

## **PARTICIPATION IN TAX E-FILING: CREATING OWNERSHIP SENSE OR REDUCE INDISTINCTNESS IN SYSTEM'S DESIGN?**

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### **Abstract**

The form of tax e-filing technology introduced in Malaysia particularly on corporate taxation is not fully utilized, despite huge amount of budget allocated for this matter. The resistance among tax preparers in Malaysia indirectly had raised questions of (i) what are the determinants toward behavioral acceptance in tax e-filing in Malaysia; and (2) how the factors identified are related to tax e-filing acceptability. Thus, an extension of the Unified Theory of Acceptance and Use of Technology (UTAUT) is tested and applied in the relationship that possibly influences the behavioral intention and moderated by user participation. Even though this unified model is accepted and integrated in many studies of various fields, their results revealed some inconsistencies when applied in different areas or situations. In other words, there is no universal UTAUT that can explain all situations of acceptance. As such, the present research is attempting to discover enrichment to the model of acceptability. In addition, this research tries to propose and validate a model that examines the role of user in application developments as introduced in Technology Acceptance Model 3 (TAM3). Hence, the integration of UTAUT and TAM3 is expected to give a new outlook to the existing model. It is expected to reveal the non-compliance behavior towards corporate tax e-filing acceptability among tax agents/preparers in Malaysia.

**Keywords:** User participation, E-filing, Partial Least Square

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### **Introduction**

Consistently, users participate in system development as in this research, in tax e-filing system development stage when there is action of taking part. The participation is accessed via specific assignments, activities and behaviors which are performed during the system development process. Indeed, user participation is one of the best mechanisms for managing user perceptions on the importance of a new system prior to its introduction. In fact, in tax e-filing, involving users in the phase of software development is frequently listed as a critical successful factor and also supported in this research. Perhaps tax agents/preparers believe that via participation users could influence the performance as well as design of a new system and satisfying the needs as well as requirement. This includes approved requirement; reviewed system analyst work; change in system agreement; responsible in software selection; as well as help in formatting and creating manual of tax e-filing system. Undeniably, the feeling of ownership is developed, and a better understanding of the new system is achieved and helps in job performance. In one way, the contribution from users is creating a new need to understand and care processes that are required to make the new system effective once implemented. Indirectly, it could reduce the resistance towards accepting the tax e-filing among tax agents/preparers in Malaysia.

Principally, there are multiple benefits associated with participation in design stage including an increase in user accountability, which results in higher commitment in work task, reduced resistance to change as well as increase in job satisfaction (Subramanyam, Weisstein, & Krishnan,

2010; Wagner & Piccoli, 2007). Certainly, the participation and knowledge transfer during the research and development stages, independently and objectively could generate a new system with a commercial value. It is grounded in the ultimate users' needs, which is validated technically and cost-effectively. However, an excessive participation of tasks, is somehow creating conflicts with the management that is possibly could be avoided. Obviously, users will participate more if the new system is believed to be good, important or personally relevant. Thus, any form of pressure or opinion from the social element is not affected by the intention to accept or refuse the technology introduced. User participation is essential in any stage of software or system development as this group of users definitely have clearer expectations from the end-product. Undeniably, those users have comparative knowledgeable about desirable functionality. Thus, software designers and initiators are greatly benefitting from seeking these inputs and minimizing the indistinctness in design requirement and choices. Objectively, this research is designed to (i) identify the determinants of tax e-filing acceptability; and (2) examine how the factors identified are related to tax e-filing acceptability.

### Previous Study

User participation or involvement is defined as behavioral, which is distinct from other subjective psychological status, *i.e.* user attitude that is defined as affective or evaluative judgment. This is referring to the assignments, activities and behaviors that users or their representatives perform during the systems' implementation process (Barki & Hartwick, 1994). There are four (4) dimensions in user participation which are users' hands-on performance of activities; responsibilities; relations with information system; and communication with information system staff and senior management (Barki & Hartwick, 1994; Subramanyam et al., 2010). This element is more important in a complex technology system as the presence of this group could form judgments about job relevance, output quality and result demonstrability. Indirectly, the participation could enhance the performance of the system to be suited with task requirement. Participation and involvement of users in system development also form opinions regarding the social pressure that could influence others to accept or refuse the technology introduced (Mathieson, 1991). This is an important element as the system and content are differently viewed by different individuals. Furthermore, physical participation on system designing help to reduce anxiety related to the system that potentially enhance favorable perceptions of external control, perceived enjoyment and objective usability (Venkatesh & Bala, 2008). This is due to users having a better understanding on the system features, organizational resources and support pertinent to the system.

The importance of user participation in development or improvement in any systems, policies or decisions are recognized in several areas of concern such as mental health (Elstad & Eide, 2008; Ram, Grocott, & Weir, 2007; Simons et al., 2006; Svensson & Hansson, 2006; Tee et al., 2007), public services (housing and community care) (Simmons & Birchall, 2005), information technology system (Spears & Barki, 2010; Subramanyam et al., 2010; Wagner & Piccoli, 2007) and many others (Healy & Darlington, 2009; Wilson, 2010). Unlike software or information system development, mental health service, public services, child protection service as well as health-care service are concerned on the development of policies, devices or modules that is useful for future reference. In creating those materials, user participation is crucial especially from those who experience the problems of mental health, child abuse, consumers and patients. Participating for these victims of trauma sometimes faces some challenges and difficulties in terms of participation and sharing information (Elstad & Eide, 2008; Healy & Darlington, 2009) and could possibly end up with negative feedback. The same response also is received from the consumers or patients who satisfied with the services received (Simmons & Birchall, 2005). Hence, user participation is increased and informative if the services provided were not satisfied,

less alternative as well as not as expected by the users. However, undeniable the information shared from these groups are important in identify strategies for supporting learning in practice (Tee et al., 2007); producing devices that are safe, usable, clinically effective and appropriate (Ram et al., 2007); developing child protection practice (Healy & Darlington, 2009); and emerge a best practice in health-care procedures (Wilson, 2010).

In terms of business or software development, involving users to participate in project software development in particular is considered a critical factor in ensuring the successfulness of the implementation of the software (Subramanyam et al., 2010; Wagner & Piccoli, 2007). This is due to multiple benefits incorporated with participation being benefited by the software developers and among others could increase user accountability on system's design (Wagner & Piccoli, 2007); improving software quality (Spears & Barki, 2010; Subramanyam et al., 2010); and also increasing user satisfaction and acceptance (Subramanyam et al., 2010). Thus, could improve workforce commitment, reduce employees resistance to change and increase job satisfaction (Wagner & Piccoli, 2007). Indirectly, enhance the performance of the employees in completing the tasks assigned. As a matter of fact, user involvement in security risk management has raised organizational awareness of security risks and controls (Spears & Barki, 2010). Hence, business users could add value to the security risk management development and be able to contribute to more effective security control development and performance. On the other hand, user participation could be negatively influence development or maintenance of project performance (Subramanyam et al., 2010). The participation from users could make the process more difficult, lengthy and less effective due to their high or unattainable expectations.

Although there has been a lot of academic research on user engagement or participation, there is lack of commensurate work on the practicalities of such engagement. By conducting this study, many of the theoretical concepts of user engagement are explored and the practical issues as well as challenges that are raised where users undertake engagement in tax e-filing. The effect of user participation in e-filing system development would remain unclear if study on this aspect is not conducted. The participation could possibly be positive or negative result as the influence of user participation in other areas gives a mix results and effect on development performance.

## Methodology

Users participation is significantly influenced the intention to accept or adopt the system or services initiated and implemented. Even though the feedback is in a positive or negative view, but in a way could provide a useful and informative basis in performance of system development. The user participation is highly important in a complex technology system as the presence of this group enable to form judgments about job relevance, output quality and result demonstrability that is suited with task requirements. Participation and involvement of users in system development is also formed opinions regarding the social pressure which could influence others to accept or refuse the technology introduce (Mathieson, 1991). This is important element as the system and content could be differently viewed by different individuals. Likewise, physical participation on system designing is reduced anxiety related to the system which potentially enhance favorable perceptions of external control, perceived enjoyment and objective usability (Venkatesh & Bala, 2008). This is due to users having a better understanding of the system features, organizational resources and support pertinent to the system. Hence, user participation in this study referring to tax agents/preparers could improve the relationship of performance expectancy and social influence towards the behavioral intention to use tax e-filing in Malaysia.

*H<sub>1c</sub>: The influence of performance expectancy on behavioral intention toward tax e-filing among tax agents/preparers will be moderated by user participation.*

*H<sub>2c</sub>: The influence of social influence on behavioral intention toward tax e-filing among tax agents/preparers will be moderated by user participation.*

Tax agents/preparers are considered the sample instead of the corporate taxpayers/clients. This is because freedom in choosing the medium of transaction on tax filed to Inland Revenue Board of Malaysia (IRBM) is fully given by the corporate taxpayers/clients to the tax agents/preparers. Indeed, the influence or factors from point of view corporate taxpayers/clients are not considered. The questionnaire that is designed using 7-point Likert scale is sent via mail to respondents who are selected using simple random sampling technique throughout Malaysia. The selection is made based on the list developed using SPSS software, which excluded the tax agents/preparers who have been participated during the Delphi and pilot test. All instruments are adapted from the literatures and modified to suit with the tax e-filing behavioral intention in Malaysia. The questions are designed to cover the constructs that would determine the behavioral intention of tax agents/preparers to accept tax e-filing. All constructs are analyzed via the measured items using 7-point Likert type scale anchor by “strongly disagree” (1) to “strongly agree” (7). As for this research, the UTAUT model is modified and changed in order to represent the situation of tax e-filing in Malaysia. Most of the original determinants are tested with an additional factor is considered, *i.e.* perceived value. In addition, a new moderator as suggested in TAM3 is introduced, *i.e.* user participation. It is considered an important pushing factor in choosing technology instead of manual system and yet to be empirically approved.

### **Result Analysis**

In total, there are 1,871 tax agents/preparers officially register with IRBM scattered in the 15 different states in Malaysia. However, the sample size are limited to 714 which taken into consideration of an additional 70 per cent from the recommended size, *i.e.* 420 tax agents/preparers as according to the table suggested by Krejcie and Morgan (1970). Hence, the qualified respondents are 231, consists of 128 male (55.4 per cent) and 103 females (44.6 per cent). The ethnicity distribution of the respondents is Chinese, 135 respondents representing 58.4 per cent, Malay representation is 36.8 per cent and the Indian and other races representation is 4.8 per cent. The average age of the respondents is 42.9 years. In terms of education level, most of the respondents hold a professional qualification, bachelor degree, master degree and diploma holders with 34.2, 44.6, 4.8 and 10.8 per cent respectively. The respondents with certificate and the least with upper secondary qualification are seven (7) and four (4) which are 3.0 and 1.7 per cent respectively. In terms of application part, majority of the respondents have three (3) years of experience with tax e-filing (25.5 per cent), 34.2 per cent of the respondents with less than three (3) years of experience and 40.3 per cent with four (4) to seven (7) years of experience in the tax e-filing. Majority of the respondents engaged with more than 100 clients per year (54.1 per cent) and 13.0 per cent with less than 20 clients.

The analysis is preceded via Partial Least Square (PLS) approach. Besides the normal testing on significance level, the model fitness is checked for its consistency of structural relationships with its theoretical expectations. The fitness is examined from the average variance explained (AVE) and composite reliability (CR) in addition to the validation of the model. The individual parameter estimate is focused in determining the statistically significant. Table 1 contains the standardized parameter estimates for all of the possible structural relationships including the non hypotheses relationships. Relatively the new paths suggested if any, give an idea on model improvement or re-specification for further research.

User participation is accepted as a moderator to the hypothesized relationship of performance expectancy and behavioral intention ( $H_{1c}$ ) at  $p < 0.000$  (refer Table 1). In fact, the pushing factor

is well explained the relationship ( $AVE > 0.5$ ) and almost 97 per cent could be relied on. However, user participation is failed to moderate the relationship of social influence on behavioral intention toward tax e-filing among tax agents/preparers ( $H_{2c}$ ). Interestingly, the interaction effect of user participation in behavioral intention is the highest among the other moderators. The power of explained improved to 55.1 per cent with the interaction effect of user participation in the relationships.

Table 1: Hypothesis testing result of user participation

Hypothesis	Relationship	Fitness		Estimate	t-value	Result
		AVE	CR			
$H_{1c}$ :	PE* Participation → BI	0.5792	0.9648	.347	3.083***	S
	EE* Participation → BI	0.2326	0.8666	.162	0.992	NS
$H_{2c}$ :	SI* Participation → BI	0.5229	0.9400	.002	0.031	NS
	FC* Participation → BI	0.5525	0.9480	.225	0.909	NS
	PV* Participation → BI	0.5553	0.9483	-.175	1.134	NS

Notes: \*\*\* $p < 0.001$ , \*\* $p < 0.05$ , \* $p < 0.1$ , BI=Behavioral Intention, PE=Performance Expectancy, EE=Effort Expectancy, SI=Social Influence, FC=Facilitating Conditions, PV=Perceived Value, S=Significance, NS=Not Significance

User participation effect on direct relationship of performance expectancy and behavioral intention is considered important element ( $\beta = 0.347$ ,  $t = 3.083$ ,  $p < 0.001$ ). This is because the interaction effect of user participation gives the highest impact on the relationship, which successfully improved the power of explanation to 55.1 per cent. Indeed, in this research it is considered significant and has contributed to the knowledge theoretically. User participation is referred to the assignments, activities and behaviors that tax agents/preparers perform during the systems' implementation process. Despite considering user participation as the new role of moderator in the UTAUT model, literature revealed that it is one (1) of the important element in any technology system judgment or decision making. User participation could help in enhancing or improving performance of the system to suit with its requirement via job relevance, output quality and result demonstrability judgments. In fact, having a specific person involved to take forward the agenda would not lead to the integration, but could allow other users to give up their responsibility for user involvement. This is perhaps due to the perception that one (1) person could marginalize another person's experiences. Therefore, user participation from various level of expertise is required to have a critical view prior any introduction of a new system. However, due to the immediate responsibilities and busy schedule of work, the attention given to analyzing and evaluating the new system could be jeopardized. This is because users tend not to fully engage in the system until it gives impact on their tasks, changes work practices and affect the users' own domain. That is why most of the new systems faced few phases of improvement even with the principle of early user participation is followed.

## Conclusion

The moderation effects could not be ignored as this construct does have a significant role in the direct relationship. In the case of user participation for instance, even though performance expectancy is the only construct that is influenced with this interaction, it appears to give the highest impact on behavioral intention. Ultimately, it means that in any system implementation, pre- and post-participation among the user is essential in ensuring the system is user-friendly as well as applicable in task performance. Indeed, clarification of the system is successfully ensured the development process and takes into consideration not only the initiators but also the users'

intentions. Thus, user participation in tax e-filing could create the ownership sense towards the system introduced. In fact, the involvement from various stage of users could be able to reduce the indistinctness in system's design. Indirectly, could produce a system which more user friendly, easy and understandable as well as attractive to the users.

## References

- [1] Barki, H., & Hartwick, J. (1994). Measuring user participation, user involvement and user attitude. *MIS Quarterly*, 18, 59-82.
- [2] Elstad, T. A., & Eide, A. H. (2008). User participation in community mental health services: Exploring the experiences of users and professionals. *Scandinavian Journal of Caring Sciences*, 23, 674-681.
- [3] Healy, K., & Darlington, Y. (2009). Service user participation in diverse child protection contexts: Principles for practice. *The Authors. Journal compilation*, 14, 420-430.
- [4] Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.
- [5] Mathieson, K. (1991). Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behaviour. *Information Systems Research*, 2(3), 173-191.
- [6] Ram, M. B., Grocott, P. R., & Weir, H. C. M. (2007). Issues and challenges of involving users in medical device development. *The Authors. Journal compilation*, 11, 63-71.
- [7] Simmons, R., & Birchall, J. (2005). A Joined-up approach to user participation in public services: Strengthening the "participation chain". *Social Policy & Administration*, 39(3), 260-283.
- [8] Simons, L., Tee, S., Lathlean, J., Burgess, A., Herbert, L., & Gibson, C. (2006). A socially inclusive approach to user participation in higher education. *The Authors. Journal compilation*, 246-255.
- [9] Spears, J. L., & Barki, H. (2010). User participation in information systems security risk management. *MIS Quarterly*, 34(3), 503-522.
- [10] Subramanyam, R., Weisstein, F. L., & Krishnan, M. S. (2010). User participation in software development projects. *Communications of the ACM*, 53(3), 137-141.
- [11] Svensson, B., & Hansson, L. (2006). Satisfaction with mental health services. A user participation approach. *Nord J Psychiatry*, 60(5), 365-371.
- [12] Tee, S., Lathlean, J., Herbert, L., Coldham, T., East, B., & Johnson, T.-J. (2007). User participation in mental health nurse decision-making: A co-operative enquiry. *Journal of Advanced Nursing*, 60(2), 135-145.
- [13] Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*, 39(2), 273-315.
- [14] Wagner, E. L., & Piccoli, G. (2007). Moving beyond user participation to achieve successful is design. *Communications of the ACM*, 50(12), 51-55.
- [15] Wilson, A. (2010). Consumer participation: Ensuring suicide prevention research counts for end users. *International Journal of Nursing Practice*, 16, 7-13.