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ABSTRACT

This paper explores how performance and effort expectations, social influences, privacy concerns, and risk affect individual intention to use tax preparation software. We contribute to the extensive technology acceptance literature in three ways. First, we examine the Unified Theory of Acceptance and Use of Technology model in the novel context of individual tax preparation software choice and confirm the theory's validity outside the "traditional" environment of business organizations. Second, we investigate whether technology acceptance is different for "experts" compared to "novices" in the complex domain of the U.S. tax law. Third, we include constructs related to privacy and risk and test this extension of the technology acceptance model. Results indicate dissimilarities between the two groups and suggest the technology acceptance model may not be equally applicable to "professionals" and "novices."

Keywords

Technology Acceptance Model, Tax Software, Privacy, Risk, Novices, Professionals, UTAUT.

INTRODUCTION

The purpose of this research is to explore technology acceptance of tax software and investigate if individual differences in domain expertise and knowledge affect the relationship(s) in technology acceptance models. We do so by applying the relatively new Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh, Morris, Davis and Davis, 2003) in the novel context of individual intention to use tax preparation software. Further, we test whether technology acceptance of tax software varies for different user groups. Specifically, we investigate how users who are experts in the complex domain of individual tax preparation view the use of tax software compared to non-expert or novice users. Lastly, we incorporate elements of privacy and risk and assess the effects of these constructs on technology acceptance. We believe that the highly complex domain of tax law provides an ideal environment to test whether professionals and novices place different emphasis on the various constructs within UTAUT.

One aim of academic research is to develop and assess new theories and models (Creswell, 2003; Wacker, 2008). Prior studies have shown that the relatively new UTAUT model works well in organizational settings. However, in order to advance UTAUT it must be applied and tested in various contexts. Individual tax preparation is very different from the common application of the UTAUT model for several reasons. In earlier technology acceptance studies, the individual decision to accept or not accept a certain technology relates to job performance. Tax preparation software use is different because it is an individual private matter not directly related to business performance. Thus, individual perception of privacy and risk may be important determinants of acceptance whereas social influence from superiors or peers may be less important. While some research has looked at technology acceptance and e-filing (Wang, 2003; Chang, Li, Hung and Hwang, 2005; Fu, Farn and Chao, 2006) none of these studies employed the UTAUT model.

Studying the difference between expert and non-expert users is interesting and relevant for several reasons. The UTAUT model measures the correlation of different constructs to individual acceptance of technology. However, the importance of these constructs is likely to vary across different user groups (Devolder, Pynoo, Duyck and Sijnave, 2008). A significant

difference has implications for academic researchers as well as practitioners. Academic researchers using technology acceptance models, such the UTAUT model, need to consider the possibility that the relationships between constructs may depend on the user characteristics. Similarly, practitioners wanting to improve technology acceptance across various user groups must understand which factors influence technology acceptance most. For example, the Internal Revenue Service (IRS) promotes electronic filing by emphasizing certain benefits such as speed of receiving a refund, speed of filling out the tax forms, accuracy of the output, and ease of preparation. This indicates that the Internal Revenue Service (IRS) is under the impression that taxpayers consider these factors most important. Studies like ours can provide insight as to whether the IRS's assumption is accurate.

We investigate these questions surveying a group of professional tax preparers, mostly Certified Public Accountants, and a group of undergraduate students who served as a proxy for the novice or "general public" group. Our results indicate significant differences across the two groups which we attribute to the differences in knowledge and experience.

The remainder of the paper is structured as follows. The next section provides the theoretical background. Section three introduces the research methodology. Section four lists and discusses the results as well as the limitations of this study and section five concludes.

THEORETICAL BACKGROUND

The complex environment of individual tax preparation provides an interesting and novel research setting. System use in this context involves individual choice of software versus manual methods when completing and electronically filing (e-filing) a tax return. Note that the choice to file electronically is only available to taxpayers who elect to use tax preparation software. E-filing (and – to a lesser extent – the use of tax preparation software) has been subject to recent academic studies because it provides a rich research setting for the following reasons. Most of the households in the U.S. have to file tax returns; thus, while individuals may not be too familiar with the tax law and the country's tax policy, they are familiar with filing and paying taxes. Furthermore, the tax domain is different from other situations where individuals may choose electronic services over traditional services, such as electronic retail services or online banking because the domain (i.e., the tax law) is fairly complex and most taxpayers are not experts. In addition, e-filing introduces the issues of security and privacy protection and taxpayers' dislike and distrust of the IRS and the government in general. Last but not least, e-filing research provides an intersection of various academic disciplines, namely information systems, public finance, public administration, and accounting (taxation). Because tax laws are complex and frequently change, many individuals rely on software to complete their tax returns. Most tax software users are not tax experts and therefore lack the knowledge to verify the output of tax preparation software. In situations where users rely on software to complete difficult tasks, the information system product functions as a surrogate for an expert; in this case a tax domain expert.

Human behavior is highly variable and modeling intentions is fraught with potential for limited success. Still, many researchers have created models and representations of technology acceptance in an effort to understand the factors affecting technology use. The most recent model is based on a consolidation of technology acceptance research by Venkatesh et al. (2003) termed the Unified Theory of Acceptance and Use of Technology (UTAUT). According to this theory, perceived performance of the technology, anticipated learning curve, influence of superiors and peers, and facilitating conditions determine intention to use technology.

This paper starts with the fundamental tenant, widely cited in the literature, that technology acceptance is substantially formed by expectations of usefulness, use, (Davis, 1989) and later social influence (Venkatesh and Davis, 2000). Relevant studies include those involving the application of technology acceptance and UTAUT outside the organizational context or business environment. For example, (Chiu and Wang, 2008) and Wang use UTAUT to examine web-based learning. AbuShanab et al. (2007) looked at Internet banking adoption of individual users. Other works have addressed "non-organizational" cultural effects – such as the applicability of UTAUT in different countries (AbuShanab and Pearson, 2007; Bandyopadhyah and Fraccastoro, 2007). These studies support the three main constructs of UTAUT: performance expectancy, effort expectancy and social influence. Given this premise, UTAUT appears to be an excellent tool for evaluating individual intention to use tax preparation software and its antecedents. Aside from testing the applicability of UTAUT outside its original setting, this paper examines the question whether individual expertise and knowledge characteristics affect technology acceptance. Specifically we focus on the user differences in knowledge and expertise, which we believe will lead to very different beliefs regarding the implications of using tax software because of the highly complex domain.

One more recent aspect examined in the technology acceptance literature is the triangular relationship between risk, trust, and use intention (Chellappa and Pavlou, 2002; Chellappa and Sin, 2005; Nicolaou and McKnight, 2006). Since individual tax information is highly sensitive we believe that risk perceptions will also be relevant determinants of use. Thus, we viewed the following questions as important to our study.

1. How does technology acceptance apply outside the traditional business environment?
2. How do privacy or risk concerns affect individual intention to use tax preparation software?
3. How do the determinants of technology acceptance differ between domain experts and the general public?

RESEARCH MODEL

We employ an extension of the UTAUT model developed by Venkatesh et al. (2003). We exclude constructs related to voluntariness and facilitating conditions because these constructs are not relevant for individuals using tax preparation software. Based on cited literature and our research questions, we add additional constructs and propose additional relationships. Figure 1 provides the specific UTAUT constructs we used for our study. Thus, our model includes what the literature identifies as major determinants of use, including "performance expectancy", "effort expectancy", and "social influence" as indicators. We define our constructs as follows:

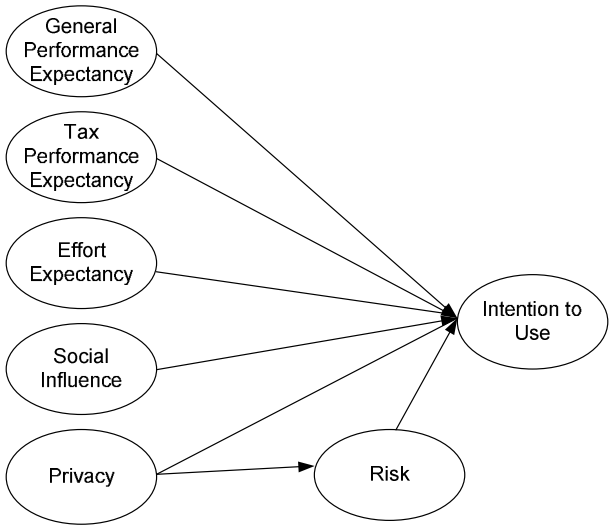

Figure 1 - Extended UTAUT Model

General Performance Expectancy (PEG) - This construct measures the degree to which the individual believes that, in general, using tax software will help to improve performance. One important distinction from other studies is that tax preparation takes place outside of the traditional organizational setting but, nonetheless, in a highly complex domain. Individuals making the choice to use tax preparation software do not focus on job performance but rather on individual personal performance. Thus, for purposes of this study, performance relates to what individuals ultimately desire in tax software.

Tax Performance Expectancy (PET) - While the general performance expectancy items have been shown to predict use, we wanted to explore how specific performance expectancy in the tax realm might be different. We included questions about specific performance desires related to the potential for an IRS audit and greater refunds. For example, if a person's priority is to receive a high refund, they will rate the software's performance based on how successful the software is in getting that refund. On the other hand, if a person wants to avoid a tax audit, they will rate software performance based on the probability of avoiding a tax audit. Because different users may employ tax software for different reasons, we believed that measuring specific and general performance expectancy will provide insight into what particular aspects of tax preparation software users consider most important.

Effort Expectancy (EE) - This construct measures how easy it is for an individual to use the technology. In this particular case, the individual will compare how much effort it takes to complete a tax return with or without tax software. Interestingly, there are two alternatives for individuals who opt not to use tax preparation software: either they can use paper & pencil or they can take their return to a professional preparer. Depending on the taxpayer's individual situation, both alternatives may require more or less effort than using tax preparation software.

Social Influence (SI) - This construct is designed to measure the extent that individuals believe "important others" think they should be using tax software. One significant difference compared to prior studies is that here, no supervisor is expecting (requiring/wishing/implying) the individual to use the software. "Important others" are spouses, partners, parents, friends, co-

workers, etc. We believe that this construct is less important in measuring technology acceptance in this setting because of the lack of an organizational context. According to prior studies employing the UTAUT model, the relationship between social influence and behavioral intention (defined below) is influenced by individual differences such as age or gender.

Intention to Use (ITU) - This construct measures individual intention to use tax software for preparing and filing a tax return. Performance expectancy, effort expectancy, and social influence affect intention to use. Behavioral intention is presumed to have a direct effect on actual usage.

Privacy (PP) - This construct is defined as the belief that personal information entered into a system will remain private. For example concerning tax preparation software, a user who trusts the system privacy expects that personal tax information will be remain confidential.

Risk (PR) - We also introduced a variable related to individual perceived risk based the studies mentioned above which finds that trusting beliefs inversely affect perceived risk which in turn is negatively correlated with individuals' intention to use new technology. While we measure individuals' general risk perception we do not measure in what regard the user considers the tax software program risky/non-risky. For example, an individual may believe it is risky because he or she does not have any means to verify its output. Alternatively, individuals could be worried about privacy protection."

Partial Least Squares Analysis (PLS)

To measure the effects of the above factors on individual intention to use, we developed and administered a survey (Appendix A) to Certified Public Accountants (CPA) in a professional organization and students at a major public university in the western United States. A total of 136 respondents completed the survey, 77 CPA professionals and 59 novices. PLS requires researchers to deal with missing data in respondent surveys. Possible treatments are (1) replace missing values with mean values, (2) replace missing values with a regressed value, or (3) eliminate the associated survey response from further consideration. We chose to remove observations with missing values. This process yielded 130 respondents, 74 professionals and 56 novices. Fifty-six respondents were male and 74 were female. The mean age of novice participants was 20.73 years with a standard deviation of 3.78 years. For professionals, the average age was 49.76 years with a standard deviation of 14.78 years. Between group t-tests indicate that the age difference between the two groups is significant. Table 1 reports the demographics of the study participants.

	Mean Age	Standard Dev	Total	Female	Male
Professionals	49.01	15.09	74	46	28
Novices	20.73	3.78	56	28	28

Table 1 - Demographics

We used SmartPLS (Ringle, Wende and Will, 2005) to model our constructs and their relationships following structural equation modeling techniques (Chin, Marcolin and Newsted, 2003; Gefen and Straub, 2005). There were several reasons for this choice. PLS makes fewer demands on the underlying data distribution and sample size, and it is also capable of analyzing both reflective and formative indicators (Chin, 1998b). Probably because of these advantages, PLS analysis is now commonly used in conducting information systems research and provides a robust way of analyzing survey data (Chin, 1998a; Gefen, Straub and Boudreau, 2000; Chin, Marcolin et al., 2003; Gefen and Straub, 2005). To analyze the psychometric properties of the measures, we calculated the Average Variance Extracted (AVE), Composite Reliability (ρ_c), Cronbach's Alpha (CA), Latent Variable Correlations and Cross Loadings.

Table 2 reports the AVE, ρ_c, and CA for the latent variables of both CPA professionals and novices. Although there is no standard method for calculating statistically acceptable composites, the generally accepted rule is for composite reliability to be greater than 0.7 (Yi and Davis, 2003). In this study, the lowest composite reliability was for Tax Performance Expectancy in the novice group at .44.[1] Most of the other construct composite reliabilities were greater than .90.The latent variable factor loadings were derived following Gefen and Straub (2005) using SmartPLS and are provided in Appendices B and C. Reliabilities of individual novice items were examined by verifying loadings greater than 0.7. Not surprisingly, two loadings, PET2 and PET4 were inadequate. For novices, 13 of 27 indicators loaded greater than 0.9, 9 indicators loaded greater than .8

[1] Because of the low Composite Reliability for novice PET, we removed the construct and re-estimated the PLS model. Exclusion of the PET construct did not change the results. We therefore we retained the construct since it was reliable for professionals.

and 2 loaded greater than 0.7. Overall, we argue that these results demonstrated good discriminant and convergent validity. For professionals, 14 of 27 indicators loaded greater than 0.9, 9 indicators loaded greater than 0.8 and 2 indicators loaded

	Professionals				Novices			
	AVE	Composite Reliability	R Square	Cronbachs Alpha	AVE	Composite Reliability	R Square	Cronbachs Alpha
EE	0.74	0.92		0.88	0.75	0.92		0.89
ITU	0.67	0.85	0.72	0.74	0.80	0.92	0.55	0.88
PEG	0.83	0.95		0.93	0.69	0.90		0.85
PET	0.60	0.85		0.76	0.41	0.44		0.36
PP	0.83	0.95		0.93	0.75	0.92		0.89
PR	0.74	0.92	0.02	0.90	0.85	0.96	0.11	0.94
SI	0.82	0.95		0.92	0.82	0.95		0.93

Table 2 – Professionals vs. Novices AVE, ρ_c, and Cronbach's Alpha

greater than 0.7. One item, ITU3 loaded low at 0.48 for professionals. ITU3 had a t value of 2.318 and loaded well for novices. We therefore chose to retain it. In order to test for between group differences for each construct, we performed T-tests on the average value per construct. The results show that the construct measures for general performance expectancy, social influence, and intention to use differ significantly across the two user groups.

SURVEY ANALYSIS AND RESULTS

We split the dataset into two groups and analyzed each set independently using the same structural model for both. In a second step, we compared the results to see what individual differences existed. We formulated our structural path model to test the UTAUT framework and applied our structural model to the CPA professional responses. Then we calculated the partial least squares path values and followed with a bootstrap re-sampling method. Five hundred samples were generated in order to determine fit. We used t-tests to calculate statistical significance for each path.

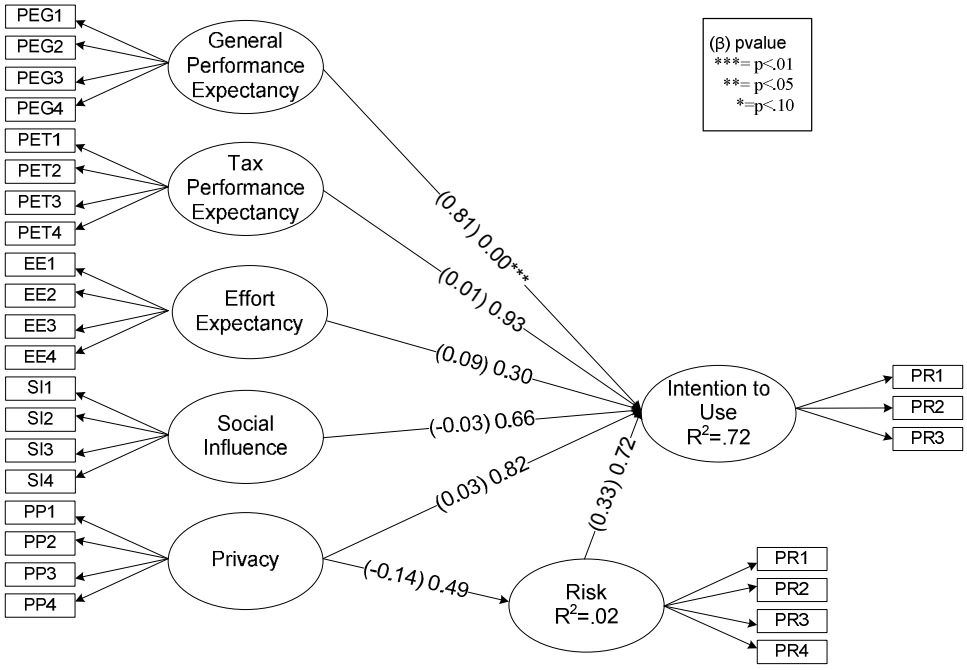

Figure 2 – Professionals - β, p val, R^2

Figures 2 shows the β coefficients and p values extracted via PLS for the professional group. The UTAUT accounted for a significant portion of variance in individual intention to use (R^2 = 0.72). The most important construct measuring general

performance expectancy while all other constructs do not significantly impact intention to use. Next, we calculated the partial least squares path values for the novice group and followed with a bootstrap re-sampling method. Again, 500 samples were generated in order to determine fit. Statistical significance was then calculated for each path using t-tests. Figure 3 shows the β coefficients and p values extracted via PLS for the novice group. In this case, the model accounted for a significant amount of variance (R^2 = 0.55). Further, the privacy construct significantly relates to the novice attitude toward risk and explains 11% of its variance.

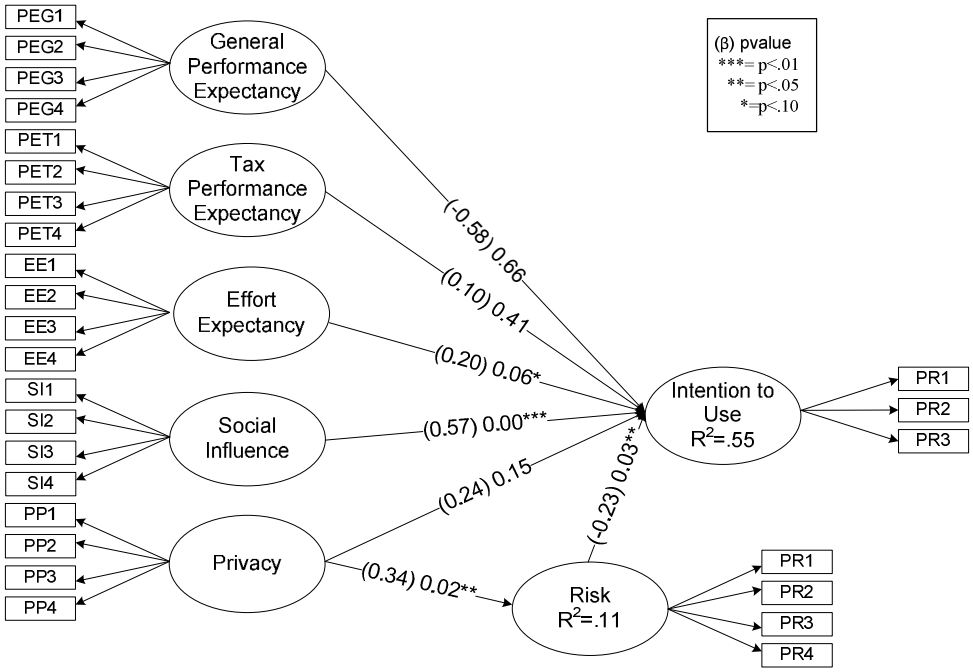

Figure 3 – Novices - β, p val, R^2

Table 3 compares the results from both use groups (Figures 2 and 3). Interestingly, the importance of the relationships within the model varies significantly between the two groups. For professionals the most (and only) significant factor is performance expectancy. In other words, users who are very familiar with the tax domain only care about how well they think the technology will function. They are not concerned about the expected effort to use the system nor are they influenced by the opinion of others. Their general expectation of how well the software will perform determines their intention to use. Novices, on the other hand, are not concerned with the (general or specific) performance of the technology. For users without any background in tax law, the most important aspect is the perceived effort it will require to use the software, what their peers believe they should do, as well as risk concerns. This indicates that individual differences in domain expertise can affect the relationship between constructs especially in the context of high complexity domains such as the U.S. tax law.

	Professionals				**Students**			
Path	**Sample Mean**	**Standard Deviation**	**T Statistics**	**P Value**	**Sample Mean**	**Standard Deviation**	**T Statistics**	**P Value**
EE -> ITU	0.09	0.08	1.04	0.30	0.19	0.10	1.92	**0.06***
PEG -> ITU	0.76	0.15	5.44	**0.00*****	-0.05	0.13	0.44	0.66
PET -> ITU	0.03	0.11	0.09	0.93	0.11	0.12	0.83	0.41
PP -> ITU	0.01	0.10	0.22	0.82	0.14	0.11	1.47	0.15
PP -> PR	-0.10	0.20	0.70	0.49	0.34	0.14	2.44	**0.02****
PR -> ITU	0.06	0.09	0.36	0.72	-0.24	0.11	2.19	**0.03****
SI -> ITU	-0.02	0.08	0.45	0.66	0.56	0.10	5.70	**0.00*****
***= p<.01 **= p<.05 *=p<.10								

Table 3 - Professionals vs. Novices - Effects

In general, a non-significant relationship offers two explanations: either there is not sufficient power to reject the null or the null hypothesis is true. We performed a power analysis for the associations where our results suggest non-significance and found high power all but two relationships (privacy – risk; and risk – intention to use), suggesting that only the risk construct may require a larger sample

Limitations

As is common with survey research this study is not devoid of limitations. Our sample size is rather small which may impact the significance of our findings. Further, the "novice" group consists of lower division accounting students. Compared to the general population students represent a very homogeneous group with a young average age and a relatively high education level. Thus, our subjects may not be representative of the general population. Further, one may argue that the strong relationship between e-filing and tax preparation may have lead to some confusion especially with regard to the privacy questions and risk questions. However, we believe that the survey questions were sufficiently clear in stating that the focus of research was tax preparation software and not electronic tax filing (see Appendix A - Survey).

CONCLUSION

In this paper, we advance the technology acceptance literature in three ways. First, we test whether the relatively new UTAUT model works outside the traditional business and organizational environment. Second, we compare individual differences in technology acceptance by examining "effort expectancy", "performance expectancy", and "social influences" of professionals versus novices. Last, we introduce privacy and risk constructs and compare results of both groups. Our results show that generally, the UTAUT model does apply in the context of individual use of tax preparation software. However, we also demonstrate that this may only be true for certain user groups. We differentiate between highly experienced users – professional tax preparers and CPAs – and the general public. Our results show that while the UTAUT model seems to be valid when applied to the general public, it works less well for professionals. This indicates that alternative technology acceptance models may need to be tested to account for expertise-related individual differences.

Our findings have academic and practice-oriented implications. Academics should realize that the importance of the relationships within technology acceptance models, such as the UTAUT model, depends on individual characteristics of users. We use an example of very strong individual differences – mostly related to experience and expertise – to illustrate that in cases when the subject matter is highly complex, these differences impact the factors affecting technology acceptance. Practitioners promoting new technology should be aware of individual differences because they may indicate that different aspects of the technology must be emphasized in order to achieve high acceptance.

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APPENDIX A - SURVEY

1. Tax preparation software lets me prepare my taxes more quickly. (PEG1)
2. My tax return will have less errors if use tax preparation software. (PEG2)
3. I find tax preparation software useful for doing my taxes. (PEG3)
4. Tax preparation software is helpful in completing my taxes. (PEG4)
5. If I use tax preparation software, I increase my chances of getting a larger refund. (PET1)
6. By using tax preparation software, I decrease my chances of being audited. (PET2)
7. Tax preparation software will make my tax return more accurate. (PET3)
8. If I use tax preparation software, my tax return is less likely to contain errors. (PET4)
9. It would be easy for me to become skillful at using tax preparation software. (EE1)
10. I would find tax preparation software easy to use. (EE2)
11. Learning to operate tax preparation software is easy for me. (EE3)
12. It would require little effort for me to use tax preparation software. (EE4)
13. People who are important to me think that I should use tax preparation software. (SI1)
14. People who influence my behavior believe I should use tax preparation software. (SI2)
15. In general, people around me have supported me using tax preparation software. (SI3)
16. Most of the people I know think I should use tax preparation software. (SI4)
17. The use of tax preparation software can be dangerous. (PR1)
18. It would be risky to use tax preparation software. (PR2)
19. I think it is unsafe to use tax preparation software. (PR3)
20. By using tax preparation software I am taking a chance. (PR4)
21. Tax preparation software will not divulge my personal information to unauthorized persons. (PP1)
22. I believe that when using tax preparation software my personal information will be held private. (PP2)
23. I do not worry about my personal information when using tax preparation software. (PP3)
24. I can rely on tax preparation software to keep my personal information private. (PP4)
25. I intend to use tax preparation software for my income tax return next year. (ITU1)
26. In choosing preparation methods for my income tax return, my first choice would be to use tax preparation software. (ITU2)
27. I would recommend tax preparation software to my relatives and friends. (ITU3)

Age _____
Gender [F/M]
Education

- Degree [some college/bachelors/graduate/other]
- Education in Acc:
    - Do you have a degree in accounting? [YES/NO]
    - How many college accounting courses have you taken?
    - How many college tax courses have you taken?
- Education in IS:
    - Do you have a degree in information systems? [YES/NO]
    - How many college information systems courses have you taken?

Experience

- Personal filing
    - Years of personally filing
    - Years of using tax preparation software
- Are you a professional tax return preparer [YES/NO]
- Are you a CPA [YES/NO]
- Computing/software use experience
    - Years of using computers
    - List the computer software programs you use regularly:
- Do you have any special recognition such as professional certifications in your field of study/work? [YES/NO/N/A]
    - If so, please list them:
- Are you currently full-time employed in the IS field: [YES/NO]
- Are you currently full-time employed in the accounting field: [YES/NO]

APPENDIX B – NOVICE CROSS LOADINGS

Novices	EE	ITU	PEG	PET	PP	PR	SI
EE1	**0.90**	0.33	0.37	0.22	0.30	-0.03	0.18
EE2	**0.86**	0.36	0.44	0.30	0.37	0.17	0.22
EE3	**0.93**	0.38	0.43	0.34	0.34	0.15	0.23
EE4	**0.75**	0.28	0.19	0.11	0.32	-0.03	0.10
ITU1	0.32	**0.88**	0.27	0.32	0.28	0.01	0.46
ITU2	0.32	**0.93**	0.35	0.39	0.28	-0.01	0.51
ITU3	0.40	**0.88**	0.58	0.47	0.57	0.15	0.69
PEG1	0.37	0.39	**0.79**	0.38	0.45	0.18	0.37
PEG2	0.34	0.34	**0.70**	0.74	0.34	0.10	0.51
PEG3	0.35	0.41	**0.91**	0.43	0.35	0.01	0.41
PEG4	0.35	0.43	**0.90**	0.54	0.34	0.18	0.54
PET1	0.31	0.36	0.43	**0.85**	0.43	0.14	0.32
PET2	-0.01	-0.01	0.09	**0.00**	0.01	-0.31	0.04
PET3	0.20	0.42	0.65	**0.89**	0.22	0.09	0.52
PET4	-0.11	-0.14	-0.16	**0.37**	-0.40	-0.74	-0.28
PP1	0.39	0.28	0.45	0.41	**0.81**	0.46	0.27
PP2	0.41	0.51	0.45	0.41	**0.93**	0.24	0.37
PP3	0.19	0.30	0.26	0.31	**0.83**	0.21	0.22
PP4	0.29	0.43	0.35	0.30	**0.89**	0.25	0.32
PR1	0.12	0.11	0.23	0.30	0.33	**0.93**	0.35
PR2	0.06	0.04	0.06	0.18	0.30	**0.95**	0.28
PR3	0.11	0.09	0.13	0.28	0.36	**0.92**	0.27
PR4	0.01	-0.01	0.05	0.15	0.21	**0.90**	0.31
SI	0.22	0.47	0.39	0.37	0.18	0.27	**0.90**
SI2	0.11	0.47	0.40	0.45	0.29	0.40	**0.90**
SI3	0.20	0.57	0.62	0.47	0.38	0.26	**0.89**
SI4	0.24	0.72	0.54	0.51	0.38	0.28	**0.92**

APPENDIX C – PROFESSIONAL CROSS LOADINGS

Professionals	EE	ITU	PEG	PET	PP	PR	SI
EE1	**0.86**	0.35	0.39	0.14	0.28	0.01	0.18
EE2	**0.90**	0.42	0.39	0.21	0.37	-0.12	0.25
EE3	**0.87**	0.50	0.49	0.24	0.42	-0.11	0.33
EE4	**0.81**	0.37	0.39	0.21	0.48	0.11	0.23
ITU1	0.48	**0.95**	0.86	0.24	0.23	0.00	0.44
ITU2	0.40	**0.95**	0.78	0.32	0.24	-0.03	0.41
ITU3	0.33	**0.48**	0.28	0.28	0.31	-0.08	0.25
PEG1	0.47	0.82	**0.94**	0.27	0.28	-0.08	0.48
PEG2	0.35	0.59	**0.78**	0.54	0.18	-0.04	0.49
PEG3	0.49	0.83	**0.96**	0.28	0.28	-0.03	0.49
PEG4	0.45	0.79	**0.94**	0.30	0.27	-0.07	0.59
PET1	0.00	0.09	0.13	**0.46**	-0.13	0.11	0.25
PET2	0.29	0.23	0.28	**0.70**	0.16	0.03	0.13
PET3	0.22	0.26	0.32	**0.91**	0.10	0.09	0.21
PET4	0.16	0.34	0.34	**0.93**	0.10	0.17	0.26
PP1	0.19	0.12	0.13	0.05	**0.84**	-0.10	0.12
PP2	0.42	0.31	0.29	0.09	**0.95**	-0.18	0.19
PP3	0.49	0.28	0.27	0.12	**0.91**	-0.11	0.30
PP4	0.47	0.25	0.27	0.14	**0.93**	-0.09	0.16
PR1	-0.04	0.07	0.09	0.06	-0.14	**0.85**	0.19
PR2	-0.07	-0.01	-0.11	0.13	-0.02	**0.85**	-0.11
PR3	0.05	0.03	-0.08	0.19	-0.02	**0.82**	-0.18
PR4	-0.04	-0.10	-0.16	0.15	-0.13	**0.92**	-0.12
SI	0.26	0.40	0.52	0.25	0.26	0.04	**0.89**
SI2	0.27	0.39	0.46	0.24	0.15	0.00	**0.93**
SI3	0.35	0.46	0.54	0.25	0.19	-0.02	**0.91**
SI4	0.18	0.39	0.49	0.20	0.20	-0.04	**0.88**