

## Informational Influence of Social Network Sites on Consumer Engagement Intention: A Context of Civic Engagement

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### Abstract

This study investigates the informational influence of Thai political social network sites on civic behavioral intention. The dual routes of informational influence – content quality and source credibility – represent two independent variables. Perceived ease of use (PEOU) and perceived usefulness (PU) of social network sites are two mediators between the independent variables and civic engagement intention. The target population was Thai Facebook users who own a smart phone, tablet, or personal computer, were engaged in Thailand's mass political event in 2013, and have discussed political viewpoints or issues on their Facebook timelines, friends' spaces, or groups since then. Structural Equation Modeling (SEM) was employed as the statistical analysis tool for 402 respondents. The results of Confirmatory Factor Analysis (CFA) show that all the measurement indicators have both convergent validity and discriminant validity. The results reveal that both content quality and source credibility influence users' engagement intention. Nevertheless, PEOU and PU mediate the relationships between independent and dependent variables. While content quality is significantly related to PEOU, source credibility has a strong impact on PU.

**Keywords:** *Social Network Site (SNS), Informational Influence, Elaboration Likelihood Model (ELM), Technology Acceptance Model (TAM), Civic Engagement*

### บทคัดย่อ

การวิจัยนี้ค้นคว้าเกี่ยวกับอิทธิพลด้านข้อมูลของเครือข่ายสังคมออนไลน์เกี่ยวกับการเมืองไทยที่มีต่อความตั้งใจในการมีส่วนร่วมของพลเมือง ตัวแปรอิสระทางด้านอิทธิพลของข้อมูลมี 2 ตัว ได้แก่ คุณภาพของเนื้อหา และความน่าเชื่อถือของแหล่งข้อมูล การรับรู้เกี่ยวกับความง่ายต่อการใช้งานและการรับรู้ต่อประโยชน์ของการใช้สื่อสังคมออนไลน์เป็นตัวแปรส่งผ่านระหว่างตัวแปรอิสระและความตั้งใจที่จะมีส่วนร่วมของพลเมือง ประชากรเป้าหมายคือผู้ใช้เฟซบุ๊กชาวไทย มีสมาร์ตโฟน แท็บเล็ต หรือ คอมพิวเตอร์พีซี เคยมีส่วนร่วมในเหตุการณ์ทางการเมืองในประเทศไทยเมื่อปี 2013 และได้พูดคุยเกี่ยวกับมุมมองหรือประเด็นทางการเมืองผ่านทางเฟซบุ๊กไทม์ไลน์ พื้นที่ของเพื่อน หรือกลุ่ม การวิจัยใช้ตัวแบบสมการเชิงโครงสร้างเพื่อวิเคราะห์ข้อมูลจากผู้ใช้เฟซบุ๊ก 402 คน ผลของการวิเคราะห์หาค่าประจักษ์ยืนยันแสดงให้เห็นว่า ข้อคำถามของแบบสอบถามมีความเที่ยงตรงเชิงสอดคล้องและความเที่ยงตรงเชิงจำแนก ผลการวิจัยแสดงให้เห็นว่าคุณภาพของเนื้อหา และความน่าเชื่อถือของแหล่งข้อมูลมีผลต่อความตั้งใจมีส่วนร่วมของพลเมืองผ่านตัวแปรส่งผ่านทั้ง 2 ตัวแปร คุณภาพของเนื้อหาที่มีความสัมพันธ์ต่อการรับรู้เกี่ยวกับความง่ายต่อการใช้งานอย่างมีนัยสำคัญ ในขณะที่ความน่าเชื่อถือของข้อมูลส่งผลอย่างมีนัยสำคัญต่อการรับรู้ต่อประโยชน์ของการใช้สื่อสังคมออนไลน์

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## Introduction

Consumers today have access to various sources of information. Besides traditional or offline information sources, there are online information sources which include web sites and virtual communities. Virtual communities, online platforms that bring Internet users together, are popular information sources. People in virtual communities usually share a common interest and communicate (Hagel & Armstrong, 1997; Williams & Cothrel, 2000). Virtual communities encompass social network sites (SNSs) as well as all types of websites in which users interact and exchange information.

Instead of using a general marketing or business context, this study was conducted through a civic engagement context in which social network site users discussed public interest issues and civic activities. Civic engagement encompasses both political and non-political activities such as political voting, discussion about public interest or social issues, participating in political activities, and other non-governmental organizations' activities (Erentaite, Zukauskienė, Beyers, & Pilkauskaitė-Valickienė, 2012; Nissen, 2010). There were distinct civic and political movements facilitated by social media, including the Arab Spring in 2009, the Tunisian Revolution in 2010, and the Egyptian Revolution in 2011 (Tufekci & Wilson, 2012). In such events, SNS users published information on social network sites before and during the protests, and engaged in political activities (Calistle & Patton, 2013; Tufekci & Wilson, 2012). In Thailand's 2013 political situation, the protest issues by the anti-government group were calling for changes in government policies and ousting the government (Chia, 2015). Facebook, Twitter, YouTube, Instagram and LINE were online platforms that facilitated both online and offline political activities such as sharing digital content (texts, photos, videos, and audios) with others, and inviting them to participate in offline activities such as political rallies (Chia, 2015). In addition to political issues, civic activities also include product boycotts (Teney & Hanquinet, 2012), participation in campaigns to reduce energy consumption (Senbel, Ngo, & Blair, 2014), discussion of social issues (Warren, Sulaiman, & Jaafar, 2014), and other cause-related activities.

## The Scope of the Study

This study emphasizes persuasive capabilities of SNSs that trigger users' attitudes and behavioral responses. Petty & Cacioppo's (1986) Elaboration Likelihood Model (ELM), Davis' (1989) Technology Acceptance Model (TAM), and Ajzen's (1991) Theory of Planned Behavior (TPB) are adopted to develop and explicate the conceptual framework. ELM is used to support the two independent variables, *content quality* and *source credibility* of social network sites. TAM helps to explain the two mediators, users' perceived ease of use (PEOU) and perceived usefulness (PU) of SNSs. However, the dependent variable of TAM is adoption of the system, but not the behaviors influenced by system use. Therefore, the Theory of Planned Behavior is adopted to explain the dependent variable of this study, civic engagement intention; this theory includes perceived behavioral control (PBC), which is similar to PEOU and PU.

## Research Objectives

This research aims to investigate the behavioral patterns of digital consumers influenced by information from social network sites. The main research objectives are: 1) to determine whether content quality and source credibility can influence users' intention to engage in civic activities in Thailand; and 2) to evaluate the mediating effects of perceived ease of use and perceived usefulness.

## **Significance of the Study**

The study has original value for both for-profit and not-for-profit organizations. The study can contribute to the knowledge base of social marketing, cause-related marketing, and marketing communication. Even though this study treats engagement intention as the dependent variable, the respondents were selected based on their actual engagement (either online or offline) in Thailand's mass political movements of 2013.

## **Conceptual Framework**

### ***Independent Variables: Content Quality and Source Credibility***

The independent variables consisted of a central and a peripheral cue influencing political SNS users according to Petty & Cacioppo's (1986) dual-process Elaboration Likelihood Model (ELM). The dual-process variables, content quality and source credibility, were adopted from Sussman & Siegal's (2003) study. ELM was introduced and developed by Petty & Cacioppo (1986) to explain the process by which individuals are likely to be impacted by the information they receive. Regarding the ELM theory, people use either a central route or a peripheral route with the information to which they are exposed. Central route processing is indicated by conditions of high message elaboration and a high level of cognitive capacity to evaluate the message. Peripheral route processing, on the other extreme, is determined by cues irrelevant to the rationality of the argument. When people are highly involved in a topic or able to process the arguments in a message, peripheral cues such as source credibility rarely have an impact on their attitudinal changes, while central cues work in an opposite direction (Sussman & Siegal, 2003). Political SNS users are believed to process information either by a central or a peripheral route. If they have high regard for content quality, they will have less regard for message source, and vice versa.

This research uses the term 'content quality' instead of 'argument quality' to include informational media as text, images (infographic), audio and video, or combinations. Petty and Cacioppo (1986) noted that when people evaluate content or argument quality, they use a central route or high rationality. Source credibility is a perception that uses a peripheral route. With such a route, SNS users do not rationally consider the essence of the message, but rather the credibility of the message's source, such as friends, experts, celebrities, or opinion leaders. Source credibility may bias people's argument quality (Chaiken & Maheswaran, 1994). According to Mak, Schmitt, & Lyytinen (1997), source credibility determines user acceptance and decision-making when an argument is ambiguous.

According to the conceptual model, quality of content (relevant to public interest issues) and source credibility are hypothesized to significantly influence perceived ease of use and perceived usefulness of SNS as two mediating variables. The dual routes are also hypothesized to directly influence civic engagement intention.

### ***Mediators: Perceived Ease of Use and Perceived Usefulness***

Perceived Ease of Use and Perceived Usefulness are two constructs adopted from Davis' (1989) Technology Acceptance Model. According to TAM, both PEOU and PU positively influence attitude, which, in turn, influence users' behavioral intention to use social network sites. In addition, PU is partially determined by PEOU. Roberts and Henderson (2000) suggested that PU and attitude toward usage of technology jointly determine behavioral intention. Lee, Cheung, & Chen (2005) suggested that a consumer's attitude and PEOU also influence behavioral intention. Previous studies also suggested that both argument quality and source credibility of persuasive messages had a positive influence on users' PEOU and PU (Sussman & Siegal, 2003; Kim, Chung, Lee, & Preis, 2015; Li, 2015).

Thus, according to the conceptual model, SNS users' PEOU is influenced by central and peripheral routes of persuasion. In the conceptual framework, PU is determined by content quality, source credibility and PEOU.

#### ***Dependent Variable: Civic Engagement Intention***

SNS help people to develop attitudes and self-efficacy so that they are aware of political issues and their ability to change those situations (Al-Kandari & Hasanen, 2012). Bello and Rolfe (2014) mentioned that SNS users' political views came from their discussions with those who shared similar political preferences. Huckfeldt, Pietryka, and Reilly (2014) noted that SNS users' attitudes were highly influenced by expert opinions due to their powers of persuasion. Conroy, Feezell, and Guerrero (2012) pointed out that online participation was also correlated with offline participation. Exploratory research also supports the idea that people participate in political movements due to informational influence of the SNSs they are using. The conceptual framework is formed by noting that civic engagement intention is influenced by content quality and source credibility within SNSs. This is supported by previous studies (Chang et al., 2015; Kim et al., 2015; Sussman & Siegal, 2003; Zheng et al., 2013). In the overall conceptual framework, people swayed by central or peripheral routes of informational influences find that SNSs make it easy to learn about public interest issues, and they are also useful for social reform. Furthermore, SNS information adoption is assumed to influence civic engagement intention.

#### **Research Hypotheses**

There were nine hypothesis statements for this research study.

*H1: Content quality of SNSs has a significant influence on perceived ease of use of SNSs.*

Previous studies suggested that SNSs and information quality contributed to information-based and SNS trusts (Elliot, Li, & Choi, 2013; Johnson & Kaye, 2015) and trust could lead to knowledge-sharing self-efficacy (Hsu, Ju, Yen, & Chang, 2007) or users' PEOU. When users have trust in a community, they can develop self-efficacy or perceived ease of community use in terms of receiving and sharing information that can lead to social change. Therefore, content quality of SNSs can have a significant influence on their perceived ease of use.

*H2: Content quality of SNSs has a significant influence on perceived usefulness of SNSs.*

According to Sussman & Siegal (2003), argument quality was related to workers' PU of email within an organization. A study by Kim et al. (2015) suggested that argument quality significantly influenced SNS users' perceived usefulness of mobile tourism shopping. Zheng et al.'s (2013) study also suggested that SNS users' perceived content quality also contributed to perceived usefulness of an online community. Thus, content quality of SNSs is assumed to significantly influence their perceived usefulness.

*H3: Source credibility of SNSs has a significant influence on perceived ease of use of SNSs.*

According to Li (2015), source credibility was also found to influence perceived ease of information system use. Johnson and Kaye's (2015) study also pointed out that credibility of news sources in terms of impartiality would result in SNS users' political self-efficacy, and this increased users' motivation to use the site. Therefore, source credibility of SNSs is assumed to have a significant influence on their perceived ease of use.

*H4: Source credibility of SNSs has a significant influence on perceived usefulness of SNSs.*

A study by Kim et al. (2015) suggested that source credibility also significantly influenced SNS users' perceived usefulness of mobile tourism shopping. A study by Sussman and Siegal (2003) also indicated that people who considered source credibility perceived that using email in the organization was useful in improving performance. Therefore, this research study may confirm the significant relationship between source credibility and SNS users' PU.

*H5: Perceived ease of use of SNSs has a significant influence on perceived usefulness of SNSs.*

According to Davis' (1989) TAM, PU is partially determined by PEOU. This is in congruence with Bandura's (1977) study of self-efficacy that affected outcome expectation. Chang, Hung, Cheng, & Wu's (2015) and Cegarra-Navarro, Garcia-Perez, & Moreno-Cegarra's (2014) studies also confirmed that SNS users' PEOU was a determinant of PU. Therefore, PU (outcome expectation) should be determined by PEOU (self-efficacy), even in a social issue context.

*H6: Perceived ease of use of SNSs has a significant influence on civic engagement intention.*

Studies by Hsu, Ju, Yen, & Chang (2007) and Chen and Hung (2010) suggested that SNS users' knowledge-sharing self-efficacy or PEOU was related to knowledge contributing behavior, which is a part of user engagement. Cegarra-Navarro et al.'s (2014) study also suggested that perceived ease of SNS use affected citizen engagement. In this research, it is hypothesized that when people know that they can drive changes, regardless of outcome expectation, they also form a behavioral intention to engage in either online or offline political activities.

*H7: Perceived usefulness of SNSs has a significant influence on civic engagement intention.*

A study by Chiu, Hsu, & Wang (2006) indicated that personal outcome expectation or its equivalent, PU, affected quality and quantity of knowledge sharing, a part of user engagement. Zhao, Lu, Wang, Chau, & Zhang's (2013) and Zheng et al.'s (2013) studies supported the fact that perceived usefulness of virtual communities had some influence on users' intention to share information with other members. Citizen engagement was influenced by SNS users' PU according to Cegarra-Navarro et al.'s (2014) study. Therefore, SNS users are hypothesized to form an intention to participate in social reform activities when they perceive that SNSs are useful in driving change.

*H8: Content quality has a direct and a significant influence on civic engagement intention.*

*H9: Source credibility has a direct and a significant influence on civic engagement intention.*

Even though dual-process informational influences were not directly mentioned as independent variables in previous studies related to political participation, the results of studies provide some guidelines that they can affect behavioral intentions. Information from friends, for example, could influence SNS users to vote in an election (Baek, 2015). This can indicate SNS users' behavior was driven by information from others. People choose to discuss political issues with those who share similar viewpoints, and their behavior also affected social network friends (Bello & Rolfe, 2014). Erentaite et al.'s (2012) study suggested that interpersonal discussions regarding news (probably driven by content quality or source credibility) could affect civic engagement. Opinion leaders could also significantly influence political communication effects due to their persuasive powers, as well as the durability of their knowledge contribution (Huckfeldt Pietryka, & Reilly, 2014). A study by Kruikemeier (2014) showed that candidates who used Twitter during the course of the 2010 election campaign received more votes than those who did not, which was congruent with LaMarre & Suzuki-Lambrech's (2013) study that Twitter increased chances of winning the election. Opinion

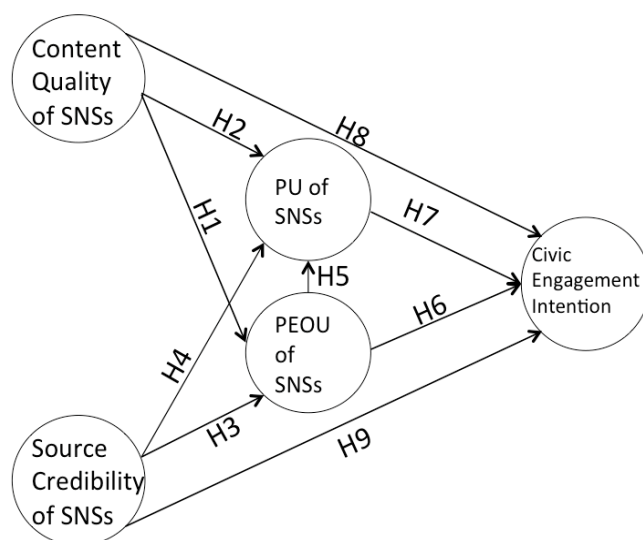
leaders who used Twitter could also influence information seeking behavior and political engagement (Park, 2013). A study by Senbel, Ngo, & Blair (2015) also suggested that peer activities and information on SNSs could affect civic engagement. Huckfeldt et al.'s (2014) study indicated that expert opinion significantly influenced political communication effects, and that decay effects were low among those influenced by expert opinion leaders. The influence of experts was due to their powers of persuasion and the durability of their own privately formulated opinions (Huckfeldt et al., 2014). However, Men & Tsai's (2013) study showed no effect of perceived source credibility on SNS user engagement. Thus, from previous studies, content quality and source credibility are hypothesized to have significant influences on user engagement.

Figure 1 shows the conceptual model with hypotheses. All variables are measured using interval scales. Operational definition of content quality was adopted from Zheng et al.'s (2013) study and includes reliability, objectivity, relevancy, richness, format, and timeliness. Source credibility's operational definition was adopted from Eisend's (2006) study and includes trustworthiness, competence, and attraction. Perceived ease of use's operational definition was adopted from Davis' (1989) study and includes ease of learning, controllability, understandability, flexibility, ease of becoming skillful, and ease of using. Perceived usefulness's operational definition was adopted from Davis' (1989) study and includes working more quickly, improving performance, increasing productivity, effectiveness, facilitating mission, and usefulness. Political engagement intention's operational definition was adopted from Paek et al.'s, (2013) study and includes social media communication intention, offline communication intention, and helping intention.

## Research Methodology

### Study Respondents

The target population was identified from the author's social networks. Those people were added from the author's circle of around ten thousand friends because they commented, clicked 'likes' on the author's existing friends' posts or discussed political issues in other groups or pages. The author's Facebook friends (around four thousand) were used in order for the author to observe their usage behavior (as some users allowed only friends to see their profiles and their posts were shown on the author's news feed), and they could be reached through the chat room. Facebook was used as the main platform because it represents the term 'social network site' as defined by Boyd &



**Figure 1.** The Conceptual Model

Ellison (2007) in terms of generating public or semi-public (for friends only) profiles, posting a status (articulating), interacting, viewing and traversing lists of connections (a number of connections identified). The reasons to use the 2013 political event as the reference point were that political issues were heavily discussed on social network platforms a few years before the mass protests in 2013, and many Facebook users were enthusiastic about participating in the 2013 protests.

In conclusion, target respondent's attributes encompassed Thai Internet users who have a Facebook account, own a smart phone, tablet or personal computer, engaged in Thailand's mass political events in 2013, and have discussed political viewpoints or political issues on their Facebook timelines, friends' spaces, or groups since then.

A minimum sample size for this study was calculated to be about 385 people, which has 95% level of confidence and allows  $\pm 5\%$  margin of error (Blankenship, Breen, & Dutka, 1998). This number is consistent with Berenson and Levine's (1999) recommendation for appropriate sample size for a population of unknown size to ensure that the result can be generalized to the population. In addition, the sample size was sufficient for the minimum requirements of using Structural Equation Modeling (SEM) as an analytical tool (Hair, Black, Babin, Anderson, & Tatham, 2006).

### ***Sampling Procedure***

The selection of target respondents was based on a purposive sampling method, which depends on the researcher's judgment that the sample would represent the target population. Target respondents were approached via Facebook Messenger and LINE and were requested to click the link to the online questionnaire and to complete all the questions. In order to ensure achievement of the minimum number of samples, the questionnaire page was checked for progress after each request was sent. For example, if ten requests were sent at one time, the question page was checked to see whether the number of responses increased by ten. Unless the target was reached, more respondents were approached. In total, the questionnaire link was sent to 500 people.

### ***Research Instrument / Questionnaire***

According to the questionnaire development, second-order constructs were used except for perceived ease of use and perceived usefulness, which have indicators under each variable.

Content quality measures were guided by the work of Zheng et al. (2013). Content quality consists of six variables: reliability, objectivity, relevancy, richness, format, and timeliness. The reliability variable consisted of 4 indicators ( $\alpha = 0.75$ ); the objectivity variable consisted of 2 indicators ( $\alpha = 0.70$ ), and the relevancy variable had 2 indicators ( $\alpha = 0.73$ ). The richness variable has 3 indicators, but no Cronbach's alpha score is available. Zheng et al. (2013) suggest that only the richness variable is formative, because its measures do not mean the same thing, while all other variables are reflective. According to Petter, Straub, & Rai (2007), an internal reliability check is not important and necessary for formative constructs. The format variable has 3 indicators ( $\alpha = 0.74$ ), and the timeliness variable consists of 2 indicators ( $\alpha = 0.59$ ).

The source credibility measures are adapted from Eisend's (2006) study. The variables of source credibility include trustworthiness, competence, and attraction. The trustworthiness variable contains 7 indicators ( $\alpha = 0.829$ ), competence 6 indicators ( $\alpha = 0.836$ ), and attraction 6 indicators ( $\alpha = 0.847$ ).

Measurement indicators of perceived ease of use are adopted from Davis' (1989) study. The construct for PEOU contains 6 indicators with a Cronbach's alpha of 0.94. Measurement indicators for PU are adopted from Davis' (1989) study. The construct of perceived usefulness contains 6 indicators with a Cronbach's alpha of 0.98.

Civic engagement intention measurement indicators are adapted from Paek, Hove, Jung, & Cole's (2013) measurement indicators for behavioral outcomes of social media use. The measurement indicators consist of social network communication behavior, offline communication behavior, and

helping behavior, which are similar to Erentaite et al.'s (2012) definitions and variables of civic engagement, and to the term '*engagement*' in other studies (Nam, 2012; Lee et al., 2014; Mano, 2014). Social network communication intention consists of 4 indicators ( $\alpha = 0.85$ ), offline communication intention 2 indicators ( $\alpha = 0.62$ ), and helping intention 3 indicators ( $\alpha = 0.82$ ).

Although two variables have Cronbach's alpha of less than 0.70, this is considered as acceptable according to Nunnally (1978). Moss et al. (1998) also support the view that a Cronbach's alpha value of above 0.6 is generally acceptable, while Hair et al. (2006) agree that in a study with a small sample size, low Cronbach alpha scores such as 0.6 are acceptable.

The respondents were asked to indicate their response for all questions on the scale of 1 to 5, including 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree to 5 = strongly agree.

The Cronbach's alphas for all indicators in the pretest of 70 samples ( $n = 70$ ) ranged from 0.777 to 0.951, which are acceptable according to Maholtra (2007).

### **Data Gathering Procedure**

Primary data were gathered via self-administered questionnaires from prospective respondents who used Facebook. A link to the online questionnaire was sent to each respondent through Facebook Messenger and LINE applications. No hard copies of the survey were distributed as this study aimed to test online behaviors. The process of data gathering took 15 days (from June 1 – 15, 2016). Each respondent was approached one by one. Some responded immediately, while others replied days after being approached. In total, 500 people were approached and 402 responses were received. The response rate was 80.4%, which was higher than the minimum requirement for appropriate sample size as recommended by Blankenship et al. (1998) and Berenson & Levine (1999). All questions were answered because questions could not be skipped.

### **Research Results**

#### **Demographic Profiles of Respondents from Political SNSs**

The demographic profile in this study is comprised of six areas, including gender, age groups, education levels, whether each respondent has a social group, most frequently used platform, and whether respondents have met in real life. Google Docs provided descriptive data, including frequencies and percentages. The results are shown in Table 1.

**Table 1.** Demographic Profile of Respondents

Demographic Profile of Respondents from SNSs		Descriptive Statistics	
		Frequency	Percent
Gender	Male	209	52.0
	Female	193	48.0
Age Group	18-30 years old	60	14.9
	31-40 years old	141	35.1
	41-60 years old	193	48.0
	Above 60 years old	8	2.0
Educational Level	Less than bachelor degree	112	28.1
	Bachelor degree	223	55.9
	Master degree	58	14.5
	Higher than master degree	6	1.5
Having SNS Group	Yes	349	86.8
	No	53	13.2
Most Frequently Used SNS Platform	Facebook	304	76.8
	LINE	77	19.4
	Twitter	4	1.0
	Other	11	2.8
Met Other SNS Friends in	Yes	349	86.8



Real Life	No	53	13.2
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### **Confirmatory Factor Analysis**

The main objective of Confirmatory Factor Analysis (CFA) is to determine the degree of model fit. The CFA results indicate the degree to which the factors in the measurement model represent the actual data set (Hair et al., 2006). Moreover, these results can also be used to assess the standardized residual and explained variances for the measurement variables (Ho, 2006). According to Hair et al. (2006) and Ho (2006), there are two important types of goodness-of-fit in order to determine the results of measurement models. The first is an Absolute Fit Measure assessing the level of fit for the proposed model with the actual data. The key indices include statistical analysis of Chi-square statistics, Goodness-of-Fit Index (GFI), and Root Mean Square Error of Approximation (RMSEA). There is no generally acceptable point for the Chi-square statistics ( $\chi^2$ ) because the Chi-square ratio results are sensitive to the sample size, especially, when the number is larger than 200 respondents. Researchers are thus warned not to rely only on Chi-square statistics. The other recommended key indices are GFI and RMSEA (Ho, 2006). The GFI is a non-statistical measure ranging from 0 (poor fit) to 1 (perfect fit), but there are no threshold levels for acceptability. For RMSEA, values ranging from 0.05 to 0.08 are considered to be acceptable, values from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit.

Second, Incremental Fit Measures are considered as another key measurement that compares the proposed (default) model to the baseline model. Baseline models are often used as null or independence models (Ho, 2006). The five indices that measure incremental fit are Normed Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). The fit indices represent comparisons between the proposed model and a null or independence model, and show the improvement of a proposed model over the null model, and range from 0 (a fit no better than the independence model) to 1 (a perfect fit). The recommended value for the incremental fit indices should be above 0.9 (Hair et al., 2006; Ho, 2006). However, there are notes of cautions for using incremental fit indices as rules of thumb (McDonald & Marsh, 1990; Hu & Bentler, 1998; Marsh, Hau, & Wen, 2004). First, designating cutoff values for each fit index does not work equally well with various types of fit indices, sample sizes, estimators, or distributions. Second, other aspects like adequacy and interpretability of parameter estimates, model complexity, and other issues are more critical than merely relying on high incremental fit indices (>0.90).

According to the CFA results, Chi-Square Minimum (CMIN) table in Model Fit Summary (Table 2) shows that the model does not fit with the dataset,  $\chi^2(N = 402, df = 1462) = 2.611, p < 0.05$  but GFI shows quite acceptable fit (close to 1). In addition, baseline comparisons fit indices of NFI, RFI, IFI, TLI, and CFI show improvement in fit for the hypothesized model (default model) compared to the null model from 0.114 to 0.181, which appears to be so small as to be of little practical significance.

**Table 2:** Summary of Fit Indices of Measurement Model

Measures of Absolute Fit				Measures of Incremental Fit				
	$\chi^2/df$	RMSEA	GFI	NFI	RFI	IFI	TLI	CFI
<b>Rules</b>	< 2.0	Acceptable at 0.05 - 0.08	Close to 1	0.900	0.900	0.900	0.900	0.900
<b>Model</b>	2.611	0.063	0.725	0.828	0.819	0.886	0.880	0.886

### **Reliability, Convergent and Discriminant Validity**

Reliability is assessed by computing Average Variance Extracted (AVE), Composite Reliability (CR) and Cronbach's Alpha. AVE is computed by the sum of squared factor loadings divided by the number of indicators. The generally acceptable cut-off values are 0.50 for AVE, and 0.70 for both CR

and Cronbach's Alpha (Bagozzi & Dholakia, 2002; Fornell & Larcker, 1999). Therefore, all indicators used to represent each construct are reliable.

Campbell and Fiske (1959) developed the Multitrait-Multimethod Matrix to assess the construct validity of a set of measures in a study. The approach emphasizes the importance of using both convergent and discriminant validation techniques to assess new tests. Convergent validity can be estimated using correlation coefficients. A successful assessment of convergent validity shows that a test of a concept is highly correlated with other tests designed to measure theoretically similar concepts. According to Zheng et al. (2013), convergent validity reflects the extent to which the indicators for each construct measure the same construct, and a factor loading of 0.6 is used as the cut-off value for convergent validity. Therefore, all indicators have convergent validity.

On the other hand, a successful evaluation of discriminant validity shows that a test of a concept is not highly correlated with other tests designed to measure theoretically different concepts. According to Fornell & Larcker (1999), if the correlation between a pair of constructs is less than the square root of the AVE of each construct, discriminant validity is achieved. Table 3 shows that all of the square roots of AVEs on the main diagonal are greater than the pairwise correlations between constructs on the off diagonal, implying that all constructs are distinct.

**Table 3:** Construct Correlation Matrix, Average Variance Extracted (AVE), Cronbach's Alpha, and Composite Reliability (CR) (n = 402)

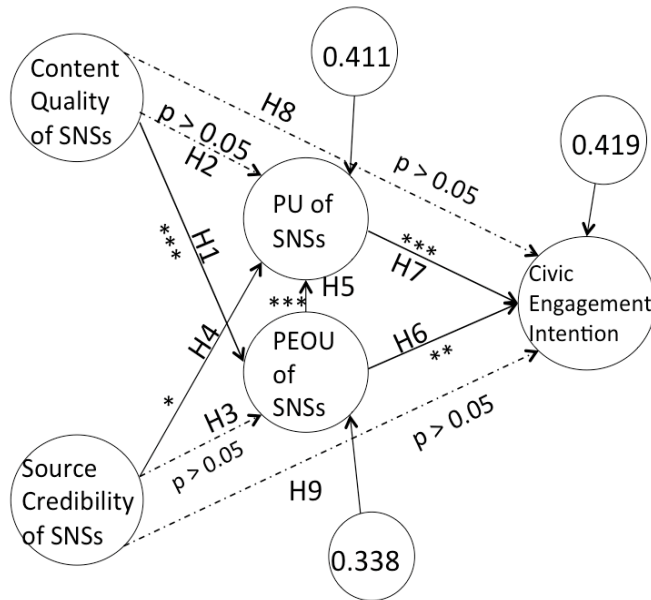
	<b>CQ</b>	<b>SC</b>	<b>PEOU</b>	<b>PU</b>	<b>CEI</b>
Content Quality (CQ)	<b>0.859</b>				
Source Credibility (SC)	0.857	<b>0.922</b>			
Perceived Ease of Use (PEOU)	0.786	0.708	<b>0.787</b>		
Perceived Usefulness (PU)	0.697	0.658	0.739	<b>0.867</b>	
Civic Engagement Intention (CEI)	0.628	0.565	0.680	0.731	<b>0.949</b>
<b>Average Variance Extracted (AVE)</b>	0.738	0.851	0.619	0.751	0.900
<b>Cronbach's Alpha (n = 402)</b>	0.939	0.970	0.907	0.947	0.926
<b>Composite Reliability (CR)</b>	0.944	0.945	0.906	0.948	0.964

### **Hypothesis Testing**

Structural Equation Modeling (SEM) is used to investigate and explain the relationships among the predictor variables and the dependent variables of the political SNSs used in this study. Direct relationships between each route of persuasion and civic engagement intention as well as the mediating roles of perceived ease of use and perceived usefulness are investigated. The results of SEM indicate that the unstandardized regression weights are all significant by the critical ratio test (C.R. >  $\pm 1.96$ ,  $p < 0.05$ ), except the relationships between content quality and PU (C.R. = 1.720), content quality and civic engagement intention (C.R. = 1.256), source credibility and PEOU (C.R. = 1.478), and source credibility and civic engagement intention (C.R. = -0.484). The unstandardized regression weights of the relationships between two constructs range from -0.043 to 0.631. The explained variances for all independent variables are represented by the squared multiple correlations. The percentage of variance explained ranges from 0.581 or 58.1% (civic engagement intention) to 0.622 or 62.2% (perceived ease of use). For all measurement variables, the residual variances range from 33.8% to 41.9%.

Figure 2 shows the structural path model with p-values and hypotheses 1 to 9. The solid lines represent hypotheses supported by the findings, while the dot lines represent those not supported by the findings. The arrows pointing to the latent constructs perceived ease of use, perceived

usefulness, and civic engagement intention represent unexplained (residual) variances for these 3 factors. The residual variances are calculated by subtracting the factors' squared multiple correlations (explained variances). Thus, for this hypothesized model, 33.8% of the variation in PEOU is unexplained, or 66.2% of the variance is accounted for by the joint influence of the content quality and source credibility predictors. Similarly, 41.1% of the variation in PU is unexplained, or 58.9% of the variance is accounted for by the joint influence of content quality, source credibility, and PEOU. Lastly, 41.9% of the variation in the civic engagement intention is unexplained, or 58.1% of the variance is accounted for by the joint influence of content quality, source credibility, PEOU, and PU.



\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Figure 2.** Structural Path Model with Summary of Findings

Table 4 shows the summary of hypothesis testing in which H1, H4, H5, H6, and H7 are supported by the findings. It also includes unstandardized regression coefficients, critical ratios, and p-values. According to the structural path model with unstandardized path coefficients, content quality of the political SNSs has a significant and positive influence on users' perceived ease of use ( $\beta = 0.585$ ,  $p < 0.001$ ). However, content quality does not have a direct and significant influence on perceived usefulness ( $\beta = 0.193$ ,  $p > 0.05$ ) and on civic engagement intention ( $\beta = 0.193$ ,  $p > 0.05$ ). Source credibility has a significant influence on users' perceived usefulness ( $\beta = 0.192$ ,  $p < 0.001$ ), but is insignificantly related to users' perceived ease of use ( $\beta = 0.112$ ,  $p > 0.05$ ), and has an insignificant and a negative influence on civic engagement intention ( $\beta = -0.043$ ,  $p > 0.05$ ). SNS users' perceived ease of use has a significant influence on their perceived usefulness ( $\beta = 0.631$ ,  $p < 0.001$ ), While their perceived ease of use has a significant influence on civic engagement intention ( $\beta = 0.295$ ,  $p < 0.001$ ). Lastly, SNS users' perceived usefulness has a significant influence on civic engagement intention ( $\beta = 0.439$ ,  $p < 0.001$ ).

**Table 4.** A Summary of Hypothesis Testing

No.	Path of Relationship	Unstandardized Regression Coefficient ( $\beta$ )	Critical Ratio (C.R.)	p-value	Hypothesis Supported
H1	Content quality of SNSs has a significant influence on perceived ease of use of SNSs.	0.585	6.856	0.000	Yes
H2	Content quality of SNSs has a significant influence on perceived usefulness of SNSs.	0.193	1.720	0.085	No

H3	Source credibility of SNSs has a significant influence on perceived ease of use of SNSs.	0.112	1.478	0.139	No
H4	Source credibility of SNSs has a significant influence on perceived usefulness of SNSs.	0.192	2.006	0.045	Yes
H5	Perceived ease of use of SNSs has a significant influence on perceived usefulness of SNSs.	0.631	6.677	0.000	Yes
H6	Perceived ease of use of SNSs has a significant influence on civic engagement intention.	0.295	3.214	0.001	Yes
H7	Perceived usefulness of SNSs has a significant influence on civic engagement intention.	0.439	7.350	0.000	Yes
H8	Content quality has a direct and a significant influence on civic engagement intention.	0.132	1.256	0.209	No
H9	Source credibility has a direct and a significant influence on civic engagement intention.	-0.043	-0.484	0.628	No

## Discussions and Conclusions

According to the research results, SNSs have some informational influence on users' intention to engage in civic activities. Nevertheless, users who considered content quality or source credibility needed to form their perceived ease of use and perceived usefulness of the SNSs. Even though people realize that their SNSs have content quality, they may not participate in a civic activity unless they perceive that the information helps them to learn about social issues or enables them to drive social change. When SNS users feel that they can be a driver of social reform and such a perception is influenced by informational contents from their social networks or information providers, they may think that the power of change lies within their hands. However, users' engagement intention may or may not lead to actual engagement or civic behavior (especially helping behavior) because users may be constrained by uncontrollable factors such as government policies to curb protests, or by limited financial resources due to economic slowdown. This is similar to a situation in which consumers have purchase intention, but they have limited purchasing power. Or they may intend to volunteer in an activity, but they lack the energy and time to do so.

There were two main objectives of this study, and both of them were achieved. The first objective was to determine whether content quality and source credibility can influence users' intention to engage in civic activities in Thailand. According to the research results, SNSs can influence users' engagement intention through central and peripheral routes to persuasion (content quality and source credibility respectively). However, the influence of both routes was mediated by SNS users' PEOU and PU. This research result is in line with Men & Sai's (2013) findings in that source credibility had no direct and significant influence on SNS user's engagement.

The second objective was to evaluate the mediating effects of PEOU and PU. The findings reveal that both PEOU and PU have mediating effects on the relationship between the informational influence of SNSs and users' civic engagement intention. In addition, PU is also partially determined by PEOU. The results are consistent with the studies by Davis (1989), Elliot et al. (2013), Johnson & Kaye (2015), Hsu et al. (2007), Sussman & Siegal (2003), and Kim et al. (2015). In addition, PEOU has a significant influence on civic engagement intention, which is consistent with the studies by Hsu et al. (2007), Chen & Hung (2010), and Cegarra-Navarro et al. (2014). PU also has a significant influence on civic engagement intention, which is in line with the studies by Chiu et al. (2006), Zhao et al. (2013), Zheng et al. (2013), and Cegarra-Navarro et al. (2014).

In conclusion, even though not all hypotheses were supported by the findings, there are some learning points as explained in the next topics.

## **Implications and Recommendations**

### ***Theoretical Implications***

This research study can bridge the gap of informational influence of SNSs on users' engagement intention. First, this study has connected three main theories, Elaboration Likelihood Model (ELM), Technology Acceptance Model (TAM), and Theory of Planned Behavior (TPB). Content quality and source credibility are adopted from the ELM, while Perceived Ease Of Use (PEOU) and Perceived Usefulness (PU) are from the TAM. In addition, the relationship of the whole model from the independent variables to civic engagement intention is supported by the TPB. As the dependent variable of TAM is the system use, this research also shows that people who have both PEOU and PU also form intention to engage in a behavior, or civic engagement intention. Therefore, the conceptual model of this study contributes to the fact that there is informational influence of SNSs on users' engagement intention. Second, this study reveals that PEOU is more significantly related to the central route than the peripheral route of persuasion. The keywords related to PEOU include ease of learning, helping to know, ease of understanding, flexibility, helping to become skillful, and easy to use. Third, the results also show that PU seems to be more significantly related to the peripheral route than the central route of persuasion. The keywords related to PU include quickening the process, enhancing the performance, increasing achievements, enhancing the effectiveness, facilitating the process, and usefulness. Such perceptions may not be influenced by the informational content, but, instead, by other people (such as friends or experts) in the SNS. Therefore, this can be one learning point regarding the informational influence. Fourth, there are mediating effects of PEOU and PU within SNSs. While PEOU mediates the relationship between content quality and civic engagement intention, PU mediates the relationship between source credibility and civic engagement intention. In addition, PU is also a mediator between PEOU and behavioral intention.

In conclusion, when more indicators of content quality and source credibility were used, significant relationships between content quality and PEOU and between source credibility and PU were more distinct. Furthermore, there is a connection between the concepts of TAM and TPB.

### ***Practical Implications***

According to the research results, political SNS users formed behavioral intention (civic engagement intention) through different routes of informational influence. The findings provide perspectives to different types of organizations that are using or aim to use social network sites or social media to influence their target audience. Marketers must be aware that there are both active and passive groups of audiences, and each group is differently motivated.

In past political movements, some Thai people participated in protests due to their own considerations, while others who had limited knowledge of political issues simply joined the events because of subjective norms. In order to expand a social network of supporters, a leader or an organizer needs to understand audience behavior. He or she should attract people who are active informative receivers by improving the quality of the social network's content. Improving the content quality in terms of reliability, objectivity, relevancy, richness, format, and timeliness will enable people to perceive that they are smarter, more knowledgeable, and aware that their social network sites are easy to use. Then, they may also help to achieve the group's desired objectives. On the other hand, the leader or organizer must not overlook passive audience who make decisions based on others' opinions. According to the exploratory study, some people mentioned that friends and celebrities influenced them to participate in Thailand's political protests in 2013. During that time, some celebrities also appeared on stages and used social media to publicize their political activities. Opinion leaders should also possess the qualities of trustworthiness, competence, and attractiveness so that target audiences will feel that their social network sites are useful.

Besides political SNSs, this study can also contribute to SNSs of social institutions. For example, a foundation that aims to raise funds to rescue animals from brutality or from the brink of death may make use of social media that leads people to engage by sharing the content or donating money. A net idol with a positive image or qualities of trustworthiness, competence and attractiveness may be used to influence audiences. Social network friends can also influence their circles of friends. A political party, in addition, may use its SNS as a tool to tighten its relationship with voters. What all social institutions can do is to use content marketing as well as to develop opinion leadership that can influence target audiences.

This study also provides practical implications for business marketing. For example, when two consumers want to purchase a digital camera, they may use a social network site of a brand as an information source. If one consumer has some knowledge about cameras, he or she could perceive the content quality of the SNS, including reliability, objectivity (unbiased information), relevance to his or her need, richness of information, understandable format, and timeliness (updated information). If the other consumer knows a little about the cameras, he or she may mainly consider trustworthiness, competence, and attractiveness of the information providers or camera experts. The experts simply explain that this brand is good. They may also show their photos taken by this brand of camera. The consumer who has high regard for source credibility may be attracted to the experts, but he or she may not know about the camera. The consumer who considers the message content may feel that this SNS enables him or her to understand more about the cameras (due to the information) and that the SNS is useful. On the other hand, the consumer who considers mainly about the experts may feel that the SNS is useful, but may not find it easy to learn about complexities of cameras. The dimensions of civic engagement intention are also equivalent to users' engagement intention. The engagement intention also includes social network communication (e.g. liking, commenting, or sharing), offline communication (e.g. searching for additional information at stores), and helping (e.g. buying a community t-shirt to support the community's activities, attending a photo trip, building a school in rural areas, or reporting cheating behavior of some sellers). In addition, SNS users may reflect their purchase intention by sharing useful information from the SNS to their families, and looking for additional information from brochures or magazines.

Behavioral intention, however, does not always lead to immediate actual purchase due to several factors. For example, SNS users may have limited financial resources, or they may compare the information to other sources. A virtual community needs to find ways to develop community commitment. Other virtual business communities or non-business communities may also consider the usefulness of the conceptual model developed from this study. Their virtual communities or SNSs should have both content quality and opinion leaders who can influence users who have little knowledge about a subject. If users have community commitment or trust, they tend to develop relationships with the community.

### **Limitations and Suggestions for Further Research**

This study has some limitations. One limitation is that this study used a self-reported questionnaire, and there were many question items. Therefore, respondents might not carefully respond to all questions. However, this limitation was offset by using a large number of respondents and measuring the mean and standard deviation of each item. Some respondents mentioned that they had problems in opening the questionnaire link due to Internet instability, causing slowness in responding to the questions. However, when they finished the questionnaire, they captured the page showing the completeness. Another limitation is that some respondents reflected their attitude changes toward civic participation. Even though they participated in the 2013 political movements, they mentioned that it would be difficult to drive change. Some mentioned that they squandered a lot of money and they would not do the same in the future. However, they said they would continue to use social media to follow public issues. Therefore, the results from civic engagement context should be generalized with caution, especially attitudinal aspects.

This study also provides suggestions for further research. First, some variables (e.g. personality traits, or frequency and continuity of Internet use) may be adopted as moderators to influence the relationship between content quality and PEOU, between content quality and PU, source credibility and PEOU, and source credibility and PU. This is not limited to the civic engagement context. As there are not many studies on civic engagement in Thailand, this study may provide a research opportunity for different contexts as compared to the marketing context.

Studies on SNSs in various contexts also contribute to cross-disciplinary studies. For example, research results reveal that a political candidate's use of Twitter enabled him to win an election. Such a result can also contribute to advertising and public relations knowledge in terms of Twitter contents and frequency. Researchers may use any type of SNSs as samples and see their behavioral patterns. The results can be compared to a business context. The area of marketing has borrowed concepts and theories from different disciplines to explain consumer behavior. Outstanding areas are psychology, behavioral sciences, and information technology. This study adopts political and civic engagement contexts to explain marketing behavior, which has not been studied before. Besides, political context is such a sensitive subject in Thailand that discussing political issues with people of different viewpoints may cause a strong dispute.

However, this study paves the way to think that these are merely perspective and behavioral patterns. All respondents are compared as consumers of information instead of products and services. Contents or posts on SNSs may include strong and violent language, but they reflect users' insights that are worth studying. Lastly, according to the researcher's viewpoint, any study contributes some knowledge. Marketing is also related to all social entities. Marketers need to influence and satisfy their target audience. A business firm that does something contradictory to consumers' sense of morality (e.g. entangled in red tape or in environmental destruction) may be boycotted, in which case a firm may need crisis management in order to make the public understand and to regain its reputation.

## About the Author

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