Motivation to Use Twitter in Male Population in Thailand

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Abstract

In order to know the motivation factors to use Twitter in male population in Thailand, this research has been conducted. The research framework, based on a few related theories, was proposed. An online questionnaire was sent to 514 men in Thailand, then their responses were proceeded using linear regression and structural equation modelling.

The results of the study, ranked by the mean values, show that the highest mean score is Trust, followed by Facilitating Condition, Performance Expectancy, Spam and Duplicate, Meeting new people, Online game, Anonymous, Social Influence, and Effort Expectancy, respectively.

When using the Structural Equation Modelling (SEM), the analysis show that the most influencing motivation factor is Trust, followed by Social Influence, Performance Expectancy, Anonymous, Online game, Facilitating Condition, Spam and Duplicate, Meet new people, and Effort Expectancy, respectively.

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With these results in consideration, any Twitter-like business and developers could apply to their business and applications for the purposes of increasing the number of both users and usages.

Keywords: Twitter, Trust, Motivation, Expectancy, Online Social Media

แรงจูงใจต่อการใช้งานทวิตเตอร์ของประชากรชายในประเทศไทย

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บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาแรงจูงใจในการใช้งานทวิตเตอร์ของประชากรชายในประเทศไทย โดยนำเสนอกรอบการวิเคราะห์ตัวแปรที่ได้จากทฤษฎีต่าง ๆ ที่เกี่ยวข้อง มีการใช้แบบสำรวจออนไลน์จำนวน 514 ตัวอย่าง และประมวลผลแบบสอบถามด้วยการวิเคราะห์การถดถอยเชิงเส้นและแบบสมการโครงสร้าง

เมื่อพิจารณาค่าเฉลี่ยที่ได้จากแบบสอบถาม พบว่า แรงจูงใจสูงที่สุดในการใช้ Twitter ของประชากรชายไทย คือ ความน่าเชื่อถือ ตามมาด้วย ความคาดหวังในการใช้งาน การไม่เปิดเผยตัวตน เกมออนไลน์ สภาพสิ่งอำนวยความสะดวกของระบบ สแปมและข้อความซ้ำ การได้พบปะผู้ใช้งานใหม่ ๆ อิทธิพลทางสังคม และความคาดหวังในความพยายาม ตามลำดับ

เมื่อใช้ตัวแบบสมการโครงสร้างเพื่อวิเคราะห์ปัจจัยที่มีอิทธิพลต่อการใช้งานทวิตเตอร์ พบว่า ปัจจัยที่มีอิทธิพลสูงที่สุดเรียงตามลำดับจากมากไปหาน้อยเป็นดังนี้ ความน่าเชื่อถือ ตามมาด้วย อิทธิพลทางสังคม สภาพสิ่งอำนวยความสะดวกของระบบ ความคาดหวังในการใช้งาน สแปมและข้อความซ้ำ การได้พบปะผู้ใช้งานใหม่ ๆ เกมออนไลน์ การไม่เปิดเผยตัวตน และความคาดหวังในความพยายาม ตามลำดับ

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ทั้งนี้ ธุรกิจที่เหมือนหรือใกล้เคียง รวมทั้งนักพัฒนาระบบดังกล่าว สามารถนำผลไปประยุกต์ใช้เพื่อเพิ่มจำนวนผู้ใช้งานและจำนวนการใช้งานได้

คำสำคัญ: ทวิตเตอร์ ความน่าเชื่อถือ แรงจูงใจ ความคาดหวัง สื่อสังคมออนไลน์

Introduction

Background and Significance of the Problem

Nowadays, internet has an increasingly important role in people's daily lives, including communication, online trade, sharing of information or stories of users, relaxation and recreation, as well as transactions. According to the survey of behavior of internet users in Thailand in 2019 by Electronic Transactions Development Agency, it revealed that in 2018, there were as high as 47.5 million internet users or 71.5% of the total population in Thailand. The Thais also used internet on the average 10 hours and 22 minutes a day which increased from 2018. The online activity that was the most popular was social media. Nowadays, there are numerous platforms of social media. The grouping of the users of each platform creates Online Social Network. The Online Social Network creates online community among people with the same interests, common activities, similar background, or friendly relationship. Most Online Social Networks function on website by allowing users to be able to create personal information and interact with other users (Schneider, 2009). Many platforms can also be selected for usage according to appropriateness and satisfaction of usage.

Based on the report of the website www.datareportal.com, it is found that in Thailand the growth of the Twitter platform is interesting compared to a similar platform or what is called Social Network Site (SNS). The Social Network Site is devised as the platform of network communication, of which the user has the following: 1.Profile that provides unique identification consisting of the content set by the user and the content set by other users or the content determined by the system 2. An ability to connect with others by allowing others to come in and survey one's content 3. An ability to use the service, construct, or respond to the stream of the content determined by the user through connection on website (Ellison & Boyd, 2013, p. 157). The compared platforms include the following 1. Facebook: In 2019, there were 50 million accounts but in 2020 there were only 47 million accounts and 2. Instagram: In 2019, there were 13 million accounts but in 2020 there were only 12 million accounts. On the contrary, Twitter experienced high growth. In 2019, there were 4.7 million accounts but in 2020 there were 6.55 million accounts. However, the problem with Twitter is the difference of gender of male and female users which is very high. There are only 21.9% of male users but 78.1% of female users compared with 1. Facebook there are 50% each of male and female users 2. Instagram there are 36.4% male users and 63.6% female users. As a result, Twitter is the Social Network Site with the lowest ratio of male users.

Research Question

What is the motivation to use Twitter in male population in Thailand?

Research Objective

This study aims to figure out the motivation to use Twitter in male population in Thailand by conducting an online survey. The result may be helpful to both businesses and application developers to increase both users and usages of their platform.

Concepts and Theories

Twitter is the service for friends, families, and colleagues to communicate fast and frequently. The Twitter includes pictures, video, links, or characters. The messages will be posted on the profile of the users and sent to followers and can be searched through the searching tool of Twitter by limiting the number to 140 characters per 1 tweet (www.twitter.com).

Trust and Fake news on social media Fake news is news article with the intention to be false. Fake news is not a new problem. It changes all the time, from newspaper, radio, television, and social media (Shu, Silva, Wang, Tang and Lui, 2017). Twitter is the platform that stresses speed in spreading messages. As a result, the screening of messages may not be very efficient. Reliability is therefore one of the main parts for the use of online platforms (Akar and Mardikyan, 2014).

Spam and Duplicate Tweets Spam Twitter is easy due to the speed in tweeting various contents. The contents that are not requested will appear in personal news page, the result of the search, and hot topics. These contents will be disseminated by fake account that is clearly constructed by spam senders, who will send a large number of messages or repetitive messages (Thomas, Grier, Paxson and Song, 2011).

Gender differences in Social networking The research of Weiser (2000) dealt with the differences of the form of internet use between gender. It was found that the students of basic psychology and those preparing the questionnaire agreed on the 19 variables in the research. The research selected 2 variables to be in line with the use of Twitter and the research mentioned earlier as follows: 1. Meet new users because Twitter users do not need to reveal real information 2. Online game does not figure in the qualifications of Twitter.

Unified theory of acceptance and use of technology The unified theory of acceptance and use of technology by Venkatesh, et al. (2003) was developed to explain the acceptance and use of technology of users through the development of 8 theories as follows: 1. Theory of Reasoned Action (TRA) 2. The Technology Acceptance Model (TAM) 3. Motivational Model (MM) 4. Theory of Planned Behavior (TPB) 5. Model of PC Utilization (MPCU) 6. Combined theories between TAM and TPB 7. Theory of social foundation, diversities of factors used to explain innovation and use of tools relevant to innovation in organization (Innovation Diffusion Theory: IDT or Diffusion of Innovations: DOI) 8.Theory of changes in human behavior from environmental influence, personal factors, and qualifications of personal behavior (Social Cognitive Theory: SCT).

Research Framework

In consideration with the characteristics of Twitter itself and a few theories earlier explained, a research framework is proposed as seen in Figure 1. There are 9 independent variables, one mediator, and a dependent variable within 9 hypotheses.

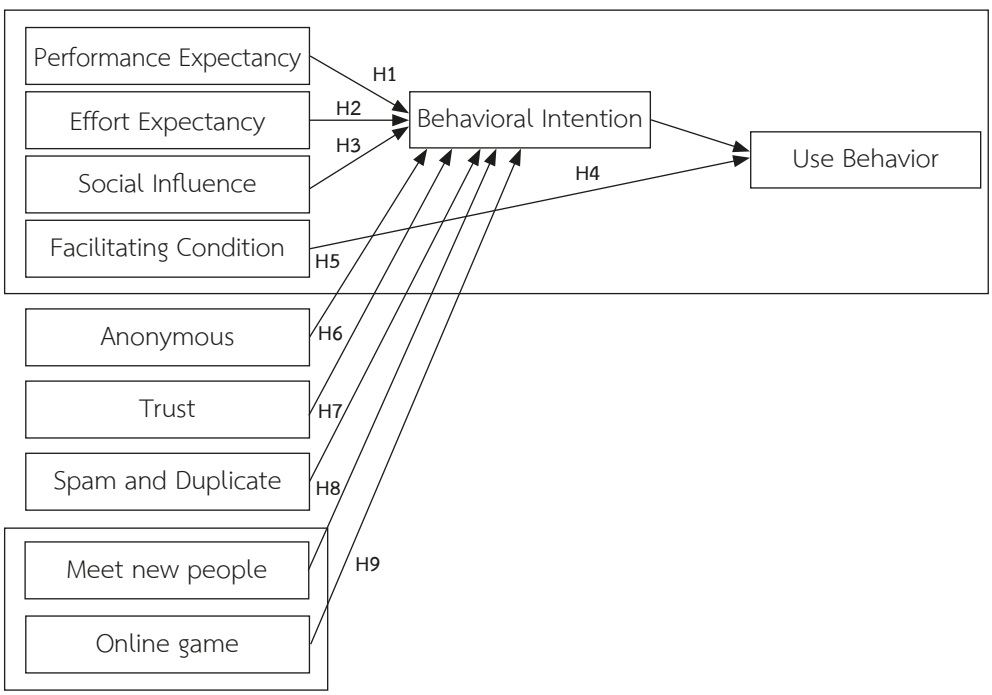

Figure 1: Research Framework

Methodology

This research used the online questionnaire to survey the use of Twitter in the Thai male population. The questions were relevant to the use of Twitter with the rating scale of 1, which means the least and 5, which means the highest. The questionnaire used to measure the variables of the study with three questions each, using the formula to calculate the sample size of Krejcie & Morgan that determined the confidence level of 95%, the ratio of the interesting features of the population of 0.5, and the consideration of 5% degree of error which would acquire the sample size of at least 384, using the SPSS for the analysis of the questionnaire. However, in this survey, 514 questionnaires were received and proceeded.

Research Results

The analysis of the motivation to use Twitter in male population in Thailand used the SPSS to process 514 copies of questionnaire from the sample who were male with or without experience of using Twitter in Thailand. The researchers determined the statistical significance at the level of 0.05 for the data analysis. The details of the analysis were as follows:

Results of Data Analysis relevant to Motivation to use Twitter

As shown in Table 1, the most influencing motivation factor is “Trust of the information”, followed by “Facilitating Condition”, “Performance Expectancy”, “Spam and Duplicate”, “Meeting new people”, “Online game”, “Anonymous”, and “Effort Expectancy”, respectively.

Table 1: Mean, and Standard Deviation of motivation level to use Twitter

(n=514)

Motivation to use Twitter	Motivation levels						
	Least	Low	Moderate	High	Highest	$\overline{X}$	S.D.
1. Performance Expectancy (PE)							
1.1 Use of Twitter is useful in daily life	1	3	0	172	338	4.46	0.538
1.2 Use of Twitter enables faster work	3	2	102	175	232	4.23	0.817
1.3 Use of Twitter enables faster reception of news and information	3	1	94	178	238	4.26	0.8
Total					**4.375**	**0.494**	
2. Effort Expectancy (EE)							
2.1 Usage in the system menu is clear and easy to understand	3	1	105	155	250	4.26	0.827
2.2 Can easily learn to use	3	2	98	173	283	4.25	0.814
2.3 Can easily achieve skill in usage	3	1	118	173	219	4.18	0.829
Total					**4.228**	**0.584**	
3. Social Influence (SI)							
3.1 You will use according to your friend's usage	2	3	105	168	236	4.23	0.818
3.2 You will use according to widely known fame	2	2	99	175	236	4.25	0.802
3.3 You will use according to the person whom you admire	4	2	92	188	228	4.23	0.809
Total					**4.237**	**0.575**	
4. Facilitating Condition (FC)							
4.1 You think you can gain access to Twitter conveniently	2	2	83	175	252	4.31	0.78
4.2 Your smartphone supports Twitter	1	2	103	164	244	4.26	0.801

Table 1: Mean, and Standard Deviation of motivation level to use Twitter (Continue)

(n=514)

Motivation to use Twitter	Motivation levels						
	Least	Low	Moderate	High	Highest	$\overline{X}$	S.D.
4.3 Suggestion within Twitter is easy to understand	3	2	0	181	244	4.61	0.576
Total					**4.394**	**0.491**	
5. Anonymous (A)							
5.1 You expect that your followers will use real information	1	114	0	141	258	4.28	0.81
5.2 You expect that the persons you follow will use real information	3	3	102	168	238	4.24	0.827
5.3 You expect that other users will use real information	0	6	109	156	243	4.24	0.822
Total					**4.25**	**0.584**	
6. Trust (T)							
6.1 Feel afraid in advance for usage	2	3	0	158	351	4.66	0.554
6.2 Feel that will receive inaccurate information	2	2	0	175	335	4.63	0.551
6.3 Feel that the information is not safe	1	3	0	145	365	4.69	0.521
Total					**4.66**	**0.366**	
7. Spam and Duplicate (SD)							
7.1 Feel that tweeting is too fast	2	4	103	156	249	4.26	0.828
7.2 Feel that there is too much tweeting	1	4	114	165	230	4.2	0.823
7.3 Feel that tweeting is annoying	1	5	0	164	344	4.64	0.558
Total					**4.368**	**0.502**	
8. Meet new people (MN)							
8.1 You expect to meet new friends	1	3	103	172	235	4.24	0.802
8.2 You expect to get acquainted with new friends	2	2	0	167	343	4.65	0.547

Table 1: Mean, and Standard Deviation of motivation level to use Twitter (Continue)

(n=514)

Motivation to use Twitter	Motivation levels						
	Least	Low	Moderate	High	Highest	$\overline{X}$	S.D.
8.3 You expect to meet users with the same interests	0	2	117	162	233	4.22	0.806
Total					**4.368**	**0.47**	
9. Online game (OG)							
9.1 You expect to have game to play	2	2	108	175	227	4.21	0.812
9.2 You want to play game with your friends	2	1	0	187	324	4.61	0.544
9.3 You want Twitter to have game to play	4	2	99	165	244	4.25	0.831
Total					**4.359**	**0.476**	
10. Behavioral Intention (BI)							
10.1 You intend to use Twitter for watching news	0	1	5	256	252	4.48	0.53
10.2 You intend to use Twitter for following others	3	2	1	235	273	4.50	0.59
10.3 You intend to use Twitter for expressing opinions on interested issues	2	1	3	267	241	4.45	0.564
Total					**4.476**	**0.368**	
11. Use Behavior (UB)							
11.1 You intend to use Twitter the following month	1	1	0	245	267	4.51	0.534
11.2 You hope to use Twitter the following month	3	1	0	248	262	4.49	0.576
11.3 You plan to use Twitter the following month	2	1	0	250	261	4.49	0.556
Total					**4.497**	**0.342**	

Linear Regression Analysis

Table 2: Regression Coefficient of forecasting equation among variables

Variables	B	Std. Error	Beta	t	p-value
Constant	1.865	0.206		9.042	0.000
PE	0.049	0.206	0.065	1.372	0.171
EE	-0.02	0.035	-0.032	-0.63	0.529
SI	0.058	0.032	0.09	1.795	0.073
A	-0.016	0.031	-0.026	-0.537	0.592
T	0.285	0.043	0.283	6.604	0.000**
SD	0.138	0.037	0.189	3.73	0.000**
MN	0.054	0.037	0.069	1.47	0.142
OG	0.032	0.037	0.042	0.86	0.39

Based on Table 2, it was found that Trust, Spam and Duplicate had influence on Behavioral Intention with the statistical significance at the level of 0.05 which could be used as a forecast to estimate the level of Behavioral Intention with the Path Coefficient of 0.283 and 0.189 and could be explained that when Trust, and Spam and Duplicate increased 1 unit, Behavioral Intention would increase 0.285 and 0.138 unit, respectively.

Table 3: Regression Coefficient of forecasting equation between Facilitating Condition, Behavioral Intention, and Use Behavior

Variables	B	Std. Error	Beta	t	p-value
Constant	2.994	0.191		15.665	0.000
FC	0.061	0.03	0.087	1.986	0.048*
BI	0.276	0.041	0.297	6.798	0.000**

In Table 3, it was found that Facilitating Condition, and Behavioral Intention influenced Use Behavior with the statistical significance at the level of 0.05 which could be used as a forecast to estimate the level of Use Behavior with the Path Coefficient of 0.087 and 0.297 and could be explained that when Facilitating Condition, and Behavioral Intention increased 1 unit, the Use Behavior would increase 0.061 and 0.276 unit, respectively.

Results of the assessment of congruence with empirical data of the model

Table 4 show the assessment of congruence of the evidence-based data and the model. Compared to each criterian, the results were met and the congruence was validated.

Table 4: Results of the assessment of congruence with empirical data of the model

Goodness of Fit Indices	Criteria	Statistics	Results
Chi-square	≤3.00 (Hair et al., 2010)	1.634	Met the criteria
RMSEA	≤0.05 (Sanchez et al.,2020)	0.035	Met the criteria
GFI	[0,1] (Sanchez et al.,2020)	0.917	Met the criteria
CFI	[0,1] (Sanchez et al.,2020)	0.89	Met the criteria
TLI	[0,1] (Sanchez et al.,2020)	0.87	Met the criteria
NFI	[0,1] (Sanchez et al.,2020)	0.765	Met the criteria

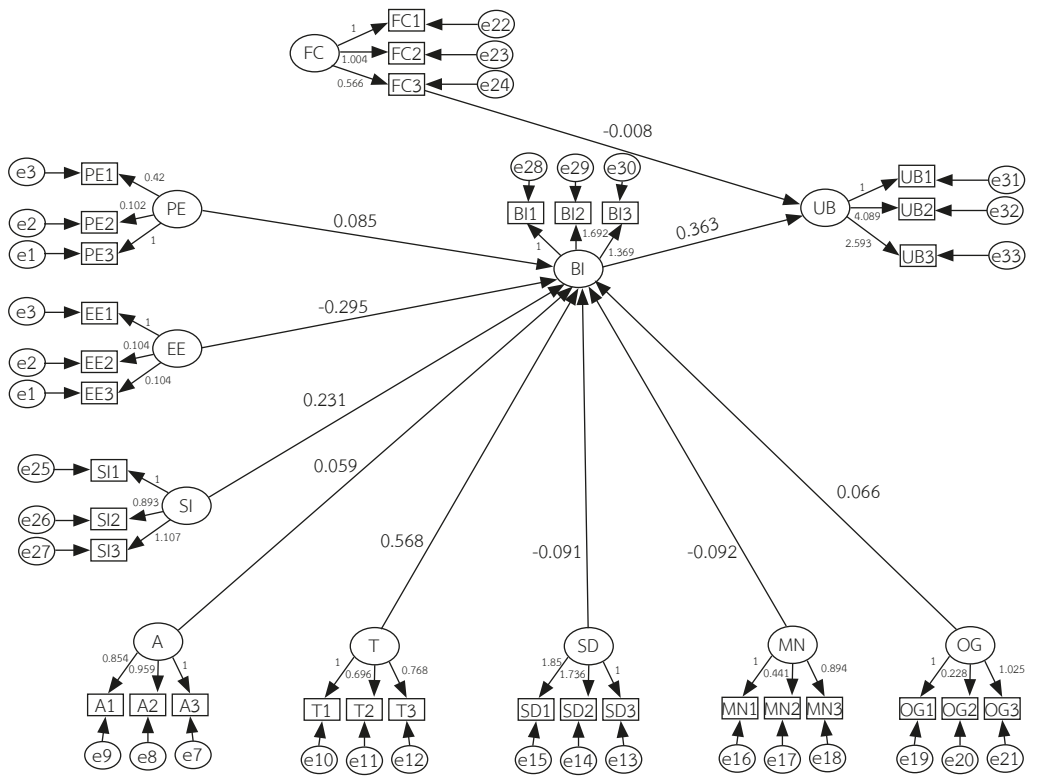

Figure 2: Path Coefficient

Table 5: Path Coefficient with direct, indirect, and combined effects of Independent Variables on Dependent Variables

Independent Variables	Effects	Dependent Variables	
		Behavioral Intention	Use Behavior
Performance Expectancy	SDE	0.193	-
	SIE	-	0.199
	STE	0.193	0.199
Effort Expectancy	SDE	-0.715	-
	SIE	-	-0.737
	STE	-0.715	-0.737
Social Influence	SDE	0.546	-
	SIE	-	0.563
	STE	0.546	0.563
Facilitating Condition	SDE	-	-0.046
	SIE	-	-
	STE	-	-0.046
Anonymous	SDE	0.152	-
	SIE	-	0.156
	STE	0.152	0.156
Trust	SDE	0.955	-
	SIE	-	0.985
	STE	0.955	0.985
Spam and Duplicate	SDE	-0.109	-
	SIE	-	-0.112
	STE	-0.109	-0.112
Meet new people	SDE	-0.179	-
	SIE	-	-0.185
	STE	-0.179	-0.185

Table 5: Path Coefficient with direct, indirect, and combined effects of Independent Variables on Dependent Variables (Continue)

Independent Variables	Effects	Dependent Variables	
		Behavioral Intention	Use Behavior
Online game	SDE	0.145	-
	SIE	-	0.150
	STE	0.145	0.150

Remark: Standardized Direct Effect (SDE), Standardized Indirect Effect (SIE), Standardized Total Effect (STE)

Table 6: Summary of the Results of the Research Hypothesis Testing

Hypotheses	Path Coefficient	P-value	Results
Hypothesis H1: Performance Expectancy influenced Behavioral Intention	0.085	<0.05	Accepted the hypothesis
Hypothesis H2: Effort Expectancy influenced Behavioral Intention	-0.295	<0.05	Accepted the hypothesis
Hypothesis H3: Social Influence influenced Behavioral Intention	0.231	<0.05	Accepted the hypothesis
Hypothesis H4: Facilitating Condition influenced Use Behavior	-0.008	<0.05	Accepted the hypothesis
Hypothesis H5: Anonymous influenced Behavioral Intention	0.059	<0.05	Accepted the hypothesis
Hypothesis H6: Trust influenced Behavioral Intention	0.568	<0.05	Accepted the hypothesis
Hypothesis H7: Spam and Duplicate influenced Behavioral Intention	-0.091	<0.05	Accepted the hypothesis
Hypothesis H8: Meet new people influenced Behavioral Intention	-0.092	<0.05	Accepted the hypothesis
Hypothesis H9: Online game influenced Behavioral Intention	0.066	<0.05	Accepted the hypothesis

Result of Hypothesis testing

The data analysis was conducted with the SPSS using the descriptive statistics to analyze Frequency, Percentage, Mean, and Standard Deviation, as well as the analysis of Inferential Statistics with the Structural Equation Modeling (SEM) for hypothesis testing from the analysis of the congruence of the Structural Equation Modeling and the analysis of the direct and indirect standard Path Coefficient with the statistical significance at the level of 0.005. The hypothesis testing results are as followed:

Hypothesis H1: Performance Expectancy influenced Behavioral Intention with the Path Coefficient of 0.085, the Effect Size of 0.193, and the statistical significance at the level less than 0.05. The result could be summarized as acceptance of the hypothesis.

Hypothesis H2: Effort Expectancy influenced Behavioral Intention with the Path Coefficient of -0.295, the effect size of -0.715, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Hypothesis H3: Social Influence influenced Behavioral Intention, with the Path Coefficient of 0.231, the Effect Size of 0.546, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Hypothesis H4: Facilitating Condition influenced Use Behavior with the Path Coefficient of -0.08, the Effect Size of -0.046, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Hypothesis H5: Anonymous influenced Behavioral Intention with the Path Coefficient of 0.059, the Effect Size of 0.152, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Hypothesis H6: Trust influenced Behavioral Intention with the Path Coefficient of 0.568, the Effect Size of 0.955, and the statistical significance at the level less than 0.05.

Hypothesis H7: Spam and Duplicate influenced Behavioral Intention with the Path Coefficient of -0.091, the Effect Size of -0.109, and the statistical significance at the level less than 0.05.

Hypothesis H8: Meet new people influenced Behavioral Intention with the Path Coefficient of -0.092, the Effect Size of -0.179, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Hypothesis H9: Online game influenced Behavioral Intention with the Path Coefficient of 0.066, the Effect Size of 0.145, and the statistical significance at the level less than 0.05. It could be summarized as acceptance of the hypothesis.

Note here that, the detail results are shown in Figure 2, Table 5, and Table 6.

Conclusions and Recommendations

Conclusions

The ranking of the influences toward the Behavioral Intention from the highest to the least was as follows: 1. Trust 2. Social Influence 3. Performance Expectancy 4. Anonymous 5. Online game 6. Facilitating Condition 7. Spam and Duplicate 8. Meet new people 9. Effort Expectancy.

The ranking of the motivation to use Twitter order by their means from the highest to the least revealed the following: 1. Trust 2. Facilitating Condition 3. Performance Expectancy 4. Spam and Duplicate 4. Meet new people (tied with Spam and Duplicate) 6. Online game 7. Anonymous 8. Social Influence 9. Effort Expectancy, respectively.

With these results in consideration, any Twitter-like business and developers could apply to their business and applications for the purposes of increasing the number of both users and usages. For example, Trust is the highest influencing factor, related businesses and developers should implement the secured system and also protect information accordingly.

Recommendations

In Thailand, Twitter experiences continuous growth but the rate of twitter usage in male population remains the same. The future research may increase the variables of the characteristics of the male population that are different from those of the female population which will enable the twitter usage to have different rates of usage.

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