Online insurance claims: when more than trust matters

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Abstract

Purpose – The purpose of this paper is to develop and test a theoretical framework explaining the adoption of online insurance claims characterised by infrequent interactions, inherent complexity and risk. It extends the technology acceptance model to include knowledge-related and trust-related beliefs.
Design/methodology/approach – The framework is tested with structural equation modelling using data from a survey of 292 customers who made online insurance claims. Findings are further explained through 30 telephone interviews conducted with online and offline claimants.
Findings – Previous research in financial services has shown trust to be equally or more important than perceived usefulness and perceived ease of use in forming attitudes towards adopting online insurance applications. The findings of this paper contradict this by showing, at best, a weak relationship between trusting attitude and intention to use the online service. Trust is somewhat meaningful; however, perceived ease of use, perceived usefulness and technology attitude are substantially more important in an online insurance claims setting.
Research limitations/implications – Contradictory results always beg further research to assure their robustness. Nevertheless, they can also point to a developing trend where trust in the internet channel, *per se*, is of diminishing importance. Internet and product knowledge are not as pertinent to forming intentions as usefulness and ease of use.
Practical implications – To encourage customers to adopt online applications for a trusted company, all emphasis should be on user friendliness and perceived usefulness of the online interface.
Originality/value – Compared to other channels, consumers are no longer naïve or distrustful of the online channel for interacting with a firm. If they perceive usefulness and ease of use, they will adopt the offered service.

Keywords Insurance, TAM, Trust, Online insurance, Online insurance claims

Paper type Research paper

1. Introduction

Over the years, e-commerce has become increasingly integrated into people's lives as more goods and services are offered online. With the extended digital transformation, goods and services are becoming more varied, increasing the burden for customers to fully comprehend the offerings. It has thus been argued (e.g. Wang and Lu, 2014) that growth in e-commerce and more diverse offerings increases complexity and uncertainty in the online consumer decision process.

Technology is also changing the insurance industry, such as in the ways services are presented and offered, and in the way insurance companies and customers are interacting (Deloitte Digital, 2017; O'Mara and Memmo, 2015; Silverberg *et al.*, 2016; Zagorin, 2018). Artificial intelligence in terms of self-service applications is at an increasing rate replacing human interactions, even in a context of complex solutions offerings such as customised novel insurance policies and claims management (Babak, 2017; Hall, 2017). In comparison to other industries and even financial services, the insurance industry has been lagging behind in the digital transformation. One reason for this has been the legacy of the information systems (O'Mara and Memmo, 2015). Recent industry reports, though, indicate that one of the most important trends in insurance technology development is automated and customised claims settlement (Deloitte Digital, 2017; Zagorin, 2018).

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Insurance providers are increasingly using digital technology and the internet as a channel for communication, interaction and distribution, actively encouraging their customers to use online insurance services. Whereas online banking-related services are typically used in a routine way, sometimes even daily, this is not the case for insurance services. In contrast to banking (or other non-financial product/service providers), insurance customer's adoption rate and level of engagement with online insurance are substantially lower (Hall, 2017; Hocking *et al.*, 2014). In their relationships, customers primarily interact with the insurance company when seeking an insurance quote, for checking terms before signing a contract, or during a claims process, all of which are infrequent interactions (Gidhagen, 2002; Järvinen *et al.*, 2003). Therefore, considering differences in technology adoption, a relationship marketing setting characterised by infrequent interaction such as insurance may be quite dissimilar from a routine-based context like banking (Floh and Treiblmaier, 2006; Heinonen, 2007).

Insurance involves a range of abstract, complex offerings where customers are purchasing what can be characterised as a sense of security, hoping they will not have to use the product in full, which enhances the importance of trust (Gidhagen, 2002). The filing of an insurance claim may be the first occasion calling for a direct interaction since the initiation of the relationship. Whether personal or through an online application, the time when nothing unexpected or harmful occurs in the life of a policyholder entails no more than infrequent, or perhaps even non-existing, direct contact with the insurer. At such moments of truth in the relationship, the complexity inherent in the nature of the insurance product amplifies the importance of trust (Lim *et al.*, 2009; Wang and Lu, 2014), and the need to reduce the customer's perceived risk and fear of opportunistic behaviour (Wang and Lu, 2014). It is in the claims process that the customer is expecting to receive financial support enabling can restore the insured to recover the situation prior to an incident (Rejda, 2003). Consequently, there may be a fear of not being fully compensated for the occurrence of loss. This could be seen as a reason for the slow adoption of online applications among insurance customers. Given the fast pace of digital transformation, it is necessary to understand what factors are affecting the adoption of online services among customers when products are complex and interactions are infrequent. For this reason, the adoption and use of online claims services are of particular interest for research and practice, especially in light of the constant progress and implementation of digital insurance services.

Previous research combining technology acceptance- and trust-related factors for analysing the adoption of online services (Benamati *et al.*, 2010; Pavlou, 2003) indicates that trust and trusting attitude play a stronger role in predicting customer intentions to use a technology than aspects related to perceived usefulness and ease of use. Trust is a principal antecedent for partaking in e-commerce (Gefen, 2000). Compared with any other consumer-related industry, trust is considered to be of even greater importance in an insurance setting reflecting interaction infrequency, service complexity and the large sums of money that may be at stake (Hocking *et al.*, 2014; Lim *et al.*, 2009; Wang and Lu, 2014). Given that we want to understand the implications of offering highly complex products through online applications, we also need to incorporate product knowledge together with TAM and trust; antecedents indicated as being important factors affecting adoption and use (cf. Gidhagen and Gebert-Persson, 2011; Wang and Lu, 2014). Integrating product knowledge into the TAM and trust model implies that the model will account for the complexity, the considerable financial impact and the infrequent use of insurance services.

Most studies on technology adoption in financial services investigate internet banking customers, whereas little research has focussed on the insurance industry (Lim *et al.*, 2009; Wang and Lu, 2014; Alsajjan and Dennis, 2010; Grabner-Kräuter and Faullant, 2008;

McKechnie *et al.*, 2006). The purpose of this paper is to develop and test a theoretical framework explaining insurance customer's adoption of online insurance claims, in a relationship context characterised by infrequent interaction, inherent complexity and risk. Thus, in order to understand the factors affecting customers' adoption of an online claims application we extend the technology acceptance model (TAM) to include knowledge-related and trust-related beliefs. We base our conclusions on structural equation modelling in LISREL of a survey of customers who have made online insurance claims.

2. The role of technology acceptance and trust in online insurance claims

The basic contention of the framework (Figure 1) for investigating the adoption of the online claims service is that exogenous beliefs affect attitudes that, in turn, affect the intention to use the application.

The TAM is the paramount theory of technology acceptance in information systems research (Gefen *et al.*, 2003b). Although introduced many decades ago, it is still widely used to explain the use of new technology and the way external variables affect the adoption of an information system (cf. Agrebi and Jallais, 2015; Dachyar *et al.*, 2014; Nurittamont, 2017). It is, for instance, the most frequently applied model in the studies of online shopping (Chen *et al.*, 2018) and online banking (Zhou, 2012). TAM has its roots in the theory of reasoned action (Ajzen and Fishbein, 1980). Based on the social psychology theory, the TAM model assumes that underlying beliefs affect attitudes towards using the technology, and that these attitudes in turn predict an individual's intention to use, for example, online applications (Davis *et al.*, 1989). Complementary to the TAM model,

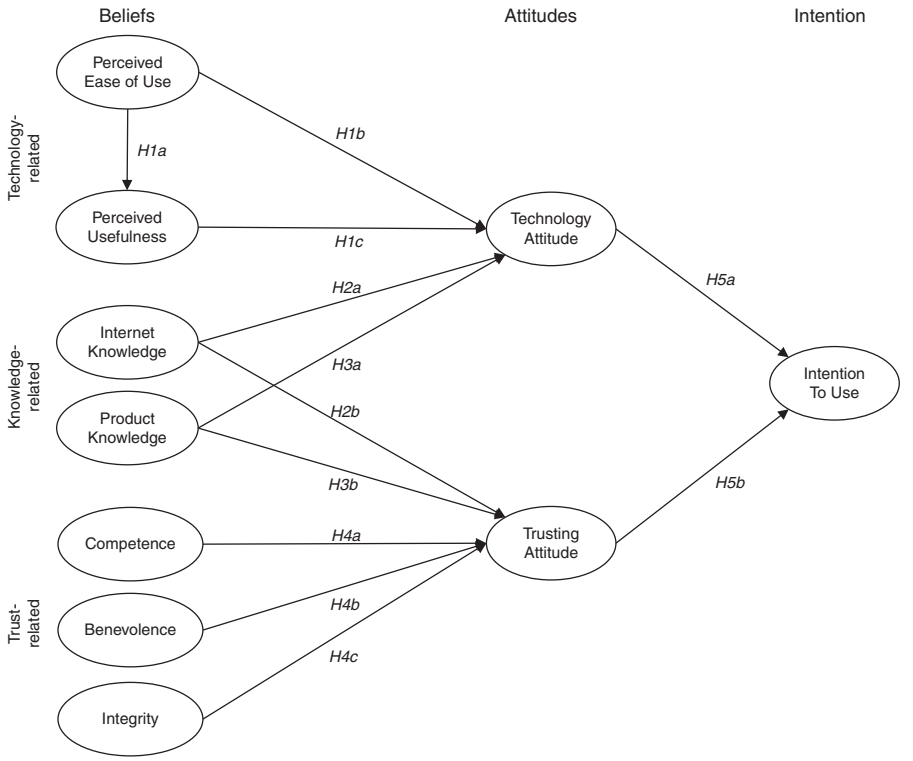

Figure 1.
Framework for investigating adoption of an online channel

Gidhagen and Gebert-Persson (2011) suggest that technology-related, knowledge-related and trust-related beliefs are underlying beliefs affecting the adoption and use of online insurance applications.

Technology-related beliefs are determined by considering perceived usefulness and perceived ease of use. In the present research, perceived usefulness concerns whether the individual perceives the online application as having a positive effect on task performance, which in this case is completing an insurance claim. This implies that the individual will put more effort into learning how to use the internet application if (s)he recognises that it could have a positive effect on the outcome. Perceived ease of use considers how complicated the technology is to learn and to use, as well as how it affects perceived usefulness. If a technology is recognised as easy to understand and to use, the individual will be more positive towards the value of the technology (Davis *et al.*, 1989). Hence, it is hypothesized that:

H1. Perceived ease of use positively affects (a) perceived usefulness and (b) technology attitude; and (c) perceived usefulness positively affects technology attitude.

Although TAM has been widely adopted within research on technology acceptance (e.g. Jackson *et al.*, 1997), there is research indicating that barely 40 per cent of system use can be empirically explained by using TAM alone (cf. Hu *et al.*, 1999; Legris *et al.*, 2003). TAM can thus explain parts of the individual's adoption of technologies; however, as pointed out in the introduction, trusting attitude may be a stronger predictor of the behavioural intention to use technologies. Benamati *et al.* (2010) argue that TAM and trust affect a (prospective) customer's intentions to use an online provider's website.

The integration of trust with TAM is not new (cf. Gefen *et al.*, 2003a, b; Suh and Han, 2002). However, problems with previous studies are that technology-related beliefs are often excluded and there are discrepancies regarding how trust is treated. The trust concept has, for example, been considered as a belief, as an attitude, or as a behavioural intention. To overcome these discrepancies, Benamati *et al.* (2010) merged TAM with generally accepted determinants of trust into a comprehensive model emphasising the process perspective where technology and trust-related beliefs, combined with knowledge-related beliefs, define the technology and trusting attitudes, which in turn determine the intention to use. It is argued that the technology beliefs – in terms of perceived usefulness and perceived ease of use – only affect the intention to use after an attitude has been formed towards usage (Davis, 1989). The same rationale applies to knowledge- and trust-related beliefs. These beliefs do not directly affect intention to use, but, rather, form technology and trusting attitudes that in turn mediate the intention to use.

In the proposed framework, knowledge-related beliefs refer to how knowledgeable an individual is about the product category and using online applications. Knowledge-related beliefs in turn affect trusting and technology attitudes (cf. Mayer *et al.*, 1995). An online service application does not provide the same opportunities for direct two-way conversations as a telephone call or a face-to-face meeting, a circumstance that can function as a barrier towards using the application (Gefen *et al.*, 2003b). Whereas familiarity with a service provider is a factor affecting perceived trust in that company (Gefen, 2000), familiarity with the internet as well as the ability to use online applications is a separately defined construct. Internet knowledge (Potosky, 2007) is therefore a relevant factor to consider. If the customer has little internet knowledge, s(he) is likely inclined to be sceptical towards online services, This would negatively affect her/his technology attitude and trusting attitude; attitudes which are in turn directly affecting the customer's intention to use the application in question.

Another aspect relates to the complexity of the product. When products, such as insurance and other financial services, are complex or even unknown, it will be hard for the customer to fully understand and use them. Such circumstances are here referred to as the

level of product knowledge. The lower the level of product knowledge, the higher the fear of opportunistic behaviour (Wang and Lu, 2014). As the product knowledge increases, so will the customer's faith in technology and the firm. Therefore, we argue that the more knowledgeable the customer is about the product, the higher the trusting attitude will be. Hence, it is hypothesized that:

H2. Internet knowledge has a positive effect on (a) technology attitude and (b) trusting attitude.

H3. Product knowledge has a positive effect on (a) technology attitude and (b) trusting attitude.

Beldad *et al.* (2010) identified three categories of trust factors affecting online transactions: website-based, user-based and company-based determinants. Previous studies integrating TAM with the concept of trust in an online context have generally focussed on website-based trust (e.g. Weaver McCloskey, 2006). However, Lim *et al.* (2009) showed that company-based trust and product quality are more important than website-based trust once a customer has purchased the insurance. As the context of this research considers a situation where the policyholders have been customers with the insurance company for an extended period of time, the trust with the company can be expected to be most important, even though we are only measuring the beliefs and attitudes when making a claim. Company-based trust, expressed as a trusting attitude, corresponds with the commonly referred to the psychological definition of trust (cf. Rousseau *et al.*, 1998). That is, "the willingness of a party (i.e. the trustor) to be vulnerable to or depend on the actions of another party in situations of risk […]" (Benamati *et al.*, 2010, p. 383). It is a multidimensional concept (cf. Blau, 1964; Ennew and Sekhon, 2007; Jarvenpaa *et al.*, 1998; Mayer *et al.*, 1995), formed by knowledge-related beliefs (Crosby *et al.*, 1990) and trust-related beliefs.

In accordance with Gidhagen and Gebert-Persson (2011), we argue that trust-related beliefs are formed by three attributes: first, perceived competence relates to how the individual perceives the expertise, skills and knowledge of the providing firm and its representatives. Second, perceived benevolence relates to the degree to which the individual perceives the company as willing to do what is best for the customer, beyond any profit motive. Third, perceived integrity relates to the degree the company is perceived as acting in line with a set of principles of doing business. These three attributes have a direct effect on trusting attitude (cf. Chen and Dhillon, 2003):

H4. (a) Competence (b) benevolence and (c) integrity have positive effects on trusting attitude.

Consistent with the theory of reasoned action (Ajzen and Fishbein, 1980), attitudes predict an individual's intention to use, for example, the online application (Davis *et al.*, 1989). Hence, it is hypothesized that:

H5. (a) Technology attitude and (b) trusting attitude positively affect intention to use the online application.

3. Research method

We applied a two-step mixed-methods approach (Venkatesh *et al.*, 2013) encompassing a survey and follow-up interviews by phone, which helped to explain the quantitative results (Creswell and Piano, 2011). Initially, the hypotheses were tested in a cross-sectional survey with customers of a large Swedish insurance company. That had recently implement online claims services. As the insurance company was one of the first to introduce online claims services, this provided a solid empirical foundation for our investigation. We defined the population as individuals who made an insurance claim

with the insurance company in a specified two-month period. Since the majority of the customers make claims through telephone, interviews were conducted with those making claims either by telephone or online.

3.1 Sample

For the purpose of understanding factors affecting online claims, it was important to survey customers specifically making an online claim, as we assume a basic level of internet knowledge. It was essential that respondents were competent to answer so as to avoid knowledge deficiency artefacts, which translates to greater error in responses (Kumar *et al.*, 1993). In total, the population of individuals having made an online claim during that period was 4,715. We randomly sampled 2,000 individuals who were e-mailed a questionnaire. In total, 292 responded, giving a response rate of 15 per cent.

3.2 Measurement

The framework presented in Figure 1 served as the basis for constructing a questionnaire. Where possible, we used previous researcher's measures of the constructs, and then added our own questions. All constructs were operationalized with multiple items and measured on seven-point Likert scales (see Table AI).

3.3 Validation

We tested several models in LISREL using robust maximum likelihood estimation with polychoric correlation matrices and asymptotic covariance matrices as input, and the normed Satorra–Bentler scaled χ^2 and degrees of freedom for assessment. This is the appropriate estimation technique when using ordinal measures (Jöreskog and Sörbom, 1996). Following Anderson and Gerbing's (1988) two-step approach, we assessed construct validity (convergent and discriminant validity) in the measurement model before considering the structural model. This alleviates the interaction of the measurement and structural models allowing for a more accurate assessment of validity and reliability (Anderson and Gerbing, 1992).

We used a four-step approach to modelling in the measurement model. Though not shown, we started with modelling each component of the theory separately. That is, we ran separate models for technology-related, knowledge-related and trust-related beliefs. Finally, we ran a full model with all latent constructs. In the process, we deleted indicators that had large amounts of error or cross-loading problems. All final models except for trust-related beliefs fit the data well. Trust-related beliefs would not discriminate so we modified it into a single latent construct, trusting beliefs with two indicators from each underlying dimension of competence, benevolence and integrity.

The final measurement model statistics are reported in Table I. All latent constructs still have three to six indicators, so multidimensionality within constructs is fine. We assessed discriminant validity by checking correlation coefficients in the off-diagonal of the φ-matrix (not shown). Each correlation coefficient $\pm$ two times the respective standard error should not include 1 (Anderson and Gerbing, 1988). All latent constructs passed this test so we have discriminant validity. Convergent validity was assessed in a few ways. First, all factor loadings, reported as standardized loadings in Figure 1, are significant. With a sample size of 292, the critical cut-off in the *t*-tables for a one-sided hypothesis is 1.645. All *t*-values are well above this. Second, good model fit indicates convergent validity. The normed Satorra–Bentler scaled χ^2 of 332.82 divided by the degrees of freedom (271) is 1.23. Values below 2 indicate good fit (Jöreskog *et al.*, 2016). RMSEA is 0.028, with values below 0.05 considered good fit (Browne and Cudeck, 1992). The normed fit index (NFI) and the relative fit index (RFI) indicate better fit as values approach 1 (Jöreskog *et al.*, 2016),

Scale	Item	Standardized loading	*t*-value	Error	Composite reliability	Variance extracted
Perceived ease of use	1	0.82	19.27	0.33	0.93	0.81
	3	0.92	–	0.15		
	4	0.95	29.01	0.10		
Perceived usefulness	2	0.70	14.63	0.51	0.82	0.61
	3	0.91	–	0.17		
	4	0.72	14.91	0.49		
Internet knowledge	1	0.70	–	0.50	0.62	0.36
	2	0.43	3.07	0.82		
	4	0.63	3.45	0.60		
Product knowledge	3	0.86	–	0.26	0.92	0.86
	4	0.99	8.08	0.03		
Trusting beliefs						
Competence	3	0.88	14.82	0.23	0.95	0.75
	4	0.88	–	0.23		
Benevolence	1	0.67	11.64	0.55		
	2	0.88	14.99	0.23		
Integrity	4	0.92	15.76	0.15		
	5	0.93	15.08	0.13		
Technology attitude	4	0.89	–	0.22	0.91	0.76
	5	0.87	30.33	0.24		
	6	0.86	25.86	0.26		
Trusting attitude	3	0.93	65.51	0.13	0.97	0.91
	4	0.95	–	0.10		
	5	0.98	9.24	0.04		
Intention to use	1	0.86	26.51	0.26	0.92	0.79
	3	0.96	–	0.08		
	6	0.85	23.96	0.28		

Notes: $\chi^2 = 332.82$, df = 271, $p = 0.006$, RMSEA = 0.028, NFI = 0.98, RFI = 0.98

Table I. Measurement model statistics

0.98 and 0.98, respectively indicate an excellent fit, so we can conclude convergent validity. Discriminant and convergent validities together indicate good construct validity.

Finally, Fornell and Larcker (1981) argued that composite reliability should be above 0.5, and variance extracted should be above 0.7 for each latent construct. All constructs show strong composite reliability. However, perceived usefulness is a bit below the cut-off at 0.61, and internet knowledge is very low at 0.36. The indicators for both constructs have fairly high error relative to the standard loading. With only three indicators per construct, the dilemma becomes whether to retain dimensionality, or improve variance extracted by dropping the indicators with the largest error. Given the strong overall fit of the model we opted to retain dimensionality at the cost of variance extracted. From a practical perspective, this means that a few of the questions in the questionnaire would need improvement.

Given that the data come from a single questionnaire, we assessed common method bias according to procedures outlined by Podsakoff *et al.* (2003). When carrying out the survey, all respondents were assured anonymity, thus reducing evaluation apprehension. We carried out Harmon's single-factor test, whereby in an exploratory factor analysis we assessed the unrotated solution to see whether a single factor emerged, or whether one general factor accounted for the majority of the variance. Six factors emerged with an eigen cut-off of 1, with the first factor accounting for 37.47 per cent of the variance, and the second factor 11.58 per cent, indicating low common method bias. We modelled an unmeasured latent methods factor in LISREL; however, we were unable to get model convergence. Finally, we used confirmatory

factor analysis (LISREL) and loaded all indicators onto a single construct. The logic being that if common method variance is a significant problem, the simple model with a single construct should fit the data as well or better than our more complex measurement model (Korsgaard and Roberson, 1995; Podsakoff and Organ, 1986). The single-factor model had a χ^2 of 2,574.61 with 299 degrees of freedom, which is a terrible fit when compared to the complex model. In conclusion, common method variance is not deemed to be a substantial issue.

For the structural model, standardized loadings with *t*-statistics in parentheses are shown in Figure 2. All relationships are significant except in the shaded area. Product knowledge to trusting attitude is significant as a one-tailed test, but the other knowledge-related relationships are clearly insignificant (Table II).

3.4 Step 2 – telephone interviews

In the next step, aiming to answer the questions raised by the data analysis the researchers conducted, telephone interviews with both on-line and off-line claimants to grasp their underlying reasons for and factors affecting their preferences in choosing the respective channel.

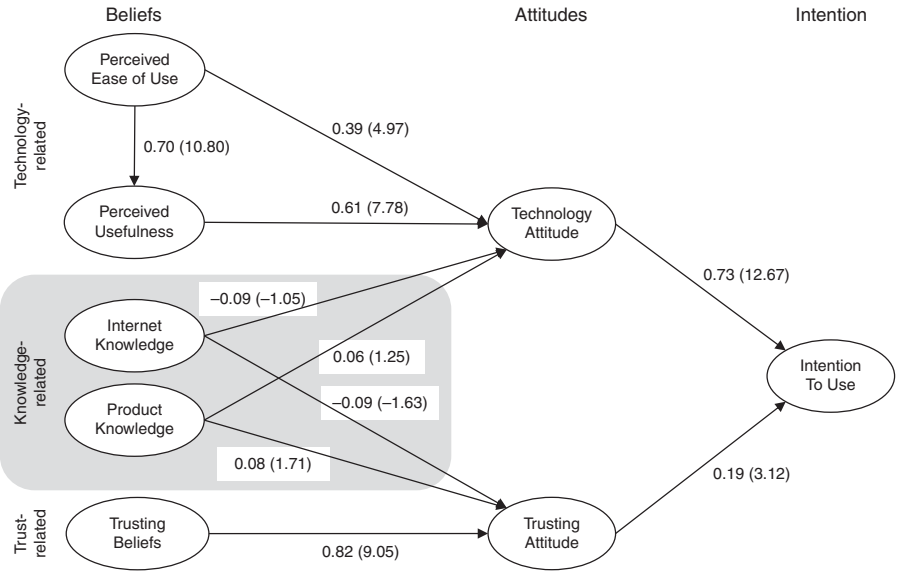

Figure 2. Results of the structural model in LISREL

Hypotheses	Standard loading	*t*-value	Conclusion
H1a: PEOU→PU	0.70	10.80	Supported
H1b: PEOU→Technology attitude	0.39	4.97	Supported
H1c: PU→Technology attitude	0.61	7.78	Supported
H2a: Internet know→Tech attitude	−0.09	−1.05	Not supported
H2b: Internet know→Trust attitude	−0.09	−1.63	Not supported
H3a: Product know→Tech attitude	0.06	1.25	Not supported
H3b: Product know→Trust attitude	0.08	1.71	Supported
H4a–c: Combined→Trust attitude	0.82	9.05	Supported
H5a: Tech Attitude→Intention to use	0.73	12.67	Supported
H5b: Trust attitude→Intention to use	0.19	3.12	Supported

Table II. Summary of hypotheses

The interview guide which is based on the questionnaire goes further into the issues related to trust and experience since these results were not in line with what was expected. In total, 40 telephone interviews were conducted.

4. Research findings and discussion

Going beyond investigating the use of a single technology *per se*, as a website, or a single online application, the study at hand also considers technological development furthering a transition from personal interaction in traditional face-to-face situations to the adoption and use of artificial intelligence in an online service setting.

In understanding the adoption and use of online applications in an insurance setting, and more specifically online claims, our findings show strong support for technology-related beliefs (*H1a–c*) having significant positive effects on technology attitude (see Table II). Moreover, trust-related beliefs (*H4a–c*) have a strong positive effect on trusting attitude. When modelled alone, knowledge-related beliefs (*H2a–b*; *H3a–b*) have significant positive effects on technology attitude and trusting attitude; however, when combined in the entire model, including technology- and trust-related beliefs, the effects disappear. Our interpretation is that insurance customers have grown accustomed to e-commerce and to online applications to the extent that they, when making online claims do not consider internet or product knowledge an issue when to forming technology- and trust-related beliefs. This was also confirmed in the telephone interviews where the experience of using online applications was high overall. No matter the age of the respondents, they had used online applications in a variety of ways, for example, online purchasing, making bank transactions and watching movies online.

Based on the results from previous studies, a positive trusting attitude (*H5b*) should at least attain an equal impact with a positive technology attitude (*H5a*) on the intention to use online insurance services, since a positive trusting attitude implies a perception of the insurance company as being competent, respecting customer integrity and acting in a benevolent manner. These trust-related perceptions should also positively influence the general attitude towards the company and its offerings. Our findings contradict this. Although we ran several alternative models we at best found a weak relationship between trusting attitude and intention to use the online service. Theoretically, the results support research maintaining that TAM explains behavioural intention to use technologies (cf. Davis *et al.*, 1989), whereas the trusting attitude does not seem to be as important for less frequently used services, such as insurance. Our interpretation is that trust is meaningful; however, so long as the customer has a base level of trust in the insurance company, then emphasis shifts to perceived ease of use, perceived usefulness and the attitude to technology.

The digital transformation of the insurance service further enables customers to follow the insurance company's process of handling the customer's claim. Such a development also creates a more transparent claim processes and opens up for more instantaneous customer interaction. This was also supported by the telephone interviews where perceived usefulness and ease of use were given as motives for making the claim online instead of making it face-to-face or by telephone. Typical narratives affirmed that it is faster making the claim online than by telephone and that the online application is available 24/7, for example, "You can do this when you want to and when you have the time for it. It is faster than the phone" (41-year-old female). This respondent had small children and did not feel that she had the time to make a telephone call during daytime when her children were awake. She had made more than three claims over the last five years, all of them online. Another female respondent (52 years) supported the argument of time, stating that it is the freedom of choosing when to fill out the form that is the most important reason for choosing the online application. A 61-year-old male confirmed this stating that, "It is easier than filling out paper forms at home. It gives a quick overview".

5. Conclusions and suggestions for further research

The findings show that this is an area in the need of further research. The most surprising result, in relation to previous research, is the fact that trust did not have a larger influence on the decision to use an online service. This can possibly be explained by the circumstance that an insurance claim is perceived as being complicated, and hence the customer will only use the online application if the insurance provider's website is perceived as being easy to use and when there is a clearly perceived benefit of using the internet. However, this calls for future investigation.

In previous research, trust has been argued to be a crucial factor explaining the intention to use online banking services. The present study indicates that the actual use of online financial services, such as the filing of insurance claims, is influenced by trust-related factors. However technological aspects, such as the perceived usefulness and ease of use of the online application, are more important. Even though online insurance services are not as prolific as online banking solutions, trust is just as important in an online setting as it is in an offline and direct setting especially considering product complexity and infrequent interaction. However, as has been made evident when testing the TAM/trust model, only using TAM or trust to explain the use or non-use of online services is not enough. These two types of factors must be complemented with others, relating to the customer's individual context and experience, as for instance the character and length of the customer's relationship with the company. One particular question for future research is to further explore the seemingly marginal influence of trust on the decision to use an online service.

Evidently, there is a lack of research on the issue of customers preferring other channels to the online context, notwithstanding ample and accessible possibilities of online applications. The majority of research aiming to explain the choice of use of online applications draws their samples from a population actually using online services. It would be interesting to compare online and offline activities to identify where and what the triggers are for using online instead of offline services. In the case of insurance claims, a comparison between customers making online claims and those making the claims over the phone could provide further insights into the tipping points for preferred channel choices.

5.1 Managerial implications

From a managerial perspective, the results indicate that any established insurance company would benefit from placing the greatest focus on the application user interface, making the application easy to use and highlighting the usefulness of the online interface. Compared to other channels, consumers are no longer naïve or distrustful of the online channel for interacting with a firm. If they perceive usefulness and ease of use, they will adopt the service. By focusing on establishing what has happened by relating to easily comprehensible and commonly encountered incidents, such as "I have been involved in a car accident" instead of referring to "motor insurance", this would facilitate perceived ease of use of the online application. With the introduction of chatbots, customer notifications can be automated. This in turn enables insurance companies to keep the customer updated during the online claim process and to also to put the customer at the centre of the interactions.

Product knowledge could be a factor affecting the choice of channel of interaction when making a claim. As an example, when customers call for making a claim after a car accident, they will perhaps state that they have "smashed the car", thus making a specific and contextually accurate description of the occurred incident. The insurance agent taking the call knows which types of insurance policies that apply to such an incident (e.g. traffic insurance), and guides the customer through the claim process. A customer using an online claim application is "on his own", expected to know enough about insurance to, for instance, make

the right kind of claim Instead of using clickable links for and "traffic insurance" in the online claims application, it would thus enhance the ease of use by first establishing what has actually happened. Preferably, this could be done relating to easily comprehensible and commonly encountered incidents, such as, "My bike has been stolen", "I have been involved in a car accident", or similar easily recognisable phrases/keywords.

In comparison, online banking services are characterised by a more everyday terminology, using words such as "payment" or "transfer", where the customer does not necessarily need to be knowledgeable with the exact details of a specific product or the banking language. Users are accustomed to the language interface. In an insurance context, it is therefore vital to develop online services in a user-friendly way, not the least considering that infrequent usage of any insurance service is the normal case.

Another critical aspect is the importance of being able to offer and to communicate the usefulness and value of the online application *per se* for, in this case, making a claim. An example of usefulness of an online claims context can be the ability to track your claim. With the development and prolific introduction of smartphone applications (apps), the insurance customer will be able to make claims directly through the app, facilitating instant claims in immediate connection to an accident. This also opens up possibilities of, for example, activating the camera for documenting the accident and supporting real-time communication with the insurance company (and other services). Based on the findings of this paper, the ease of use and putting the customer at the centre of the interaction is essential in order to reach an acceptance among customers to start using the application.

Technological developments and individual's (irrespective of age) adoption of online solutions in general will increase experienced convenience with services offered. It is pivotal to contemporary service providers to understand the framing of the customer's choice of using or not using a particular service application. The issue is of no lesser importance to service providers offering highly complex, professional services, where any interaction between the provider and the customer is scarce – such as in the case of insurance companies and the issue of claims management.

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Appendix

Perceived ease of use		
PEOU1	I think that it is easy to understand how to claim through www.X.se	
PEOU2	To claim through www.X.se requires good previous knowledge	Dropped
PEOU3	The function "Make a claim" at www.X.se is easy to use	
PEOU4	The information at www.X.se is clear and easy to understand	
Perceived usefulness		
PU1	An advantage of making a claim through www.x.se is that I can do it when it suits me	Dropped
PU2	To make claim through www.X.se gives me a better overview of my claim	
PU3	To use www.x.se makes it easier to file a claim	
PU4	To use www.x.se is faster than filing a claim by telephone	
Internet knowledge		
IK1	Over the last year I have paid with a credit card over the internet	
IK2	Over the past five years I have purchased an insurance product over the internet	
IK3	Over the past five years I have made a claim over the internet	Dropped
IK4	I have purchased such things as CDs, books, or a holiday over the internet	
Product knowledge		
PK1	It is, in general, easy-to-understand insurance information (e.g. information about terms, price, conditions)	Dropped
PK2	I think there is a clear difference between different companies' insurance offers (e.g. insurance company X's home insurance compared to company Y's home insurance)	Dropped
PK3	I compare between different insurance companies' conditions before purchasing an insurance product	
PK4	I compare between different insurance companies' prices before purchasing an insurance product	
PK5	I discuss insurance with friends, relatives or family	Dropped
PK6	In general, insurance information at www.x.se is easy to understand (e.g. conditions, price and coverage)	Dropped
Perceived competence		
PC1	Company X is competent in handling claims	Dropped
PC2	Company X is competent and knowledgeable on insurance issues	Dropped
PC3	I trust that company X supplies me with the insurance solutions I need	
PC4	I trust that company X gives me correct information regarding insurance	
PC5	The way that the function "Make a claim" is designed at www.X.se gives a competent impression	Dropped
Perceived benevolence		
PB1	X always does their best to help me	
PB2	X always acts in the best interest of the customers	
Perceived integrity		
PI1	X is good at giving the right compensation in a claim settlement	Dropped
PI2	X is good at explaining what settlement I have a right to	Dropped
PI3	X is always honest to me	Dropped
PI4	X keeps its promises to me	
PI5	X is a serious company	
Technology attitude		
Tech1	I feel safe that technical security systems give me sufficient protection against risks on the internet	Dropped
Tech2	It feels risky to provide my identity number over the internet	Dropped

(*continued*)

Table AI. Questionnaire

Tech3	It feels risky to provide my name, address, and telephone number over the internet	Dropped
Tech4	I prefer to use the internet to report an insurance claim	
Tech5	Generally speaking, I think it is good to be able to report an insurance claim via the internet	
Tech6	It feels good to make an insurance claim over the internet	
Trusting attitude		
Trust1	In general I can trust company X	Dropped
Trust2	Company X is an honest insurance company	Dropped
Trust3	Company X is known to be reliable	
Trust4	Company X is known to honest	
Trust5	Company X is known to have their customers/best interest in mind	
Trust6	In general, X is a trustworthy insurance company	Dropped
Trust7	I feel secure that laws give me a good protection against internet risks	Dropped
Intention to use		
ITU1	If I were in a hurry to file a claim, I would use www.X.se	
ITU2	In the future I will use www.X.se to search for information on how to file a claim	Dropped
ITU3	I have the intention to use www.X.se the next time I need to file a claim.	
ITU4	I have the intention to visit www.X.se again	Dropped
ITU5	I would recommend others to use www.X.se to file a claim	Dropped
ITU6	I would recommend others to file a claim over the internet	

Table AI.

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