An Empirical Study about the Role of Personality Traits in Information Technology Adoption

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Abstract

This paper investigates the relationship between personality traits and their Information Technology (IT) adoption. The study used the Five Factor Model (FFM) to assess the personality of individual users who adopt social networking technologies using their mobile devices. This research is conducted among 320 social networking users in Thailand. Based on the theoretical background of Technology Acceptance Model (TAM) and FFM, a conceptual model is developed and empirically tested. The study found that extraversion, agreeableness are positively and significantly influenced social networking behavior. The results also reveal that neuroticism and conscientiousness are negatively associated with social networking behavior. The results of the study will help the marketers to identify target segments and implement communication tools more effectively over social networking sites.

Key Words: Social Networking Sites, Five Factor Model, Information Technology Adoption, Technology Acceptance Model, Structural Equation Modeling

Introduction

There is no doubt that the advent of internet has revolutionized the ways people communicate to each other. E-mails, chat rooms, websites, blogs are part of today's human life. The latest of this advancement is social networking sites (SNS). SNS has received the largest response from individual users comparing to any technological innovations. Most of the SNS have millions of users and these numbers are growing day by day. The wide popularity of these SNS is due to its potential to provide an ideal platform to develop and manage contacts between people all over the world who share similar interests and ideologies and to create virtual online communities. Social Networking has become the most popular internet activity in the world. Leng, et al., (2011) suggested that SNS allow its users to create a website presence including their photos and descriptors like age, location and personal interests. Due to the recent advancements in the telecommunication technologies, it is possible to access internet in any mobile devices such as cellular phones, Personal Digital Assistants (PDA), tablet PCs, etc. Mobile Social Networking (MSN) is an activity in which users carry out social networking activities using mobile devices which allows users to access their favorite SNS anywhere and anytime.

This study focuses on this new channel of Information Technology (IT) adoption in Bangkok Metropolitan, Thailand where SNS are very popular. This study empirically analyzes the adoption and use of SNS by Internet users in Thailand who access them using their mobile devices. In addition, this study also attempts to address about the role of personality in IT adoption. The issue of individual characteristics like personality traits received little attention in IT and Information System (IS) literatures. Therefore, this study aims to fill the gaps by comprehensively analyzing the personality characteristics and facts related to the MSN users. Recently Devaraj and Easley (2008) suggested that the best way to link individual characteristics into IS models and theories would be to adopt the FFM (Digman, 1990) of personality.

TAM from Davis (1985, 1989) is considered to be the classic model of technology adoption studies. TAM describes the antecedents of

IT adoption and is considered as a robust tool for measuring the acceptance and use of new technology by its users (Huang, Lin, & Chuang, 2007). TAM posits that two variables, namely perceived ease of use (PEOU) and perceived usefulness (PU) influence users' attitude and intention towards accepting or rejecting a new technology. By integrating the TAM and FFM of personality, this study examines the antecedents of a new IT adoption in MSN context.

A deeper understanding of the factors that influence the adoption of SNS will be useful for both individuals and businesses. Boyd & Ellison, (2007) suggested that SNS helps to build and maintain social ties among Internet users. Businesses have adopted SNS as a marketing tool (Tikkanen, et al., 2009; Hogg, 2010) since they can observe and analyze user behavior, can connect with customers contributing customer knowledge and customer inputs at a cheaper cost using Social Networking Sites. These options make SNS adoption studies substantial commercial and research attention (Lorenzo-Romero, et al., 2011).

This study aims to develop a conceptual framework, to help better understanding about the process of adoption of MSN, and to identify the various prominent personality traits of these active users. A conceptual framework is tested among Thailand MSN users.

This study is structured as follows. Firstly, a brief overview and introduction to SNS, theoretical backgrounds related to personality traits, and technology adoption are explained. Next, proposed research model, important variables, and research methodologies employed are presented. The results of the analysis will be then reported. Finally, implications of the results are discussed.

Social Networking Sites (SNS)

It is the plain truth that Social Networking Sites are the fast growing Web 2.0 services over internet. Facebook, Twitter, Myspace, YouTube, LinkedIn etc. are just a few of the Social networking options available today. According to Finin et al., (2005) Social networks are the "explicit representation of the relationships between an individuals and groups in a

community". Therefore Social networking sites can be considered an on-line platform for building and managing social relations with individuals of similar interests (Mital & Sarkar, 2011). Social networking sites allow their users to find people with similar interests and let them to form online communities. Most of the social Networking websites provide various services to its users such as letting them to share photos or videos, personal groups, real time discussions etc. (Hsiao, 2011). Because of these reasons, usage of social networking sites are extremely popular among youths and teenagers. Social Networking Sites such as Facebook and Myspace have more than 100 million users between them and most them are adolescents and emerging youths (Subrahmanyam, et al., 2008). The social networking sites appear to be different compared to other web based applications because it not only allow its users to meet other individuals of similar interests and but it enable them to make visible their social networks (Boyd & Ellison, 2008).

Theoretical Background:

Personality and Five Factor Model

Allport and Odbert (1936) introduced the idea classifying personality characteristics into various traits to get a better understanding of the personality of individuals. Traits represent the words descriptive of personality (Menner, 1936). Allport and Odbert (1936) reviewed 17,953 words related to personality from the Webster's New International Dictionary and classified them into 300 traits.   A significant improvement in the study of personality traits occurred when Digman (1990) unified the previous literature on personality traits and proposed the five superordinate constructs of personality which are extraversion/introversion, friendliness, conscientiousness, neuroticism/ emotional stability, and intellect. A contribution of Digman (1990) leads the way for two well-known personality frameworks, Psychoticism, Extraversion, and Neuroticism Model (PEN) and FFM. Eysenck (1990) introduced the PEN with three personality traits namely, Psychoticism, Extraversion and Neuroticism. Later, Costa and McCrae (1992) proposed the FFM which extended from the PEN. Two of

the three personality traits from the PEN; Extraversion and Neuroticism have been integrated into FFM. However, FFM replaced Psychoticism with Agreeableness, Openness to experience, and Conscientiousness. The five dimensions proposed by Costa and McCrae (1992) are often referred to as the Big Five. Extraversion refers to an individual's need for excitement and stimulation. Costa and McCrae (1992) identified the characteristics associated with this trait are "positive emotion", "excitement seeking", "gregariousness" and "warmth". Agreeableness relates to a person's interpersonal orientation in terms of an individual's thoughts, feelings and attitudes. Costa and McCrae (1992) identified that an individual high in the trait for agreeableness will be more straight forward, modest and can be trusted. Neuroticism is related to an Individual's emotional stability. Openness to experience is the personality trait associated with an individual's ability to seek out and tolerate unfamiliar experiences. Costa and McCrae (1992) suggested that people who are high in this trait (Openness to experience) are intellectually curious and imaginative. The fifth personality trait in the FFM is conscientiousness, and it refers to an individual's degree of motivation in a goal directed behavior. Conscientiousness also relates to an individual's degree of organization and persistence.

The FFM is considered to be a comprehensive and common model in the field of personality studies. Utilizing the five dimensions of personality traits in FFM, this study attempts to examine whether users' personality traits influence the intention to adopt MSN.

The Technology Acceptance Model (TAM)

Davis (1985, 1989) developed the TAM in order to explain the individuals' computer usage behavior within organizations. TAM is adapted from the Theory of Reasoned Action (TRA) of Fishbein & Ajzen (1975) into the field of IS and is considered as the most utilized theory for studying IT acceptance (Venkatesh & Davis, 2000; Koufaris, 2002; Vishwanath, 2005; Wixom & Todd, 2005 Leng et al., 2011; Pinho & Soares, 2011;). Figure 1 illustrates the TAM proposed by Davis (1989).
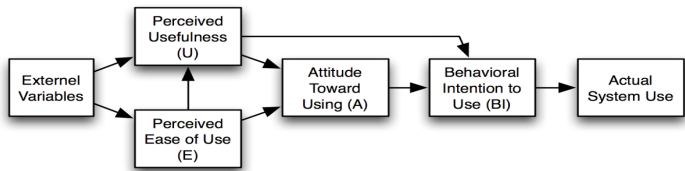
Figure 1: Technology Acceptance Model adapted from Davis (1989)

According to TAM, individual usage behavior (actual system use) is determined by users' behavioral intention while intention is determined by users' attitude toward computers and perceived usefulness accordingly. The model also posits that users' attitude toward computers is jointly influenced by perceived usefulness (PU) and perceived ease of use (PEOU). Davis (1989) defined PU as "the degree to which a person believes that using a particular system would enhance their job performance" and PEOU as "the degree to which a person believes that using a particular system will be free of effort".

Previous Studies on Personality and Technology Acceptance

The studies of personality have been an important measure for human behavior (Chen, 2011). However, personality studies related to IS adoption received very little attention in IS literatures. Devaraj, Easley, and Crant (2008) examined the relationship between big five personality traits and user's intention to adopt of a collaborative technology in a university campus in United States. The study proved that personality dimensions can be useful predictors of user's attitudes and beliefs. Devaraj et al., (2008) found that personality traits such as conscientiousness, extraversion, and agreeableness are positively associated with PU and these variables moderate the relationship between PU and intention to use a new technology. Study also revealed that neuroticism is negatively associated with PU. In another study of personality traits hierarchy of online shoppers (Chen, 2011), it is found that middle level personality traits such as innovativeness, need for cognition, trust, value consciousness, and buying impulsive-

ness are directly related to users' intention to shop online. The study also showed that elemental personality traits such as openness to experience, conscientiousness, need for arousal, and need for material are related to one or two middle level personality traits. Cha (2011) conducted a study on the usability of internet as shopping channel for both real and virtual goods and found that individual user characteristics such as innovativeness, flow, gender and subjective norms influenced user's intention to use online shopping channels for both real and virtual goods. Wehrli (2008) tried to explore how individual personality characteristics influence online social networking behavior and found that extraversion plays an important role in user's intention to form online networking ties. These results were consistent with those of Wanberg et al., (2000) who found that extraversion and conscientiousness are associated with higher levels of networking intensity.

Research Model and Hypotheses

Based on the comprehensive evaluation of the previous literatures (Amichai-Hamburger & Vinitzky, 2010; Anderson et al., 2001; Asendorpf & Wilpers, 1998; Costa & McCrae, 1995; Davis, 1985, 1989; Guadagno, et al., 2008; Keenan & Shiri, 2009; Russell et al., 1997; Wolff & Kim, 2012), related to the FFM (Costa & McCrae, 1992, 1995b) and TAM (F.D. Davis, 1989), a conceptual research model is developed. The model consists of eight different constructs, namely extraversion, openness to experience, agreeableness, conscientiousness, neuroticism, perceived ease of use, perceived usefulness, and intention to use which are basically adapted from the FFM and TAM. The proposed research model (See Figure 2) is given below.
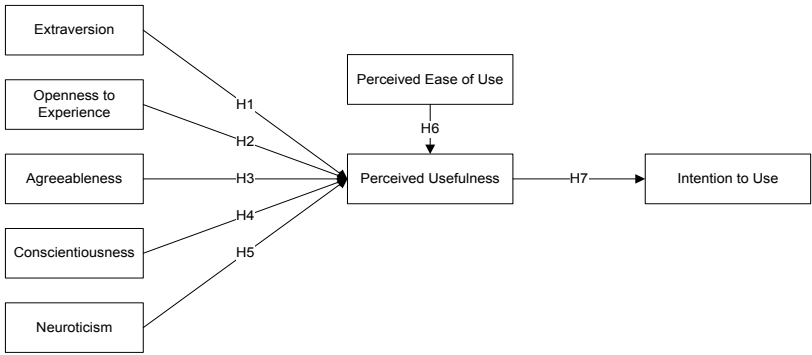
Figure 2: Proposed Research Model

Each of the eight constructs in the proposed research model and the hypotheses related to these constructs are described below.

Extraversion

Extraversion refers to the extent to which individuals are outgoing, active, sociable, assertive, expressive, flexible and peaceful (Costa & McCrae, 1995b). Extraverts are expected to meet others and more easily and engage in more social interactions. Similarly, individuals with low levels of extraversion tend to be more introverted, inhibited, shy, submissive, and inactive, reserved and prefer to spend more time alone or stay within close circles. Russell et al., (1997) and Anderson et al., (2001) found that extraverted individuals are having larger social networks and they show higher contact frequencies. Extraversion is also found (Asendorpf & Wilpers, 1998) to have positive influence on student's interaction rates and peer relationship formation. Extraversion is the least arguable dimension in the usage and adoption of social networking context and is expected to show strong effects. Since extraverted individuals are keen to develop social interaction and larger social networks, it is expected that they find SNS very useful for fulfilling their objectives. Based on the above this study tests the following hypothesis.

H1: Extraversion is positively related to perceived usefulness in a mobile social networking context.

Openness to Experience

Openness to experience are related to the Individual characteristics such as imagination, curiosity, originality and open mindedness (Wehrli, 2008). Barrick & Mount, (2001) defined openness to experience as the extent to which an individual is intellect, creative, conventional and broad minded. According to Costa & McCrae (1995), openness to experience consists of six factors which are fantasy, aesthetics, feelings, actions, ideas and values. Individuals who are strong in openness show a preference for variety, and are intellectually more curious and imaginative. McCrae, (1996) suggested that openness to experience may have the strongest influence on social and interpersonal phenomena among all five traits under comparison. Previous studies about internet technologies which examined the role of openness to experience show that users high in this trait are adopters and users of various communication tools available through this medium. The research results from both Heinström (2003) and Wyatt and Phillips (2005) shows that people high in openness undertake information from internet. Marcus et al., (2006) found that individuals high in openness to experience are likely to have a personal website. Similar results obtained from Guadagno et al., (2008), they found that people high in openness to be more likely to have a blog and communicate with others over internet. Since the individuals described as high in openness to experience are curious, willing to try new and different things (Devaraj & Easley, 2008). It is expected that those individuals who are more likely to try, to use, and to keep up with new social networking technologies (Wehrli, 2008). Based on the above literature, this study tests the following proposition.

H2: Openness to experience is positively related to perceived usefulness in a mobile social networking context.

Agreeableness

Costa and McCrae, (1992) found that agreeable individuals tend to be straightforward, compliant, altruistic, tender minded, and modest. Agreeableness refers to the extent to which an individual tend to be courteous, kind, flexible and inclined to cooperate with others. Barrick and Mount

(2001) suggested that cooperation, trustfulness, compliance, and affability define agreeableness. Devaraj et al., (2008) mentioned that agreeableness is strongly related to the beliefs in technology when that technology supports participation, cooperation, and task accomplishment. Agreeableness is the desired characteristics most individuals would consider in a communications partner. Therefore, it is expected that people high in these characteristics are more likely to engage in a conversation in any of the available medium. Based on their studies about various personalities and their influence on technology adoption, Devaraj et al., (2008) found that agreeableness is positively associated with beliefs about the perceived usefulness of technology. Based on the above literature, this study tests the following hypothesis.

H3: Agreeableness is positively associated with perceived usefulness of mobile social networking technologies.

Conscientiousness

Conscientiousness refers to "the extent to which an individual is dependable, careful, responsible, organized, and has a high will to achieve" (Wehrli, 2008). The six facets (Costa & McCrae, 1992) associated with conscientiousness are self-discipline achievement striving, deliberation, competence, and dutifulness and order. Costa and McCrae (1992) suggested that individuals scoring high in conscientiousness can be described as motivated and careful. Barrick and Mount (2001) found that conscientiousness is associated with dependability and achievement striving. Therefore, conscientiousness is expected have a positive influence on performance in the workplace and educational performance in the context of education and learning. Asendorpf and Wilpers (1998) found that conscientiousness students have frequent contact with family members. Previous literature, (Butt & Phillips, 2008; Landers & Lounsbury, 2006) shows that conscientiousness is negatively related to time spent on internet as well as other forms of computer mediated communication. Further, Butt and Phillips (2008) identified a nagative relationship between conscientiousness and the number of text messages one sends over mobile phone.

Wehrli (2008) found that conscientiousness individuals avoid from high investments in SNS profiles as they focus to their main objective and try to avoid any sources of possible distraction. Based on the above literature, this study propose the following hypothesis to test.

H4: Conscientiousness is negatively associated with perceived usefulness of mobile social networking technologies.

Neuroticism

Neuroticism refers to the emotional stability of an individual. Emotional stability is defined by (Barrick & Mount, 2001) as "the lack of anxiety, hostility, depression and personal insecurity". Costa and Mc-Crae, (1995) mentioned that individuals who score high on neuroticism are more likely to experience feelings such as anxiety, anger and depression (Chen, 2011). The six facets of this personality trait as identified by Costa and McCrae, (1992) are anxiety, self-consciousness, vulnerability, anger, depression, and impulsiveness. TRA (Fishbein & Ajzen, 1975) consider neuroticism as one of the personality behavior that affect beliefs about a particular behavior.

While considering the technology adoption among neurotic personalities, previous literature (Devaraj & Easley, 2008) suggested that neurotic individuals are expected to view technological advancements as threatening and stressful for their daily routine. In addition, Devaraj et al., (2008) found that neuroticism is negatively associated with beliefs about the perceived usefulness of a technology. Based on the above, this study proposes the following hypothesis to test.

H5: Neuroticism is negatively associated with perceived usefulness of mobile social networking technologies.

Perceived Ease of Use (PEOU)

Davis (1989) defined PEOU of an IS as the "the degree to which a person believes that using a particular system would be free of effort". Ease of use refers to the freedom from the difficulty or greater effort of using a system. It is assumed that if an application is perceived to be eas-

ier to use than another, then it is more likely to be accepted by its users. The related literature of the field (Agarwal & Prasad, 1999; Davis, 1985, 1989; Gefen et al., 2003; Pavlou, 2003; Perez et al.,2004; Pikkarainen et al., 2004; Venkatesh & Davis, 2000; Wang et al., 2003) provide adequate evidences for the significant positive influence of PEOU on usage intention either directly or indirectly through its effect on PU.

SNS and applications are designed more user friendly and easy to learn and use. Hence, based on the above literature, following hypothesis is proposed to test in this study.

H6: Perceived ease of use will have a positive influence on the perceived usefulness in the context of mobile social networking technologies.

Perceived Usefulness (PU)

PU is defined as the "degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989). The term 'usefulness of a system' refers to the capability of the system for being used advantageously. Davis (1989) suggested that an IS high in perceived usefulness in turn, is one for which a user believes in the existence of a positive use-performance relationship. Extensive researches (Agarwal & Prasad, 1999; Davis, 1985, 1989; Gefen et al., 2003; Pavlou, 2003; Perez et al.,2004; Pikkarainen et al., 2004; Venkatesh & Davis, 2000; Wang et al., 2003) over the past few decades provide evidence of the significant effect of perceived usefulness on usage intention. Huge popularity and usage behavior of SNS establishes the PU of those technologies among its users. Based on the above, the following hypothesis is tested in this research.

H7: Perceived usefulness will have a positive effect on the intention to use mobile social networking technologies.

Intention to Use

The concept of intention to use or behavioral intention was firstly introduced by Fishbein and Ajzen (1975) in their profound work which

contributed the TRA. Later, Davis (1989) adapted the concepts of TRA to propose the TAM in order to study the acceptance of IS among organizations. Both TRA and TAM aimed to measure intention to use as the predictive of actual usage behavior. Due to the difficulties in measuring the actual usage behavior, this study considers users' intention to use MSN as a predictive measure of actual system usage.

Research Methodology

The study employed survey methods to carry out the data collection and measurement process. Traditional paper based questionnaires as well as online questionnaires were used to collect the data from the social networking users in Thailand. The online questionnaire was created using Google form and the link was published in Facebook. This saved the time of data collection incredibly. Paper based self-administered questionnaires were distributed among the students, staff, and lecturers of a leading business management University in Bangkok, where the researchers are working.

Sample size plays an important role in Structural Equation Modelling (Pinho & Soares, 2011), the major data analysis tool we used in this study. Our sample size is 320 respondents which matches with the minimum requirements of Structural Equation Modelling (SEM) by Kline, (2010). Considering the sample size of the previous researches in the field of Technology adoption and Social Networking Sites (Al-hawari & Mouakket, 2010; Khalifa & Shen, 2004; Pinho & Soares, 2011), who used a sample size of nearly 200 justified our decision to collect at least 300 respondents. In total 320 questionnaires were selected for data analysis after the screening and cleaning of the filled up questionnaires.

Regarding the measurement items, all the measuring instruments were taken from previously validated literatures related to personality and technology adoption researches. Measuring instruments for FFM were taken from Buchanan and Johnson (2005). The measuring instruments for PEOU, PU and intention to use were adapted from Davis (1989). All items were measured using a five- point Likert scale ranging from 1 (Strongly

Disagree) to 5 (Strongly Agree).

Data Analysis and Results

Structural Equation Modeling (SEM) has been employed to test the conceptual model in our research. In its general form SEM consists of two parts: the measurement model and the structural equation model.

Measurement Model

The overall fit of the measurement model, adequacy of the factor loadings, explained variances of the measurement model were determined by the Confirmatory Factor Analysis (CFA) using AMOS version 18. Some items were deleted based on the non-significant or poor loading estimates (below 0.5). The results of the final CFA ($\chi2/df$= 2.364; p=0.000; NFI=0.917; IFI=0.951; TLI=0.939; CFI=0.950; RMSEA=0.065) as reported in Table 1 suggest that the measurement model is a good fit to the data collected. The unstandardized regression weights are all significant by the critical ratio test (CR >1.96, p<0.05). The standardized regression weights varied from 0.726 to 0.925. These values show that 26 measurement variables are significantly represented by their respective latent constructs.

Table 1 also demonstrates the internal consistency of the constructs. The Average Variance Extracted (AVE) for each construct is more than 0.50 suggesting adequate convergence. Since reliability is also an indicator of convergent validity, Composite Reliability (CR) for every construct is calculated (Refer Table 1). The Construct Reliability for all constructs is higher than 0.80 suggest higher reliability and convergent validity for the measures.

Table 1: Internal Consistency and Convergent validity
of the construct measures

Variables	Indicators	Factor Loading	Composite Reliability	AVE
Extraversion	ext1	0.73***	0.9	0.61
	ext2	0.85***		
	ext3	0.76***		
	ext4	0.77***		
	ext5	0.79***		
Neuroticism	neur7	0.89***	0.9	0.75
	neur8	0.89***		
	neur11	0.83***		
Conscientiousness	cons13	0.88***	0.86	0.67
	cons14	0.78***		
	cons15	0.80***		
	cons18	0.82***		
Agreeableness	agree20	0.91***	0.95	0.84
	agree21	0.95***		
	agree22	0.90***		
Openness	open25	0.89***	0.93	0.79
	open26	0.90***		
	open27	0.87***		
Perceived Usefulness	usefulness45	0.76***	0.86	0.64
	usefulness46	0.81***		
	usefulness47	0.83***		
Perceived ease of use	easeofuse48	0.76***	0.9	0.69
	easeofuse49	0.84***		
	easeofuse50	0.90***		
Intention to use	intention51	0.90***	0.9	0.83
	intention52	0.93***		

Reliability analysis (Refer Table 2) of the multi-item scales resulted favorable results. The Cronbach's Alpha values were calculated for each construct. Alpha values were ranging from 0.837 to 0.940 indicate that high overall internal consistency among the items under each of the construct.

Table 2: Reliability Analysis results

Constructs	Cronbach's alpha
Extraversion	0.885
Neuroticism	0.899
Conscientiousness	0.902
Agreeableness	0.94
Openness	0.916
Perceived Usefulness	0.837
Perceived ease of use	0.871
Intention to use	0.909

Evidence for the Discriminant validity of the measures was identified by comparing the AVE for each construct with the shared variance between pairs of constructs. After comparing the AVE for any two constructs with the square of the correlation estimate between those constructs, it is found that variance extracted is always greater than the squared correlation estimate thus suggesting adequate discriminant validity. Overall the measurement model exhibited sufficient reliability, convergent validity and discriminant validity.

Structural Equation Model

Further analysis utilized the structural equation modeling (SEM) techniques via AMOS 18 program. Once the fit of the measurement model has been confirmed, the fit of the structural path were evaluated. The SEM

helped to identify the efficacy of the model and test the proposed hypotheses. Results exhibited good fit ($\chi2/df$ =2.485, p=0.000; RMSEA =0.068; NFI=0.913;RFI=0.90; IFI=0.95, TLI=0.934; CFI=0.945) of the structural model. Overall the structural equation parameter estimates provide empirical support for the entire seven hypotheses proposed. Results of the hypotheses tested are given as Table 3.

Table 3: Structural Model results

Hypo-thesis	Path	Standardized Path Coefficient	P level	Hypothesis supported?
H1	Extraversion ----------> Perceived Usefulness	0.227	0.000	Yes
H2	Openness---------> Perceived Usefulness	0.102	0.029	Yes
H3	Agreeableness-------> Perceived Usefulness	0.157	0.000	Yes
H4	Conscientiousness-----> Perceived Usefulness	-0.162	0.000	Yes
H5	Neuroticism---------> Perceived Usefulness	-0.245	0.000	Yes
H6	Perceived Ease of Use--> Perceived Usefulness	0.256	0.000	Yes
H7	Perceived Usefulness---> Intention to Use	0.774	0.000	Yes

Discussion and Conclusion

The main objective of this study is to identify the personality traits of Social Networking Sites (SNS) users especially those who are accessing SNS through their mobile devices. The study used Five Factor Model (FFM) to measure the personality traits of the users and found that extraversion and agreeableness are positively and significantly associated with the perceived usefulness of the technology. Also results reveal that personality traits such as neuroticism and conscientiousness are negatively

associated with perceived usefulness of the technology. Openness to experience is found to have a moderate positive relationship with perceived usefulness.

These results are partly supporting the previous literature in this regard. Russel et al. (1997) and Anderson et al. (2001) suggested that extraverted individuals have been found to have larger friend networks and they show higher contact frequencies. Moreover, extraverted individuals are expected to approach others more easily and engage in more social activities. Hence, the results from the study are hardly surprising.

Though McCrae (1996) suggested that openness to experience may have strongest influence on social and interpersonal activities, this study found a moderate positive relationship between openness to experience and PU of social networking technologies. Openness to experience refers to the individual's imagination, curiosity, and open mindedness. In the context of social networking sites, openness to experience may exert a positive influence only in the initial stage of their interaction with SNS.

This study found a significant positive relationship between agreeableness and PU of Social networking technologies. The results are consistent with many previous studies. McCarty and Green (2005) found that agreeableness is highly correlated with personal network structure. Jensen-Campell et al. (2002) suggested that agreeableness is associated with fostering peer acceptance and friendship among middle and junior high school students. Since the data is collected from a leading business school in Thailand, we can conclude that individuals with high level of agreeableness are more likely to participate in SNS.

This study found retardant effects from conscientiousness. We expect that highly conscientious individuals neglect participation on SNS since it may distract their everyday life. Conscientiousness individuals are more careful, responsible, organized, and would be willing to achieve their objectives. They might consider the engagements in SNS as a distraction and they may stick to their main objectives.

Very similar to conscientiousness, this study found negative relationship between neuroticism and PU of social networking technologies.

In fact neuroticism is found to have to the strongest relationship between perceived usefulness of the social networking technologies. Results show that highly neurotic individuals are less likely to engage in social networking behaviors. Previous studies on neuroticism suggest that people with high scores on neuroticism are not attracted to others and are fearful of rejection. This retardant effect of neuroticism is proved in prior literatures (Wanberg et al. 2000; Klein et al. 2004).

The implications of these results for practitioners are important. Due to the popularity of the SNS, most of the businesses are actively engaging in popular SNS to get the customer's attention. The practical implication of this study is to identify the different segments of SNS users. Having knowledge about the personality traits of the SNS users will help the marketers to design their advertisement and other communication tools more effectively. For the academic world, this study contributes by providing an empirically validated literature specifying the relationship between personality traits and technology adoption behavior.

The main limitation of this study is its sample size. Since the findings of this paper depend on the perception of only 320 respondents in a leading business school in Thailand, the results of the study should be interpreted and accepted with attention.

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