

The Effect of Personality Traits on User Continuance Usage Intention of e-Filing System

T. Santhanamery and T. Ramayah

Abstract—Personality has been found to be related to broad spectrum of human activities and behavior. However, the effect of personality traits on technology adoption has not been widely researched. Eventually, as the usage of internet has shown a tremendous increase world-wide, it is reasonable to investigate its usage in terms of personality perspectives. Since the level of internet usage is voluntary rather than mandated, so it is more likely to reflect personal motives, needs, values, preferences and other personality attributes. Moreover, previous researcher had predicted that there is a possibility that future technology adoption decision will be more concern on human nature compared to usefulness factors. As such this paper proposed to investigate the effect of personality traits in encouraging the continued use of the e-filing system in Malaysia.

Index Terms—Personality, technology adoption, continuance usage intention, e-filing system.

I. INTRODUCTION

The term e-government or electronic government refers to the use of information technology by government agencies, such as web-based Networks, the Internet, and mobile computing, that have the ability to transform relations with citizens, businesses, and other arms of government [1]. A useful indicator to determine the status of e-government in developing countries is by comparing its e-government readiness index with the other countries [2]. Malaysia's ranking for e-government development index has improved from the ranking of 43 (2005) to 34 (2008) to 32 (2010) [3]. In South East Asia Category, Malaysia's ranking has also improved from 3rd ranking (2005) to 2nd ranking in 2008 and 2010 but with an improved index [3]. In terms of e-Participation Index, there has been a tremendous improvement for Malaysia where its ranking improved from the placing of 41 (2008) to 12 (2010) [3]. In reality, all these rankings actually show the initiatives and technology developments made by Malaysian Government in making sure that the e-government services reach the citizens. These initiatives truly resemble the "supply side" of the e-government development delivery [4]. What about the "demand side"? To what extent the citizens are going to use or continually use these particular services? remains as an important question to be answered because countries can be high in e-government rankings which focus more on technology developments but a system is still considered a

failed system if the intended recipients do not use or continually use them [4]. Thus the underlying problem now is not the problem of design but utilization. The key to successful e-government depends very much on the utilization of the implemented systems [5].

Recent studies have found linkages between technology adoption and personal characteristics [6]-[9] indicating that personal characteristics do have an effect on technology adoption. Differences investigated in these studies were based on personal innovativeness, absorptive capacity, culture, personal awareness, and personal internet experience. Nevertheless, one factor that has not been widely investigated in technology adoption particularly in e-government context is personality of the users.

Personality has been found to be related to broad spectrum of human activities and behavior including romantic relationship [10], psychopathic [11], job performance [12], career success [13], job satisfaction [14], sex differences [15]. Furthermore, a number of recent studies also had suggested that personality is an important behavior in online environment [16] and [17]. Thus, it is necessary and timely to investigate the effect of personality on continuance usage intention in the context of e-government services.

One of the puzzling phenomena with regard to internet usage is the difference between internet users and e-services users. According to [18], there has been tremendous growth of internet users worldwide. In the context of Malaysia, internet users increase to 64.6% of the total population of 26.1 million. Indeed, Malaysia is ranked as one of the top ten countries in Asian region with the highest number of internet users. According to survey done by [19] in 2009 reveals that the main purpose of internet usage in Malaysia is for getting information (76.9%) followed by communication by text (74.8%), leisure (50.1%), social networking (46.8%), educational activities (46%), financial activities (27.2%), government services (19.6%), maintain homepage (7%) and others (7.6%). This shows that users have actually become more like consumers in making decisions on their preferences to use, not to use or continually use a particular system [16]. While the difference has been empirically observed but it is still unclear the factor that contribute to this difference. Thus, this paper will explore the effect of personality traits on the continuance usage intention. The proposed research model will be tested on the tax payers and their continuance usage intention of e-filing system to file their tax online in Malaysia.

II. E-FILING IN MALAYSIA

The submission via e-filing has shown a tremendous

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increase since its launching in 2006 particularly for individual taxpayers. The number of submission grew from 186,271 (2006) to 873,095 (2007) [20] to 1,171,105 (2008) to 1,466,507 (2009) [21]. This shows that 30% of the total registered individual taxpayers (4,785,452) have filed their income taxes via e-filing in 2009 [21]. Eventually, with the increasing number of taxpayers adopting e-filing system, a substantial amount of cost savings have been achieved. Up to 31st May 2009, a total cost of RM9, 162,845.64 have been saved. The number has gradually increased since its introduction in 2006 (RM1, 302,590.40), 2007 (RM4, 876,564.64) and 2008 (RM8, 187,144.96). Such trends underlines the importance, relevance and timeliness of studying IS continuance as a topic of government interest.

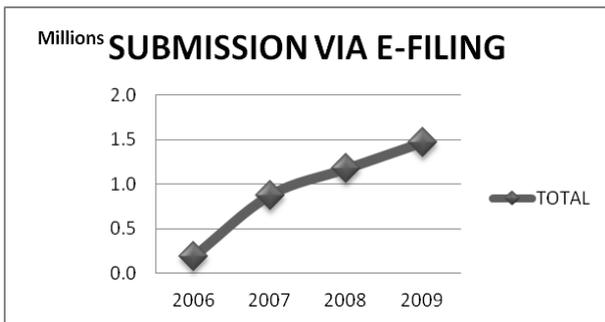


Fig. 1. Theoretical Background

Based on the evaluation of the theoretical finding from previous literatures concerning the personality variable and as well as the recommendation by previous researchers, the research model as illustrated in Fig. 2 were constructed to explore the relationships expected in this study. Basically, the theoretical framework proposed that personality will directly affects perceived usefulness towards e-filing continuance usage intention. Personality factor has been explored widely in different fields earlier; however it is getting its popularity among technology adoption researches recently. Researchers on personality traits [16], [17], [22] have reported that personality variable has a high impact on technology adoption. The major area of this study is the continuance usage intention, whereby customers' repurchasing or loyalty is critical to the success and profitability of online stores [23]. Significantly while there has been encouraging interest shown in determining continuance usage intention, however, very little effort is undertaken in determining the effect of personality on the continuance usage intentions particularly in e-government perspectives. Therefore, this study intends to fill the aforementioned gap.

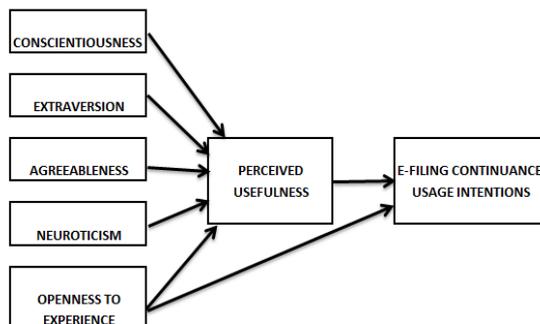


Fig. 2. The Proposed Research Model

III. DESCRIPTION AND DEFINITION OF THE PROPOSED VARIABLES IN THE MODEL

A. Continuance Usage Intention

Continuance usage intention is defined as ones intention to continue using or long term usage intention of a technology [24]. Research on IS continuance have been explored both at the organizational and individual level of analysis [25], for example [26] found that in order for an organizational innovation to be successful the organizational member must accept and utilize it. The individual level of analysis, which is also the focus of the present study, assumes that IS continuance behavior is the continued usage of IS by adopters, which is follows an initial acceptance decision [27]. In line with this, the research on e-government is taking a new phase with researches focusing more to evaluate the continued usage intention by the citizens rather than the initial intention. However, unlike initial acceptance decision, IS continuance depends on various factors that affect the individuals' decision to continually using a particular system [28]. Since the internet usage is voluntary, there is a strong possibility that the usage is reflected by the personality attributes [29].

B. Perceived Usefulness

Perceived usefulness was defined "as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context [30]. Perceived usefulness has been subjected to widespread study by previous researchers [31, 32, 33, 34, and 35]. It was found that perceived usefulness was correlated with all technology usage. Researches by [16, 36, 37, 38, and 39] establish that perceived usefulness has a significant positive influence on continuance usage intention of a technology. However, contradict to the other studies, [40] found no strong impact between perceived usefulness and continuance intention while [41] finds that there exist no relationship between perceived usefulness and continuance usage intention.

C. Personality

Research on personality has received great attention among scholars in different fields particularly of human activities and behavior. Personality is defined as an individual's disposition or tendencies that lead to certain attitudinal and behavioral patterns across situations [42]. Personality reflects the exceptional features of human being, the characteristics that defined the essence and it is reflected in all the thoughts and actions [17].

Several researches have begun the investigation on the affect of personality traits on technology adoption such as [17], [43]-[45]. However there is limited study on the effect of personality towards continuance usage intention. Therefore this study will attempt to identify the effect of personality traits (openness, conscientiousness, extraversion, neuroticism and agreeableness) on the perceived usefulness and confirmation towards the continuance usage intention of e-filing system.

Conscientiousness individuals are organized, reliable, hardworking, self-discipline, punctual, neat, ambitious and persevering type personality [46]. They are intrinsically

motivated to achieve, perform at a higher level and take action to improve their job performance [17]. Thus, they will accept a particular technology only after a careful assessment of its opportunity for further achievement [17]. As such, they will be more readily perceived the e-filing system as useful.

Extraversion individuals are sociable, talkative, person-oriented, optimism, fun-loving and affectionate [46]. Rogers (1983) (cited in [17]) that gaining social status is the most motivation for individuals to accept and adopt an innovation. As such, they will have a more readily perceive the usefulness of the e-filing system.

Neuroticism individuals are worrying, nervous, emotional, insecure, inadequate and paranoid [46]. Ajzen and Fishbein's (1980) TRA identified neuroticism as one of the personality variables affecting beliefs about behavior (as cited in [17]). These individuals view technology advances as threatening and stressful and usually have negative thought about a technology [17] which could affect their thought about the perceived usefulness of a technology [16].

Agreeableness individuals are soft-hearted, good natured, trusting, helpful, forgiving and straight forward [46]. Agreeable personalities are more likely to accommodate and cooperative when considering a new technology and focus on the positive and cooperative dimensions of the technology [17]. Since e-filing system is a new technology used to file the tax online, thus it should be affected by this agreeable personality who may accept the system as useful.

Openness individuals are curious, broad interests, creative, original, imaginative and untraditional [46]. They are also defined as the individuals who like to explore unfamiliar or new things [46] and value changes [42]. Thus, it is possible that individuals who scores high on openness may be willing to learn new technologies and be less worried about the new technology [47] such as e-filing system. Due to their personality, they can easily perceive the system as useful and ever willing to continue using the new technology

Considering all these factors, we propose the following hypotheses:

- 1) Conscientiousness will be positively associated with the perceived usefulness of the e-filing system continuance usage intention
- 2) Extraversion will be positively associated with the perceived usefulness of the e-filing system continuance usage intention
- 3) Neuroticism will be negatively associated with the perceived usefulness of the e-filing system continuance usage intention
- 4) Agreeableness will be positively associated with the perceived usefulness of the e-filing system continuance usage intention
- 5) Openness to experience will be positively associated with the perceived usefulness of the e-filing system continuance usage intention
- 6) Openness to experience will have a direct impact towards the e-filing system continuance usage intention

IV. RESEARCH METHODOLOGY

To test these proposals, a set of self-administered

questionnaires survey will be used upon those taxpayers in the northern region of Malaysia consist of Penang, Kedah and Perak. The unit of analysis chosen for this study is the individual salaried taxpayers who have used the e-filing system to file their tax online at least once. The reason individual salaried taxpayers are chosen is due to the fact that they are the pioneering group who used the e-filing system and the largest group of taxpayers in Malaysia. Data will be analyzed using the Partial Least Squared Method (PLS).

V. CONCLUSION

Many of the existing studies on individual adoption of information technology (IT) have focused on investigating the intention to use or to adopt an IT, while less attention is paid to the post adoption environment where individuals decides whether to continue or discontinue using an IT [48]. It is observed that in most cases after "initial usage" of e-government services many users revert to traditional ways for acquiring information and services, therefore engaging and retaining citizens for "continued usage" are a challenge faced by most government agencies providing online public services [49].

Practically, this study will highlight the various personality traits and the influence of this personality on satisfaction and attitude. By understanding the personality perspectives of citizens it will assist government leaders in the implementation or designing any other e-government projects in future whereby personality traits should be carefully considered and explored in relation to belief, attitude and experience. Indeed, [50] had predicted that there is a possibility that future technology adoption decision will be more concern on human nature compared to usefulness factors.

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