3.6% of the respondents were below 20, 58.7% were between 20 to 25 age group, and 31.3% respondents were aged ranges from 26 to 30 years. Around half of the participants (50.6%) were graduated and most of the respondents are students (69.9%). With respect to the usage experience, 2.4, 22, 33.1, 23.5, and 19 percent had used the community for less than 6 months, 6 to 1 year, 1 to 3 years, 3 to 5 years, and over 5 years, respectively. The top five types of SNS community respondents participated in school and campus students' community 28.6%, educational community 25.6%, movies and entertainment 12.1%, brand and electronic products 10.2%, and games and sports 7.5%.

4. DATA ANALYSIS AND RESULTS

Data analysis was conducted following the two step approach of Anderson and Gerbing (1988). First, the measurement model was assessed to test the data reliability and validity of the constructs. The examination of measurement model comprised (1) convergent validity (2) internal consistency, (3) individual item-wise reliability, (3) discriminant validity, (4) multicollinearity, (5) overall model fit, and (6) common method variance (CMV). Second, the structural model was examined to assess hypothetical relationships and model fitness, when the reliability and validity criteria of the measurement model were fulfilled.

4.1. Measurement Model Assessment

Confirmatory factor analysis (CFA) was conducted using AMOS-24 to examine the validity. Validity comprises convergent and discriminant validity. Convergent validity assesses whether items are able to reflect their corresponding factor effectively, whereas discriminant validity assesses whether two factors are statistically different. Table 2 represents the standardized loadings, t-values, mean, standard deviation (SD), composite reliability (CR), average variance extracted (AVE), and Cronbach alpha values.

The convergent validity was examined by average variance extracted (AVE) and factor loadings, suggested by Hair *et al.* (2010) and Fornell and Larcker (1981). All AVE values of the constructs are exceeded its threshold value 0.50 (Fornell and Larcker, 1981) the average factor loadings exceeded 0.70 see Table 2, indicating a good convergent validity. Furthermore, internal consistency was tested by composite reliability (CR), representing that all CRs exceeded the cut-off values of 0.70, indicating excellent reliability (Hair *et al.*, 2010). In addition, the study also examined internal consistency reliability through testing construct-wise Cronbach's alpha, having values ranging from 0.71 to 0.86, indicating a good internal consistency see Table 2.

To assess the discriminant validity, the square root of the AVE and factor correlation coefficients are compared. As shown in Table 3, the square root of AVE for each factor is greater than their correlation coefficients with other factors, indicating good discriminant validity (Fornell and Larcker, 1981).

Table-2. Reliability and validity statistics.

Factor		Items	Standardized loadings	t-values	CR	AVE	Alpha
Perceived reciprocity		PR1	0.804			0.84	0.63
		PR2	0.776*	13.31			
		PR3	0.802*	13.05			
Perceived benefits							
	Hedonic benefits					0.79	0.65
							0.77
		HB1	0.900				
		HB2	0.705*	9.57			
	Social benefits					0.75	0.60
							0.74
		SB1	0.686*	8.04			
		SB2	0.852				
	Utilitarian benefits					0.72	0.56
							0.71
		UB1	0.752				
		UB2	0.730*	5.97			
Tie strength							
		TS1	0.801			0.77	0.53
		TS2	0.701*	10.50			
		TS3	0.702*	10.14			
Trust							
		T1	0.934			0.81	0.69
		T2	0.707*	8.70			
Exchange ideology							
		EI1	0.760*	12.01		0.82	0.60
		EI2	0.856				
		EI3	0.703*	11.26			
Participation intention							
		PI1	0.772			0.75	0.60
		PI2	0.779*	10.70			
Participation behavior							
		PB1	0.742*	12.96		0.81	0.59
		PB2	0.819				
		PB3	0.745*	13.01			

Note: * $P < 0.001$

Moreover, variance inflation factor (VIF) was calculated to find out the multicollinearity among independent variables, and the VIF values see Table 3 were ranged from 1.08 to 1.41 (below the threshold value of 10), satisfying no multicollinearity issues (Hair *et al.*, 2010). In addition, Table 4 exhibits the results of the absolute model fit indices ($X^2/df = 1.231$; RMSEA = 0.028) and incremental model fit indices (GFI = 0.946, AGFI = 0.920, (CFI) = 0.985, (NFI) = 0.927, (IFI) = 0.985, and (TLI) = 0.980), which shows a good model fit based on the criteria of Hair *et al.* (2010).

Table-3. Discriminant validity.

Constructs	PR	HB	SB	UB	TS	T	EI	PI	PB	Tolerance	VIF
PR	0.79									0.82	1.21
HB	0.4	0.81								0.70	1.41
SB	0.39	0.46	0.78							0.70	1.41
UB	0.1	0.3	0.33	0.75						0.84	1.18
TS	0.18	0.44	0.39	0.38	0.73					0.79	1.26
T	0.35	0.39	0.5	0.23	0.24	0.83				0.77	1.29
EI	-0.11	-0.27	-0.12	-0.16	-0.2	-0.21	0.78			0.92	1.08
PI	0.24	0.32	0.34	0.34	0.37	0.24	-0.02	0.78		0.83	1.20
PB	0.3	0.46	0.33	0.38	0.51	0.21	-0.09	0.56	0.77		

Note: Bold diagonal numbers are the square roots of AVE.

Table-4. Model fit indices.

Fit indices	chi ² /df	GFI	AGFI	CFI	NFI	TLI	IFI	RMSEA
Recommended value	<3	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90	≤0.08
Obtained value	1.231	0.946	0.920	0.985	0.927	0.980	0.985	0.028

Notes: chi²/df is the ratio between Chi-square and degrees of freedom, GFI is Goodness of Fit Index, AGFI is the Adjusted Goodness of Fit Index, CFI is the Comparative Fit Index, NFI is the Normed Fit Index, TLI is Tucker–Lewis index, IFI is incremental fit index, and RMSEA is Root Mean Square Error of Approximation.

Finally, Harman’s single factor test was conducted in order to test the CMV issues suggested by Podsakoff *et al.* (2003). If all indicators drop in a single construct or if the first one elucidates more than 50% of the variances, a CMV problem rises. However, the first factor accounted for 26.46%, and a number of factors had eigenvalues more than 1, representing no CMV issues. In particular, the measurement model exhibits a satisfactory model fit, along with excellent reliability and validity of the constructs.

4.2. Structural Model Assessment

This study adopted structural equation modeling with AMOS-24 to estimate the structural model. The model fit indices represent a good model fit of the structural model ($X^2/df = 1.763$; RMSEA= 0.050), (GFI) =0.923, AGFI = 0.921, (CFI) =0.951, (NFI) =0.902, (IFI) = 0.952, and (TLI) = 0.934), as all the fit indices were in the accepted range. After getting a satisfactory model, then the causal relationships among latent variables are examined. Figure 2 displays the test results of the research model and Table 5 demonstrates the further results of the hypotheses in detail. The research model explained a great deal of variances of the dependent variables. As per Figure 2, the model explained 68% of the variance in participation intention and 59% of the variance in the participation behavior.

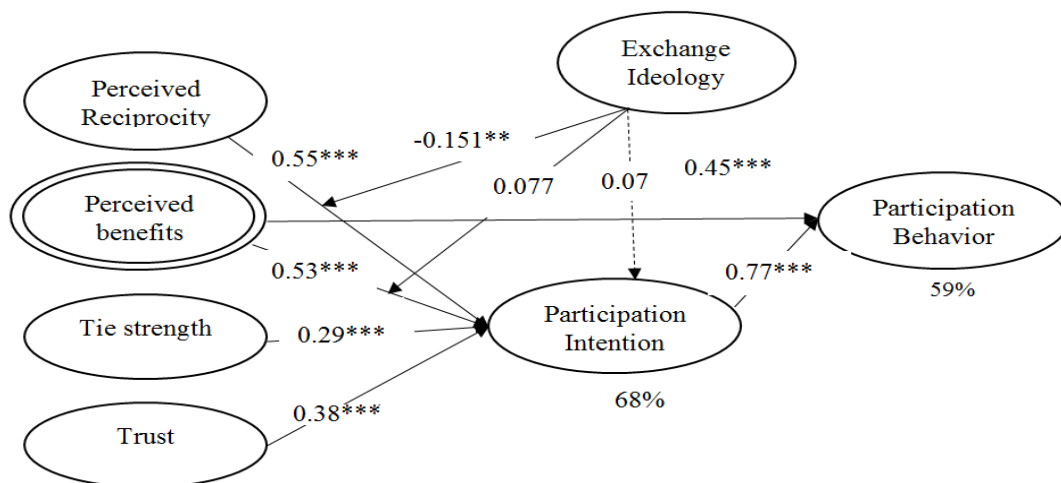


Figure-2. The structural model.

The analysis showed evidence for all the hypotheses under SET and SCT, except for H7. Three dimensions including hedonic, social, and utilitarian benefits have high loadings on the second order factor: perceived benefits see Table 5. Hence, the second order model also found a good model fit ($X^2/df = 1.541$; RMSEA= 0.042, GFI =0.985, AGFI = 0.962, CFI =0.990, NFI =0.972, IFI = 0.990, and TLI = 0.981). A significant positive relationship between perceived reciprocity, perceived benefits and participation intention ($\beta = 0.55, p \leq 0.001$; $\beta = 0.53, p \leq 0.001$) and perceived benefits and participation behavior ($\beta = 0.45, p \leq 0.001$) was found, thus H1, H2 and H3 were accepted. Nevertheless, the relationship between tie strength, trust and participation intention were detected ($\beta = 0.29, p \leq 0.001$; $\beta = 0.38, p \leq 0.001$), and this way H4 and H5 were accepted. Conversely, the association between EI and participation intention was found to be insignificant ($\beta = 0.07, p \leq 0.32$), thus H7 was not supported.

Table-5. Summary of hypotheses results.

Hypothesized paths		Estimate (β)	Standard error	t-value	p-value	Supported Yes/No
H1	Perceived reciprocity \rightarrow participation intention	0.55	0.087	2.50	***	Yes
H2	Perceived benefits \rightarrow participation behavior	0.45	0.412	3.88	***	Yes
H3	Perceived benefits \rightarrow participation intention	0.53	0.110	4.41	***	Yes
H4	Tie strength \rightarrow participation intention	0.29	0.073	4.43	***	Yes
H5	Trust \rightarrow participation intention	0.38	0.069	1.51	***	Yes
H6	Participation intention \rightarrow participation behavior	0.77	0.073	10.25	***	Yes
H7	EI \rightarrow participation intention	0.07	0.049	1.29	>0.05	No
Second-order Construct		First-order Constructs			Factor loadings	
Perceived benefits		Utilitarian benefits			0.778	
		Hedonic benefits			0.820	
		Social benefits			0.725	

4.3. Moderation Analysis

To examine the moderation effects suggested in H8 and H9, moderated multiple regression in SPSS-24 was conducted for testing the interaction effects. Two independent constructs were multiplied to compute the interaction terms. A significant change in explanatory power between two steps specifies the presence of moderating effects. All the constructs were centralized as suggested by Aiken and West (1991). The hypotheses test results are shown in Table 6.

Falk and Miller (1992) mentioned that explanatory power more than 10% is acceptable. The R^2 value of 0.160 and adjusted R^2 value of 0.143 indicate the satisfactory explanatory power of the model ($F=11.18$, $p < 0.001$). The change in R^2 value between step 1 and 2 was 0.158 (F change = 16.27, $p < 0.001$). Table 6 presents the results of the hypotheses tests. Exchange ideology has a significant negative relationship between perceived reciprocity and participation intention. Thus, the result is contrary to H8. On the other hand, exchange ideology has no moderating effect in the relationship between perceived benefits and participation intention, thus H9 is not supported.

Table-6. Moderation analysis results.

Model	Estimate (β)	Hypotheses testing
Step 1: Main effects		
Perceived reciprocity	0.195**	
Perceived benefits	0.341**	
EI	0.630	
ΔR^2	0.140***	
Step 2: Interaction terms		
EI*Perceived reciprocity	-0.151**	Contrary to H8 H9 not supported
EI*Perceived benefits	0.077	
ΔR^2	0.158***	
R^2	0.160	
Adjusted R^2	0.143	

Note: *** $p < 0.001$, ** $p < 0.01$.

5. DISCUSSION

Our results disclose a number of remarkable findings. Perceived reciprocity is positively associated with participation intention in SNS communities. This finding is consistent with the past research of Casaló *et al.* (2013) suggesting that SNS community members who have high perception towards reciprocal relationships, emotional attachments, and want of quick reply regarding any issues will have more participation intention in this online platform. As with our expectations and conclusions drawn from the past research of Al-Debei *et al.* (2013); Kuo and Feng (2013) perceived benefits (e.g., hedonic, social, and utilitarian) have significance influence in participation intention and participation behavior in SNS communities. The findings of the study recommended that when

members perceive participation in these communities will provide them with the above benefits, such perception signifies long term participation and stimulates participation behavior.

In addition, as per our findings, tie strength and trust are significantly associated with participation intention which are consistent with the study of Lin and Lu (2011); Chiu *et al.* (2006) proposing that if members of SNS communities have mutual confiding and trust regarding their sharing of opinions and beliefs in the message boards, they are more likely to continue and exchanging their views in the future. Similarly, participation intention and participation behavior are positively associated with each other consistent with the past research of Kim *et al.* (2008); Sia *et al.* (2009) suggesting that when the SNS community members have much positive knowledge about the service providers and community members' expertise, then this leads their intention to participate and actual behavior occurred. Contrary to our expectations, this study found that EI has no direct effect on participation intention in SNS communities alike the previous study of Lin (2010). One of the possible reasons could be SNS community members are not familiar to each other and members can more likely to be sensitive with EI if they have face-to-face social communications similar to friends and relatives.

On the other hand, this study found the significant negative moderating effect of EI in the relationship between perceived reciprocity and participation intention in the SNS communities, which is consistent with the prior research of Zhang *et al.* (2009). A reasonable explanation could be the short-term exchange nature of SNS community, which leads the members to show slight response to longer term paybacks like reciprocity (Sinclair and Tetrick, 1995; Zhang *et al.*, 2009). Additionally, rational individuals are much more concern about the lack of future and extra benefits in future. More specifically, SNS community members are little familiar to each other and have anxiety in long term exchanges. Therefore, in this situation, EI has negative moderating effects in SNS community. Furthermore, EI has no moderating effect in the relationship between perceived benefits and participation intention, which is similar to the study of Zhang *et al.* (2009). One of the possible reasons could be the participants' low EI, as members with high EI will response more to the sources from where they receive maximum benefits.

5.1. Theoretical and Practical Contributions

This study is one of the few studies dealing with participation behavior in the context of SNS communities. Therefore, it expands the theoretical development in this area and provides the existing literature to further improve the understanding of the key factors affecting participation intention and actual participation behavior. Our study provides a number of remarkable contributions to the SNS communities' research.

First, this study was the first attempt to integrate the theories of social exchange and social capital to examine the precursors affecting participation intention and participation behavior in SNS communities' perspective. The results indicate that social-psychological dimensions are more significant comparing to technological dimensions in the virtual world. Thus, the study confirmed the feasibility of socio-psychological dimensions in SNS communities' studies. From the results, SNS communities' service providers can create more sustainable and important SNS communities environment. They are recommended to identify the benefits that members seek when visiting the SNS communities to better understand users' needs, which help to design web page functions and features. These can provide the desired benefits to participants and provide the ability to change lurkers into active members.

The current study results found that members of SNS communities mostly search for satisfying their social-psychological needs. Therefore, SNS community service providers should find and implement activities which provide social-psychological benefits to members. For example, SNS community may consider giving personal space on its page to share information relating to experiences for active participants. The embedded blogs of experienced participants can help members identify opinion leaders easily and meet with like-minded people, and can create SNS community pages more credible than review sites.

Research relating to the processes and influences of online interactions in SNS communities continues to grow. However, comparatively little attention centers on perceived reciprocity and its criticality for the advancement of a

SNS community. This study attempts to illuminate why members reciprocate in SNS communities and how such discretionary behaviors influence their subsequent participation intention to the community and their behavioral intentions. The study results found that members of SNS communities are sensitive to this reciprocal behavior. This result can provide SNS service providers information about the importance of mutual benefits in sharing contents in SNS communities. So, service providers should add thanks feature to the SNS community page so that if a member helps the other members with providing suggestions for any queries, he or she can attain at least thanks for that.

This study also shows the impact of perceived reciprocity and perceived benefits on SNS communities appear to be moderated by EI. Further, the study suggests that the impacts of EI on SNS community may be diverse in different contexts. For example, the results of the study suggest that EI may have negative moderating effects on the relationship between reciprocity and SNS community with short-term relationships. These results are divergent to hypotheses developed from social exchange theory in organizations with longer-term relationships. Further research is necessary to verify this. The result provide the SNS community service providers with encouraging members to establish longer social relationships in informal ways, such as connecting and adding friends through software, such as instant messenger and Skype.

The findings also provide the literature by explaining the importance of social capital dimensions (tie strength and trust) in SNS communities' participation intention context. It also provides implications for service providers. To encourage more users to share their opinions, SNS community operators must consider the influence of SNS community structural features when interacting with potential and existing users. SNS community operators can arrange events to raise interaction among users. On the other hand, the relational dimension trust motivates members to act and to reach goals of the group by facilitating each other. In order to construct trust, SNS community managers should be conscious about the vibrant changes in trust mechanisms through privacy concerns, social influence, and other attributes.

6. CONCLUSIONS

This study provides and assesses a research model based on two well-known theories (e.g., SET and SCT) to find out the factors affecting participation intention and actual behavior in SNS communities. The empirical results found that perceived reciprocity and perceived benefits are the strong predictors of participation intention in SNS communities. Exchange ideology has no direct effect on participation intention, but has significant negative moderating effect in the relationship between perceived reciprocity and participation intention. The two constructs identified under SCT (tie strength and trust) are seen as vital elements of SNS communities. This study makes multiple significant contributions to SNS community research and practice.

Despite several contributions, the study has some limitations that are essential to address for future research. First, this study did not identify the technological dimensions in SNS community participation behavior perspective, although these dimensions are vital. Second, the data sets of this study were collected from Bangladesh. Although the users have better SNS community usage experience, the generalizability of the results should further examine in other country settings.

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APPENDIX A

Summary of measurement scales:

Constructs	Measure	Source
Perceived reciprocity	<ol style="list-style-type: none"> 1. When I reply to other members' questions, I believe that I will get an answer for giving an answer. 2. When I help others through the SNS community, I expect somebody to respond when I am in need. 3. When I respond to other members' questions, I expect that my queries to be answered in future. 4. Although a member that I had helped may not necessary to help me in the future, I think other members would help me. 	Gharib <i>et al.</i> (2017)
Perceived benefits		
Hedonic benefits	<ol style="list-style-type: none"> 1. I feel pleased and relaxed in this community. 2. I gain joy and happiness in this community. 3. I feel inspired in this community. 	Kuo and Feng (2013)
Social benefits	<ol style="list-style-type: none"> 1. I can expand my social network through participation in this community. 2. The community helps strengthen my connections with other members. 3. I can make friends with people sharing common interests with me in this community. 	
Utilitarian benefits	<ol style="list-style-type: none"> 1. My participation in the community would create strong relationships with members who have common interests. 2. Participation in the community would enhance cooperation by remaining members in the future. 3. Participation in the community would expand the scope of my association with other members. 4. Participation in the community would enable me to become familiar with new members. 	
Tie strength	<ol style="list-style-type: none"> 1. I engage in a high level of interaction with other SNS community members. 2. I spend considerable time interacting with other SNS community members. 3. I have frequent communication with other SNS community members. 	Lin and Lu (2011)
Trust	<ol style="list-style-type: none"> 1. SNS community enthusiastically addresses their members' problems. 2. SNS community provides trustworthy information. 3. In general, SNS community is very trustworthy. 	Lin and Lu (2011)
Exchange ideology	<ol style="list-style-type: none"> 1. I should not care about the community members if they have no care for me.^R 	Ladd and Henry (2000)

	2. How much I help other members should not depend on how they treat me. ^R 3. My effort to assist others should not depend on how much others assist me. ^R 4. A person who is badly treated by other members should reduce sharing.	
Participation intention	1. I intend to continue using SNS community in the Future. 2. I will continue using SNS community in the Future. 3. I will regularly use SNS community in the Future.	Lin and Lu (2011)
Participation behavior	1. I regularly login to the SNS community and read posted discussions. 2. I always keep my profile up-to-date on the SNS community. 3. I post relevant and useful information to the SNS community that engenders discussions. 4. I regularly reply with relevant and useful information to posted questions on the discussion boards.	Gharib <i>et al.</i> (2017)

^RReverse coded.

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