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CONSUMER READINESS TO ADOPT SELF-SERVICE LIFE ASSURANCE PRODUCTS

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ABSTRACT: *Guided by the Technology Readiness Index (TRI) framework, current study makes an assessment of consumer readiness to adopt self-service technologies in order to determine individual factors influencing their adoption. The research thus sought to determine the relationship between drivers and inhibitors of technology usage intention. The study targeted active individual and employer subsidised subscribers of a local major funeral service provider. Findings show a significant linear positive relationship between consumer optimism and usage intention, consumer innovativeness and usage intention, whilst there was a strong negative linear relationship between consumer insecurity and usage intention and consumer discomfort and usage intention. It was thus established that increased investment in consumer optimism and innovativeness will promote usage intentions whilst increase investment to reduce consumer insecurity and discomfort will promote usage intentions for self-service life assurance products. Contribution: This research contributes to the body of knowledge by identifying individual personality traits influencing consumer technology adoption in a funeral assurance service setting. This is particularly relevant for developing countries who are still in their infancy concerning technology adoption. Based on findings, service marketers will be able to segment customers based on their personality traits and propensity to adopt new technologies.*

KEYWORDS: Usage Intention, Technology Readiness, Life Assurance

INTRODUCTION

The emergence of technology has brought with it profound changes in the way business and customers operate (Humbani & Wiese, 2018.). Mobile devices and other digital media are arguably effective and efficient in the ability to advance business (Sharif, 2017). Technology readiness is one of the key basis upon which customer profiling and segmentation is done in a dynamic and technologically evolving environment (Parasuraman, 2000). Technology readiness is defined as a state of mind resulting from a combination of mental enablers and impediments (Parasuraman, 2000). Having this in mind, Parasuraman developed the TRI which is a framework used to determine the antecedent and propensity of consumers to adopt new technologies. In the same vein, self-service technologies (SSTs) can be defined as ICT enabled interfaces between the customer and the service eliminating human contact through technology use (Iqbal, Hassan & Habibah, 2018).

Given that the study is premised on life assurance services, it is therefore ideal to understand what life assurance is. According to Merriam-Webster online dictionary “Life assurance is

"insurance providing for payment of a stipulated sum to a designated beneficiary upon death of the insured". It is argued that interpersonal communication between an organisation and its customers is progressively involving technology use (Giebelhausen, Robinson, Sirianni & Brady, 2014). Parasuraman (2000) asserts that despite the benefits of using technology, it also comes with constraints which result in customer frustration. Parasuraman supports his assertion by developing the TRI which has become an acceptable index for measuring individual technology readiness in marketing related studies (Lin, Shih, & Sher, 2007; Walczuch, Lemmink & Streukens, 2007).

In addition, technology is said to be a complication in service encounters as it results in customers abandoning their roles and script. It therefore requires customers to dedicate themselves cognitively (Giebelhausen et al 2014). Although previous studies used constructs of the innovation diffusion model (Wang, & Lu, 2014) this research is mainly concerned about individual traits that influence one's readiness to adopt. In a different context, Buyle, Van Compernolle, Vlassenroot, Vanlishout, Mechant and Mannens (2018) conducted a research where they assessed technology readiness and acceptance constructs as predictors for the usage intention of data standards in the smart cities of Belgium. The results showed that drivers of adoption had a positive influence on perceived ease of use of data standards, while impediments to adoption had a negative influence on perceived ease of use of data standards.

Furthermore, in the context of mobile payment services, Humbami and Wiese (2018) applied TRI to determine the moderating role of gender in consumer readiness to adopt such services. Results show that drivers have a positive influence, while impediments have a negative influence on technology adoption and that gender indeed had a role to play in adoption of mobile payment services. These findings are similar to those in Buyle et al (2018) study. Drawing on the local arena, studies have been done in the Zimbabwean retail banking (Shambare, 2013), education (Mandoga, Matswetu and Mhishi, 2013) and banking sectors (Diza, Munyanyi and Gumbo, 2017). It is interesting to note, that there is consistency in the results concerning the antecedents to technology readiness. However, these antecedents are also dependent on the technology under study.

What is confounding though, is that there seems to be none conducted in the life assurance industry, ultimately providing a case for this study to assess the readiness of consumers to adopt self-services offered by one of the major funeral service providers in Zimbabwe. The organisation has embarked on key strategic moves earmarked on strengthening its growing presence in undertaking and funeral assurance policies. The group, which has been in existence for more than 100 years, has three lines of business: provision of funeral services, funeral assurance policies, coffin and casket manufacturing. The company, which has over 25 parlours countrywide, comprising a variety of online (technology) products and services which include the following: access to information about the organization and about the different life assurance packages offered; application for a package; contact information of the different centres across the country; account log in portal allowing clients to be in control of their life assurance portfolios.

The organisation has a mobile application where customers can enjoy self-service. Notwithstanding the availability of this self-service technology (SST), there seems to be very little uptake/use by current and prospective clients. What is surprising about this low uptake is that Zimbabwe has a fairly literate population, mobile and internet-wise (WEF, 2018). This background therefore provided the basis upon which this study is premised. That is to assess

the antecedents of consumer readiness to adapt self-service life assurance products using the major funeral service organisation as a case study.

LITERATURE REVIEW

Theoretical Context

Technology has become one of the key drivers in the interactions between business and customers (Parasuraman, 2000). After noting an increase in SSTs, Parasuraman (2000) saw the need to develop an index which enables firms to segment customers on the basis of their propensity to adopt new technologies. The TRI model, in this regard therefore specifies drivers (innovativeness and optimism) and impediments (insecurity and discomfort) of technology adoption which are said to be individual based. With this in mind, TRI was therefore considered an appropriate measure of factors affecting technology adoption. Mummalaneni, Meng, and Elliott (2016) describe optimism as the degree to which individuals consider technology to have the ability to positively influence and give them control over their life. In addition, Parasuraman & Colby, (2015:60) define optimism "as a positive view of technology and a belief that it offers people increased control, flexibility, and efficiency in their lives".

Innovativeness is described as an inborn trait which reflects one's disposition towards openness to experience (Liu & Wayne, 2019). In support, Mummalaneni et al (2016) view innovativeness an aspiration that comes naturally enticing one to experiment with new technologies. An impediment to adoption, insecurity is seen as one's need for guarantee that they can rely on a new technology to function accurately (Mummalaneni et al, 2016). Further to that, Parasuraman and Colby (2015) put forth that insecurity takes exists when individuals lack trust and are sceptical towards new technology's impending harm. Lastly, discomfort according to Mummalaneni et al (2016) occurs when one feels that they lack control and confidence in new technology, ultimately feeling overwhelmed (Parasuraman & Colby, 2015).

Overall, the TRI can provide a useful framework of identifying levels of technology readiness, in turn facilitating customer segmentation. Furthermore, Weise and Humbani (2019) argue that a composite technology readiness score can be obtained by subtracting the negative scores (obtained from discomfort and insecurity) from the drivers (obtained from optimism and innovativeness). Consequently, positive scores submerge the negatives, it gives an indication that consumers are ready to adopt new technology. On the contrary, a negative score, suggests the opposite.

Behavioural intention to use technology

Lai (2018:4) defines behavioural intention as "the degree to which older adults have formulated conscious plans to perform or not to perform specified future behavior to use mobile devices for learning". Behavioural Intention has been extensively used as a predictor of consumers' adoption of new technology (Ajzen & Fishbein 1974; Chang, Hajiyev & Su, 2017; Mahardika, Thomas, Ewing & Japutra, 2019). According to Chang et al (2017) behavioural intention is influenced by attitude towards the technology in question, leading to actual use**.** It can be noted however that some scholars associate behavioural intention to use with effort expectancy, which is represented by the ease of technology use (Prasanna & Huggins, 2016; Kabra, Ramesh, Akhtar & Dash, 2017; Harris, Mills, Fawson & Johnson, 2018).

According to Davis, Bagozzi and Warshaw (1989) the path to behavioural intention is that of an ordered sequence where beliefs lead to attitude which leads to behavioural intention. Furthermore, (Ajzen, 1991) in his theory of reasoned action put forth that attitude and subjective norms are precursors to behavioural intention.

Park (2009) groups variables associated with behavioral intention to use into four categories. One of the categories is social context where individual acceptance of technology is determined by social influence. In other words, individuals are most likely to adopt new technology when are subjected to social influence. However, Venkatesh, Morris, Davis, and Davis (2003) theorised four dimensions leading to behavioural intentions. These dimensions are effort expectancy, performance expectancy, social influence and facilitating conditions. When juxtaposed with the TRI constructs, one can easily construe that all four unified theory of acceptance and use of technology (UTAUT) dimensions are a reflection of drivers of technology acceptance in the TRI. This study thus seeks to make an assessment of whether the same positive relationship can be said about drivers and impediments of technology readiness and their influence on intention to use technology.

Consumer optimism with self-service products and usage intention

Optimism is said to have a direct relationship with usage intention of SSTs (Lu, Cao, Wang, & Yang, 2011; Chao & Yu, 2019). Aldas-Manzano, Ruiz-Mafe, Sanz-Blas and Lassala-Navarré (2011) put forth that consumers who perceive less risk are inclined to optimism, thus enhancing their purchase intention. Similarly, Ammar and Ahmed (2016) in their study premised on factors influencing intention to adopt mobile banking found performance expectancy and effort expectancy as the key determinants of behavioural intention to use. Interesting enough is the same study revealed that respondents with optimism towards mobile banking had strong intentions to use the SSTs. Contrary to these findings, some scholars (Kaur & Gupta, 2012; Barati, Moradi, Ahmadi & Azizpour, 2014) found that optimism had no effect on intention to use. Such inconsistencies in findings inevitably provoke further inquiry especially in the context of life assurance service.

Interesting findings came out of a study by Melas, Zampetakis, Dimopoulou and Moustakis (2014) who used TRI constructs as antecedents to the cognitive and affective constructs in TAM. Optimism was found to have an influence on perceived ease of use and usefulness of e-services. This can act as evidence to justify that optimism does ultimately influence behavioural intention if one was to abide by the assumptions of theory of reasoned action (Ajzen & Fishbein 1974). It can be noted that Lin et al (2007) empirically tested an integrated model of technology readiness and acceptance.

Results from their study imply that use intention is dependent on one's technology readiness through the mediating effects of perceived usefulness and ease of use. Additionally, Lin and Chang (2011) found both an indirect and direct link between technology readiness and use intention. Apparently, usage intention is not limited by age as revealed by Kim, Ahn and Kim (2017) who found that older adults who are physically young have more optimism towards technology use and ultimately usage intention.

Furthermore, a study by Lin, Lin & Lee (2015) on teacher readiness and intention to use social media used the TRI categories of segmentation i.e. explorers, pioneers, sceptics, paranoids, and laggards (Parasuraman and Colby, 2003). The study showed that pioneers exhibited high levels

of optimism and intention to use social media. It can be inferred from this that optimism is one key driver of technology adoption which organisation can make take into account of as they differentiate between technology users and non-users (Pires, da Costa Filho & da Cunha, 2011). What is seemingly confounding in some studies is that optimism is determined by demographics (Najed, 2016; Ali, Nawanira, Nasidib & Bamgbadec, 2016). Expanding on this, in the context of gender based optimism, Nejad (2016) found that younger men had high optimism levels for innovation in financial services than females.

Furthermore, Ali et al (2016) revealed that one's nationality influences their innovativeness and ultimately behavioural intention to adopt. Demographic variances will not come as surprises in current study as it is expected that such differences can occur. In the same vein, optimism for financial services has led to the demand for new services (Kommalur, 2018). Consequently, Magotra, Sharma and Sharma (2018) argue that organisations should stimulate customer beliefs in technology adoption ultimately allowing autonomy as they transact in their own space. Empirical findings in a study by Hung and Cheng (2013) classified optimism as a positive attitude whose bearers have a disposition towards technology acceptance.

Additionally, TRI constructs in Hung and Cheng's study were found to be major determinants of attitude and usage intention of e-banking services. Accordingly, optimism is deemed highly significant in influencing technology adoption (Magotra, Sharma & Sharma, 2016). Interesting to note is that despite studies (Kim et al, 2017; Chao & Yu, 2019) showing positive relationships between optimism and behavioural intention,Mark and Ganzach (2014) found that people with low self-esteem spend more time on the Internet, but does not mean that they are high in optimism.

Literature on consumer optimism towards SSTs is prevalent in financial services (Ammar & Ahmed 2016; Nejad, 2016; Kommalur, 2018) and use mobile phone (Ammar & Ahmed 2016; Weise and Humbani, 2018; Lai, 2018). However, this provides a lee-way for current research to probe further delving more on optimism in life assurance SSTs

Consumer innovativeness with self-service products and usage intention

Rogers and Shoemaker (1971) define consumer innovativeness as the degree to which one adopts new technology earlier than the average person. Furthermore, in his theory of diffusion of innovation, Rogers (1995) asserts that consumers high in innovativeness are risk takers therefore their propensity to adopt new technologies is high. There has been a considerable number of researchers who investigated the relationship between personal innovativeness and adoption of SSTs (Kaushik, & Rahman, 2015) and other technologies (Hoque, 2016; Yu, Hong & Hwang, 2016). In the context of health services which may be closely aligned to life assurance, Zhang, Luo, Nie & Zhang, 2017) found that young men with personal innovativeness yielded high behavioural intention to adopt than females. The same results were revealed in a study by Yousafzai, and Yani-de-Soriano (2012) on internet banking adoption.

It can therefore be concluded that young consumers are both risk takers and innovators as they naturally adopt new innovations (Yadav, Sharma & Tarhini, 2016) ultimately influencing the adoption process among family members. Again for segmentation purposes, pioneers and explorers proved to be high in innovativeness compared to the other consumer groups (Yousafza et al, 2012) though paranoids were not very innovative. It is important to note the work of some renowned scholars in technology acceptance studies such as Liljander, Gillberg,

Gummerus & Van Riel (2006) who found that the effects of innovativeness were negligible on both attitude and usage intention. In the insurance sector, personal innovativeness was found to be one of the factors affecting innovation adoption (Huang, Quaddus, Rowe and Lai, 2011).

Personal innovativeness among other factors affecting adoption mitigates insecurity in the adoption of innovation (Montazemi & Qahri-Saremi, 2015). Furthermore, Mun, Jackson, Park and Probst (2006) assert that individuals who are innovative generally have the capability to predict the potential benefits related to an innovation during its initial stage of diffusion.

Despite its influence on usage intention, customer innovativeness if high, is argued to have the potential to hinder long lasting relationship between customer and service providers (Shetty, & Basri, 2018). This is so, because such customers are more disposed towards trying other services.

On a different dimension, consumer innovativeness conflated with contextual factors and environmental attitude were hypothesised as the first-order constructs in a study by Biswas and Roy (2015). However, results showed that contextual factors such as consumers' price and knowledge perceptions to be the major determinants of behavioural intention to pay the green price premium (Biswas & Roy, 2015). This shows that the influence of consumer innovativeness on usage intention is contextual thus dependent of the service being offered. Additionally, results from a separate studies (Etemad-Sajadi & Ghachem, 2015; Karjaluoto, Shaikh, Saarijärvi & Saraniemi, 2019) confirmed their hypothesis that personal innovativeness is positively related to perceived value. In this vein, the authors argued that perceived value as a construct is similar to perceived ease of use and perceived usefulness. Furthermore, in relation to herd theory, Darban and Amirkhiz (2015) assert that individuals high in personal innovativeness together with other personal traits were said to have a high degree of influence on herding behaviour of potential innovation adopters.

To add on, Rezvani, Jansson and Bodin (2015) acknowledge two types of individual innovativeness linked to electronic vehicles. These are hedonic and affective innovativeness and are argued to influence the purchase of electronic vehicles. For the reason that individual innovativeness is strongly linked to behavioural intentions, Liu, Zhao, Chau and Tang (2015) suggest service providers should invest in novel innovative services targeting university students and recent graduates who are usually classified as early adopters. In the medical sector, it has been found that individuals with high innovativeness exhibit a high intrinsic motivation to accept innovations (Kuo, Liu & Ma, 2013), and consequently, high perceptions of ease of use and usefulness. Furthermore, innovativeness effectually eases one's perceived risk of using the internet for shopping (Thakur & Srivastava, 2015).

What is surprising is that research done thus far seems to be prevalent across different sectors (e.g. financial services and mobile phone technologies among other innovative industries) seemingly neglecting the life insurance sector. This becomes a key motivator for this study to understand whether innovativeness of life insurance SSTs results in usage intention. Of note is that some scholars (Tan, Ooi, Leong & Lin, 2014) conceptualise innovativeness as domain-specific and open-processing innovativeness where the latter is concerned with predicting one's general behaviour of innovation adoptions for instance intellectual, attitudinal and perceptual characteristics. Additionally, domain-specific innovativeness entails one's tendency to seek knowledge on innovation adoption.

Consumer insecurity with self-service products and usage intention

Borrero, Yousafzai, Javed and Page (2014) describe insecurity as a tendency of scepticism and distrust of technology and its functionality. According to Borrero et al, such personality traits act as inhibitors in one's willingness and ability to share information or engaging with a purely virtual organisation. As such according to Parasuraman and Colby (2015) explorers are low in insecurity, while sceptics, paranoids and laggards have high levels of scepticism. Additionally, pioneers are above average in their insecurity. Insecurity is argued to have great impact on one's willingness to take risk (Munoz-Leiva, Climent-Climent & Liébana-Cabanillas, 2017). In the banking sector, insecurity is defined from a risk point of view (Elbeltagi & Agag, 2016) where financial risk is considered a potential net loss of money. Arguably, internet banking is more susceptible to insecurity than traditional banking (Yee-Loong, Ooi, Lin & Tan, 2010), consequently making trust an important factor in the adoption of internet banking.

Liébana-Cabanillas, Marinkovic, de Luna and Kalinic (2018) view insecurity through the lens of perceived security (PS) which they define as one's perception of security taking into account the risk associated with mobile transactions. If perceived security is high, intention to use technology is high and if low (insecurity) then customers may not have any intention to adopt the new technology (Liébana-Cabanillas et al, 2018). Verkijika (2018) found that perceived risk was a significant predictor of usage intention, thus negatively influencing adoption if high. Additionally, perceived risk has also proved to negatively influence one's adoption of technology (Purwanegara, Apriningsih & Andika, 2014; Dwivedi, Rana, Janssen, Lal, Williams & Clement, 2017). Risk is argued to be an important factor in e-commerce that drives consumer behaviour (Ho, Chiu, Chen & Papazafeiropoulou, 2015).

In support of the above, Yuan, Lai and Chu (2019) argue that perceived security is a key determinant for internet banking usage intention. An example is that of online shopping, where consumers divulge personal information thus suffer a number of risks associated with online transactions (Kaur & Khanam, 2015). Scholars (Aldas-Manzano et al, 2011) therefore suggest that when operating in a virtual environment organisation should see it as an essential factor to increase consumer trust due to high online risk perceptions compared to offline transactions for banking services.

Furthermore, it is important to improve credibility of online services which in turn reduces the predicted risk while increasing chances of intention to use (Barati, Moradi, Ahmadi & Azizpour, 2014).

It can be deduced that insecurity is negatively correlated with intention to use information systems (Lin et al, 2015), thus the greater the level of insecurity, the less one is willing to use technology. It is worth noting that such individuals can be marginally techno-ready and can be less motivated therefore need to be convinced of the benefits of adopting new technology (Badri, Al Rashedi, Yang, Mohaidat, Al Hammadi, Council and Dhabi (2014). Koivisto, Makkonen, Frank and Riekkinen (2016) empirically found that insecurity had a positive effect on perceived ease of use probably because insecure customers tend to be more cautious when exploring new technologies.

Authors (Kuo, Liu & Ma, 2013) argue that individuals with high levels of insecurity will use new technology only when they believe they will accrue greater benefits from the use. Furthermore, Kuo et al (2013) empirically found a negative impact of insecurity on perceived

ease of use, which they claim in in line with most previous findings. An empirical investigation by Melas, Zampetakis, Dimopoulou and Moustakis (2014) on medical staff showed that those with a sense of insecurity were sceptical towards new technologies and were uncomfortable and suspicious of new functions. Furthermore, the study revealed that there is a negative correlation between insecurity and attitudes towards ICT.

Although some studies (Kitcharoen, 2019) discarded inhibitors of technology acceptance, Chen, Yu, Yang and Wei (2018) felt they were good indicators of consumer behaviour therefore should not be excluded in any of the technology readiness and acceptance studies. As Parasuraman (2000) suggests that individuals accept technology differently, Kaur and Gupta (2012) found that differences can also be based on race e.g. Indians were found to be more insecure towards new technology. In the same vein Badri et al (2014) found that Westerner teachers are positive with insecurity, while Arab teachers are negative. A rather thought-provoking assertion was made by Murray (2013) who associates insecurity with behavioural intention to buy the trending smartphone.

Furthermore, males are said to be more risk averse than females (Panttila, 2015) and that differences in risk perceptions influence purchase intentions (Dai, Forsythe, & Kwon, 2014). Kuzuluk, Balkaya and Güner (2018) sought to assess the adoption of internet technologies by the elderly. Their findings show that the elderly shunned internet services as they believed it was a waste of money which further complicates their lives. To this end, an observation worth noting is that made by Sahi, Sekhon and Quareshi (2016) in their review of literature that developing economies were yet to fully embrace online buying due to distrust, insecurity, limited experience etc.

Consumer discomfort with self-service products and usage intention

According to Parasuraman (2000) discomfort is a perception and feeling of being overwhelmed by technology and unable to control it. Therefore, if one has high discomfort levels, they are most likely not to adopt new technology (Parasuraman, 2000). Consumers high in discomfort associate new technology with complexity thus can result in customers feeling aggravated, disappointed or frustrated. Consequently, such customers tend to used tech-based services with restraint (Son & Han, 2011). Nyarku, Kusi, Domfeh, Ofori, Koomson and Owusu (2018) argue that discomfort results from variations in customer expectations and perceived performance. As such individuals who are negatively disposed towards ICT tend to have negative attitude towards it (Melas et al, 2014). In this regard, discomfort can be considered a deterrent to technology readiness Koivisto et al, 2016).

Additionally, Li, Troutt, Brandyberry and Wang (2011) argue that discomfort can be best understood as perceived relative advantage as they empirically investigated adoption of online selling channels amongst SMEs. Also claim that perceived relative advantage is one of the finest predictors of an innovation adoption due to its ability to signal the impending benefits and drawbacks emanating from adoption, which their results proved to be true. In healthcare (Kuo et al, 2013) found discomfort as one such exogenous variable which negatively influenced nurses' perceptions towards ease of use and usefulness. This is because of the anxiety they have towards technology (Parsuraman, 2000). Therefore, Kuo et al (2013) suggest constant training for nurses to be more tech literate, which may minimize their discomfort. In the same vein, in the health sector, information sensitivity is used to describe one's level of

discomfort when health information is disclosed to an external party as data is being processed (Wiegard & Breitner, 2019).

Furthermore, Gu, Suh and Liu (2015) claim that use of technology in the context of social networking sites is associated with control beliefs. Furthermore, their study revealed that seniors are more anxious towards technology use owing to the complexity of social networking sites. Thus seniors' preferences proved to be the more subtle communication technologies such as emails, as they expressed concern over protection of their personal information from illegal use. Celik and Kocaman (2017) Liken discomfort to technology discomfort which not only has a negative impact on technology adoption but also invokes negative experience with technology.

In addition, Lin and Ho (2018) argue that discomfort is linked to uncertainty avoidance where individuals with such personality traits tend to be high in uncertainty avoidance especially if they are uncertain about their future. With respect to generational cohorts, Quintal, Phau, Sims and Cheah (2016) assert that Gen Y consumers may perceive psychological risk as a reaction to post purchase dissonance, where they feel discomfort if their purchase did not yield expected benefits.

Interestingly, Dowling and Staelin (1994) argue that consumers of high discomfort levels engage in risk relieving actions to ease their levels of perceived risk. Consequently, both risk and emotion effectually influence purchase intention. Additionally, the discomfort consumers encounter as they interact with others and experience intangible effects on online transactions reflects their level of perceived risk (Pavlou, 2003). Ding, Huang and Verma, 2011) assert that paranoids grudgingly accept technology enabled services due to their discomfort levels, thus are most likely not to enjoy any online related transaction. In the banking sector Faqih and Jaradat (2015) relate anxiety with discomfort and that it influences usage intention of internet banking through generation of negative perception. Consequently, the emotional fear and insecurity would generate negative feelings, which decreases the users' affective or emotional attachment to using IB service (Yuan et al, 2019).

In the education sector Shaikh and Daddikar (2017) found that teachers and students from middle class schools exhibited discomfort as a personality trait influencing them to engage more offline than online. Furthermore, discomfort was found to have a negative correlation with teachers' intention to use Facebook (Lin et al, 2015). Walczuch et al. (2007) also empirically found that discomfort had a marginally negative effect on perceived usefulness and perceived ease of use. Interestingly Son and Han (2011) empirically found out customers high in discomfort are likely to use basic functions of technology. This is an indication to marketing managers that they should examine the benefits and drawbacks of using online channels to market their products (Son & Han, 2011).

METHODOLOGY

Present study adopted explanatory research design. In Explanatory research design, the researcher engaged in extensive literature evaluation relating to TRI and usage intentions.

In this case, explanatory research design enabled problem definition and testing of hypotheses. Explanatory research design was thus undertaken to show the causal relationship between self-

service technologies and usage intention, i.e. establishing the association between optimism and usage intention, the relationship between innovativeness activities and usage intention, the relationship between insecurity and usage intention and lastly the relationship between discomfort and usage intention. Explanatory research design was preferred in the present study based on its ability to prove or disapprove associations between the independent and dependent variables.

Target population

A total of 15 000 active Harare customers were drawn from the organisation's database. These were either individual subscribers or those subsidised by their employers. Active Harare customers were targeted in order to generate data relating to how optimism, innovativeness, insecurity and discomfort activities have contributed towards usage intention to adopt assurance products. The target population was divided into two main strata namely individual subscribers and employer- subsidised clients. In terms of quantity there were 3 750 (25 percent) active individual subscribers and 11 250 (75 percent) employer subsidised subscribers.

Sampling techniques

Probability sampling was done in order to minimize bias. The researchers used systematic random sampling technique in data collection. The choice of probability sampling method and techniques was based on the ideas from Creswell (2013) who opines that quantitative researches should rely on probability sampling which allows for randomness thus giving each element of the population equal chance of being included in the sample.

Systematic sampling technique

Given that a database of customers already existed somewhere, systematic random was done in order to select study subjects. This allowed the sample to be indicative of the entire population under study. Systematic random sampling technique entails dividing the number of items in the sampling frame by the sample size, followed by selecting every N^{th} item in the sampling frame (Acharya, Prakash, Saxena & Nigam, 2013). It was found to be ideal in this study because it enabled valid inferences from the sample, resulting in high internal and external validity. Customer names in the database were arranged in ascending order and a number assigned to each customer.

Following this, the researchers selected every 75^{th} customer in the database until all names in the database were exhausted. This enabled the researchers to reach a sample size of 201 subjects, whose determination is explained in the next section.

Sample Size Determination

In determining the sample size for this study, for clarifications all active Harare customers in the target population were included. The researcher therefore used Yamane's (1967) table formula to determine the sample size. According to Yamane (1967) for a population of 15 000, the sample size required is 201 research participants at 95% level of significance and $\pm$7% level of precision.

Applying probability sampling 50 individual subscribers and 151 employer-subsidised subscribers were drawn for participation in the research as per calculations below:

- Individual subscribers = (3 750/15 000) *201
  =50
- Employer subsidised subscribers = (11 250/15 000) *201
  =151

Research Instruments

A survey instrument was used in the form of a structured questionnaire. This study being deductive in nature, sought to test hypothesis formulated from theory. In order to achieve this, the TRI measurement scale was adopted from Parasuraman (2000) to measure technology readiness and with slight modifications intention to use technology construct was adopted from Ajzen and Fishbein (1980). The research was value free therefore enabled participants to complete the survey without any interference of the researcher. This allows for objectivity, as such, it eliminates the element of bias associated with subjectivity.

Questionnaire Design

The research objectives and literature were converted into detailed questions that were asked to the targeted respondents. Close-ended questionnaire was designed, whereby the respondents were asked to give responses by ticking the answers deemed appropriate for them. The questionnaire was divided into 2 sections: A and B. The questions were simply structured so that the respondents would easily understand and give accurate information. 5-point Likert scale was used where 1 represent strongly agree and 5 strongly disagree.

Data Collection Procedure

201 questionnaires were administered to the research participants. Emails (with questionnaire attachments) were sent to customers on the organisation's database requesting for participation in the survey. The study was done over a four-week period, thus in order to ensure a high response rate, reminder emails were sent to participants. This type of data collection method yielded high response rates in previous studies (Humbami & Weise, 2018; Iqbal et al, 2018) and the same was anticipated in the current study

Validity and Reliability of Research Instruments

The researchers did not see it fit to pre-test the instrument since it was adapted from already established and tested scales. Confirmatory factor analysis was done in order to ascertain validity of constructs as well as confirmation of theory through hypothesis testing. Internal consistency was determined using Cronbach's coefficient alpha whose acceptable values according to Nunnally (1978) are 0.7.

Ethical Considerations

The informed consent of the participant is an ethical consideration that was prioritized in this study. The participants in the study were made aware of the objectives, processes as well possible impact the study had on both their social and professional lives. The informed consent was communicated in writing and a letter attached to the cover of the questionnaire. Anonymity of the participants as well as the organisation under study was upheld as an important ethical principle. Names of participants were not requested for and anything that could by any means

reveal their identity was removed. Freedom of participation and withdrawal was upheld in the study. The participants were not be enticed, tricked, forced or coerced to participate in the study by any means whatsoever. Participation in the study was merely on a voluntary basis although the researcher took time to explain the potential benefits of the study to the participants concerned.

DATA ANALYSIS AND PRESENTATION

The data was be sorted, cleaned and arranged in MS Excel. Data sorting included identification of repetitions, missing and outlying variables. From the Ms Excel file, the data was exported to the Statistical Package for Social Scientists (SPSS) where higher level analyses was undertaken on reliability using Cronbach`s alpha test, correlation analysis and regression analysis.

Response Rate

Two hundred and one questionnaires were administered as per determined sample. A total of 182 questionnaires (42 for individual subscribers and 140 for employer subsidised subscribers) were completed and returned giving an overall response rate of 91%. The high response rate generated is also a good measure of reliability as this is consistent with the views by Creswell (2013). According to Richardson, (2005) for an attractive business research the response rate must be at least 70% high since it presents the higher confidence level in the data collected. Moreover, according to Sekaran and Bourgie (2013) a response rate of 61% is enough to allow the researcher to make valid conclusions.

Table 4.1 summary of descriptive statistics on the reliability tests performed

Research construct		**Descriptive statistics**		
	Variable	**Mean**	**Standard Deviation**	**Cronbach's Alpha value**
Optimism	OPT1	1.38	1.213	0.866
	OPT2	1.32	1.136	
	OPT3	1.48	1.115	
	OPT4	1.22	1.233	
	OPT5	1.32	1.189	
	OPT6	1.51	1.321	
	OPT7	1.37	1.165	
	OPT8	1.26	1.265	
	OPT9	1.39	1.312	
	OPT10	1.14	1.242	
Innovativeness	INN1	2.11	1.685	0.812
	INN2	2.02	1.758	
	INN3	2.21	1.622	
	INN4	2.12	1.732	
	INN5	2.32	1.862	
	INN6	2.41	1.523	
	INN7	2.11	1.821	

Discomfort	DIS1	1.63	1.523	0.817
	DIS2	1.45	1.431	
	DIS3	1.42	1.621	
	DIS4	1.21	1.364	
	DIS5	1.47	1.634	
	DIS6	2.01	1.473	
	DIS7	1.56	1.611	
	DIS8	1.25	1.834	
	DIS9	2.02	1.501	
	DIS10	2.32	1.481	
Insecurity	INS1	2.85	1.604	0.799
	INS2	2.20	1.319	
	INS3	2.33	1.573	
	INS4	2.25	1.762	
	INS5	2.34	1.534	
	INS6	2.14	1.683	
	INS7	2.47	1.632	
	INS8	2.67	1.772	
	INS9	2.52	1.825	
Usage intentions	BI1	1.85	1.361	0.856
	BI2	1.98	1.345	
	BI3	1.25	1.219	

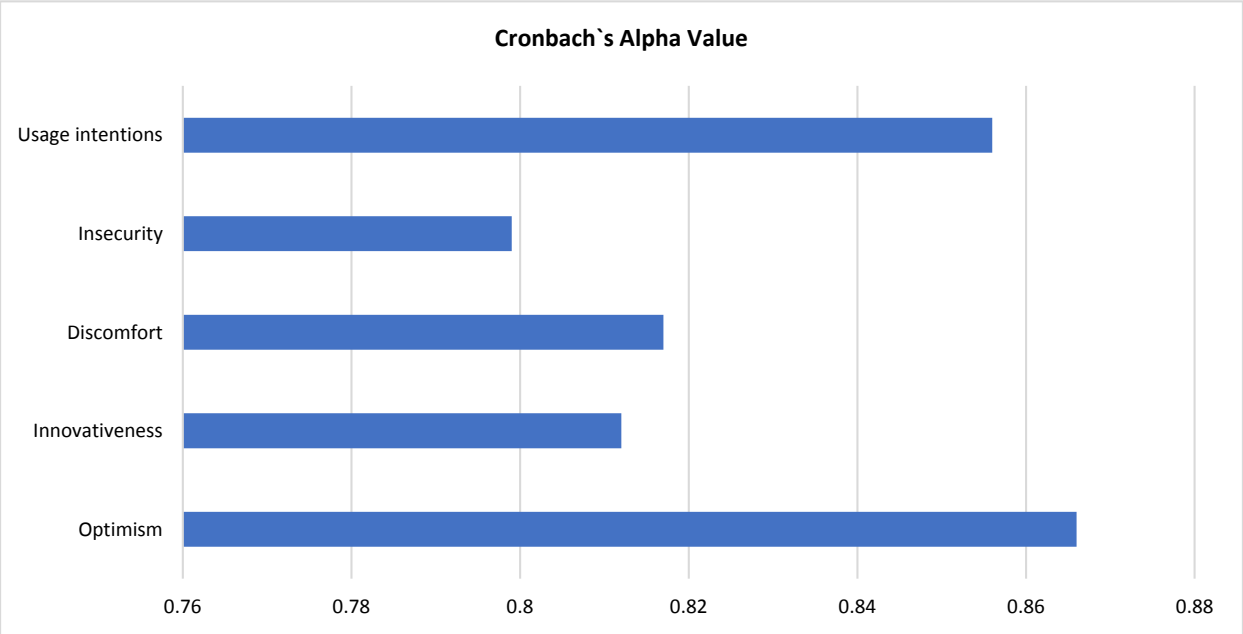

Figure 4.1: Cronbach Alpha Value

Reliability Test on Optimism

Table 4.1 indicates a coefficient value of 0.866 on the Cronbach Alpha test performed on optimism which had 10 aspects measuring it. The alpha coefficient value was 0.866 which is greater than the minimum of 0.7 (Pallant, 2011). This showed reliability of the scale items measuring optimism thus allowing the researcher to make valid and credible conclusions. Additionally, the mean responses were ranging from 1.14 –1.51 which indicated that the majority of respondents were in strong agreement that optimism has a positive influence on usage intention. Lastly, the standard deviation values ranged from 1.115 –1.321 indicating that the responses provided were similar thus promoting convergent validity.

Reliability Test on Innovativeness

Table 4.1 shows the results of the Cronbach's Alpha test results on consumer innovativeness, where an alpha coefficient value of 0.812 was generated showing reliability of the questionnaire as the value is above the threshold of 0.7. This variable was tested using 7 variables as indicated on the number of items on the SPSS output table. The standard deviation indicated in the table shows a range of 1.523- 1.862 thus the innovativeness-based responses were similar. Moreover, the mean responses indicated that respondents agreed that innovativeness has a significant contribution on usage intentions of life assurance products.

Reliability Test on Consumer Discomfort

Consumer discomfort was the third study construct investigated on how self-service applications affect usage intention to adopt life assurance products. Discomfort according to the literature reviewed was measured using 10 scale items as shown on the SPSS output table 4.1. The Cronbach's Alpha test generated a coefficient value of 0.817 which affirmed that all the items measuring discomfort are reliable on influencing usage intention. The mean values ranged from 1.25 – 2.85 signifying that most of the responses were in strong agreement to the multiple questions on the discomfort construct. Additionally, the standard deviation values ranged from 1.364 – 1.834 thus affirming that there were no outliers in the general responses from the 182 respondents.

Reliability Test on Insecurity

Moreover, insecurity was considered important on how self-service applications influence consumers' intention to uptake life assurance services. Insecurity as reviewed from the literature was measured using nine aspects as shown on the SPSS output table in Table 4.1. The Cronbach alpha test yielded a coefficient value of 0.799 thus indicating internal consistency in the scale items measuring insecurity. The mean values ranged from 2.14 – 2.85 indicating that majority of the responses were in agreement to the questions presented on insecurity in the likert scale. Also the spread of the standard deviation values show that responses are converging thus allowing for valid conclusions.

Reliability Test on Usage Intentions

Additionally, usage intention was the only dependent variable of the study. As reviewed in literature there are three aspects used to measure usage intentions as shown on SPSS output table 4.1. The Cronbach alpha test coefficient value was 0.856, which is above the minimum to warrant reliability of the construct. The mean values range between 1.25 and 1.98 showing

that most of the respondents were strongly agreeing to the three questions presented on usage intentions in the Likert scale. Furthermore, the standard deviation values ranged from 1.219 – 1.361 indicating that most responses were converging.

Correlation Analysis

Spearman's correlation coefficient was used to assess the type of relationship between the independent study constructs and the dependent variable. Spearman's rank correlation coefficient was employed since the study data is ranked based on the five point Likert Scale and the response values were discrete (Pallant, 2011). Pallant (2011) further states that Spearman' Rank correlation coefficient is appropriately robust when extreme values are present which resonates well with the present study as most respondents were measured on the degree of agreement versus the degree of disagreement. Correlation analysis was performed to determine the type of relationship that exists between the latent constructs of the independent variable and the dependent variable. Table 4.6 shows the Spearman correlation coefficients between the five research variables. Spearman's Rank Correlation analysis was necessary as it revealed the direction and strength of the relationship between the latent constructs (optimism and usage intention, innovativeness and usage intention, discomfort and usage intention as well as insecurity and usage intention).

Table 4.2 Spearman correlation coefficients

			OPT	BI	1NN	BI	DIS	BI	INS	BI
Spearman's rho	OPT	Correlation Coefficient	1.000	611**	.536**	.611**	.568**	.611**	.631	.611**
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.	.000
		N	182	182	182	182	182	182	182	182
	BI	Correlation Coefficient	.611**	1.000	.581**	1.000	.659**	1.000	.581**	1.000
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.
		N	182	182	182	182	182	182	182	182
	INN	Correlation Coefficient	.536**	.598**	1.000	.598**	.617**	.598**	.526**	.598**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000
		N	182	182	182	182	182	182	182	182
	BI	Correlation Coefficient	.485**	1.000	.567**	1.000	.712**	1.000	.493**	1.000

		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000
		N	182	182	182	182	182	182	182	182
	DIS	Correlation Coefficient	-.568**	-.632**	-.617**	-.632**	1.000	-.632**	.573**	-.632**
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000
		N	182	182	182	182	182	182	182	182
	BI	Correlation Coefficient	.583**	1.000	.652**	1.000	.453**	1.000	.682**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000
		N	182	182	182	182	182	182	182	182

***. Correlation is significant at the 0.01 level (2-tailed)*

Consumer optimism positively influences usage intention.

Table 4.2 shows a Spearman correlation coefficient of 0.611 between consumer optimism and usage intention. The correlation coefficient of 0.611 shows that there is a strong relationship between consumer optimism and usage intentions of life assurance services. Conclusively, promotion of self service applications as a strategy to influence consumer purchase intention of self-service life assurance services will boost significantly usage intention.

Consumer innovativeness positively influences usage intention.

Table 4.2 presents a Spearman correlation coefficient of 0.598 between consumer innovativeness and usage intentions. This positive spearman correlation coefficient points out existence of a positive and moderate relationship between consumer innovativeness and usage intention. Hence, any effort by the organisation to promote consumer innovativeness will broaden usage intentions.

Consumer discomfort negatively impacts usage intentions

Table 4.2 depicts a Spearman correlation coefficient of -0.632 between consumer discomforts and usage intention. The negative coefficient depicts existence of a negative, strong and linear association between consumer discomfort and usage intentions. Hence, any decrease in consumer discomfort will significantly increase usage intentions among the active customers.

Consumer insecurity negatively influences usage intentions.

Table 4.2 shows a spearman correlation coefficient of -0.621 between the consumer insecurity and usage intention. The negative spearman correlation coefficient attests existence of a negative linear significant and strong relationship between the two paired constructs.

Therefore, lack of strategies by the organization to ease consumer insecurity will result in usage intention nose diving thus affecting customers' intention to adopt the self-service life assurance services. Furthermore, discriminant validity was assessed by inspecting the Spearman correlation coefficients in the correlation table 4.6. DeVellis (2015) asserts that correlation coefficient below 0.8 proves discriminant validity and values greater than 0.8 are too related indicating multi co-linearity. Therefore, table 4.2 shows variables in the conceptual framework are distinct as evidence by correlation coefficient values ranging from 0.485 to 0.712.

Regression Analysis

Regression analysis was done to determine presence and magnitude of the causal relationship between TRI variables and usage intention whereas Spearman correlation coefficient evidenced the independent concept was associated to the dependent concept. The regression analysis also involves quantifying the cause-and-effect relationship between the independent and dependent variables. Table 4.3 shows the summary of the regression analysis.

Table 4.3 Summary of the regression analysis

Variables Independent Dependent	Regression coefficient	R Square Value	Adjusted R Square	Standardized coefficient (Beta)	Sig. value
OPT BI	0.621	0.607	0.599	0.621	0.012
INN BI	0.604	0.589	0.564	0.604	0.001
DIS BI	-0.453	0.393	0.363	0.453	0.044
INS BI	-0.587	0.534	0.510	0.587	0.015

Causal relationship between consumer optimism and usage intention.

The regression coefficient value of 0.621 validates the existence of a positive relationship between consumer optimism and usage intention. Adjusted R Square value of 0.599 depicts that consumer optimism influences usage intention by 59.9% only 40.1% influence being accounted for by other factors not covered in the present study thus presenting an opportunity for other researchers to investigate on these factors. The findings entail that in as much as the organisation may improve on consumer optimism there will be a positive improvement to usage intention by 59.9% only. Additionally, the results also indicate that majority of the respondents indicated that self-service life assurance services are much more convenient to use.

The findings are supported by literature where several scholars including Askdin (2011) and Washington (2018) state that consumers always favour products and services that gives consumers control over their daily lives. The hypothesis tested on the association between consumer optimism and usage intention generated a P- Value of 0,012 thus the researched accepted the alternative hypothesis and at the same time rejecting the null hypothesis given that all the values ranging from 0.000 to 0.5 show existence of the relationship. This proves that a positive relationship exists between consumer optimism and usage intention.

Causal relationship between consumer innovativeness and usage intention.

The regression coefficient of 0.604 between consumer innovativeness and usage intentions evidenced existence of a causal relationship since the coefficient is not equal to zero. That is, the independent variable, consumer innovativeness influences the dependent concept, usage intentions. The R square value of 0.589 signifies that consumer innovativeness influences usage intentions by 58.9% only. However, since the sample size used in this research is small, the adjusted R square value of 0.564 is considered which entails that consumer innovativeness influences usage intentions by 56.4% only. Furthermore, a significant value of 0.001 proves that there is a significant positive relationship between consumer innovativeness and usage intentions. This also implies that the H_0 hypothesis was dropped and alternative H_1 hypothesis was adopted.

Causal relationship between consumer discomfort and usage intention.

The relationship between consumer discomfort and usage intention was then tested using the regression analysis where a P – Value of 0.044 was yielded and this made the researcher to accept the allegation that consumer discomfort has a negative influence on usage intention (H_3) and rejecting H_0 as the P-Value is less than 0.5. Acceptance of H_3 was shown by the P-value of 0.044 that was significant at 5%. The findings entail a decrease in consumer discomfort activities will ensure an improvement to usage intention by 36.3% reflected by the Adjusted R Square value of 0.363.

Causal relationship between consumer insecurity and usage intention.

The regression coefficient of -0.587 entails that there is negative causal relationship between consumer insecurity and usage intention. The adjusted R square value of 0.510 indicates that consumer insecurity negatively predicts usage intentions by 51% only. On this basis this lays a foundation for future studies to investigate on the other factors accounting for 49% influence. The simple regression performed on analyzing the relationship between consumer insecurity and usage intention revealed a P – Value of 0.015 this made researcher to reject the null hypothesis and accepting the Alternative hypothesis since this has reflected a significant negative relationship between consumer insecurity and usage intention. These finding suggests that an increase in consumer insecurity will result in decrease in usage intention.

Resultantly, the standardized coefficients in table 4.3 show that consumer optimism influences most usage intention relative to the other three predictor variables. That is consumer optimism influences usage intentions by 62.1% only.

CONCLUSIONS

Consumer optimism and usage intention

Given that consumer optimism influenced usage intention by 59.9% as reflected by the adjusted R – squared value of 0.599, this study concludes that consumer optimism has the greatest influence on affecting usage intention of customers towards adoption of self-service life assurance services.

Association between consumer innovativeness and usage intention

Based on the finding that Consumer innovativeness is positively related to usage intention evidenced by a correlation coefficient of 0.598 and regression coefficient of 0.604. It can therefore be concluded that consumer innovativeness has the power to influence customers to adopt self-service life assurance services. This is supported by an adjusted square value of 0,564.

Relationship between consumer discomfort and usage intention

From the analysis it can be revealed that consumer discomfort is negatively related to usage intention evidenced by a spearman correlation coefficient of -0.632. Consumer discomfort negatively influences usage intention by 36.3% reflected by an adjusted R Square value of 0.363. The significant value of 0.044 in table confirm that there is a significant negative relationship between consumer discomfort and usage intentions. Therefore, consumer discomfort has a moderate negative significant relationship with usage intention. It can also be concluded that the organisation should not direct resources on overcoming consumer discomfort since it has a negative influence to the customer' usage intention towards adoption of self-service life assurance services.

The relationship between consumer insecurity and usage intention

Consumer insecurity has a strong negative linear relationship with usage intention. This is supported by the Spearman correlation coefficient of -0.621 and regression coefficient of -0.587 between consumer insecurity and usage intention. The significant value of 0.015 confirm that there is a significant negative relationship between consumer insecurity and usage intention. Based on this finding it can therefore be concluded that failure or slow rate of adoption of self - service life assurance services is not caused by fear on uncertainty but probably by other factors.

RECOMMENDATIONS

Based on the research findings and the conclusions, the following recommendations were suggested:

- The researchers suggest the organisation under study to consider introducing new technology that is easy to use thus being user friendly. According to Parkin, (2014) companies benefit more when they engage in continuous innovation. Ease of use of new products promote immediate adoption of new products in the market and reduce chances of them failing on the market.
- Furthermore, the researchers recommend that the organisation's website should be totally secure to insure protection of customer information. Therefore, ensuring security of online shopping will facilitate adoption of the self-service life assurance products. Moore (2009) asserts those company websites that are a highjack free enjoy high website traffic.

- It is also recommended that the organisation may consider engaging in activities that promote consumer optimism more vigorously to promote uptake of the self-service technology. This assertion is attested by the significant influence of consumer optimism on usage intention of 62.1%. Wang and Lu (2014) affirms that consumer optimism mostly influences usage intention among the technology readiness index constructs.

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