

Antecedents of Wechat Group Chatting user's Stickiness and Organizational Commitment

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Abstract: This study aims to explore and identify the critical factors that influences wechat users stickiness of Wechat group chatting, the most popular platform of network community in China. An online questionnaire survey was conducted during March, 23 through 26 with 124 respondents. The respondents consist of 54 male and 74 female, over 80% are between 26–40 years old, over 80% holds undergraduate degree and over 50% Wechat users have 6-10 different group chatting communities. The collected data were analyzed with Smart PLS 2.0 to test the internal consistency, convergent validity and discriminant validity. Over 90% of the respondents actively attend group chatting activity. Wechat group chatting as a representative mobile virtual community service has attracted great amount of users while there is little research on the user's behaviors in the context of group chatting community. Information accessibility, perceived information dissemination efficiency, perceived playfulness, fulfillment of needs were selected as independent variables and user accessibility and organizational commitment were selected as mediation variable and dependent variable respectively. The positive relationship between information accessibility and user stickiness suggest that Wechat group chatting community has become an important information resource which has significant meaning to understand people's information behaviors in today's mobile internet era. The positive effect of perceived information dissemination efficiency on user stickiness indicates individual's information sharing behaviors that is in consensus with perspectives of efficiency related theories. Perceived playfulness was also found to have significant effects on user stickiness and this is in consensus with previous research on playfulness under the context of internet. User stickiness was also found to be significant in affecting organizational commitment as previous research have indicated. Fulfillment of needs was insignificantly related with user stickiness as which suggests that community members might have different level of needs from the communities due to the differences of organizations. This research has great values for both academic research and businesses considering the role of mobile SNS play today. The businesses need to have deep insight into the consumers behaviors on mobile SNS.

Key words: Information accessibility, information dissemination efficiency, perceived playfulness, fulfillment of needs, user stickiness, organizational commitment

INTRODUCTION

The internet and the world wide web provide the abundant information and knowledge. Therefore, it is possible for people to have daily access to the information and services and people get connected and communicate whenever they want (Atzori *et al.*, 2010). Developed by Tencent Holdings Ltd. in China,

Wechat was first released in January, 2011 and it is free, cross-platform and instant messaging application. The main functions includes text messaging, hold-to-talk voice messaging, sharing of photos and group chatting, etc. Group chatting is one of its most popular functions that meet the user's social activity needs on the mobile devices. According to the report by media research, Wechat group chatting ranked first (45.3%) among the

most popular network communities (IIMRG, 2016). Group chatting community becomes very popular due to its conveniences in various aspects. For example, one can establish communities in accordance with hobbies where members could share their opinions and acquires expertise more efficiency. Group chatting communities could also establish on the basis of companies or organizations in the same companies. Group chatting functions are especially helpful in organizations by facilitating cooperative activities and improving friendship among members by communicating in the group. It is also more efficient in disseminating information that is necessary to all the members in the same organization.

Due to the information technology and telecommunication development, smartpone plays more roles in our daily life and work. Like most of the traditional social networking services the mobile SNS enable people to get connected and communicate easily with less costs. The research is going to explore and identify the factors that motivate Wechat user's to participate in the group chatting activities or their user stickiness so as to reveal the effects on organizational commitment. In this research, information accessibility, perceived information dissemination efficiency, perceived playfulness, fulfillment of needs were selected as independent variables and user accessibility and organizational commitment were selected as mediation variable and dependent variable respectively.

MATERIALS AND METHODS

Related work and hypotheses development

Information accessibility and information dissemination efficiency: The internet and the world wide web have become the most abundant source of information and knowledge which enable the users to acquire and share information more efficiently and easily. For example, 75% of individuals use e-mail or social media to post news whereas 37% of people shared a news item via Facebook or Twitter (Gross, 2010). Therefore, social media plays more important roles in news consuming behaviors and has the tendency to replace traditional media. Perceived information accessibility was found to be the key factor that influences the information system application and its success (Culnan 1984). Web surfing makes people to acquire information and connect people and co mmunicate (Atzori *et al.*, 2010).

Several studies have shown that higher information accessibility leads to higher usage of information and

higher perceptions of ease of use (Lin and Lu, 2000). According to the literatures review the above, we established the hypothesis as follows:

- H₁: information accessibility has positive effective on user stickiness
- H₂: perceived information dissemination efficiency has positive effective on user stickiness

Perceived playfulness: User's emotions are often ignored regardless of their important roles played in acceptance of technology (Zhang and Li, 2005). Therefore, it is necessary to pay closer attention to perceived playfulness, one of the user's basic emotion. Based on the findings of the relationship between playfulness and satisfaction, defined playfulness as the perception of pleasure and involvement (Webster and Martocchio, 1992).

Moon and Kim (2001) developed the term of perceived playfulness to describe the strength of individual's beliefs that their intrinsic motives were satisfied by interacting via. WWW. Based on the evaluation of Website Usage Model of Lin *et al.* (2005), playfulness was found to be a factor that triggers satisfaction on website usage. Moreover, it was found to be linked with aesthetics. Playfulness and perceived enjoyment were regarded as conditions that determine perceived ease of use and perceived usefulness in the research by Venkatesh and Bala (2008). According to the literatures review, we established the hypothesis as follows:

- H₃: perceived playfulness has positive effective on user stickiness

Fulfillment of needs: Originated from the community psychology, SOC is the critical construct in studying individuals of their emotions about the community as well as the community member's relationships with both community and other members. Having originated from the community psychology, SOC is the critical construct that describes individual's feelings, attitudes about a community or their relationships to the community members. Developed by McMillian and Chavis (1986) the four-factor mode of SOC refer to membership, influence, integration and fulfillment of needs and shared emotional connection and which established a sound theoretical foundation for SOC .

Feelings of membership refers to the feelings of the members of emotional safety, belonging to a

community and willingness to spend time to the community, etc., feelings of influence describes the maintenance of norms in the community; integrations and fulfillment of needs refer to the rewards from being a member of the community, satisfaction of the roles played in the community, values shared, reciprocal needs met; shared emotional connection. Chipuer and Pretty (1999) described needs fulfillment as the belief the community members hold that resources are available from the community. Therefore, community members would like to take appropriate behaviors to get their needs met in the community. According to the literatures review the above, we established the hypothesis as follows:

- H₄: fulfillment of needs has positive effective on user stickiness

Stickiness: Stickiness is defined as the behaviors of internet users to visit or use websites repeatedly (Xu and Liu, 2010). User stickiness is an important factor in measuring the success of e-Commerce. As an intangible ability, user stickiness enables the websites to attract more visitors and stay longer. Attitude, trust and quality are the main factors that website users consider in forming of stickiness on a website and the user’s satisfaction is an important driving force for stickiness (Tsai and Huang, 2007). Lin (2007) also claimed that stickiness is the motivated factor that lead to revisit social network run by companies. Satisfaction of virtual community members were found to be the main factor that influences user’s stickiness in transaction communities (Wu *et al.*, 2010). Similarly, consumer e-Satisfaction under the context of online hotel reservations was found to be the main factor that influences site users stickiness.

Organizational commitment: Buchanan claimed that the employee and the organization were bonded together by organizational commitment. Increased organizational commitment results in the higher acceptance of organizational goals and values and willingness to make more efforts for the organization (Mayer and Schoorman, 1992) and improved meaning of work will also result in higher commitment to the organization (Morse and Weiss 1955). Previous studies have shown that organizational commitment has significant effects on individual’s behaviors to comply with organizational norms (Steers, 1977) and this would also lead to higher organizational

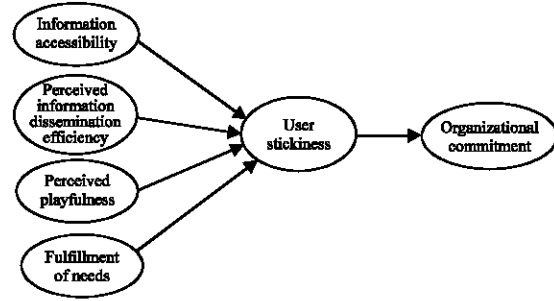


Fig. 1: Research models

performance (Benkhoff, 1997). An individual’s commitment to an organization were examined by testing emotional attachment with the organization’s goals and values (Kacmar *et al.*, 1999) and benefits and compensation are factors that have strong effects on employee’s commitment in an organization. Organizational commitment was defined as individual’s strength of identification with an organization and it is organizational performance. According to the literatures review the above, we established the hypothesis as follows:

- H₅: user stickiness has positive effective on organizational commitment

Research model development hypotheses: Based on the hypotheses developed before, we developed the research model as follows (Fig. 1).

RESULTS AND DISCUSSION

Data collection and description: The survey questionnaires were developed and investigations were conducted via. an online survey company a total of 124 valid data were collected. The 5-point Likert scales were used for the items developed to measure the variables.

To test the proposed research model, Smart PLS 2.0 was used to examine the hypotheses developed on the basis of previous literatures. PLS (Partial Least Squares) is an useful statistical analytical tool for testing a small sample size model (Chin, 1998) 24 and formative indicators.

Table 1 shows the information with regard to the respondents including gender, age, education level and number of years they have been using Wechat. Male users of group chatting service account for 40.3% and female account for 59.7%. The biggest two population of age group is 26~30 and 31~40 this excelled 80% of the total population. Respondents with undergraduate degree

Table 1: Demographics of respondents

Demographics	Frequency	Percentage (%)
Sex		
Male	50	40.3
Female	74	59.7
Age range		
21~25	5	4.0
26~30	55	44.4
31~40	49	39.5
Over 41	15	12.1
Education		
High school or below	1	0.8
Junior college	16	12.9
Graduate or above	7	5.6
Frequency of using WGC		
Very often	115	92.7
Occasionally	9	7.3
Seldom	0	0.0
Number of WGC		
<5	26	21.0
6~10	68	54.8
11~15	20	16.1
Over 16	10	8.1

Table 2: Convergent validity and reliability

Items	Outer loading	t-values	AVE	Composite reliability
V10_1	0.749	11.965	0.568	0.883
V10_2	0.767	16.738		
V10_3	0.705	10.115		
V10_4	0.791	12.512		
V11_1	0.804	19.551	0.624	0.869
V11_2	0.806	20.781		
V11_3	0.800	20.756		
V11_4	0.749	15.434		
V12_1	0.949	39.773	0.744	0.852
V12_2	0.767	6.5320		
V13_1	0.794	15.689	0.645	0.845
V13_2	0.787	12.314		
V13_3	0.828	20.493		
V14_1	0.798	20.716	0.594	0.880
V14_2	0.790	18.106		
V14_3	0.774	13.170		
V14_4	0.733	12.228		
V14_5	0.759	14.310		
V9_1	0.861	26.597	0.715	0.883
V9_2	0.851	26.142		
V9_3	0.824	15.117		

is the biggest group accounting for 80.6%, this implies well educated populations more active in using group chatting service. The frequency users of group chatting services are 92.7% of the whole population which means that this service has become an integral part of the Wechat functions.

Measurement: To test the research model and hypotheses to support the predictions, Smart PLS 2.0 was operated. PLS (Partial Least Squares) is superior in testing a small sample size model (Chin, 1998) and analyzing the formative indicators.

Assessment of measurement model: Internal consistency, convergent validity and discriminant validity is the integral part of test that PLS analysis requires. Internal consistency is tested by the value of composite reliability of all the constructs. In this study, the constructs include information accessibility, perceived information dissemination efficiency, perceived playfulness and fulfillment of needs, user accessibility and organizational commitment. Table 2 indicates the values of composite reliability of all constructs are greater than the threshold of 0.70 (Bagozzi and Yi, 1988; Nunnally, 1978) that the constructs have high reliability. To examine the convergent validity the value of AVE and cross loadings need to be examined. Fornell and Larcker (1981) suggested the results of AVE values need to be greater than the acceptable level 0.50, the results in this research have meet the threshold meaning there is qualified convergent validity (Fornell and Larcker, 1981) (Table 3).

Discriminant validity is tested by the comparison between the square root of each construct's AVE and correlation of all constructs. The value of all the square root of AVE are found greater than the correlations of all the constructs which indicates the discriminant validity has reached the required level of Smart PLS analysis (Fornell and Larcker, 1981).

Table 4 shows the results of discriminant validity examination. Confirmatory factor analysis is assessed by cross loading values of each constructs which are supposed to be greater than cross loading values of other constructs. The results of confirmatory factor analysis in this research satisfy the requirements (Table 5).

The results of tests on internal consistency, convergent and discriminant validity for measurement items and constructs are all at the satisfactory level, therefore, the assessment of measurement model are appropriate. The structural model were examined and the results were shown in Fig. 2. The test also yields the values of R² that indicates the extent to which the independent constructs explain the dependents constructs (Chin and Gopal, 1995). Overall the model accounts for 47% of variance in friendship maintenance, 61.4% in gratification of social connection needs which are greater than threshold of 10% suggested by Falk and Miller (1992). To calculate the path coefficients and test their significance represented by t-value, bootstrapping was conducted that is available from PLS. Figure 2 shows the results of hypotheses that have been tested.

Table 3: Discriminant validity

Variables	Accessibility	Commitment	Efficiency	Fulfillment of needs	Playfulness	Stickiness
Accessibility	0.845					
Commitment	0.576	0.771				
Efficiency	0.620	0.571	0.754			
Fulfillment of needs	0.688	0.590	0.684	0.803		
Playfulness	0.422	0.373	0.317	0.356	0.863	
Stickiness	0.676	0.560	0.616	0.622	0.437	0.790

Table 4: Confirmative factor analysis

Items	Efficiency	Stickiness	Playfulness	Fulfillment of needs	Commitment	Accessibility
V10_1	0.749	0.433	0.267	0.485	0.407	0.459
V10_2	0.767	0.507	0.285	0.459	0.527	0.512
V10_3	0.705	0.428	0.261	0.502	0.350	0.438
V10_4	0.791	0.483	0.148	0.616	0.425	0.456
V11_1	0.480	0.804	0.394	0.478	0.431	0.522
V11_2	0.487	0.806	0.320	0.491	0.446	0.532
V11_3	0.529	0.800	0.331	0.535	0.472	0.553
V11_4	0.448	0.749	0.336	0.459	0.417	0.528
V12_1	0.352	0.466	0.949	0.395	0.397	0.466
V12_2	0.140	0.229	0.767	0.156	0.198	0.189
V13_1	0.536	0.440	0.266	0.794	0.477	0.535
V13_2	0.579	0.439	0.282	0.787	0.449	0.474
V13_3	0.540	0.593	0.305	0.828	0.492	0.628
V14_1	0.484	0.511	0.348	0.531	0.798	0.472
V14_2	0.417	0.484	0.290	0.437	0.790	0.477
V14_3	0.486	0.412	0.323	0.490	0.774	0.498
V14_4	0.388	0.311	0.264	0.343	0.733	0.318
V14_5	0.418	0.389	0.192	0.438	0.759	0.421
V9_1	0.566	0.603	0.320	0.592	0.484	0.861
V9_2	0.542	0.529	0.337	0.586	0.467	0.851
V9_3	0.465	0.578	0.413	0.566	0.507	0.824

Table 5: Path coefficient and results of hypotheses examination

Hypotheses	Path coefficient	t-values	Results
H ₁ : accessibility->stickiness	0.351	2.835	Supported
H ₂ : efficiency->stickiness	0.238	1.984	Supported
H ₃ : playfulness->stickiness	0.155	2.277	Supported
H ₄ : fulfillment of needs->stickiness	0.163	1.539	Not supported
H ₅ : stickiness->commitment	0.560	5.885	Supported

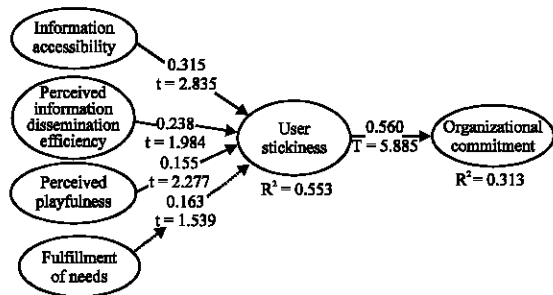


Fig. 2: Results of structural model assessment

CONCLUSION

Research aimed to explore and identify the factors influencing the user’s stickiness on the group chatting community on Wechat, the most popular virtual community service in China, under the context of organizations. The results of this research show that

information accessibility, perceived information dissemination efficiency and perceived playfulness are positively related with user stickiness as predicted. Information accessibility is the most important reason in attracting users for constant usage of the group chatting via. Wechat under the context of organizations. This implies that group chatting community on Wechat has been regarded as the most important source of information or most convenient means of information acquisition.

Perceived information dissemination efficiency was found to be positively related with user stickiness. This implies that Wechat users considers how to maximize the value of information when sharing to others instead of aimless sharing. Playfulness was found to be positively related with user stickiness. This is in consensus with previous research on playfulness. Therefore, playfulness is also very important reason that motivate users to participate in the community activities. User stickiness was found to be positively related with organizational commitment.

This implies that those who are more active in community activities have higher level organizational commitment. Fulfillment of needs was found insignificantly related with user stickiness. This might due to the reason that people prefer to make contributions

instead of expecting rewards. This kind of new community has various forms that help people to improve efficiency in works and life problems.

As the mobile virtual community become more and more important in our life, there is necessity for business leaders to take advantage of this service to improve the employee's loyalty to organization. Leaders might be more active to join the community activities and interact with other members and make the virtual community a place warm and information source that bring all members values.

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