The role of perceived relative advantage and channel choice in influencing consumer adoption of self-service facilities for managing insurance policies.

Chelsea Uddo

N00134785

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I declare that this thesis is entirely my own work and has not been previously submitted to this or any other third level institution.

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iii

Table of Contents

Abstract	1
1. Introduction	2
2. Literature Review	4
2.1 Theoretical background	4
2.2 Technology acceptance	4
2.3 Technology adoption	5
2.4 Channel-choice decisions	6
2.5 The present study	7
3. Methodology	11
3.1 Design	11
3.2 Participants	11
3.2 Procedure	11
3.3 Measures	12
3.3.1 Relative advantage	12
3.3.2 Perceived usefulness and perceived ease of use	13
3.3.4 Control variables	13
3.3.3 Intention to use PSSTs	14
3.3.5 Coding of qualitative data	14
4. Results	15
4.1 H1: Perceived RA between groups	16
Data Analysis	16
4.2 H2: Intention to use PSSTs between groups	16
Data Analysis	17
4.3 H3: TAM-RA and RA as a predictor of INT	17
Data Analysis	17
4.4.1. H4 (a): Policy purchase method and PSST usage	20
Data Analysis	20
4.4.2. H4 (b): Web comfort level and attitudes towards using PSSTs	21
Data Analysis	21
4.5 H5: RA beliefs and channel choice	22
Data Analysis	22

4.6 H6: Channel-choice based on task	24
Data Analysis	24
5. Discussion	27
5.1 Overview of findings	27
5.2 Limitations of the research	30
5.2 Implications	32
5.3 Conclusion	32
References	34
Appendices	37
Appendix (i): Study questionnaire	37
Appendix (ii): Qualitative analysis data codebook	48
Appendix (iii): SPSS output tables	51

LIST OF TABLES

Table		Page
1.	Insurance products owned compared with PSST availability	15
2.	Range of post-purchase tasks carried out using PSSTs	16
3.	Unstandardized and standardized regression coefficients for TAM-RA model	18
4.	Unstandardized and standardized regression coefficients for RA-PU model	18
5.	Unstandardized and standardized regression coefficients for TAM Base model	18
6.	Regression inter-correlations and descriptive statistics TAM / RA models	19
7.	Unstandardized and standardised regression coefficients: RA-Only model	
	tested on PSST users	19
8.	Unstandardized and standardised regression coefficients: RA-Only model	
	tested on non-users of PSSTs	20
9.	Unstandardized and standardised regression coefficients: RA-Only model tested on non-users of PSSTs	20
10.	Regression inter-correlations and descriptive statistics for the RA-Only	
	model tested on non-users of PSSTs	20
11.	ANCOVA between-subjects effects of WCL on overall RA scores	21
12.	ANCOVA between-subjects effects of WCL on overall INT scores	22
13.	Content analysis: Themes influencing channel-choice decisions	23
14.	Subthemes associated with RA sub-dimensions and channel-choice	24
15.	Task-channel fit and associated sub-themes.	25
16.	RA-Convenience mean rank differences by task.	26
17.	RA-Trust mean rank differences by task.	26
18.	RA-Efficacy of Information Aq. mean rank differences by task	26

Abstract

At a time when consumers are offered a wealth of online tools for self-managing their financial affairs, it is pertinent to scrutinise perceptions of this technology. However, behavioural theories such as the Technology Acceptance Model do not permit a framing of usage decisions in terms of a choice between online or offline service channels. This paper examines perceptions of the relative advantage of digital versus traditional interactions in determining intention to use self-service platforms. A between-groups mixed-methods study of insurance customers was performed to determine the extent to which beliefs regarding the advantages of online channels influence usage of policy management facilities in a post-purchase context. The results suggest that perceived relative advantage of service channels can extend and even supplement models such as TAM in providing an understanding of adoption intentions. The findings also offer insights to insurance companies in tailoring these technologies to their customers needs insofar as it appears that the functionality and features of these platforms are less important than perceptions as to whether or not they are suitable for specific tasks. Thus in terms of adoption research for web-based self-service technologies, it is crucial to consider how perceived relative advantage of online and offline channels influence usage intentions.

The role of perceived relative advantage and channel choice in influencing consumer adoption of self-service facilities for managing insurance policies.

1. Introduction

The adoption of technological innovations is a key concern to academics and business owners alike. As technology increasingly disintermediates the relationship between business and consumer, it is pertinent to examine the degree to which both sides are amenable to these changes. In recent decades considerable research on adoption behaviour has opted for the rich empirical context provided by financial services such as banking; Yang, Lu and Chau (2014); Chitungo and Munongo (2013); S. Dewan, Low, Land and A. Dewan, (2009); Falk, Schepers, Hammerschmidt and Bauer (2007). In 2016, digital interactions with financial services providers are set to outnumber face-to-face contact by 250-1 and mobile interactions are predicted to outpace calls by 30-1 (Maher, 2015). By examining consumer attitudes to financial services technology, researchers are able to study adoption behaviour under several lenses including simple versus complex tasks, standard and unique services as well as the emergence of newer mediums such as mobile and tablet devices (Falk et al., 2007). However, comparatively little research has examined the same constructs in relation to other financial services domains such as insurance. The insurance industry is experiencing a period of rapid digital transformation whilst concurrently struggling to plug a technological deficit imposed by legacy infrastructure (Maher, 2015). Insurance is a complex, multifaceted product that is perhaps better suited to person-to-person interactions despite the current trend towards digitalisation. Insurance companies tasked with building digital self-service facilities face significant challenges in this regard. Whilst it has become commonplace in recent years for customer acquisition to initiate online via quote forms on insurer and aggregator websites, the same growth levels and adoption of post-purchase policy management tools has not occurred.

The present study addresses the scarcity of academic literature in this regard whilst offering insights and guidance to insurance companies endeavouring to develop and improve existing self-service policy management tools. Furthermore, the present study aimed to contribute to the wide body of literature regarding technology adoption behaviour as well as the ever-pervasive debate on how to model these phenomena in real world contexts.

2. Literature Review

2.1 Theoretical background

Extant literature in the field of Psychology has addressed motivations and behaviour as regards performing tasks that are utilitarian in nature. A particular type of extrinsic motivation determined by the "inner acceptance of the value or utility of a task" is described in Self Determination Theory (Deci & Ryan; 2000, 1985). Through a cognitive process of outcome evaluation intentions to perform (or not perform) behaviours are established (Deci & Ryan, 2000). This idea is pervasive in several other theories of motivation including the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and the Theory of Planned Behaviour (Ajzen, 1991). Common to both TRA and TPB is the notion that intentions predicate actual behaviours insofar as "the stronger the intention to engage in a behaviour, the more likely should be its performance" (Ajzen, 1991, p. 181). However TRA also emphasizes that attitudes towards a particular object can frequently differ from attitudes towards a particular behaviour concerning that object (Fishbein & Ajzen, 1975; Moore & Benbasat, 1991). Thus in terms of the usage of information technologies (IT), it is necessary to be cognizant that intentions may be influenced both by attitudes towards using the IT itself as well as beliefs about the consequences associated with employing it.

2.2 Technology acceptance

Considerable research has been dedicated to examining the determinants of end-user acceptance of IT. One such method, the Technology Acceptance Model (Davis, 1989) is derived from TRA insofar as it holds that attitudes towards a particular technology influence both intended and actual usage. TAM posits two attitudinal factors, perceived usefulness (PU) and perceived ease of use (PEOU), as critical in determining the behavioural intention to use (INT) an IT (Davis, 1989). PU is defined as "the degree to which an individual believes that using a particular system would enhance his or her job performance" (p 320) whilst PEOU relates to the degree to which using the system is perceived to be "free from effort" (Davis, 1989, p. 320). Widely considered a valuble tool for predicting IT acceptance, empirical support for TAM's validity and ability to predict actual usage has been found in manifold studies across a multitude of industries and applications: for meta-analyses see Turner, Kitchenham, Brereton, Charters and Budgen (2009), Legris, Ingham and Collerette (2003). Of particular relevance to the present study is the finding by Hartmann, Kerssenficsher, Fritsch and Nguyen (2013) that both PU and PEOU correlated strongly with consumer attitudes to using a newly introduced insurance self-service portal in Germany. Despite its popular appeal, TAM has been critised for providing an overly simplistic view of system usage and IT acceptance (Benbasat & Barki, 2007). The extent to which users perceive IT facilities to be both useful and usable is, whilst of great import to developers and IT providers, not a full picture of the factors which determine whether an IT is adopted into the regular practice of the users it seeks to target. Critics have argued that due to its inherent parsimony, TAM fails to give credance to the other relevant factors, traits and salient beliefs affecting the adoption of technology (Benbasat & Barki, 2007).

2.3 Technology adoption

To better understand how factors outside of PU and PEOU might influence IT acceptance, many researchers have adapted TAM by integrating constructs from other behavioural models (Venkatesh, Morris, F. Davis & D. Davis, 2003). One common approach is to synthesize TAM with Innovation Diffusion Theory (Rogers, 1983; 2003). IDT in the realm of technology research has been chiefly concerned with plotting the factors affecting the diffusion of IT innovations over time (Rogers, 1983; 2003). The decision to adopt an innovation involves an undertaking to reduce "uncertainty associated with its newness" compared to a prior or alternative practice (Rogers, 2003, p 168). In IDT, the practice of comparatively evaluating an IT innovation in terms of alternatives is captured in the concept of Relative Advantage (RA), defined as "the degree to which using an innovation is perceived as being better than its precursor" (Moore and Benbasat, 1991, p. 195). Much of the formative literature applying IDT to technology adoption theorised that RA and PU were conceptually synonymous. Moore and Benbasat (1991) claimed the similarities between the two constructs were clear enough to permit directly adapting Davis' (1989) PU measure to operationalize RA. Recent scholars have argued this approach is problematic, as PU by definition does not imply that usefulness is based on an evaluation of alternatives (Wang et al., 2008; S. Dewan, Low, Land, A. Dewan, 2009). Empirical evidence suggests that PU and RA, whilst related, are infact measuring distinct constructs. Lee, Hsieh and Hsu (2011) found RA to have a significant effect on the PU of an e-learning system and Wang et al. (2008) found RA to be both a function of PU and a significant antecedant of intention to use a new or competing technology. Distinguishing between RA and PU is particularly relevant for web-based IT systems where perceptions are inextricably bound to beliefs about the web in general. PU is a function of system characteristics whilst RA invites cognitive consideration of possible future usage of an IT insofar as it might replace an established practice regardless of whether the user has direct experience of the IT in question.

2.4 Channel-choice decisions

The relationship between perceptions of the web as a service channel and attitudes towards using specific web-based ITs is an important consideration in adoption research. With many businesses now operating within multi-channel service models it is necessary to understand how attitudes towards traditional or offline channels effect digital interaction perceptions (Yang, Lu & Chau, 2013). Choudhury and Karahanna (2008) propose that channel-choice is not a monolithic decision; rather it is a cumulative process whereby consumers evaluate the relative merits of channels under different conditions or at different stages in their interactions with a service provider. Others have proposed that channel-choice is determined

by a task-channel fit model (Kim & Ammeter, 2014), or expectation-confirmation theories based on how closely online channels can match prior offline channel experiences (Yang et al., 2013). Similarly, it has been argued that media richness or the match of the channel with equivocality of information being communicated is a critical determinant (Maity & Dass, 2013). The ubiquitous growth of wireless devices such as smartphones and tablets, further contributes to perceptions that digital interactions are more convenient or efficient than offline alternatives (Choudhury & Karahanna, 2008; Kim, Mirusmonov & Lee, 2010). However, it has also been shown that perceived risk and a lack of trust in the web can also inhibit adoption and create a canablistic dissynergie effect in multi-channel contexts (Falk et al., 2009). Interestingly, Choudhury and Karahanna (2008) argued that all online channelchoice decisions are fundamentally driven by dimensions of RA beliefs about channel convenience, trust and efficacy of information aquistion. In a study of consumer attitudes when purchasing insurance, Choudhury and Karahanna (2008) found participants disaggregated channel-choice decisions across these RA sub-dimensions at different stages and based on different tasks. The present study appropriated and sought to extend Choudhury and Karahanna's model to specifically examine how RA channel-choice beliefs effect consumer intention to use web-based insurance policy self-service tools (PSSTs).

2.5 The present study

In reviewing the aforementioned literature, it was assumed that consumer adoption of webbased insurance policy self-service tools (PSSTs) would be influenced both by perceptions of the technology itself as well as RA beliefs about the merits of online and offline service channels. The study endeavoured to target both existing users and non-users of PSSTs in order to gain insights into the factors which inhibit and encourage adoption. Thus, the following research question was proposed: RQ: Do relative advantage beliefs as regards online and offline service channels provide a deeper understanding of the factors affecting PSST adoption by insurance customers?

In an effort to attend to this question, an empirical approach integrating RA with TAM was employed. TAM was evoked to capture perceptions of the usefulness and usability of the current iteration of PSSTs available to the consumer market. RA, following the multidimensional characterisation proposed by Choudhury and Karahanna (2008), was used to allow for a framing of PSST adoption in the context of channel-choice. To address the scarcity in literature regarding consumer attitudes to using self-service technologies to manage insurance in a post-purchase context, a number of hypotheses were developed.

First, it was supposed that PSST usage might reflect favourable RA beliefs about online channels for insurance interactions. Similarly, it was assumed that the reverse might be true whereby those with no experience using PSSTs might be more inclined towards offline channels. Hypothesis 1 was designed to capture these assumptions:

H1. There will be a difference in perceptions of the RA of online versus offline service channels when prior usage of PSSTs is controlled for.

Next, it was assumed that existing users of PSSTs would display greater usage intentions than non-users. Hypothesis 2 was developed to explore the relationship between prior usage of PSSTs and future usage intentions.

H2. There will be a difference in INT when prior usage is controlled for.

Studies by Wang et al. (2008) and Lee et al. (2011) offered evidence that RA beliefs might explain usage intentions both by extending and substituting for TAM. Hartmann et al.'s (2013) findings support the application of the TAM variables to an insurance self-service setting. However, as PU and PEOU are direct measures of user perceptions towards a particular IT, they are not appropriate when applied to an IT application individuals have no experience of using. Thus Hypothesis 3 was designed to test whether RA might predict INT both in cases where participants had experience using PSSTs as well as when they did not.

H3. The perceived RA of online channels will be positively related to intention to use PSSTs when prior usage of PSSTs is controlled for.

It was also hypothesised that channel-choice decisions might be mitigated by factors related to individuals' personal experience and general comfort level with the web itself. First, it was theorised that those who had initially purchased their insurance online might be more inclined towards subsequently using PSSTs to manage their policies:

H4 (a) A history of purchasing insurance policy(s) online will be positively related to PSST usage.

Next, it was predicted that insurance customers who indicate they have a high level of comfort using the web for self-service activities might also have a more favourable attitude towards PSSTS:

H4 (b) A self-reported high comfort level using the web to carry out other (noninsurance) self-service tasks will be positively related to intention to use PSSTs.

In accordance with Choudhury and Karahanna (2008) it was anticipated that the RA subdimensions of convenience (RA-C), trust (RA-T) and efficacy of information acquisition (RA-I) would also apply to channel-choice decisions post-purchase. To substantiate this claim, Hypothesis 5 was proposed:

H5. Beliefs about the RA of managing insurance policies using PSSTs are sensitive to perceptions about the convenience, trust and efficacy of information acquisition as regards online channels.

Finally, in line with Choudhury and Karahanna (2008) and Kim and Ammeter (2014) it was assumed that perceptions of online channels might differ based on the qualities and complexities of the task under consideration as well as whether the task was transactional or informational in nature. The post-purchase transactional tasks considered were; policy amendments, renewals, payments and document access. The informational tasks comprised of finding out policy information and understanding explanations given on insurers websites. Thus, Hypothesis 6 was proposed as follows:

H6. Beliefs about the relative advantage of using PSSTs over dealing directly with insurance agents are task dependant.

The following sections of the paper describe the study methodology and statistical analysis, concluding in a discussion of findings and avenues for future research.

3. Methodology

3.1 Design

A between-groups, mixed methods study was designed to target insurance customers who were both users and non-users of PSSTs. Prior usage was controlled for and no limitations were placed on the types, categories or brands of insurance held by participants. An online questionnaire was used to facilitate data collection.

3.2 Participants

One hundred and eight (N=108) participants were initially recruited via convenience and snowball sampling methods. Data screening removed any non-insurance customers resulting in a final sample of ninety-nine (N=99). The study sample were approximately two thirds female (63.9%) and one third male (36.1%) with two responses missing or unanswered. Participants predominantly resided within the Republic of Ireland (69.7%), the United Kingdom (12.1%) and United States (10.1%). The remaining (~7%) of participants were located between; Australia, Austria, Canada, Germany, LAO PDR and Singapore.

3.2 Procedure

A 43-item questionnaire containing measures of the study variables was hosted online. Links were disseminated over the internet using social media, email and a post on the professional networking website LinkedIn. An information sheet introduced the study objectives and informed participants of their data protection entitlements and right to withdrawal. Consent was attained through a check box preceding the questionnaire. A debrief form and contact details of the researcher and their supervisor were also provided. Ethical approval was received through the Dun Laoghaire Institute of Art, Design and Technology Ethics Committee (Form A). Data were collected at a single time point and transferred to SPSS for analysis. A small pilot study (n=8) yielded useful insights on improvements to the

phraseology and ordering of questionnaire items. The revised final questionnaire was live for a period of one week during March 2016.

Demographic, contextual and web experience data were collected in Section 1 of the questionnaire. Section 2 amassed data intended for profiling participants' insurance history including; types of policy, purchase method, availability and usage of PSST facilities. Participants' who indicated they were currently users of PSSTs (n=59) were screened into the 'PSST users' group and directed to Section 3. Section 3 collected data on participants' PSST usage practices along with measures of the TAM variables PU and PEOU adapted from the literature. Where participants' indicated they had no experience using PSSTs, screening placed them into the 'non-users' group (n=40). Non-users of PSSTs skipped Section 3 of the questionnaire.

All participants were invited to answer the questions in Sections 4, 5 and 6. Section 4 captured RA measures adapted from Choudhury and Karahanna (2008). Measures of intention to use PSSTs were collected in Section 5. Section 6 contained two free-form text fields to capture qualitative data on the functions and facilities participants' considered as being important in influencing their usage of PSSTs. A copy of the full questionnaire is provided in appendix (i).

3.3 Measures

3.3.1 Relative advantage

RA was measured by adapting the three sub-dimensions operationalized by Choudhury and Karahanna (2008); (RA-C), trust (RA-T) and efficacy of information Acquisition (RA-I). Each RA measure captured perceptions towards using PSSTs compared with offline service channels for the specific tasks described in section 2.5. RA-C and RA-T were captured for the five transactional tasks whilst RA-I measures were taken for the two informational tasks. RA measures were taken for all participants regardless of whether they had used PSSTs before. As such the phrasing of each RA item was composed so as to be answerable irrespective of PSST usage experience, e.g. 'I would find it more convenient to renew my policy online rather than speaking to an agent or calling into a branch'. In totality, RA measures comprised of twelve likert-type items answered on a scale of 1 =Strongly Disagree to 7 =Strongly Agree. The RA scale was found to sufficiently satisfy reliability concerns with a Cronbach's α of .912

3.3.2 Perceived usefulness and perceived ease of use

Measures for usefulness and ease of use of PSSTs were adapted from Davis' (1989). As prior usage was controlled for in the study design, PU and PEOU were only captured for existing PSST users. As such, the likert type items making up the two scales were adapted to make reference to the participants' own insurance provider's facilities e.g. "I find my insurer's online self-service facility useful in managing my own insurance". Each of the 6 likert-type items making up the PU and PEOU scales were measured using 7-point scales rated from 1 =Strongly Disagree to 7 = Strongly Agree. Both the PU and PEOU scales were found to be highly reliable with Cronbach's α of .947 for PU and $\alpha = .956$ for PEOU.

3.3.4 Control variables

To determine the extent to which IT experience influenced PSST usage, several variables were controlled for in the study design. Prior experience using PSSTs system was determined to allow between-groups analysis of users and non-users. The method by which participants had originally purchased their insurance (e.g. Online, In Branch, Phone, Broker or Other) was also controlled for. For analysis, 'online' was coded as a single variable whilst all the remaining options were coded as 'offline'. Finally, a measure was captured for self-reported comfort level using the web or mobile apps to carry out self-service activities such as using internet banking or booking flights via a travel website. The 5-point

attitudinal 'web comfort level' or WCL scale was created with ratings ranging from 1=Very Uncomfortable to 5=Very Comfortable.

3.3.3 Intention to use PSSTs

A new scale was developed in accordance with Ajzen (2006) to capture participant's behavioural intention to use PSSTs (INT). Three items made up the INT scale; intention to continue to use PSSTs (INT-C), the intention to use PSSTs more in the future (INT-M) and the availability of PSSTs as a deciding factor in selecting a future insurance provider (INT-D). Seven point bi-polar adjective scales (Ajzen 2006) measured INT with ratings ranging from 1 = Extremely Unlikely to 5 = Extremely Likely. A test of reliability using Cronbach's alpha indicated that the three-item INT scale was highly reliable (α = .799).

3.3.5 Coding of qualitative data

Approximately 65% of participants provided qualitative data via two free-form text fields regarding the factors and facilities participants felt were most influential in determining their decision to use PSSTs. Content analysis was conducted to determine whether data corresponding to the RA-C, RA-T and RA-I sub-dimensions was present. Coding and interpretation of data followed the definitions for the RA sub-dimensions given by Choudhury and Karahanna (2008). Additional emergent themes relating to PSST usage as a channel-choice decision were identified and recorded. Any references to the merits of channels as regards specific tasks were also recorded. Counts were taken of direct and indirect mentions per participants for each channel-choice theme. The content analysis codebook and examples of each emergent theme are provided in appendix (ii).

4. Results

Fifty-nine participants were existing users of PSSTs whilst the remaining forty participants (40.40%) either had no experience or no access to online facilities through their particular insurer(s). Interestingly, 79.2% of participants indicated that they had bought insurance online, which is illustrative of the disparity between pre and post-purchase IT adoption levels. In terms of PSST availability, ~80% of participants indicated that their insurance companies offered these facilities. Motor and health insurance products were most commonly managed online. PSSTs were mainly used for the tasks of sourcing information (77.6%) and accessing documentation (67.2%). Accessing PSSTs for claims management was least popular with only 17.2% of users indicating they had done so. Tables 1 and 2 provide descriptive statistics in relation to PSST usage practices and availability by product.

Insurance product type	% Owned†	PSST facility available‡
Motor	82.8%	72.2%
Health	66.7%	46.3%
Home	64.6%	31.5%
Life	41.4%	3.7%
Gadget	19.2%	9.3%
Pet	14.1%	3.7%
Business	10.1%	-
Travel	10.1%	13.0%

Table 1: Insurance products compared with PSST ownership

Note: † n=99; ‡ n=54;

Task Type	PSST usage
Sourcing policy information	77.6%
Accessing documentation	67.2%
Renewing policies	51.7%
Making payments	36.2%
Policy amendments	34.58%
Filing / managing claims	17.2%
Note: n=54	

Table 2: Range of post-purchase tasks carried out using PSSTs

4.1 H1: Perceived RA between groups

To determine whether RA beliefs differed between users and non-users of PSSTs, an independent samples t-test was used. Overall RA was computed by taking a sum of scores across the 12 RA items for each group. Checks confirmed normal distribution and homogeneity of variance between the two groups.

Data Analysis

Mean RA was higher for PSST users (n=59, M=57.59, SD=14.40) as compared with nonusers (n=40, M=49.85, SD=16.21). The t-test revealed this difference to be significant (t (97)=2.49, p=0.14). Cohen's *d* was 3.49, or a large effect according to Cohen's (1988) criteria. Thus in accordance with H1, it was concluded that PSST usage increases the likelihood of positive RA beliefs about online channels.

4.2 H2: Intention to use PSSTs between groups

H2 predicted INT would differ relative to PSST usage experience. Overall INT scores were computed by taking the sum of scores across the three INT factors: INT-C INT-M (and INT-D. Between groups differences in overall INT were examined first before testing the same for each INT factor. A finding of non-normal distribution in INT scores between the

two groups resulted in the use of non-parametric Mann-Whitney U tests. Checks confirmed the homogeneity of variances between the two groups.

Data Analysis

Median scores for overall INT were higher for existing PSST users (Mdn=12) as compared with non-users (Mdn=10). This difference was revealed to be statistically significant with a moderate effect size (U = 794.5, z = -2.770, p = .006, r = .278). As expected, for INT-C, the difference in median scores was significantly higher for PSST users (Mdn=5) compared with non-users (Mdn=3.5), (U = 605.5, z = -4.278, p < .000). A significant difference was also found for INT-M (U = 833.0, z = -2.261, p = .024), whereby PSST users had a median score of 4 compared with 3 for non-users. No significant difference was found for INT-D with both groups reporting a median score of 4, (U = 997.0, z = -1.227, p = .220). The results suggest that intended PSSTs usage is moderately greater in existing users. However, PSST usage does not appear to correlate with an intention to choose future insurers based on the availability of these facilities.

4.3 H3: TAM-RA and RA as a predictor of INT

To determine whether RA beliefs would predict INT two approaches were taken. First RA was integrated with the TAM variables PU and PEOU using regression analysis to test the models ability to predict INT in PSST users. Variance in INT scores was compared against the base TAM model containing just PU and PEOU. Next, a model utilising the RA subdimensions was tested to predict their effect on INT between the two groups. H3 assumed that RA would predict INT under both conditions – i.e. regardless of whether direct PSST experience had occurred.

Data Analysis

A significant regression was found in the TAM-RA model (F (3,54) = 9.436, p < .000), explaining 30.7% of the variance in overall INT scores for PSST users (Adjusted R² = .307). As expected, the base model also emerged as significant (F (2,55) = 10.345, p <. 000). However, only 24.7% of the variance in INT (Adjusted R2 = .247) was explained by the presence of PU and PEOU alone. A model using RA and PU only was found to explain the greatest level of variance in INT scores at 31.6% (F (2,55) = 14.165, p <. 000, Adjusted R² = .316). Thus it is possible to conclude that integrating RA is a valid approach offering a more substantial explanation of INT in existing PSST users than the TAM variables alone. Tables 3 to 6 provide results, inter-correlations and descriptive statistics for the three models tested on PSST users.

Table 3: Unstandardized and standardized regression coefficients for the TAM-RA model

Variable	В	SE B	β	
Total PU	.066	.051	.222	
Total RA	.058	.024	.350*	
Total PEOU	.027	.047	.091	
*p =.019				

Table 4: Unstandardized and standardized regression coefficients for the RA-PU model

Variable	В	SE B	β	
Total PU	.082	.042	.277	
Total RA	.061	.023	.367*	
* 010				

*p = .012

Table 5:Unstandardized and standardized regression coefficients for TAM Base model

Variable	В	SE B	β
Total PU	.115	.051	.389*
Total PEOU	.050	.047	.169

*p =.021

	Total INT	Total PU	Total PEOU	Total RA	MEAN	SD
Total INT	1.00				11.72	2.40
Total PU	.51**	1.00			28.95	8.13
Total PEOU	.45**	.71**	1.00		28.26	8.20
Total RA	.54**	.63**	.56**	1.00	57.59	14.53

Table 6: Regression inter-correlations and descriptive statistics TAM / RA models

Note: n=59; ** Correlation is significant at the 0.01 level (2-tailed)

Next, regressions were run using the three RA sub-dimensions as predictors of INT between the two groups. The model emerged as significant in both cases although RA was found to be a better predictor of INT in non-users (F (3, 36) = 13.968, p < .000, Adjusted $R^2 = .499$). The RA-only model explained 49.9% of variance in INT for non-users whilst this figure was just 23.7% in existing users (F (3,55) = 7.003, *p* < .000, Adjusted $R^2 = .237$). The results suggest that RA beliefs can be used to predict INT even where no specific experience using PSSTs exists. Tables 7 to 10 provide information for the RA-only regression models tested on the two groups.

Table 7: Unstandardized and standardised regression coefficients: RA-Only model tested on PSST users

Variable	В	SE B	β	
RA-Convenience	.064	.067	.159	
RA-Trust	.044	.064	.118	
RA-Efficacy of Info	.287	.129	.327*	
^k p =.030				

	RA-C	RA-T	RA-I	Total INT	MEAN	SD
RA-C	1.00				25.63	6.41
RA-T	.70**	1.00			22.66	6.97
RA-I	.55**	.60**	1.00		8.78	2.95
Total INT	.42**	.43**	.49**	1.00	11.59	2.59
$\frac{\text{Total INT}}{\text{Note: } n=59: **}$.42**	.43**	.49**	$\frac{1.00}{0.01 \text{ level } (2)}$	11.59	2.59

Table 8: Regression inter-correlations and descriptive statistics RA-only model tested on

 PSST users

Note: n=59; ** Correlation is significant at the 0.01 level (2-tailed)

Table 9: Unstandardized and standardised regression coefficients: RA-Only model tested on non-users of PSSTs

Variable	В	SE B	β
RA-Convenience	.366	.092	.759*
RA-Trust	025	054	.118
RA-Efficacy of Info *p =.000	.041	.037	.327

Table 10: Regression inter-correlations and descriptive statistics for the RA-only model tested non-users of PSSTs

	RA-C	RA-T	RA-I	Total INT	MEAN	SD
RA-C	1.00				22.00	7.30
RA-T	.79**	1.00			20.20	7.60
RA-I	.45**	.69**	1.00		7.18	3.11
Total INT	.73**	.57**	.34*	1.00	9.60	3.52

Note: n=39; ** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed).

4.4.1. H4 (a): Policy purchase method and PSST usage

Hypothesis 4 sought to determine the effect of policy purchase method and WCL on

intention to use PSSTs. The relationship of purchase method to PSST usage was examined

in pursuit of Hypothesis 4(a).

Data Analysis

Just 51.3% of non-users (n=40) had purchased indicated they had purchased insurance online before, whilst 84.7% of PSST users had done so (n=59). A Chi-Square Test of Independence found a significant relationship between PSST usage and having purchased insurance online (X^2 (1) = 12.88, p < 0.05).

4.4.2. H4 (b): Web comfort level and attitudes towards using PSSTs

Hypothesis 4(b) supposed that a high comfort with using the web (WCL) would correlate with favourable attitudes towards PSSTs and online channels. An independent samples t-test revealed no significant difference in WCL between users and non-users of PSSTs (t (60)=1.90, p=0.062). Mean WCL scores were high across the entire study population (M=4.49). One-way between subjects analysis of covariance tests were carried out to determine the relationship between WCL, RA and INT. Checks were carried out to confirm the homogeneity of regression and linear relationship between covariate and dependent variable.

Data Analysis

The covariate WCL was significantly related to overall RA scores between the groups, (F (1,96) = 17.00. p < 0.000, partial η^2 = .15). However, adjusting for WCL did not result in a statistically significant effect of the between-subjects factor group, (F (1,96) = 3.202, p = .077, partial η^2 = .032). Table 11 provides a summary of the WCL / RA ANCOVA.

		5			
Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
Web Comfort	3354.70	1	3354.70	17.00**	.15
Prior Usage	631.76	1	631.76	3.20	.03
Error	18938.64	96	197.28		
**p < 0.01					

 Table 11: ANCOVA between-subjects effects of WCL on overall RA scores.

WCL was not found to be significantly related to overall INT scores between the two groups (F(1,96) = 3.752. p = .055, partial $\eta^2 = .038$). Nonetheless, adjusting for this covariate did show a significant effect of the between-subjects group (F(1,96) = 7.975. p < 0.000, partial $\eta^2 = .077$) providing further support for prior experience as a differentiator of INT. The adjusted mean INT score for PSST users were 11.49 compared to 9.74 for nonusers. The negligible effect of controlling for WCL is further illustrated when the adjusted means are compared with the original means for PSST users (M= 11.59, SD=2.58) and non-users M= 9.6, SD=3.521). Thus, whilst WCL was shown to relate to positive RA beliefs regarding online channels, it did not, in this case, translate into a higher propensity to use PSSTs. Table 11 provides a summary of the WCL / RA ANCOVA.

Table 12: ANCOVA between-subjects effects of wCL on overall INT scores.							
Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared		
Web Comfort	33.04	1	33.04	3.78	.038		
Prior Usage	69.68	1	69.68	7.97	.077		
Error	838.80	96	8.74				

 Table 12: ANCOVA between-subjects effects of WCL on overall INT scores.

No significant effect on overall INT scores was found through the covariate WCL

4.5 H5: RA beliefs and channel choice

H5 predicted that Choudhury and Karahanna's (2008) multi-dimensional RA construct would also apply to post-purchase channel-choice preferences. Content analysis was performed on the qualitative data regarding the factors and facilities participants described as influential in determining PSST usage. Analysis was performed on all qualitative responses and no split was applied between PSST users and non-users. The codebook and direct examples from the data are provided in appendix (ii).

Data Analysis

The role of RA-C, RA-T and RA-I beliefs in influencing channel-choice decisions was confirmed in the content analysis. Iterative analysis revealed that under the broad categories

of each RA sub-dimension, additional corresponding factors also contributed to channelchoice. RA-T beliefs were broadly in-line with the split of 'informational trust' and 'structural assurance' described by Choudhury and Karahanna (2008). Trust beliefs were associated most with channel-choice decisions, emerging directly or indirectly via subthemes in 63.6% of qualitative responses. RA-C beliefs, associated with the efficiencies offered by online channels and general lifestyle compatibility, were present in 34.8% of responses. RA-I beliefs such as concerns over insurance jargon or the clarity of information available in service interactions were counted as existing in 24.2% of responses. In addition to the expected RA sub-dimensions, PSST functionality, task-channel-fit and negative offline service experiences were also revealed to be influential in channel-choice decisions. An in-depth analysis of all of these factors was out of scope of the present study, however some examples from the data are provided in appendix (ii). Tables 12 and 13 provide the results of the content analysis and breakdown of the RA sub-dimensions themes.

Emergent Category	Direct	Indirect	% Of cases	>1 Mention
Convenience	20	5	34.8%	1.5%
Trust	29	15	63.6%	1.5%
Efficacy of Info. Aq.	13	3	24.2%	-
PSST functionality	18	10	39.4%	1.5%
Task-channel-fit	23	0	34.8%	-
Offline Negative	6	0	9.1%	-

Table 13: Content analysis: Themes influencing channel-choice decisions

n=67 participants provided data for one or both of the qualitative questions

RA-C	RA-T	RA-I
Speed / Time Saving	Trust in online	Information clarity
Lifestyle compatible	Trust in P2P advice	Explanation clarity
Out of hours	Reliability of tech	Jargon concerns
Convenience vs. phone	Structural assurance	Lack of trust in agent
	Product complexity	

Table 14: Subthemes associated with RA sub-dimensions and channel-choice

4.6 H6: Channel-choice based on task

The aim of Hypothesis 6 was to determine the extent to which RA beliefs differ across post-purchase policy management tasks. Content analysis revealed that task-channel-fit evaluations play a role in channel-choice. Statistical analysis was also used to determine the variance in RA sub-dimension scores across each of the post-purchase tasks.

Data Analysis

From the content analysis, task-channel-fit evaluations were found to influence channelchoice broadly under three sub-themes; price sensitivity, self-efficacy and perceived complexity. Price sensitivity was related to renewals insofar as participants indicated they would choose offline channels as "Negotiating a better deal is possible via an agent so I always speak to a customer service rep when renewing". In terms of self-efficacy, participants reported concerns that in order to fully understand coverage and entitlements, they might need to rely on agents as opposed to online channels. Participants indicated that claims and amendments were, due to their complexity, less suitable for carrying PSSTs that were deemed "best for simple transaction[s] such as renewal without amendment. Claim is more complex and likely to require advice". Table 15 provides a summary of content analysis applied to the task-dependency category.

Emergent Category	Amend	Renew	Pay	Docs	Claims	Policy Info
Price sensitivity	-	14	-	-	-	-
Self-Efficacy	-	-	-	-	1	7
Complexity	2	-	-	-	2	-

Table 15: Task-channel fit and associated sub-themes

Note: Derived from 23 feedback items coded into the task-channel-fit category

Statistical analysis was used to determine the extent to which participants RA beliefs about PSSTs differed across the task types. A Friedman Test revealed that participant' scores on the RA-C (x^2 (4, N=98) = 82.453 p > 0.0005), and RA-T (x^2 (4, N=98) = 85.468, p > 0.0005) sub-dimensions varied significantly across the five 'transactional' task types. A significant variation in RA-I scores was also found for the two 'informational' tasks; (x^2 (1, N=98) = 7.364, p < .000). Wilcoxon-Signed Ranks tests were performed to compare mean ranks for each task across the RA sub-dimensions. Tables 16 to 18 provide information on the test results.

The results support the hypothesis that RA beliefs are sensitive to task-channel-fit evaluations. With regards to RA-C, using PSSTs for managing claims was consistently negatively ranked against the four other 'transactional' tasks; amendments (p < .000), renewals (p < .000), payments (p < .000), and document access (p < .000). Similar results were also found for trust (RA-T) in managing claims online compared with amendments (p < .001), renewals (p < .001), payments (p < .000), and document access (p < .000). Furthermore, participants' considered PSSTs to be both less trust worthy (RA-T) and less convenient (RA-C) for renewals than for payments in general, which is inline with the findings of the content analysis as regards price sensitivity and the facility to negotiate with agents. With RA-I, the results indicate that online channels were more suited to finding out policy information than for explaining insurance terms (p < .001).

			Differ	ence in M	ean Ranks	across task ((Z values)
Task Type	Mean	SD	Amend	Renew	Payments	Docs	Claims
Amendments †	4.88	2.00	-	746	-2.302*	-3.999**	-4.351**
Renew ‡	4.96	1.90	-	-	-2.358*	-3.971**	-4.379**
Payments ‡	5.28	1.77	-	-	-	-2.256*	-5.054**
Access Docs ‡	5.61	1.66	-	-	-	-	-6.395**
Claims †	4.03	1.92	-	-	-	-	-

Table 16: RA Convenience Mean Rank Differences by Task

Note: † n=98; ‡ n=99; ** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed).

			<u>Difference in Mean Ranks across task (Z values)</u>				
Task Type	Mean	SD	Amend	Renew	Payments	Docs	Claims
Amendments	4.14	1.90	-	050	3661**	-4.538**	-3.336*
Renew	4.17	1.87	-	-	-3.969**	-4.810**	-3.525**
Payments	4.84	1.79	-	-	-	-1.505	-5.680**
Access Docs	5.03	1.76	-	-	-	-	-6.462**
Claims	3.52	1.61	-	-	-	-	-

Table 17: RA-Trust Mean Rank Differences by Task

Note: n=99; ** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed).

Table 18: RA-Efficacy o	<u>f Informatio</u>	n Aq. Mean I	Rank Differences by Tasl	K				
			Difference in Mean Ranks acros					
			(Z values)					
Task Type	Mean	SD	Learn about policy	Explanations				
Learn about policy †	4.30	1.67	-	-2.578*				
Understand Explanations	‡ 3.88	1.65	-2.578*	-				

Note: † n=98; ‡ n=99; * Correlation is significant at the 0.05 level (2-tailed).

5. Discussion

5.1 Overview of findings

The results of the study infer that a strong relationship exists between PSST usage and favourable perceptions towards online service channels as compared with offline alternatives. Consistent with Alharbi and Drew (2014) and Bajaj and Nidumolo (1998), existing users of PSSTs were also more likely to be subsequently inclined towards continuing and even increasing their usage of the technology in the future (Legris, Ingham & Collerette, 2002). This implies that in removing barriers to adoption, service providers should be able to reduce reliance on offline channels and their associated resourcing demands. Participants who had purchased insurance online were more likely to be PSST users or in the case of current non-users, to be inclined towards usage in the future. To encourage adoption, the findings suggest that providers ought to target customers during online purchases. Undeniably this strategy is already in practiced by many e-commerce retailers who invite or even insist that customers create online accounts during the checkout process.

Somewhat contrary to the finding that PSST usage along with a history of purchasing online engenders favourable attitudes towards web-based service channels, were the results in regards to WCL. No significant relationship was found between WCL and intended PSST usage, and the correlation with RA was relatively weak. Perhaps a different outcome might have been attained had the study employed a more rigorously tested gauge of web adroitness such as Computer Self-Efficacy (Compeau & Higgins, 1995) or Personal Innovativeness in the Domain of Information Technology (Agarwal, 1998). Nevertheless, some consolation is offered in regards to the finding of high WCL scores across the study population as a whole. This suggests that in theory, insurance customers are in fact well primed to adopt the practice of digitally interacting with their insurers should current barriers be addressed.

27

As regards barriers to adoption, the study suggests that PSST facilities are, in 2016, far from reaching either the diffusion or standardisation seen in other financial services domains such as banking. The results showed that PSST availability is presently far from ubiquitous and adoption levels are not universal. The qualitative data offered several insights into the reasons insurance customers might reject PSSTs. Firstly, it appears that for some, the complexity of insurance products and terminology is creating a persistent reliance on offline channels despite the availability of PSSTs. Secondly, it emerged that price-sensitivity as regards insurance premiums also drives insurance customers offline as they seek to negotiate reductions with agents. This is important for insurers insofar as it suggests that in order to influence customers to use PSSTs facilities for renewals, they will need to address that prevailing belief first.

In endeavouring to contribute to knowledge regarding the determinants of technology usage, it was supposed that RA beliefs would play a significant role in the adoption of web-based self-service IT. The findings suggest that RA does offer a more nuanced understanding of usage intentions insofar as the decision to use these systems is also inherently a choice between service channels. Whilst the technological characteristics of PSST such as their functionality (usefulness) and usability (ease of use) were important in determining intended usage, it was indeed RA beliefs that provided the more nuanced picture in this context (Choudhury & Karahanna, 2008). The results offer support to Wang et al. (2008) and Dewan et al. (2009) as regards both a the conceptual distinction between PU and RA as well as presenting further evidence for the benefit of integrating TAM with other models. PEOU and PU on their own were found to predict just 23% of PSST usage intentions in the present study, whilst the addition of RA in the model increased the explanatory power to 30.7%. A caveat to these findings should nevertheless be acknowledged. TAM alone has been found to explain upwards of 40% of variance in INT in previous studies (Lin, 2007; Lee, Hsieh &

Hsu, 2011; Kim, Mirusmonov & Lee, 2009). Neither the TAM base model or integrated RA-TAM model achieved as high an explanation for INT in the present study. Whilst an exploration of that discrepancy is outside the scope of the present study, strong evidence was found for the relationship of RA to INT. Interestingly RA was found to explain 49% of the variance in usage intentions for non-users of PSST. This implies that beliefs about the merits of digital service interactions might be employed to estimate predicted adoption of web-based self-service IT systems even without the need to expose potential new users to the system itself.

RA as conceptually understood in the present study mirrored the characterisation proposed by Choudhury and Karahanna (2008). That convenience, trust and efficacy of information acquisition play a role in channel-choice during the post purchase cycle was supported by both the qualitative and quantitative data analyses. RA sub-dimensions correlated significantly with INT although RA-I was more significant in users of PSSTs as compared with non-users. This suggests that usage of PSSTs may engender greater confidence in the equivocality of the online channel in matching knowledge-seeking requirements. Interestingly in relation to RA-I, participants indicated that they felt they could learn more about their individual policies by using PSSTs than through speaking to an agent or calling into a branch. Convenience or RA-C was also found to be an important factor as regards PSST usage although it correlated higher with INT scores in non-users which perhaps reflects the aforementioned lack of standardised functionality in existing facilities. Similar findings emerged as regards trust in as online service channels, which correlated, with INT to a greater extent in non-users than users of PSSTs. There were perhaps some insights offered in the qualitative data whereby some participants indicated that PSST facilities could be improved upon. Based on these findings, future research should seek to determine what specific characteristics of PSSTs are impacting perceptions of convenience and trust in existing users.

Choudhury and Karahanna's (2008) framework was also employed to establish whether RA beliefs about online channels differed across different policy management tasks. Both the quantitative and qualitative data yielded insightful results that lend support to the claim that consumers disaggregate channel-choice decisions across both RA dimensions and tasks (Choudhury & Karahanna, 2008). Interestingly, participants perceived PSSTs to be both convenient and trustworthy for making payments but this was not reflected in their attitude specifically towards renewals, which are also similar transactional-type tasks. Rationale for this result was found in the qualitative data that revealed that price-sensitivity at renewal drives consumers towards offline interactions. Another notable result was the consistent negative ranking of using PSSTs for claims management compared to all of the other tasks. It is possible that this may be connected to the finding of two further emergent task-related themes in the qualitative data, namely self-efficacy concerns and task-complexity perceptions. Self-efficacy or the extent to which participants felt they may require assistance or advice in completing insurance related tasks emerged as important in influencing offline channel reliance. Task-complexity was referenced directly in the qualitative data as being both a barrier to PSST usage for both claims and also policy amendments. An unexpected finding of the present study was in regards to the small but significant number of participants who expressed a general aversion to offline channels due to negative experiences with agents and automated phone lines. This supports the consensus that as PSST facilities diffuse and mature, increasing numbers of insurance customers may turn to digital interactions with their insurers to avoid ineffective or inefficient offline interactions.

5.2 Limitations of the research

Some specific limitations as regards interpretation of the results have already been discussed. However, it is useful to acknowledge certain factors in relation to the study design that might be improved upon by future research. Firstly, from the qualitative data it emerged that the
factors influencing channel-choice for insurance customers are extensive. The aim of the present study was to find support for the presence of RA-C, RA-T, and RA-I in channel-choice decisions, which was achieved. Nevertheless the data were extremely rich insofar as offering other factors and sub-factors that should be explored further. It is clear that as a financial service, insurance does not lend itself to complete online management in the way that banking does. Both insurance companies and academic researchers should seek to explore this domain in order to further understanding of its particularities and special case as regards multi-channel adoption behaviour.

As regards the study design, it is not possible to make a direct comparison with the findings of Wang et al. (2008) in relation to the distinction between PU and RA. Wang et al. (2008) employing a methodology whereby PU and RA were directly compared using Davis' (1989) usefulness scale and Moore and Benbasat's (1991) corresponding relative advantage measure. The present study, whilst adapting its measure of PU from Davis' (1989) as well, utilised Choudhury and Karahanna's (2008) multidimensional RA construct. Nevertheless, it could be argued that there is still consistency in the results of the present study and the findings of Wang et al. (2008) such that both offer evidence that RA and PU are indeed related by distinct concepts.

Similarly, the study also deviated from the framework employed by Choudhury and Karahanna (2008) as regards measuring intention to use PSSTs. For the present study, a new INT scale combining the factors INT-C, INT-M and INT-D was developed in accordance with Ajzen's (2006) recommendations for measures of behavioural intention. However, unlike Choudhury and Karahanna (2008), the present study captured intention to use PSSTs in an overall sense as opposed for each post-purchase task individually. Whilst the present study provides evidence participants expected to use PSSTs more in the future, researchers might seek to explore this further in an attempt to understand which tasks consumers expect

to be carrying out online as well as whether or not these will be a deciding factor in choosing service providers.

Finally, that data were collected at a single time point as opposed to longitudinally meaning that it was not possible to account for potential changes in attitude or intention to use PSSTs that may occur over time or with increased experience using the technology. Rogers (1976) describes this type of methodological bias in diffusion research as taking 'an artificially halted snapshot' (p. 294). Indeed, the results suggested that PSST usage does influence adoption, a finding that could be further validated through a longitudinal research study.

5.2 Implications

Some key managerial implications are offered from study findings. Firstly, it appears that being given the opportunity to use self-service facilities is correlated with subsequent adoption. Thus it may be useful for service providers to undertake marketing campaigns and communication strategies designed to reduce barriers and encourage usage. Barclays Bank in the UK and Allied Irish Bank in the Republic of Ireland have recently begun conducting customer information sessions and workshops on using online banking. For insurance companies wishing to encourage usage of policy management facilities, it may be advisable to address barriers to adoption using similar methods. Secondly, and in particular for complex financial services products, it may be of value to service providers to consider implementing escalation strategies in relation to online channels. This strategy consists of encouraging the usage of self-service facilities whilst simultaneously providing features such as virtual agents or web chat in order to accelerate access to an informed customer service agent when customers require it. Indeed, this functionality was mentioned by several participants who indicated, "text-chat help facilities would also be helpful".

5.3 Conclusion

The present study examined the extent to which perceptions of the relative merits offered by rival service channels (online and offline) could be employed to provide a deeper understanding of the factors affecting adoption of self-service platforms by insurance customers. Drawing on the concept of Relative Advantage from Innovation Diffusion Theory (Rogers, 1979; Moore & Benbasat; 1991, Choudhury & Karahanna, 2008), the central premise was that adoption decisions for web-based IT are unlikely to be made solely in terms of the characteristics of the technology alone. The research question posited that the decision to use self-service platforms would be dependent on a cognitive evaluation of the inherent value of digital and offline interactions in specific contexts. The results suggested that assumption to be valid, at least in the domain of complex, price sensitive financial services such as insurance. The present study offered a contribution to the on going debate around the determinants of technology adoption which is ever more relevant in our increasingly technology proliferated world. Furthermore, insights were provided for businesses operating with multi-channel service models insofar as it seems imperative that they understand consumer perceptions of the relative merits of different service channels ought to govern both the allocation of resources and investment in developing technological infrastructure into the future.

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Appendices

Appendix (i): Study questionnaire

A study into online insurance policy management preferences

Full Title: Assessing consumer perceptions of the usefulness and perceived advantages using of online self-service facilities for managing insurance policy(s).

* Required

Purpose of this research study:

This project is being undertaken by a postgraduate student in pursuit of a Masters in Cyberpsychology from Dun Laoghaire Institute of Art, Design and Technology. The researcher has a personal and professional interest in the use of self-service technology in augmenting customers interactions with financial services companies and in particular insurance companies. Your input will assist the researcher in generating insights for insurance companies which will be aimed at providing better online customer experiences. This study has been approved by the IADT Institute Research Ethics Committee.

Invitation to take part:

Welcome!

You have accessed this page because you are being invited to consider taking part in this research study. The aim of the research is to understand the motivating factors behind insurance customers usage of online self-service facilities to manage their insurance policies.

Before you decide whether or not you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with friends and relatives if you wish. If there is anything that is unclear or if you would like more information, you may contact the researcher or their supervisor using the details given below:

Researcher: Chelsea Uddo | Email: n00134785@student.iadt.ie | Phone: 0868488380

Supervisor: Nicola Fox Hamilton | Email: nicola.fox-hamilton@iadt.ie

Do I have to take part?

You are free to decide whether you wish to take part or not. If you do decide to take part you will be asked to indicate your consent through completion of a short form. You are free to withdraw from this study at any time and without giving reasons.

If I take part, what do I have to do?

If you would like to take part, you should indicate your consent below and click the 'Next' button which will open the questionnaire. Taking part in the study will involve completing a brief online questionnaire about your perceptions and experience of using self-service facilities for managing your policy. The questionnaire should take no more than 15 minutes to complete. You will not be required to provide any personally identifiable information whilst filling out the questionnaire.

What are the benefits and risks of taking part?

By taking part in this study you will be assisting the researcher in gaining valuable insights into how insurance companies might improve their online self-service facilities to better suit the needs of their customers. Furthermore, you will be contributing to a body of knowledge aimed at understanding the role self-service may play in changing how insurance policies are managed in the future.

No details which could be used to identify you personally will be collected in the study. All data provided by you in filling out the questionnaire will be anonymised for the purposes of this study. The questionnaire is being hosted on Google Drive which does not attach identifying information such as IP address to survey data. Your data will be password protected and cannot be accessed by anyone other than the researcher and their supervisor. Your data may be retained by the researcher for future use and will be stored securely for a period of up to five years after which it will be deleted. Your data will not be shared with any third parties.

You will not be required to answer any of the questions contained within the questionnaire and you may withdraw from the study at any time without providing a reason by closing the browser window. You can stop taking part in the study at any time, without giving a reason by simply logging off.

The results of the research will be presented as part of a manuscript that may be submitted to scientific journals for publication. To obtain a copy of the thesis once it has been submitted you should contact the researcher using the details provided above.

What if there is a problem?

If you have a concern about any aspect of this study, you may wish to speak to the researcher(s) who will do their best to answer your questions.

Thank You!

On behalf of the researcher and their supervisor, your participation in the study is greatly appreciated, thank you.

Consent

By checking the box below, you are agreeing to the following statements:

- I am over 18 years of age.
 I consent to take part in this study.
- I understand that the data I provide will be anonymised.
- · I confirm that I have read and understood the supporting information provided.
- · I contacted the researcher with any questions I might have had prior to taking part.
- · I understand that my participation is voluntary and that I am free to withdraw at any time.

You must check the box in order to proceed. *

I agree

Continue »

16% completed

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A study into online	e insurance policy
management pref	erences
Background information The following questions are designed to provide context to the results of the study any insurance policy(s)?' as this question	gather some background information which will be used to . All questions are optional except 'Do you currently hold is essential in determining your eligibility for this study.
What is your age?	
What is your gender? If non-binary, pleas	e indicate the gender you identify with:
What country do you live in?	
What could y do you had hi:	
How would you rate your comfort level w activities?	ith using the web or mobile apps to carry out self-service
How would you rate your comfort level w activities? For example using internet banking or booking	ith using the web or mobile apps to carry out self-service ng flights online.
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I am named o	n another person's insurance policy
I am part of ar	n insurance policy through an organisation or place of work
Other:	
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Other:	
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Through an instance	surance broker
Other:	
Does you insura This question is r insurance and ad	I nce company(s) offer online self-service facilities? referring to any website or mobile application where you can login and manage your own Id or track claims? Similar to internet banking facilities.
🔿 Yes	
🔿 No	
O Don't know	
If you answered If you answered 'I button below.	I yes to the above - have you ever used these facilities? No' or 'I don't know' to the above question simply skip this question and click the 'NEXT'
○ Yes	

A study into onli	ne insurance policy
Your insurance self-se The following questions are designed you tend to use your insurance comp Which of your current insurance polit E.g. your motor policy, health policy etc.	ETCICICS Ervice usage d to gain an understanding of how often and for what reasons iany(s) online self-service facilities. All questions are optional. cies come with an online self-service facility? If you are unsure or do not know simply leave the field blank.
In the past year, how many times hav	ve you logged in to your insurers self-service facility?
🔿 1 - 5 times	
O 6 to 10 times	
11 to 15 times	
O More than 15 times	
Make amendments to your policy Get information on your policy (e.g. c Access your insurance documents Make or manage payments Renew your policy	over levels)
Make or manage claims	
Other:	
What time of day are you most likely 6 am to 9am 9 am to 6pm 6 pm to 10pm 10pm to 6am I don't know « Back Continue »	to use your insurer's online self-service facility?
Powered by	This content is neither created nor endorsed by Google. Report Abuse - Terms of Service - Additional Terms

A stud manag	y into online insurance policy Jement preferences
Evaluatin The following s online self-serv statements in a	g your insurance self-service facilities tatements are aimed at gaining an understanding of your experience of using the ice facilities on offer from your insurance company(s). Please rate the following accordance with your level of agreement based on your own experiences.
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Strongly Disagre	e O O O O Strongly Agree
I find it easy to	get my insurer's online self-service facility to do what I want it to do.
Strongly Disagre	e 🔿 🔿 🔿 🔿 🔿 Strongly Agree
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TECHNOLOGY ADOPTION, RELATIVE ADVANTAGE, SELF-SERVICE

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A study into online insurance policy management preferences

Managing your insurance

The following statements are related to performing specific insurance tasks for example making a claim or renewing a policy. The statements in this section are designed to capture your preferences in terms of carrying out specific insurance policy related tasks.

You may answer these statements regardless of whether or not you may have had to perform any of these tasks in the past as the questions are designed to capture your sentiments rather than actual activities.

Please rate the following statements in accordance with your level of agreement

Making changes to your insurance policy

Refers to cases where you would be making a change to an existing insurance policy, for example adding a driver to a motor insurance policy or adding coverage for a diamond ring to your home insurance policy.

I would find it more convenient to make amendments to my policy online rather than speaking to an agent or calling into a branch

1 2 3 4 5 6 7

Strongly Disagree \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Strongly Agree

I am more confident making amendments to my policy online rather than speaking to an agent or calling into a branch

1 2 3 4 5 6 7

Strongly Disagree 🔿 🔿 🔿 🔿 🔿 Strongly Agree

Renewing your policy(s)

The following statements refer to renewing an existing policy.

I would find it more convenient to renew my policy online rather than speaking to an agent or calling into a branch.

1 2 3 4 5 6 7 Strongly Disagree O O O O O Strongly Agree

I am more confident renewing my policy online rather than speaking to an agent or calling into a branch.

1 2 3 4 5 6 7

Strongly Disagree 🔿 🔿 🔿 🔿 🔿 Strongly Agree

example paying	tatements refer to making or managing payments for your insurance policies. For an outstanding balance on a policy or checking your direct debit payment cycle.
I would find it m	nore convenient to make payments or manage paying for my insurance online
rather than spea	aking to an agent or calling into a branch.
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I am more confi agent or calling	ident making or managing insurance payments online rather than speaking to ar into a branch.
	1 2 3 4 5 6 7
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Accessin	a documentation
The following st	tatements refer to accessing your insurance documentation such as your schedu
of cover docum	ent or motor insurance certificate or card.
I would find it m speaking to an	nore convenient to access my insurance documentation online rather than agent or calling into a branch.
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	1 2 3 4 5 6 7
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Extremely Unlikely



Appendix (ii): Qualitative analysis data codebook

Qualitative Data Codebook

RA-Convenience: Interpretincluded any direct and indieffort) or convienience invol	eted as defined by Choudhury and Karahanna (2008). Coding for RA-C irect references regarding the efficiency (in terms of time and required plved in digital interactions with service providers
Subthemes	Examples
Speed / Time Saving	"Time wise it's better. I can't always phone if I'm working"
	"The speed of it and being able to re read at your own leisure."
Lifestyle compatible	"Like almost 18% of those born in Ireland, I am an expatriate with
	vital."
Out of hours	"I have a busy working day and like to do these tasks in the evening at my own convenience."
Convenience vs. phone	"Convenience for user, rather than waiting endlessly listening to horrible music."
RA-Trust: Interpreted as d 'informational trust' or "a u gathered through the web" confident that the "technolo (p. 184).	efined by Choudhury and Karahanna (2008). Coding considered both sers beliefs about the reliability, credibility and accuracy of information (p. 184) and 'structural assurance' or the extent to which the user is ogy is secure from hackers and unauthorised theft of personal information
Subthemes	Examples
Trust in Online	"Online services have no level of judgement or pressure attached to them"
Trust P2P advice	"I like to talk about my options - every case is different & would trust that would get better advice person - person contact."
Reliability of technology	"Will it run on my phone? Will it be stable enough and not crash during mtas or any other required adjustments."
Structural Assurance	"Security.Verifiabilty"
Trust – product complexity	"Even though I use my insurer's online capabilities, it is still important to talk to their representative or my agent for questions and confirmations. There are so many types of insurance. Some need personal explanations to be sure the coverage is adequate."
	"Life assurance is quite complex so it feels a bit safer to talk to a human sometime"
	"I am more confident calling an agent to ask questions regarding eligibility."
RA-Efficacy of Informatio (2008).	on Acquisition: Interpreted as defined by Choudhury and Karahanna
Subthemes	Examples
Information Clarity	"The Benefits of the policy need to be clear and easily read."
Explanation Quality	"If I get enough good explanations of the policies available I am happy to use self-service facilities."
Jargon Concerns	"There is a lot of jargon in insurance and I worry that I might not select the right cover"
Info – Agent Trust	"I find that sometimes the person on the end of the line is not doing

enough, or not in a position to be able to offer the kind of information
about my insurance policy i might be looking for."

Emergent Theme 1: Task where specific tasks were n	Dependency. Category coded based on emergent themes and sub-themes nentioned in relation to either online or offline service channels.
Subthemes	Examples
Requires Advice / Self- Efficacy	"I'm a bit technically challenged so I look for SIMPLE and EASY online systems."
	"I want to use self service for everything but with insurance there's a fear that I'm missing a small print."
	"If the online facility words itself to make me feel comfortable (even as a less tech savvy person) that I am making the correct choices and they have explained all my options very clearly, with perhaps 'check' or 'help' buttons for each choice I am making it would help a lot."
Price Sensitivity / Negotiating ability	"Negotiating a better deal is possible via an agent so I always speak to a customer service rep when renewing and ask for a discount. If they initially say they won't discount the price I say I have a more favourable price quote from a competitor and if they want to retain me as a customer they need to match or better that quote."
	"I find when dealing with someone over the phone or calling into an office you have a better chance of getting a discount on your premium. Online I don't think I could negotiate a reduction"
	"I also get a better renewal on home insurance when I haggle the price a bit. If I say I'm considering another vendor the price comes down."
Task Complexity	"I would feel uncomfortable making an insurance claim online with a self service facility as every claim is unique and would be more sure of what I'm entitled to by speaking to representative over the phone or even email."
	"Best for simple transaction such as renewal without amendment.
	Claim is more complex and likely to require advice"
Emergent Theme 2: PSS1	functionality
Subthemes	Examples
Ease of Login / Access /	"User personalisation ie : login via mobile or finger identification."
	"Ease of use, ease of logging in, device responsive, immediate updates
Usability	(not just a form to be filled in)" "Ouick one touch adjustments. No need to continually populate fields."
Subility	Quick one touch adjustments. No need to continuarly populate nerds.
Eunotionality	"Well-designed user interface"
Functionality	require a phone call or follow up by mail. I guess for me to use self
	service facilities on the web it would depend on if the online self service facilities are truly fully online or still require transfer to a phone or service representative before completion or follow up for wet
	signatures.

Chat / Escalation Facilities	"Maybe if Skype consultation is possible along side self service facility to identify possible options / pricings in personalised context"				
	"access to fully manage my own policy with the option to call if I get stuck"				
	"I like to be able to type in my question and be able to access a number of related answers."				
	"some sort of instant messaging service with representatives who can offer advice and suggestions"				
Emergent Theme 3: Offlin where participants recorded	ne Negative, Category coded based on emergent themes and sub-themes negative experiences with offline channels.				
Subthemes	Examples				
Poor experience with agent	"Speaking to an insurance agent of any kind over the phone or indeed in person can be hit or miss regarding the treatment you receive. You could get lucky and have someone on the end of the phone who is friendly, helpful and offers sound advice. However, sometimes you can speak to customer service representatives who make you feel like you're being judged, perhaps pressured to make a decision there and then, and sometimes can be condescending."				
Poor experience with automated phone systems	"Insurance Companies with on-line service mostly offer better value to customers. I have had bad experiences in past Ten years with finding when you eventually get to speak with an employee, turns out they may not have basic English. OOps maybe one is not allowed to say that but its one of the reasons I prefer to just do the work myself on the website."				
	"Telephony - as in how awful it has become to use to contact insurers"				

Appendix (iii): SPSS output tables

Hypothesis 1: Independent Samples T-Test: Overall RA between groups

Group Statistics									
	PSST Used	Ν	Mean	Std. Deviation	Std. Error Mean				
Total RA	Prior Usage = True	59	57.5932	14.40680	1.87561				
	Prior Usage = False	40	49.8500	16.21577	2.56394				

		Levene's Test for					
		Equality of	Variances		t-test	for Equality	of Means
						Sig. (2-	
		F	Sig.	t	df	tailed)	Mean Difference
Total	Equal						
RA	variances	.256	.614	2.494	97	.014	7.74322
	assumed						
	Equal						
	variances not			2.437	77.069	.017	7.74322
	assumed						

Independent Samples Test

			t-test for Equality of Means				
		Std. Error	95% Confidence	Interval of the Difference			
		Difference	Lower Upper				
Total RA	Equal variances assumed	3.10501	1.58063	13.90581			
	Equal variances not assumed	3.17674	1.41761	14.06883			

Hypothesis 2: Mann-Whitney U: Pt. 1 Overall INT Between Groups

Descriptive Statistics							
N Mean Std. Deviation Minimum Maximum							
Total INT	99	10.79	3.140	3	15		
PSST Used	99	1.40	.493	1	2		

Mann-Whitney Test

Ranks						
	PSST Used	Ν	Mean Rank	Sum of Ranks		
Total INT	Prior Usage = True	59	56.53	3335.50		
	Prior Usage = False	40	40.36	1614.50		
	Total	99				

Test Statistics^a

	Total INT
Mann-Whitney U	794.500
Wilcoxon W	1614.500
Z	-2.770
Asymp. Sig. (2-tailed)	.006

a. Grouping Variable: PSST Used

Hypothesis 2: Mann-Whitney U: Pt. 2 INT Factors Between Groups

Descriptive Statistics								
					Maxi			
	Ν	Mean	Std. Deviation	Minimum	mum			
INT Continue	98	3.98	1.235	1	5			
INT More	98	3.76	1.122	1	5			
INT Deciding Factor	97	3.20	1.264	1	5			
PSST Used	99	1.40	.493	1	2			

Mann-Whitney Test

Ranks							
	PSST Used	Ν	Mean Rank	Sum of Ranks			
INT Continue	Prior Usage = True	58	59.06	3425.50			
	Prior Usage = False	40	35.64	1425.50			
	Total	98					
INT More	Prior Usage = True	58	52.31	3034.00			
	Prior Usage = False	40	45.43	1817.00			
	Total	98					
INT Deciding Factor	Prior Usage = True	58	54.14	3140.00			
	Prior Usage = False	39	41.36	1613.00			
	Total	97					

Test Statistics

			INT Deciding
	INT Continue	INT More	Factor
Mann-Whitney U	605.500	997.000	833.000
Wilcoxon W	1425.500	1817.000	1613.000
Z	-4.278	-1.227	-2.261
Asymp. Sig. (2-tailed)	.000	.220	.024

a. Grouping Variable: PSST Used

Hypothesis 3: Regression Models – PSST Users: Pt. 1: RA, PU, PEOU

Variables Entered/ Removed^{a,b}

		Variables	
Model	Variables Entered	Removed	Method
1	Total PEOU, Total		Entor
	RA, Total PU ^c	•	LITTE

a. Dependent Variable: Total INT

b. Models are based only on cases for which PSST Used = Prior Usage = True

c. All requested variables entered.

Model Summary							
	R						
	PSST Used =						
	Prior Usage =			Std. Error of the			
Model	True (Selected)	R Square	Adjusted R Square	Estimate			
1	.586 ^a	.344	.307	2.001			

a. Predictors: (Constant), Total PEOU, Total RA , Total PU

ANOVA ^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.354	3	37.785	9.436	.000 ^c
	Residual	216.232	54	4.004		
	Total	329.586	57			

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

c. Predictors: (Constant), Total PEOU, Total RA , Total PU

Coefficients ^{a,b}

	Unstandardiz		ized Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	5.725	1.164		4.918	.000
	Total RA	.058	.024	.350	2.410	.019
	Total PU	.066	.051	.222	1.293	.201
	Total PEOU	.027	.047	.091	.571	.571

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

Hypothesis 3: Regression Models - PSST Users: Pt. 2: TAM BASE MODEL

Variables Entered/Removed ^{a,b}

		Variables	
Model	Variables Entered	Removed	Method
1	Total PEOU, Total PU ^c		Enter

a. Dependent Variable: Total INT

b. Models are based only on cases for which PSST Used = Prior Usage = True

c. All requested variables entered.

Model SummaryRAAPSST Used =AAPrior Usage =Frior Usage =Std. Error of theModelTrue (Selected)R SquareAdjusted R Square1.523^a.273.247

a. Predictors: (Constant), Total PEOU, Total PU

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90.096	2	45.048	10.345	.000 ^c
	Residual	239.490	55	4.354		
	Total	329.586	57			

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

c. Predictors: (Constant), Total PEOU, Total PU

Coefficients a,b

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	6.993	1.083		6.457	.000
	Total PU	.115	.048	.389	2.372	.021
	Total PEOU	.050	.048	.169	1.034	.306

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

Hypothesis 3: Regression Models – PSST Users: Pt. 3 -RA + PU

Variables Entered/Removed ^{a,b}

		Variables	
Model	Variables Entered	Removed	Method
1	Total RA , Total PU ^c		Enter

a. Dependent Variable: Total INT

b. Models are based only on cases for which PSST Used = Prior

Usage = True

c. All requested variables entered.

Model Summary							
	R						
	PSST Used =						
	Prior Usage =			Std. Error of the			
Model	True (Selected)	R Square	Adjusted R Square	Estimate			
1	.583 ^a	.340	.316	1.989			

a. Predictors: (Constant), Total RA , Total PU

 $\boldsymbol{\mathsf{ANOVA}}^{\mathsf{a},\mathsf{b}}$

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.051	2	56.025	14.165	.000 ^c
	Residual	217.536	55	3.955		
	Total	329.586	57			

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

c. Predictors: (Constant), Total RA , Total PU

Coefficients^{a,b}

		Unstandardized Coefficients		Standardized Coefficients					
Mode	el	В	Std. Error	Beta	t	Sig.			
1	(Constant)	5.857	1.134		5.165	.000			
	Total PU	.082	.042	.277	1.953	.056			
	Total RA	.061	.023	.367	2.594	.012			

a. Dependent Variable: Total INT

b. Selecting only cases for which PSST Used = Prior Usage = True

Hypothesis 3: Regression Models – Between Groups: RA Sub dimensions (PSST Users)

Variables	Entered/	Removed	a,b
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		Variables	
Model	Variables Entered	Removed	Method
1	Total InfoEfficacy,		
	Total Convenience,	. Enter	
	Total Trust ^c		

a. PSST Used = Prior Usage = True

b. Dependent Variable: Total INT

c. All requested variables entered.

Model Summary ^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.526 ^b	.276	.237	2.260

a. PSST Used = Prior Usage = True

b. Predictors: (Constant), t-InfoEfficacy, t-Convenience, t-Trust

ANOVA ^{a,b}									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	107.308	3	35.769	7.003	.000 ^c			
	Residual	280.929	55	5.108					
	Total	388.237	58						

a. PSST Used = Prior Usage = True

b. Dependent Variable: Total INT

c. Predictors: (Constant), t-InfoEfficacy, t-Convenience, t-Trust

	Coefficients ^{a,b}							
		Unsta Coe	ndardized fficients	Standardized Coefficients				
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	6.431	1.256		5.120	.000		
	tConvenience	.064	.067	.159	.960	.341		
	tTrust	.044	.064	.118	.687	.495		
	tInfoEfficacy	.287	.129	.327	2.224	.030		

a. PSST Used = Prior Usage = True

b. Dependent Variable: Total INT

Hypothesis 3: Regression Models – Between Groups: RA Sub dimensions (Non Users)

Variables Entered/Removed^{a,b}

		Variables	
Model	Variables Entered	Removed	Method
1	tInfoEfficacy,		
	tConvenience,		Enter
	tTrust ^c		

a. PSST Used = Prior Usage = False

b. Dependent Variable: Total INT

c. All requested variables entered.

Model Summary^a

				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.733 ^b	.538	.499	2.492

a. PSST Used = Prior Usage = False

b. Predictors: (Constant), tInfoEfficacy, tConvenience, tTrust

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	260.121	3	86.707	13.968	.000 ^c
	Residual	223.479	36	6.208		u .
	Total	483.600	39			

a. PSST Used = Prior Usage = False

b. Dependent Variable: Total INT

c. Predictors: (Constant), tInfoEfficacy, tConvenience, tTrust

Coefficie	ents ^{a,b}
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		Unstandardized Coefficients		Standardized Coefficients				
Model		В	Std. Error	Beta	t	Sig.		
1	(Constant)	1.753	1.340		1.308	.199		
	tConvenience	.366	.092	.759	3.964	.000		
	tTrust	025	.110	054	227	.822		
	tInfoEfficacy	.041	.182	.037	.228	.821		

a. PSST Used = Prior Usage = False

b. Dependent Variable: Total INT

Hypothesis 4a: Chi-Square Test: Purchase Online and PSST usage (actual usage)

Case Processing Summary							
	Cases						
	Valid		Missing		Total		
	Ν	Percent	N	Percent	N	Percent	
PUR Online * PSST Used	98	99.0%	1	1.0%	99	100.0%	

PUR Online * PSST Used Crosstabulation

			PSS		
			Prior Usage = True	Prior Usage = False	Total
PUR	Yes	Count	50	20	70
Online		Expected Count	42.1	27.9	70.0
	No	Count	9	19	28
		Expected Count	16.9	11.1	28.0
Total		Count	59	39	98
		Expected Count	59.0	39.0	98.0

Chi-Square Tests

			Asymp. Sig.	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	12.884 ^a	1	.000		
Continuity Correction ^b	11.296	1	.001		
Likelihood Ratio	12.824	1	.000		
Fisher's Exact Test				.001	.000
Linear-by-Linear	10 750	1	000		
Association	12.752	I	.000		
N of Valid Cases	98				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.14.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.363	.000
	Cramer's V	.363	.000
N of Valid Cases		98	

Hypothesis 4b: Independent Samples T-Test: WCL and PSST usage (Users Group)

	Group Statistics							
					Std. Error			
	PSST Used	Ν	Mean	Std. Deviation	Mean			
WCL	Prior Usage = True	59	4.63	.613	.080			
	Prior Usage = False	40	4.30	.966	.153			

	Independent Samples Test							
		Levene'	s Test for					
		Equa	ality of					
		Varia	ances	t-	test for E	Equality of M	eans	
							Mean	
						Sig. (2-	Differenc	
		F	Sig.	t	df	tailed)	е	
WCL	Equal variances assumed	8.333	.005	2.062	97	.042	.327	
	Equal variances not assumed			1.898	60.18 3	.062	.327	

Independent Samples Test

		t-test for Equality of Means				
			95% Confid	ence Interval of		
		Std. Error	the Difference			
		Difference	Lower	Upper		
WCL	Equal variances assumed	.159	.012	.642		
	Equal variances not assumed	.172	018	.672		

Descriptive Statistics							
	Ν	Mean Std. Deviation Minimum Maxir					
RA C Amend	97	4.91	1.990	1	7		
RA C Renew	97	4.92	1.897	1	7		
RA C Pay	97	5.25	1.774	1	7		
RA C Docs	97	5.58	1.664	1	7		
RA C Claims	97	4.00	1.904	1	7		

Hypothesis 6: Friedman Tests – Within Subjects: Pt. 1 – RA-C

Friedman Test

Ranks				
	Mean Rank			
RA C Amend	2.87			
RA C Renew	3.03			
RA C Pay	3.34			
RA C Docs	3.64			
RA C Claims	2.13			

Test Statistics

Ν	97
Chi-Square	82.453
df	4
Asymp. Sig.	.000

Hypothesis 6: Friedman Tests – Within Subjects: Pt. 2 – RA-T

Descriptive Statistics								
N Mean Std. Deviation Minimum Maximum								
RA T Amend	98	4.16	1.898	1	7			
RA T Renew	98	4.18	1.880	1	7			
RA T Pay	98	4.87	1.774	1	7			
RA T Docs	98	5.05	1.761	1	7			
RA T Claims	98	3.52	1.613	1	7			

Friedman Test

Ranks				
	Mean Rank			
RA T Amend	2.76			
RA T Renew	2.84			
RA T Pay	3.49			
RA T Docs	3.69			
RA T Claims	2.22			

.

Test Statistics^a

Ν	98
Chi-Square	85.468
df	4
Asymp. Sig.	.000

a. Friedman Test

Hypothesis 6: Friedman Tests – Within Subjects: Pt. 3 – RA-I

Descriptive Statistics

	Ν	Mean	Std. Deviation	Minimum	Maximum
RA I Learn	98	4.30	1.670	1	7
RA I Explanations	98	3.91	1.631	1	7

Friedman Test

Ranks					
Mean Rank					
RA I Learn	1.59				
RA I Explanations	1.41				

Test Statistics

Test Statistics				
Ν	98			
Chi-Square	7.364			
df	1			
Asymp. Sig.	.007			

a. Friedman Test

Hypothesis 6: Wilcoxon Signed Ranks – Within Subjects: Pt. 1 RA-C

Descriptive Statistics							
	Ν	N Mean Std. Deviation Minimum Maxim					
RA C Amend	98	4.88	2.001	1	7		
RA C Renew	99	4.96	1.900	1	7		
RA C Pay	99	5.28	1.773	1	7		
RA C Docs	99	5.61	1.659	1	7		
RA C Claims	98	4.03	1.918	1	7		

Wilcoxon Signed Ranks Test

Ranks								
		Ν	Mean Rank	Sum of Ranks				
RA C Renew - RA C	Negative Ranks	20 ^a	24.75	495.00				
Amend	Positive Ranks	27 ^b	23.44	633.00				
	Ties	51 [°]						
	Total	98						
RA C Pay - RA C	Negative Ranks	14 ^d	27.46	384.50				
Amend	Positive Ranks	35 ^e	24.01	840.50				
	Ties	49 ^f						
	Total	98						
RA C Docs - RA C	Negative Ranks	11 ^g	21.95	241.50				
Amend	Positive Ranks	40 ^h	27.11	1084.50				
	Ties	47 ⁱ						
	Total	98						
RA C Claims - RA C	Negative Ranks	49 ^j	39.32	1926.50				
Amend	Positive Ranks	20 ^k	24.43	488.50				
	Ties	28 ¹						
	Total	97						
RA C Pay - RA C	Negative Ranks	12 ^m	17.67	212.00				
Renew	Positive Ranks	26 ⁿ	20.35	529.00				
	Ties	61°						
	Total	99						
RA C Docs - RA C	Negative Ranks	5 ^p	18.30	91.50				
Renew	Positive Ranks	32 ^q	19.11	611.50				
	Ties	62 ^r						
	Total	99						
RA C Claims - RA C	Negative Ranks	51 ^s	31.27	1595.00				
Renew	Positive Ranks	11 ^t	32.55	358.00				
	Ties	36 ^u						
	Total	98						

RA C Docs - RA C	Negative Ranks	12 ^v	17.08	205.00
Pay	Positive Ranks	25 ^w	19.92	498.00
	Ties	62 ^x		
	Total	99		
RA C Claims - RA C	Negative Ranks	55 ^y	34.37	1890.50
Pay	Positive Ranks	11 ^z	29.14	320.50
	Ties	32 ^{aa}		
	Total	98		

a. RA C Renew < RA C Amend b. RA C Renew > RA C Amend c. RA C Renew = RA C Amend d. RA C Pay < RA C Amend e. RA C Pay > RA C Amend f. RA C Pay = RA C Amend g. RA C Docs < RA C Amend h. RA C Docs > RA C Amend i. RA C Docs = RA C Amend j. RA C Claims < RA C Amend k. RA C Claims > RA C Amend I. RA C Claims = RA C Amend m. RA C Pay < RA C Renew n. RA C Pay > RA C Renew

o. RA C Pay = RA C Renew p. RA C Docs < RA C Renew q. RA C Docs > RA C Renew r. RA C Docs = RA C Renew s. RA C Claims < RA C Renew t. RA C Claims > RA C Renew u. RA C Claims = RA C Renew v. RA C Docs < RA C Pay w. RA C Docs > RA C Pay x. RA C Docs = RA C Pay y. RA C Claims < RA C Pay z. RA C Claims > RA C Pay aa. RA C Claims = RA C Pay

Test Statistics						
	RA C	RA C	RA C	RA C	RA C	RA C
	Renew -	Pay -	Docs -	Claims -	Pay -	Docs -
	RA C	RA C	RA C	RA C	RA C	RA C
	Amend	Amend	Amend	Amend	Renew	Renew
Z	746 ^b	-2.302 ^b	-3.999 ^b	-4.351 [°]	-2.358 ^b	-3.971 ^b
Asymp.						
Sig. (2-	.455	.021	.000	.000	.018	.000
tailed)						

			RA C
	RA C Claims -	RA C Docs -	Claims - RA
	RA C Renew	RA C Pay	C Pay
Z	-4.379 ^c	-2.256 ^b	-5.045 ^c
Asymp. Sig. (2-tailed)	.000	.024	.000

a. Wilcoxon Signed Ranks Test b. Based on negative ranks. c. Based on positive ranks.

Descriptive Statistics						
	Ν	Mean	Std. Deviation	Minimum	Maximum	
RA T Amend	99	4.14	1.901	1	7	
RA T Renew	99	4.17	1.874	1	7	
RA T Pay	99	4.84	1.788	1	7	
RA T Docs	99	5.03	1.764	1	7	
RA T Claims	98	3.52	1.613	1	7	

Hypothesis 6: Wilcoxon Signed Ranks – Within Subjects: Pt. 2 RA-T

Wilcoxon Signed Ranks Test

Ranks Ranks Ranks				
		Ν	Mean Rank	Sum of Ranks
RA T Renew -	Negative Ranks	19 ^a	28.68	545.00
RA T Amend	Positive Ranks	27 ^b	19.85	536.00
	Ties	53 [°]		
	Total	99		
RA T Pay -	Negative Ranks	13 ^d	26.04	338.50
RA T Amend	Positive Ranks	42 ^e	28.61	1201.50
	Ties	44 ^f		
	Total	99		
RA T Docs -	Negative Ranks	13 ^g	25.96	337.50
RA T Amend	Positive Ranks	49 ^h	32.97	1615.50
	Ties	37 ⁱ		
	Total	99		
RA T Claims -	Negative Ranks	45 ^j	37.01	1665.50
RA T Amend	Positive Ranks	22 ^k	27.84	612.50
	Ties	31 ¹		
	Total	98		
RA T Pay -	Negative Ranks	8 ^m	18.50	148.00
RA T Renew	Positive Ranks	35 ⁿ	22.80	798.00
	Ties	56 [°]		
	Total	99		
RA T Docs -	Negative Ranks	7 ^p	22.21	155.50
RA T Renew	Positive Ranks	44 ^q	26.60	1170.50
	Ties	48 ^r		
	Total	99		
RA T Claims -	Negative Ranks	42 ^s	31.08	1305.50
RA T Renew	Positive Ranks	16 ^t	25.34	405.50
	Ties	40 ^u		
	Total	98		
RA T Docs -	Negative Ranks	14 ^v	20.36	285.00
---------------	----------------	------------------	-------	---------
RA T Pay	Positive Ranks	25 ^w	19.80	495.00
	Ties	60 [×]		
	Total	99		
RA T Claims -	Negative Ranks	58 ^y	35.21	2042.00
RA T Pay	Positive Ranks	9 ^z	26.22	236.00
	Ties	31 ^{aa}		
	Total	98		

a. RA T Renew < RA T Amend b. RA T Renew > RA T Amend c. RA T Renew = RA T Amend d. RA T Pay < RA T Amend e. RA T Pay > RA T Amend f. RA T Pay = RA T Amend g. RA T Docs < RA T Amend h. RA T Docs > RA T Amend i. RA T Docs = RA T Amend j. RA T Claims < RA T Amend k. RA T Claims > RA T Amend l. RA T Claims = RA T Amend m. RA T Pay < RA T Renew n. RA T Pay > RA T Renew o. RA T Pay = RA T Renew p. RA T Docs < RA T Renew q. RA T Docs > RA T Renew r. RA T Docs = RA T Renew s. RA T Claims < RA T Renew t. RA T Claims > RA T Renew u. RA T Claims = RA T Renew v. RA T Docs < RA T Pay w. RA T Docs > RA T Pay x. RA T Docs = RA T Pay y. RA T Claims < RA T Pay z. RA T Claims > RA T Pay a. RA T Claims = RA T Pay

Test Statistics						
	RA T	RA T	RA T	RA T	RA T	RA T
	Renew -	Pay -	Docs -	Claims -	Pay -	Docs -
	RA T	RA T	RA T	RA T	RA T	RA T
	Amend	Amend	Amend	Amend	Renew	Renew
Z	050 ^b	-3.661 ^c	-4.538 ^c	-3.336 ^b	-3.969 ^c	-4.810 ^c
Asymp. Sig. (2-tailed)	.960	.000	.000	.001	.000	.000

	RA T Claims -	RA T Docs -	RA T Claims - RA
	RA T Renew	RA T Pay	T Pay
Z	-3.525 ^b	-1.505 [°]	-5.680 ^b
Asymp.			
Sig. (2-	.000	.132	.000
tailed)			

Hypothesis 6: Wilcoxon Signed Ranks – Within Subjects: Pt. 3 RA-I

Descriptive Statistics

	Ν	Mean	Std. Deviation	Minimum	Maximum
RA I Learn	98	4.30	1.670	1	7
RA I Explanations	99	3.88	1.649	1	7

Wilcoxon Signed Ranks Test

Ranks					
		Ν	Mean Rank	Sum of Ranks	
RA I Explanations - RA	Negative Ranks	31 ^a	22.95	711.50	
I Learn	Positive Ranks	13 ^b	21.42	278.50	
	Ties	54 ^c			
	Total	98			

a. RA I Explanations < RA I Learn

b. RA I Explanations > RA I Learn

c. RA I Explanations = RA I Learn

Test Statistics ^a

	RA I Explanations
	- RA I Learn
Z	-2.578 ^b
Asymp. Sig. (2-tailed)	.010

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.