

Investigating factors that affect the willingness to adopt peer-to-peer short-term insurance in South Africa

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Abstract

Purpose – This study aims to identify the propensity for clients (legal and natural persons) to adopt peer-to-peer (P2P) short-term insurance policies as opposed to traditional and/or centralized short-term.

Design/methodology/approach – In this paper data was collected through a survey of 102 sampled short-term insurance clients using convenience sampling. The TAM2 questionnaire was adapted to evaluate the intention to adopt a P2P insurance policy.

Findings – The findings of this study shed light on the factors influencing the adoption and (dis)continuation of short-term insurance products, both traditional and digital, among South African consumers. The results demonstrate that perceived usefulness, ease of use, trust, risk perception and subjective norm play crucial roles in individuals' intention to use or (dis)continue the use of these insurance products.

Practical implications – The study's findings provide actionable insights for practitioners in the short-term insurance sector, with a focus on marketers and e-commerce professionals. These insights emphasize the need to prioritize user-friendly design and trust-building measures in the development of P2P insurance systems. Additionally, practitioners should consider harnessing the power of social influence and carefully balancing innovative features with familiarity in their marketing efforts. These strategies are poised to enhance the adoption and competitive positioning of P2P insurance solutions amidst the evolving landscape of digital transformation.

Originality/value – This study makes a substantial contribution by employing the technology acceptance model (TAM) in a novel and unconventional manner. It not only explicates the intricate dynamics governing the adoption and discontinuation of short-term insurance products, encompassing both conventional and digital alternatives, within the South African consumer milieu but also extends its purview to infer the reasons behind the limited widespread adoption of the digital counterpart, despite its superior value proposition compared to the traditional offering. The findings elucidate the critical determinants shaping individuals' decisions in this dynamic market segment. This research enhances the global discourse on insurance adoption with a unique South African perspective and furnishes insurers and marketers with empirically grounded insights to optimize their strategies and cultivate substantive connections with their target demographic.

Keywords Insurance, Digital services, Peer-2-peer

Paper type Research paper

Introduction and contextualization

Africa's insurance industry is valued at about \$68bn in terms of gross written premiums (GWP) and is the eighth largest in the world. This value is unevenly distributed across the continent,



with 91% of premiums concentrated in just ten countries. South Africa, as the largest and most established insurance market, accounts for 70% of the total premiums, making it one of the countries with the highest penetration rates of short-term insurance in the world (Bagus, De Girancourt, Mahmood, & Manji, 2020). The non-life insurance industry in South Africa reported GWP of R122bn in 2019, increasing by 5% compared to R128bn in 2020. KPMG (2021) states that the increase in gross insurance liabilities by 27.2% (18% net of reinsurance) is partly due to higher claim provisions for business interruption. The claims incurred ratio increased from 59% in 2019 to 59.5% in 2020 due to an increase in net claims incurred for the non-life sector by R1.9bn (4.1%). However, the loss ratio was offset by fewer weather-related catastrophes and lower claims frequencies experienced over several insurance classes following the impact of the COVID-19 lockdown in South Africa. Furthermore, Knoesen (2021) notes that the pandemic severely impacted the trade and consumer credit class of business, causing significant insurance losses, while events such as the “MeToo and Black Lives Matter” campaigns have led to specific claims against companies. Due to these difficult trading conditions, Insurtech companies have identified an opportunity to capture a segment of the short-term insurance market in South Africa, by demonstrating the value of digital innovations in the provision of insurance products (Olesen, Chester, Ham, & Johansson, 2019).

Under the traditional centralized model of insurance, Abdikerimova and Feng (2022) explain that an insurance policy develops a bilateral contractual agreement between a policyholder and an insurer, in which the insurer accepts a premium from the policyholder in exchange for paying a benefit based on specific contingencies. However, traditional insurance systems have several drawbacks, such as high costs to obtain the promissory benefit and the insurance companies holding the majority of the market power, which limits high-risk individuals from obtaining coverage (Feng, Liu, & Zhang, 2022). There is also a lack of trust in the insurance business, as insurers are perceived to be reluctant to pay out claims (Agyei, Sun, Abrokwhah, Penney, & Ofori-Boafo, 2020) and the standard commission-based selling strategy employed by brokers prioritizes the broker's own financial interests over the interests of their clients (Van Der Cruysen, De Haan, & Roerink, 2021).

The demand for more accessible, low-cost services in the financial industry has brought about numerous technology-driven tools initiated by Fintech companies (Sy, Maino, Massara, Perez-Saiz, & Sharma, 2019). Peer-to-peer (P2P) insurance model is one of these financial tools that has redefined the mode of financial products and services delivery. In P2P, a network of participants combines their premiums in a common fund to support individuals who sustain losses. It is a technologically advanced resurrection of the traditional idea of mutual aid.

According to Frankenfield (2021), the P2P concept spread to the insurance market, as individuals seek insurance that allies with family members and friends instead of turning to insurance companies. The also argued that such alliances reduce information asymmetry and moral hazard. The P2P insurance movement incorporates fintech concepts like crowdsourcing platforms and social networking, providing policyholders with easy access to insurance coverage at lower costs than traditional policies allow (Frankenfield, 2021).

The current research gap pertains to the limited understanding of the adoption of digital insurance concepts in short-term insurance, and the increasing demand for cost-effective financial products that necessitates identifying alternative short-term insurance models (Ellingrud, Kimura, Quinn, & Ralph, 2022; KPMG, 2021). To address this gap, this study aims to explore clients' and business entities' inclination towards adopting P2P short-term policies in comparison to conventional, centralized short-term insurance policies, utilizing data from a digital insurance platform.

Theory

The theoretical framework of this study is based on the technology acceptance model (TAM2) proposed by Venkatesh and Davis (2000). The TAM2 is a widely used model for evaluating

the intention to adopt an information system, which includes two key constructs: perceived usefulness (PU) and perceived ease of use (PEOU). TAM2 proposes that the intention to use an information system is determined by the user's beliefs about the system's usefulness and ease of use.

The current study adapted the TAM2 model to better evaluate the intention of individuals to adopt a specific information system. The subjective norm (SN) construct was included in the adapted model. SN refers to the degree to which an individual perceives social pressure to use or not to use the information system. The inclusion of this construct is important as it helps to understand the influence of social factors on the intention to adopt the information system.

The perceived risk (PR) and perceived trust (TRU) constructs were also included in the adapted model. PR refers to the degree to which an individual perceives the risks associated with the use of the information system. TRU was adapted from items included in the [Balakrishnan, Abed, and Jones \(2022\)](#) study and refers to the degree to which an individual perceives the trustworthiness of the information system.

The behavioural intention (BI) construct was also included in the adapted model ([Lim & Weissmann, 2023](#)). BI refers to the degree to which an individual intends to use the information system. The inclusion of this construct is important as it provides an indication of whether the intention to use the information system will translate into actual use.

Overall, the use of the adapted TAM2 questionnaire in this study provides a comprehensive framework for evaluating the intention of individuals to adopt a specific information system. The inclusion of constructs such as SN, PR, TRU and BI provides a more holistic view of the factors that influence the intention to adopt the information system (See [Table 1](#) for detailed description of the constructs).

Literature review

Short-term insurance is a contractual agreement between an individual and an insurance firm where a monthly premium or contribution is paid to the insurer to provide coverage for various risks and liabilities ([Financial Service Conduct Authority, 2020](#)). This coverage can protect personal property, health and capacity to work, and can also protect individuals from legal liability for harm caused to others. Short-term insurance in South Africa is regulated by the Prudential Authority and the Financial Sector Conduct Authority, in accordance with the Insurance Act and the Short-Term Insurance Act ([Financial Service Conduct Authority, 2020](#)). Short-term insurance policies can include engineering, guarantee, liability, miscellaneous, motor, accident and health, property, and transportation policies or a combination of these policies.

The traditional/centralised short-term insurance model is a bilateral contractual agreement between an insurer and a policyholder, where the insurer serves as the hub to serve thousands of clients ([Abdikerimova & Feng, 2022](#); [Feng et al., 2022](#)). Premiums collected from insureds without any loss are used by the insurer to subsidize the cost of benefits paid to other insureds with losses, making the capacity to pay the essence of this model ([Abdikerimova & Feng, 2022](#)).

Rapid technology changes have created an enabling environment to redesign and restructure business operations (digital business, which has attracted attention in the recent time). Technology has also reshaped the mode by which financial products and services are delivered to consumers ([Arslanian & Fischer, 2019](#)). Moreso, financial consumers have developed the appetite for financial products and services with high level of convenience, accessibility, cost effectiveness, ease of operation, etc. Such financial products and services are technology-driven initiated by Fintech companies ([Klausser, Salampasis, & Kaiser, 2022](#); [Mention, 2021](#)). P2P insurance model is one of these technological financial tools in the

| Construct | Definition | Citation |
|-----------------------------------|---|---|
| Peer-to-peer insurance | A form of decentralized risk sharing network in which participants pool resources and risk together to compensate those who suffer losses, where the insurer is called upon to provide indemnity only if claims exceed the capacity of the common fund | Abdikerimova and Feng (2022) , Levantesi and Piscopo (2022) |
| Technology acceptance model (TAM) | An extension of theory of reasoned action (TRA). It posits that there are several factors that determine whether a system will be accepted and used by its potential users. These are encompassed by social influence processes (subjective norm, voluntariness and image), cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use), PU and the intention to use | Venkatesh and Davis (2000) |
| Perceived risk (PR) | The uncertainty and unpleasant outcomes connected to consumers' expectations. It represents how unpredictable consumers believe results will be when researching and selecting information about goods and/or services before making any purchasing decisions | Aldammagh et al. (2021) |
| Perceived ease of use (PEOU) | The degree to which individuals believe that using a particular system or technology will be free from effort and easy to use. It captures the perceived simplicity and user-friendliness of the system or technology | Ventre and Kolbe (2020) |
| Perceived usefulness (PU) | The degree to which individuals believe that using a particular system or technology will enhance their performance and productivity. It reflects the perception that the system or technology is valuable and beneficial in achieving desired outcomes | Ventre and Kolbe (2020) |
| Subjective norm (SN) | A person's view that the majority of the people who are significant to them believe they should not engage in a particular behaviour. This perception affects intention to behave | Venkatesh and Davis (2000) , Aji et al. (2020) |
| Perceived trust (TRU) | The belief or confidence individuals have in the reliability, credibility and integrity of a system, organization or other entities. It represents the extent to which individuals perceive the system or entity to be trustworthy and dependable | Ben Uche et al. (2021) |
| Behavioural intention (BI) | The degree to which an individual intends to use the information system. It provides an indication of whether the intention to use the information system will translate into actual usage | Lim and Weissmann (2023) |

Source(s): Authors' compilation⁷

Table 1.
Table of constructs

insurance space that has redefined offerings of the insurance services delivery ([Clemente & Marano, 2020](#)).

In contrast to the traditional/centralised insurance model, P2P insurance schemes are decentralized risk-sharing networks where participants pool their resources and risks to compensate those who suffer losses ([Abdikerimova & Feng, 2022](#); [Levantesi & Piscopo, 2022](#)). Participants in P2P insurance schemes are typically individuals from different risk

classes who know each other and pool their resources to compensate each other for losses, cutting down on the cost of insurance (Abdikerimova & Feng, 2022). The insurer is only obligated to provide indemnity in the event that claims surpass the capacity of the collective fund, which is comprised of the participants' pooled premiums (Levantesi & Piscopo, 2022). Although P2P insurance schemes are described as a revival of the traditional mutual aid insurance concept, there is limited literature on the theoretical underpinnings of this model (Abdikerimova & Feng, 2022; Levantesi & Piscopo, 2022).

Hypothesis and conceptual framework development

The purpose of this study is to investigate the factors that impact clients' intentions to switch from traditional short-term insurance products to P2P insurance alternatives. Guided by the technology adoption model 2 (TAM2) theory, the following concepts and hypotheses have been established, as depicted in Figure 1.

Perceived ease of use. Prior research consistently indicates that individuals' propensity to adopt and persistently use a technology depends on their perception of the effort required by the system (Ventre & Kolbe, 2020). In the context of short-term insurance, when users perceive traditional insurance systems as easy to use, they are more likely to continue their usage rather than switching to P2P alternatives. Conversely, when users perceive traditional short-term insurance systems as more difficult to use, they are more inclined to substitute them for the digital alternative of P2P short-term insurance. Therefore, it is hypothesized that PEOU plays an influential role in the intention to (dis)continue the use of traditional insurance systems. Hence it is hypothesized that:

H1. PEOU is a factor that influences the intention to (dis)continue the use of traditional insurance systems.

Perceived usefulness. Research suggests that individuals' intention to adopt and persistently use a technology depends on their perception of how beneficial the system is in meeting their needs (Ventre & Kolbe, 2020). In this case when users perceive traditional insurance systems as useful, they are more likely to continue their usage rather than switching to digitalized P2P short-term insurance alternatives. On the contrary, when users perceive traditional short-term insurance systems as less useful, they would be inclined to substitute them for the digital P2P short-term insurance alternative. Thus, PU plays an important role in shaping adoption, continued use and potential substitution decisions regarding short-term insurance systems, this reflects the users' evaluation of the benefits offered by each option. Hence:

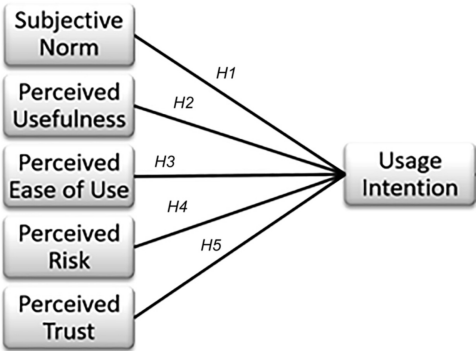


Figure 1.
Conceptual framework

Source(s): Authors' compilation

H2. Perceived usefulness is a factor that influences the intention to (dis)continue the use of traditional insurance systems.

Subjective norm. Subjective norm is a significant factor that influences the propensity to continue using traditional short-term insurance systems instead of switching to P2P alternatives (Venkatesh & Davis, 2000). Research suggests that an individual's perception of the social norm, specifically the belief that significant others encourage engagement in a particular behaviour, can increase their intention to adopt that behaviour. In the context of insurance, when users perceive a favourable social norm towards traditional short-term insurance systems, they are more likely to continue using them rather than switching to P2P alternatives. On the other hand, when the social norm favouring traditional systems is less favourable, users are more inclined to substitute them for the digital alternative of P2P short-term insurance (Venkatesh & Davis, 2000). Thus.

H3. Subjective norm is a factor that influences the intention to (dis)continue the use of traditional insurance systems.

Perceived risk. PR is another noteworthy factor influencing the propensity to continue using traditional short-term insurance systems instead of switching to P2P alternatives. Customers assess the uncertainty and potential negative outcomes associated with their insurance decisions, particularly in online financial transactions. As such when users perceive a high level of risk with traditional systems, they are more likely to consider substituting them for the digital alternative of P2P insurance (Aldammagh, Abdeljawad, & Obaid, 2021). In essence.

H4. PR is a factor that influences the intention to (dis)continue the use of traditional insurance systems.

Perceived trust. Trust plays a pivotal role in customers' decision-making process, influencing their intention to continue using traditional insurance systems or explore alternative options. Accordingly, higher levels of trust in traditional short-term insurance systems are associated with a greater propensity for continued use, indicating a preference for the familiarity and reliability of established insurance options. Likewise, when perceived trust in traditional insurance systems is low, individuals are more likely to consider substituting them for the digital alternative of peer-to-peer insurance (Ben Uche, Osuagwu, Nwosu, & Otika, 2021). That would mean that:

H5. TRU is a factor that influences the intention to (dis)continued the use of traditional insurance systems.

Conceptual framework

The conceptual framework is a graphical or narrative form showing the key variables or constructs to be studied and the presumed relationship between them (Mensah, Agyemang, Acquah, Babah, & Dontoh, 2020; Sarma, D'Este, Ahmed, Bossert, & Banwell, 2021). This sets the stage for the specific research questions. The conceptual framework of this study is informed by the theoretical framework(s) that are relevant to the adoption of P2P insurance (see Figure 1).

Methodology

Research design and statistical methods

In this study, exploratory research design, which helps to discover patterns of responses from research participants was deployed. Findings from exploratory analysis provide

comprehensive understanding of the importance of consumers' preferences and perceptions, especially towards their choice of products (Makri & Neely, 2021). Therefore, exploratory analysis suits this type of study where the researchers, through a survey explored the factors that influence a person's intention to use short-term insurance products in place of traditional short-term insurance policy. The data was evaluated using the Statistical Package for the Social Sciences (SPSS) Analysis of Moment Structures (AMOS) to achieve a confirmatory factor analysis (CFA).

The researchers used CFA, a statistical technique to determine the degree to which a set of observed variables are associated with a set of hypothesized underlying factors. CFA is often used in psychology, sociology and other social sciences to test theoretical models and determine how well the observed data fit with the hypothesized model. The goal of CFA is to determine the number of factors underlying a set of observed variables and how strongly each observed variable is associated with each factor.

Population of interest

The sample frame, which is a list of identifiable elements such as geographic places, institutions, people and family units that is easily accessible, is used to determine the population of interest. In this study, the geographic focus was South Africa, with a specific focus on regions that have the necessary infrastructure to access short-term insurance offerings. The focus on examining short term insurance products in South Africa is justified by the fact that South Africa has one of largest and most established insurance market, accounts for 70% of the total premiums, making it one of the countries with the highest penetration rates of short-term insurance in the world (Bagus *et al.*, 2020). Examining short term insurance products in South Africa would not only provide insight into the state of the insurance industry in the country but would also shed light on the impact of digital innovations on the provision of insurance products (Olesen *et al.*, 2019).

The short-term insurance clients were chosen as the population of interest to determine their intention to use short-term insurance systems and/or substitute traditional insurance modes of short-term insurance for P2P insurance systems. The population is based on short-term insurance policy clients not excluding any sector of insurance.

Sampling selection and size

Sampling design is a critical component of research studies as it shapes the methodology and considerations for selecting a sample from the population of interest (Guenther, Guenther, Ringle, Zaefarian, & Cartwright, 2023). The validity of the study's findings can be influenced by the sample design, necessitating careful attention to the sampling process, target population and sample size (Kabir, 2016).

Sampling methods can fall into two categories: probability sampling and non-probability sampling. Probability sampling involves randomly selecting individuals from the population, ensuring that every member has an equal chance of being included. On the other hand, non-probability sampling does not assign known probabilities to population elements (Burns & Veeck, 2021).

In this study, a non-probability sampling approach called convenience sampling was employed. Convenience sampling entails selecting easily accessible and nearby individuals from the population (Burns & Veeck, 2021). The researchers utilized institutional data from an Alberton Insurance Firm that distributes long-term and short-term insurance products, to reach out to short-term insurance clients and invite them to participate in the online survey.

It is crucial to ensure that the sample size is adequate and representative (Guenther *et al.*, 2023). The sample size justification was based on a statistical method, smart partial least squares, which determines a desired sample size. Smart partial least square strikes a balance

between costs and a large enough sample size (Guenther *et al.*, 2023). The smart partial least square indicates that a required sample size of 221 or more are needed to have a confidence level of 95% that the real value is within $\pm 5\%$ of the measured/surveyed value. This study, however, could only attract responses from 100 participants, assumed to be due to privacy and opaqueness of the respondents when it comes to provision of information relating to personal financial obligations. Moreso, cost considerations as well as time and resource constraints affect response rates (Guenther *et al.*, 2023).

The appropriateness of a sample size of 100 participants can be substantiated based on simulation studies. (Hair, Black, Babin, & Anderson, 2009) indicated that a sample size of 50 resulted in an unacceptable number of models failing to converge. However, when the sample size was increased to 100, the number of models failing to converge decreased significantly to 5% or less, which is considered much more acceptable.

Considering these findings, a sample size of 102 is deemed adequate for the analysis using the 2-step approach. This sample size strikes a balance between statistical power and practical considerations, ensuring a sufficient number of participants to draw meaningful conclusions while managing the resources and costs associated with data collection and analysis.

Data collection methods

The data collection method for this study involved the use of a survey, which was designed using qualtrics-created metrics and contained questions relevant to the study. Prior to accessing the survey, participants were presented with a pop-up warning that provided information about the nature and aim of the study. It was made clear to participants that their responses would remain confidential and anonymous, and they were required to provide their approval before proceeding to participate in the study. The participants were provided with detailed information about the study's purpose, an informed consent form, the researcher's contact information and instructions on how to fill out the questionnaire. The survey was conducted online, and participants were able to complete it at their convenience. Online survey is more convenient for the respondents compared to paper survey, moreover, responses can easily be traced by the researcher and send reminders to respondents (Braun, Clarke, Boulton, Davey, & McEvoy, 2021) An ethics approval was obtained for the ethics committee of the University of the Witwatersrand before the participants were contacted.

Measurement instrument

The TAM2 questionnaire was used to evaluate the intention to adopt the P2P short term insurance policy. The questionnaire was adapted to include 23 items, and respondents were required to indicate their level of agreement or disagreement with each statement using a seven-point Likert scale, ranging from 1 ("strongly disagree") to 7 ("strongly agree"). The scales used in the adapted model achieved high levels of internal consistency, with Cronbach alphas ranging from 0.81 to 0.98.

The SN scale used in this study was adapted from items included in Venkatesh and Davis (2000), and Aji, Berakon, and Riza (2020). The PEOU and PU scale used in the questionnaire was adapted from items in Ventre and Kolbe (2020). PR and perceived trust (TRU) were measured using items adapted from the Balakrishnan *et al.* (2022) study. Finally, the scale for BI was adapted from items listed in the Davis, Ajzen, Saunders, and Williams (2002) questionnaire. The adapted questionnaire for this study therefore includes multiple scales that have been previously validated and tested, increasing the reliability and validity of the measures. To ensure the data is uniform and ready to use, the collected data was cleaned by checking and correcting for duplicate and incomplete responses. The data was analysed using SPSS AMOS.

Data analysis

Sample profile

The study provides a demographic profile of the respondents in Table 2 According to the results the sample size consists of 102 participants who completed the survey. The response rate of 11.94% is considered acceptable for online surveys. Though 11.94% response rate seems low, but the number of respondents is 102, which Hair *et al.* (2009) justified that with a sample size of 100, the number of models failing to converge decreased significantly to 5% or less, which is considered much more acceptable. The majority of respondents were between the ages of 51 to 60 and 61 to 70, making up 28.4% and 19.6% of the sample, respectively. Those aged 30 and younger accounted for 15.7%, while those aged 31 to 40 and 41 to 50 represented 12.7% and 15.7%, respectively. Only 6.9% of the respondents were aged 71 and older. Most of the respondents have postgraduate education, making up 41.2% of the sample. Matric and diploma levels represented 20.6% and 22.5% of the sample, respectively, while undergraduate education accounted for 11.8%.

The annual income of respondents varied, with the majority earning between R68 001 and R1 480 000¹. The highest income category of R2 360 000 and higher represented only 3.9% of

| Age | Count | % | Education | Count | % | Consultations ¹ | Count | % |
|-------------------------|-------|------|------------------------|-------|------|----------------------------|-------|------|
| Undisclosed | 1 | 1.0 | Undisclosed | 1 | 1.0 | Friends/Family | 16 | 15.7 |
| Under 30 | 16 | 15.7 | None | 3 | 2.9 | Financial Adviser | 67 | 65.7 |
| 31 to 40 | 13 | 12.7 | Matric | 21 | 20.6 | Others | 8 | 7.8 |
| 41 to 50 | 16 | 15.7 | Diploma | 23 | 22.5 | Undisclosed | 3 | 2.9 |
| 51 to 60 | 29 | 28.4 | Undergraduate | 12 | 11.8 | | | |
| 61 to 70 | 20 | 19.6 | Postgraduate | 42 | 41.2 | | | |
| Over 70 | 7 | 6.9 | | | | | | |
| Cost ² (000) | Count | % | Providers ³ | Count | % | Income (000) ⁴ | Count | % |
| Undisclosed | 1 | 1.0 | Discovery | 19 | 18.6 | Undisclosed | 1 | 1.0 |
| Below 2 | 32 | 31.4 | Santam | 56 | 54.9 | Below 19 | 11 | 10.8 |
| 2–4 | 38 | 37.3 | Old Mutual | 3 | 2.9 | 19–68 | 14 | 13.7 |
| 4–6 | 15 | 14.7 | Naked | 1 | 1.0 | 68–197 | 10 | 9.8 |
| 6–8 | 7 | 6.9 | Pineapple | 0 | 0.0 | 197–400 | 23 | 22.5 |
| 8–10 | 6 | 5.9 | Others | 20 | 19.6 | 400–688 | 12 | 11.8 |
| Over R10 | 3 | 2.9 | | | | 688–1480 | 22 | 21.6 |
| Undisclosed | 2 | 2.0 | | | | 1480–2360 | 5 | 4.9 |
| Nobody | 9 | 8.8 | | | | Over 2360 | 4 | 3.9 |
| P2P usage ⁵ | Count | | | | | | % | |
| Yes | 3 | | | | | | 2.9 | |
| No | 99 | | | | | | 97.1 | |

Note(s): ¹This is the type of consultations respondents made before engaging in an insurance policy, which includes friends and families

²This represents the cost respondents incurred in their respective insurance policies, presented in South African rand (R), in thousands

³This covers the type of insurance providers respondents deal with, while purchasing short-term insurance policies

⁴This is the annual income earned by the respondents, presented in South African rand (R), in thousands

⁵The number of respondents who partake in peer-to-peer insurance

Source(s): Authors' compilation⁷

Table 2.
Demographic
information

the sample. Most of the respondents (68.8%) spent between R2 001 to R6 000 on short-term insurance, with 31.4%.

After analysing the findings, it was observed that the majority of respondents (65.7%) sought advice from financial advisers when purchasing short-term insurance, indicating the significance of professional guidance in decision-making. Additionally, 15.7% consulted with friends and family, while 7.8% sought advice from other sources. Only a small proportion of respondents (8.8%) reported not consulting anyone during the purchasing process. Interestingly, the study revealed that a vast majority (97.1%) of respondents had not used P2P insurance products, with only 2.9% reporting previous usage. This information suggests that the sample is representative of traditional short-term insurance clients and provides valuable insights into the factors affect the adoption of short-term insurance policies.

Validity and reliability

It is necessary to ensure validity and reliability of the research findings, especially on research based on use of secondary data. To ensure convergent validity, which is an important aspect of construct validity, is used to evaluate the degree of similarity between different measurements of the same construct, the researchers calculated the average variance extracted (AVE). AVE compares the variation captured by a construct to the variance resulting from measurement error. In this study, the AVE values for the constructs in Table 3 are all greater than or equal to 0.5, which is considered acceptable (Hair *et al.*, 2009). Therefore, the constructs used in this study are said to have convergent validity. This suggests that the measures used in the study are all measuring the same underlying construct.

Discriminant validity is another aspect of construct validity that is used to evaluate whether different constructs are truly distinct from each other. It seeks to establish that one concept is fundamentally distinct from the other. This is achieved by calculating the correlation value between different constructs and comparing it to the square root of the AVE value. If the correlation value is less than the square root of the AVE value, then discriminant validity exists. In this study, the correlation values between different constructs in Table 4 are all less than the square root of the AVE values, indicating that discriminant validity exists through the Fornell-Larcker Criterion (Fornell & Larcker, 1981). This suggests that the constructs used in this study are truly distinct from each other, and not measuring the same underlying construct. Therefore, the measures used in this study are suitable for evaluating different constructs.

Achieving the reliability of a measurement is a crucial aspect of any research study. In this study, the researchers conducted reliability analysis to assess the internal consistency of the constructs measured in the study. Cronbach's alpha was used to evaluate the internal consistency of the group of scale or test items. The Cronbach's alpha value for all constructs meets the threshold of 0.7, indicating high internal consistency (See Table 5). Another metric

| Construct | Average variance extracted |
|-----------|----------------------------|
| PU | 0.80 |
| PEOU | 0.79 |
| SN | 0.78 |
| PR | 0.60 |
| TRU | 0.73 |

Note(s): The convergent validity is through inspection of average variance extracted

Source(s): Authors' compilation⁷

Table 3.
Convergent validity
inspection

used to examine the reliability of the constructs is McDonald’s omega coefficient of reliability (McDonald, 1999). The McDonald’s omega coefficient calculates the reliability of many aspects or dimensions within a test. The McDonald’s Omega values achieved for all constructs in this study meet the acceptable threshold of 0.7, indicating appropriate reliability composite reliability, a metric for scale components’ internal consistency, was also used to evaluate the reliability of the constructs. The composite reliability values achieved for all constructs met the Fornell and Larcker (1981) requirement, indicating that the constructs’ shared variance among the observable variables used as an indication of a latent construct is satisfactory as seen in Table 4. Overall, the results suggest that the constructs measured in this study have high internal consistency, appropriate reliability and satisfactory shared variance, which increases the confidence in the study’s findings.

Results

Confirmatory factor analysis

Table 6 presents the results of the CFA conducted on the data. The table shows the factor loadings for each of the observed variables on their respective factors. Factor loadings represent the degree of association between each observed variable and its underlying factor, the higher the factor loading, the stronger the association between the variable and its factor.

The fit of the model was evaluated using several goodness of fit indices, including the standardized root mean square residual (SRMR), the root mean square error of approximation (RMSEA), comparative fit index (CFI) and the Tucker-Lewis index (TLI).

The SRMR and RMSEA range from 0 to ∞, with lower values indicating a better fit. The SRMR is the difference between the actual correlation and the correlation matrix implied by the model. The average magnitude of the discrepancies between actual and expected correlations is used to evaluate the model fit criterion. Both recent and earlier researchers such as; Dash and Paul (2021) suggests a value of less than 0.08 as a satisfactory fit. The

Table 4.
Discriminant validity
testing

| Construct | PU | PEOU | SN | PR | TRU |
|--|--------|--------|--------|--------|-------|
| PU | 0.895 | | | | |
| PEOU | 0.802* | 0.892 | | | |
| SN | 0.307* | 0.403* | 0.884 | | |
| PR | 0.571* | 0.632* | 0.516* | 0.775 | |
| TRU | 0.726* | 0.752* | 0.497* | 0.766* | 0.857 |
| Note(s): $p < 0.001^*$; AVE Indicated on Diagonal | | | | | |
| Source(s): Authors' compilation7 | | | | | |

Table 5.
Reliability of
constructs

| Construct | Cronbach alpha (α) | Mcdonald's omega (ω) | Composite reliability (CR) |
|--|--------------------|----------------------|----------------------------|
| PU | 0.941 | 0.940 | 0.942 |
| PEOU | 0.937 | 0.936 | 0.940 |
| SN | 0.867 | . ^a | 0.877 |
| PR | 0.850 | 0.856 | 0.856 |
| TRU | 0.936 | 0.935 | 0.932 |
| Note(s): Evaluated by McDonald's Omega, Cronbach's Alpha and Composite Reliability | | | |
| ^a McDonald's Omega cannot be calculated for constructs with less than two items | | | |
| Source(s): Authors' compilation7 | | | |

Table 6.
Confirmatory factor
analysis and
determination of factor
loadings

| Factor | Indicator | Estimate | SE | z | p | Stand.Est |
|--------|-------------------|----------|-------|-------|--------|-----------|
| PU | PU ₁ | 1.43 | 0.149 | 9.62 | <0.001 | 0.799 |
| | PU ₂ | 1.56 | 0.132 | 11.82 | <0.001 | 0.908 |
| | PU ₃ | 1.53 | 0.120 | 12.79 | <0.001 | 0.948 |
| | PU ₄ | 1.51 | 0.126 | 12.06 | <0.001 | 0.917 |
| PEOU | PEOU ₁ | 1.47 | 0.127 | 11.55 | <0.001 | 0.895 |
| | PEOU ₂ | 1.55 | 0.157 | 9.89 | <0.001 | 0.813 |
| | PEOU ₃ | 1.62 | 0.127 | 12.75 | <0.001 | 0.948 |
| | PEOU ₄ | 1.60 | 0.135 | 11.82 | <0.001 | 0.908 |
| SN | SN ₁ | 1.50 | 0.189 | 7.97 | <0.001 | 0.786 |
| | SN ₂ | 1.66 | 0.168 | 9.87 | <0.001 | 0.973 |
| PR | PR ₁ | 1.37 | 0.154 | 8.91 | <0.001 | 0.772 |
| | PR ₂ | 1.61 | 0.151 | 10.63 | <0.001 | 0.871 |
| | PR ₃ | 1.04 | 0.149 | 7.00 | <0.001 | 0.646 |
| | PR ₄ | 1.34 | 0.144 | 9.25 | <0.001 | 0.794 |
| TRU | TRU ₁ | 1.49 | 0.125 | 11.97 | <0.001 | 0.916 |
| | TRU ₂ | 1.37 | 0.140 | 9.80 | <0.001 | 0.810 |
| | TRU ₃ | 1.50 | 0.141 | 10.62 | <0.001 | 0.854 |
| | TRU ₄ | 1.54 | 0.151 | 10.21 | <0.001 | 0.831 |
| | TRU ₅ | 1.56 | 0.142 | 10.97 | <0.001 | 0.870 |

Source(s): Authors' compilation⁷

SRMR value is in accordance with threshold for an acceptable fit, as shown in Table 7. The SRMR of 0.046 is lower than the conservative criterion of less than 0.08, indicating a good fit.

The RMSEA calculates the degree of freedom in which an approximation results in a discrepancy. The RMSEA is a measurement of how poorly a model fits, where a better fit results in lower values. The RMSEA of 0.0975 is below the cut-off of 0.10 and is considered a reasonable fit. But the RMSEA appears to indicate a poor model fit when Dash and Paul (2021) cut-off is taken into account, as shown in Table 8. However, the RMSEA has significant issues with simpler models that have few degrees of freedom, as is the case with this study's model, which only has 9 degrees of freedom.

In such cases, instead of seeking the RMSEA, one might demonstrate the model's fit primarily using the CFI and/or TLI and SRMR. The CFI in Table 8 indicates an acceptable fit with a CFI > 0.9. Along with the SRMR indicated in Table 8, it can be concluded that the model has an acceptable fit. The CFI and the TLI range from 0 to 1, with higher values indicating a better fit. The CFI of 0.927 indicates a good fit, meeting the criterion of a conservative estimate of CFI ≥ 0.90. The TLI of 0.913 also meets the criteria for an acceptable fit.

The correlation matrix in Table 9 shows the correlations between the hypothesized factors. The correlation matrix allows researchers to examine the degree to which each factor is associated with the other factors. The correlations between factors in this study range from 0.307 to 0.766, indicating moderate to high correlations between the factors. The CFA results suggest that the hypothesized model fits the observed data well, and the observed variables are strongly associated with their underlying factors. The correlations between the factors

Table 7.
Fit measures for the
confirmatory factor
analysis

| CFI | TLI | SRMR | RMSEA |
|-------|-------|-------|--------|
| 0.927 | 0.913 | 0.046 | 0.0975 |

Source(s): Authors' compilation⁷

indicate that they are related to each other, suggesting that the factors may be measuring related constructs.

Structural equation modelling

In structural equation modelling (SEM), causality is inferred within the model, based on the variation and association of observed variables obtained from the data. To measure association and variance, the correlation coefficient is commonly used. Therefore, it is important to examine the correlation coefficient's size before conducting an analysis. According to the 0.3 criterion recommended by Kline (2023) categorized the size as “minimum level,” “important” and “practically significant”, when the correlation coefficient was ± 0.3 , ± 0.4 , and ± 0.5 , respectively. All correlation values of the constructs in this study can be regarded as significant when the recommended levels suggested by Kline, 2023 are taken into account, as shown in Table 9. The path model can be seen in Figure 2.

Evaluation of the measurement model and its estimates:

The measurement (path) model in Figure 2 serves as the foundation for defining latent variables, and its evaluation is crucial. The assessment of a measurement model involves several indicators, including factor loadings, standardized estimates, p-values and squared multiple correlations (SMC) (Kang & Ahn, 2021).

Standardized regression coefficients, or betas, in a SEM analysis show the degree and direction of the association between variables in the model. A standardized beta coefficient measures how strongly each independent variable affects the dependent variable. The higher the absolute value of the beta coefficient, the stronger the effect (Hair et al., 2009; Kline, 2023). In Table 10, Trust (TRU) had the strongest impact on BI, followed by perceived ease of use (PEOU), perceived usefulness (PU), PR and social norm (SN). All beta values can be interpreted as having a strong effect on the endogenous variable, BI. Values greater than 0.7 are typically viewed as very good, whereas values greater than 0.3 are typically interpreted as good (Kline, 2023).

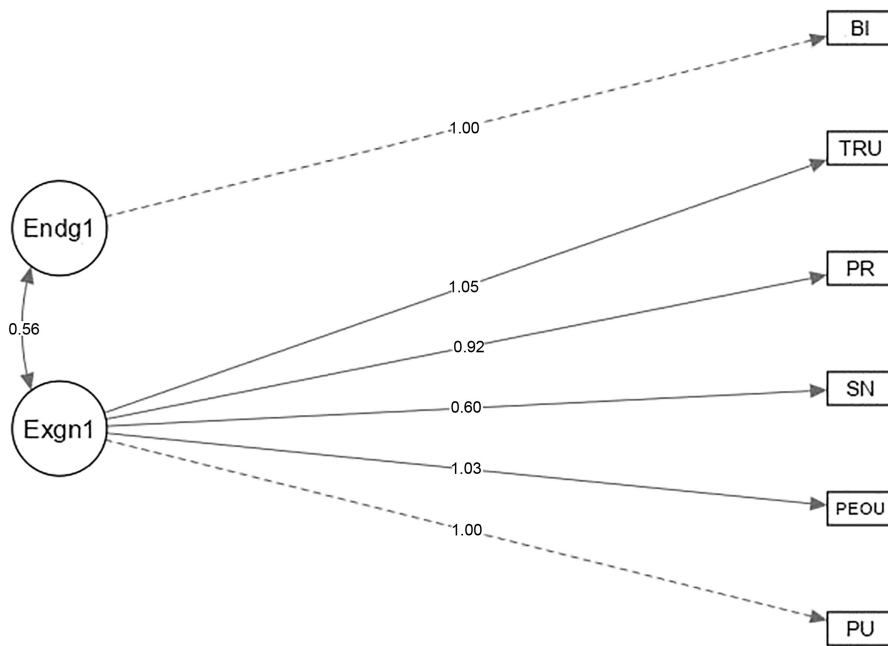
The p-values associated with the estimations of the structural model parameters in SEM represent the likelihood of observing the estimated parameter values if the null hypothesis is correct. If a parameter's p-value is less than 0.05, the null hypothesis can be rejected since there is a statistically significant association between the variables it represents (Hair et al.,

Table 8.
Correlation matrix

| Construct | PU | PEOU | SN | PR | TRU |
|---|--------|--------|--------|--------|-------|
| PU | 1.000 | | | | |
| PEOU | 0.802* | 1.000 | | | |
| SN | 0.307* | 0.403* | 1.000 | | |
| PR | 0.571* | 0.632* | 0.516* | 1.000 | |
| TRU | 0.726* | 0.752* | 0.497* | 0.766* | 1.000 |
| Note(s): $p < 0.001^*$ | | | | | |
| Source(s): Authors' compilation7 | | | | | |

Table 9.
Fit indices

| SRMR | RMSEA | CFI |
|---|-------|-------|
| 0.042 | 0.160 | 0.937 |
| Source(s): Authors' compilation7 | | |



Source(s): Authors' compilation

Figure 2.
The confirmatory
analysis path model

| Latent | Observed | Estimate | SE | Lower | Upper | B | Z | p | R ² |
|------------|----------|----------|-------|-------|-------|-------|-------|--------|----------------|
| Exogenous | PU | 1.000 | 0.000 | 1.000 | 1.000 | 0.845 | | | 0.715 |
| | PEOU | 1.027 | 0.093 | 0.845 | 1.210 | 0.868 | 11.03 | <0.001 | 0.754 |
| | SN | 0.600 | 0.112 | 0.739 | 0.821 | 0.507 | 5.32 | <0.001 | 0.257 |
| | PR | 0.919 | 0.099 | 0.725 | 1.114 | 0.777 | 9.28 | <0.001 | 0.604 |
| | TRU | 1.049 | 0.092 | 0.869 | 1.229 | 0.887 | 11.40 | <0.001 | 0.787 |
| Endogenous | BI | 1.000 | 0.000 | 1.000 | 1.000 | 1.000 | | | 1.000 |

Note(s): This is estimated at 95% confidence interval

Source(s): Authors' compilation7

Table 10.
Measurement model

2009; Kline, 2023). In Table 10, all p -values for exogenous variables are less than 0.05, indicating that they significantly influence BI and diverge from the null hypothesis that no relationship between the variables exists.

The coefficient of determination, or R -squared, expresses statistically the amount of variance in the dependent variable explained by the independent variables in a regression model (Field, 2009). R -squared values range from 0 to 1, with higher values suggesting a better fit of the model to the data. In Table 10, all values except for social norm indicate a high explanation of variance in BI. Social norm indicates a moderate but not substantial variance in BI.

Discussion

The findings of this study offer critical insights into the complex landscape of factors influencing the adoption and usage behaviour of insurance technology systems. Notably, our

results align with models such as, [Balakrishnan *et al.* \(2022\)](#), [Feindt and Poortvliet \(2020\)](#) and [Lim and Weissmann \(2023\)](#), showcasing the significance of dimensions such as PU, PEOU, perceived trust, PR and SN in consumer decision-making of short-term insurance systems per the TAM model.

Intriguingly, despite the promising value proposition highlighted in the literature by [Luo, Tang, Kim, and Wang \(2022\)](#), [Abdikerimova and Feng \(2022\)](#), [Levantesi and Piscopo \(2022\)](#), [Klausser *et al.* \(2022\)](#) and [Mention \(2021\)](#), consumers continue to lean towards the familiarity and perceived reliability of traditional models, including short-term insurance models. This persistence highlights the robust influence of these critical factors in shaping consumer preferences and choices.

To potentially alter this dynamic, digital short-term insurance providers must aim to elevate their scores on the identified dimensions, as suggested by, [Balakrishnan *et al.* \(2022\)](#), [Feindt and Poortvliet \(2020\)](#), and [Lim and Weissmann \(2023\)](#). By effectively addressing PU, PEOU, perceived trust, PR, and SN, P2P short-term insurance providers can foster an environment where consumers are more inclined to consider the transition from traditional insurance systems to the digital landscape.

Moreover, it is imperative that P2P insurance providers proactively communicate the advantages and benefits of their digital solutions to consumers, as highlighted by [Luo *et al.* \(2022\)](#), [Abdikerimova and Feng \(2022\)](#), [Levantesi and Piscopo \(2022\)](#), [Klausser *et al.* \(2022\)](#) and [Mention \(2021\)](#). Through clear and persuasive messaging, these providers can empower individuals to make informed choices that align with their evolving needs and preferences in the realm of insurance.

The study underscores the intricate interplay of factors shaping consumers' choices in the insurance industry and emphasizes that despite the recognition of a promising value proposition in the literature, it has not been sufficiently recognized due to consumers' sustained loyalty and preference for established models. While traditional short-term insurance systems have held their ground, the potential for P2P insurance to gain traction remains substantial. By strategically addressing these pivotal dimensions and effectively conveying the merits of their digital offerings, P2P short-term insurance providers can play a pivotal role in facilitating the transition from traditional insurance systems to the digital landscape, ultimately meeting the dynamic demands of today's consumers.

Conclusion

In conclusion, this study has undertaken a comprehensive examination of the factors influencing the adoption and continuance of short-term insurance products, encompassing both traditional and P2P models, within the South African consumer context. The investigation has shed light on the complex interplay of factors that govern consumer choices in the evolving insurance landscape.

The findings underscore the enduring significance of factors highlighted in older literature, such as PU, PEOU, perceived trust, PR and SN, as defined by the TAM model. These dimensions have historically played a pivotal role in shaping consumers' sustained loyalty and preference for traditional short-term insurance systems. This aligns with the expectations set by older literature, where high scores on these dimensions were indicative of consumers' enduring trust and loyalty to these well-established models.

Contribution

The study introduced a contrasting perspective, incorporating newer literature that clearly shows the greater benefits and potential value of P2P platforms over traditional short-term systems, as highlighted by [Luo *et al.* \(2022\)](#), [Abdikerimova and Feng \(2022\)](#), [Levantesi and](#)

Piscopo (2022), Klausser *et al.* (2022), and Mention (2021), in different industries. Despite the perceived value proposition presented by P2P insurance models, consumers continue to gravitate toward traditional short-term insurance. This dynamic suggests that the allure of well-established models, characterized by high scores on the dimensions of the TAM model, such as PU, ease of use, trustworthiness and adherence to established norms, remains intact.

For practitioners within the insurance industry, these findings carry critical implications. While newer literature portrays the greater benefits of innovative digital insurance alternatives, it is vital to acknowledge that the enduring influence of these well-established dimensions of the TAM model continues to shape consumer preferences. Marketers and e-commerce practitioners should navigate the perceived disparity between P2P and traditional insurance models with a nuanced understanding of evolving consumer expectations.

Furthermore, our study contributes to the evolving understanding of the TAM2. It underscores the ongoing relevance of this model while acknowledging the changing dynamics of technology acceptance within the insurance sector. By reaffirming the importance of PR, a dimension of the TAM model, as a decisive determinant, our study emphasizes the continued validity of this model, particularly when contrasting with newer literature that may emphasize other factors.

In summary, this study offers a nuanced perspective, aligning with both older and newer literature, while highlighting the complex interplay of factors, particularly those dimensions within the TAM model, governing consumer preferences within the insurance industry. It provides actionable guidance to marketers and e-commerce practitioners, recognizing the challenge of navigating the perceived disparity between P2P and traditional insurance models, and the enduring loyalty of consumers to established insurance models. Ultimately, it enriches our understanding of technology acceptance by acknowledging that consumer choices remain influenced by the perceived value of well-established insurance models, despite the allure of innovative alternatives highlighted in newer literature.

Significance for the marketing/e-commerce practitioner

The study's findings bear substantial relevance for marketing and e-Commerce practitioners operating within the dynamic realm of short-term insurance. These implications offer concrete and actionable strategies tailored to the digital transformation landscape:

- (1) *Seamless user experience*: In the digital age, prioritizing user-friendliness stands as a linchpin strategy. Marketing and e-Commerce practitioners should champion the cause of user-centric design. This means ensuring that P2P insurance systems boast intuitive interfaces and streamlined processes, elevating the overall user experience. Simplicity and ease of use can be potent catalysts for customer adoption.
- (2) *Transparency as trust currency*: Transparency emerges as a non-negotiable asset. Practitioners must master the art of transparent communication. By articulating the myriad benefits of P2P insurance and openly addressing potential concerns, they can cultivate trust among prospective users. Providing exhaustive information about risk mitigation measures further solidifies this trust, reinforcing the system's reliability.
- (3) *The power of social proof*: The age-old power of social endorsement remains a force to reckon with. Marketing and e-Commerce professionals should facilitate mechanisms that empower satisfied customers to amplify their positive experiences. This organic dissemination of peer recommendations and testimonials can wield substantial influence over potential users' decisions.

- (4) *Mitigating PRs*: A strategic approach to mitigating PRs is imperative. Initiatives such as offering trial periods, money-back guarantees and spotlighting successful case studies can deftly quell concerns and instil confidence among prospective users.
- (5) *The role of education*: Education emerges as a cornerstone in elucidating the intricacies and merits of P2P insurance systems. Educational campaigns should take centre stage, ensuring that potential customers grasp the full spectrum of benefits these systems offer and how they seamlessly align with their unique insurance needs.
- (6) *Strategic positioning for impact*: Strategic positioning carries weight in the world of marketing. In marketing materials and narratives, P2P insurance systems should be articulated as superior alternatives. Emphasizing their utility, ease of use and trustworthiness vis-à-vis conventional counterparts can wield persuasive power, prompting potential users to lean in their favour.

By embracing these strategies, marketing and e-Commerce practitioners find themselves well-equipped to navigate the digital transformation landscape of the insurance sector. These actionable approaches can not only expand the market reach of innovative insurance products but also elevate the overall customer experience. In the realm of digital transformation, these strategies stand as beacons guiding practitioners toward effective adoption and building trust among discerning users.

From other countries' perspectives, the use of P2P insurance models might take a different dimension due to some envisaged challenges. [Clemente and Marano \(2020\)](#) argued that P2P insurance model may not disrupt existing traditional model, because the convenience in the use of P2P insurance platform can only increase if measures of the P2P model can lead to a reduction of costs, compared to the traditional model. The evidence of such significant reduction in cost has not been empirically proven. Secondly, P2P insurance model may pose some regulatory risk concern, especially where membership of the P2P pool may be based some section criteria for participants. Such criteria might be unsuitable for ensuring trust and transparency ([Clemente & Marano, 2020](#)).

From Asian (Chinese) perspective, there has been a significant move by Alibaba towards the implementation and adoption of online insurance platforms, with evidence in improvement in insurance products and services, as well as meeting the needs of small and medium enterprises operating with the platform ([Gao, 2022](#)). Most importantly, [Gao \(2022\)](#) acknowledged the differences between American and Chinese market, therefore in this study, we acknowledge that the level of adoption of P2P insurance model over the tradition model might defer between countries. We advise that marketing and e-commerce practitioners in different countries should consider country inherent challenges before engaging in which ever model that deemed fit.

Significance to the theory of technological adoption

The findings of this study hold theoretical implications that significantly contribute to the TAM2. These theoretical implications not only reinforce the foundational principles of TAM2 but also expand its applicability and understanding within the specific context of short-term insurance and the dynamic emergence of P2P insurance providers.

- (1) *Empirical validation of TAM2 factors*: This study empirically validates the enduring relevance of key TAM2 factors in explaining the adoption and continuous usage of technology, particularly within the short-term insurance sector. It reaffirms that PU, PEOU, perceived trust, PR and SN remain pivotal determinants of individuals' intentions regarding traditional short-term insurance versus P2P

alternatives. This empirical support strengthens the foundational principles of TAM2.

- (2) *TAM2 as a framework for insurance technology adoption*: Beyond validation, this study enhances our understanding of TAM2 as a robust theoretical framework for explaining technology adoption, particularly within the domain of P2P short-term insurance services. It highlights the continued significance of PU, ease of use, trust and SN in shaping users' choices in this evolving landscape. This extension of TAM2's application underscores its adaptability to diverse technological contexts, emphasizing its relevance in explaining adoption behaviour in the ever-evolving insurance industry.
- (3) *Novel insights on PR*: The study's findings introduce novel insights into the role of PR within the context of technology adoption, further enriching the existing literature on TAM2. While traditional elements of TAM2 have received extensive attention, the study underscores the importance of PR as a key determinant. This expands the theoretical underpinnings of TAM2 by acknowledging that, in certain contexts, PR can be a decisive factor influencing adoption decisions.

In summary, this study not only reinforces the foundational principles of TAM2 but also expands its theoretical boundaries within the context of short-term insurance, specifically within the realm of P2P insurance providers. It provides empirical evidence of the enduring relevance of TAM2 factors, thereby solidifying its position as a versatile framework for understanding technology adoption.

Moreover, by shedding light on the role of PR, the study contributes a nuanced dimension to the existing literature on TAM2. These theoretical implications offer valuable insights to researchers, serving as a foundation for further exploration of technology adoption in the insurance sector.

Practically, these theoretical insights can guide practitioners in the field of short-term insurance. By leveraging the established principles of TAM2 and recognizing the role of PR, they can effectively design and market P2P insurance systems, ultimately facilitating increased adoption and usage of these innovative insurance products in a rapidly evolving digital landscape.

Further research:

While the study contributes to a deeper understanding of the substitution process and highlights the crucial role of these factors in promoting the adoption of P2P insurance systems, there are some limitations to consider, which can form further research. Firstly, the study focuses only on short-term insurance clients, excluding long-term insurers who exclusively provide long-term insurance products and long-term insurance clients who do not have short-term insurance product portfolios. Secondly, the study is limited to individuals residing in South Africa, thus excluding potential participants outside of this geographic area. Additionally, the study only includes individuals with an interest in acquiring or who have acquired a short-term insurance policy. Lastly, it is important to note that the study's scope of P2P insurance schemes does not encompass all decentralized insurance schemes, such as reciprocal aid, but only refers to the defined parameters as listed in the study. Despite these limitations, the study provides valuable insights into why P2P insurance has not yet been widely adopted. However, further research can be conducted within another jurisdiction, as well as taking other limitations into consideration, to check if BI could be affected differently. Future research in this area can also be carried out to find other factors that can further refine the TAM2 model.

References

- Abdikerimova, S., & Feng, R. (2022). Peer-to-Peer multi-risk insurance and mutual aid. *SSRN Electronic Journal*, 299(2), 735–749. doi:10.2139/ssrn.3505646.
- Agyei, J., Sun, S., Abrokwha, E., Penney, E. K., & Ofori-Boafo, R. (2020). Influence of trust on customer engagement: Empirical evidence from the insurance industry in Ghana. *Sage Open*, 10(1), 215824401989910. doi: 10.1177/2158244019899104.
- Aji, H. M., Berakon, I., & Riza, A. F. (2020). The effects of subjective norm and knowledge about riba on intention to use e-money in Indonesia. *Journal of Islamic Marketing*, 12(6), 1180–1196. doi: 10.1108/JIMA-10-2019-0203.
- Aldammagh, Z., Abdeljawad, R., & Obaid, T. (2021). Predicting mobile banking adoption: An integration of TAM and TPB with trust and perceived risk. *Financial Internet Quarterly*, 17(3), 35–46. doi: 10.2478/fiqf-2021-0017.
- Arslanian, H., & Fischer, F. (2019). *The future of finance* (Vol. 10, pp. 978–973). Cham: Palgrave Macmillan.
- Bagus, U., De Girancourt, F. J., Mahmood, R., & Manji, Q. (2020). Africa's insurance market is set for takeoff. McKinsey & Company. Available from: <https://www.mckinsey.com/featured-insights/middle-east-and-africa/africas-insurance-market-is-set-for-takeoff>
- Balakrishnan, J., Abed, S. S., & Jones, P. (2022). The role of meta-UTAUT factors, perceived anthropomorphism, perceived intelligence, and social self-efficacy in chatbot-based services?. *Technological Forecasting and Social Change*, 180, 121692. doi: 10.1016/j.techfore.2022.121692.
- Ben Uche, D., Osuagwu, O., Nwosu, S., & Otika, U. (2021). Integrating trust into technology acceptance model (TAM), the conceptual framework for E-Payment platform acceptance. *British Journal of Management and Marketing Studies*, 4(4), 34–56. doi: 10.52589/bjmms-tb3xtkpi.
- Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2021). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, 24(6), 641–654.
- Burns, A. C., & Veeck, A. F. (2021). *Marketing Research* (9th ed.) [eTextbook]. Pearson, Available from: <https://www.pearson.com/en-us/subject-catalog/p/marketing-research/P200000005846/9780135636503>
- Clemente, G. P., & Marano, P. (2020). The broker model for peer-to-peer insurance: An analysis of its value. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 45, 457–481. doi: 10.1057/s41288-020-00165-8.
- Dash, G., & Paul, J. (2021). CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting. *Technological Forecasting and Social Change*, 173, 121092. doi: 10.1016/j.techfore.2021.121092.
- Davis, L. E., Ajzen, I., Saunders, J., & Williams, T. (2002). Theory of planned behavior questionnaire. *Theory of Planned Behavior Questionnaire*. doi: 10.1037/t15482-000.
- Ellingrud, K., Kimura, A., Quinn, B., & Ralph, J. (2022). Five steps to improve innovation in the insurance industry. McKinsey & Company. Available from: <https://www.mckinsey.com/industries/financial-services/our-insights/five-steps-to-improve-innovation-in-the-insurance-industry> (accessed 27 June 2022).
- Feindt, P. H., & Poortvliet, P. M. (2020). Consumer reactions to unfamiliar technologies: Mental and social formation of perceptions and attitudes toward nano and GM products. *Journal of Risk Research*, 23(4), 475–489. doi: 10.1080/13669877.2019.1591487.
- Feng, R., Liu, M., & Zhang, N. (2022). (In this issue). A unified theory of decentralized insurance. *SSRN Electronic Journal*, 1, 1–43. doi: 10.2139/ssrn.4013729.
- Field, A. (2009). *Discovering statistics using SPSS*. SAGE Publications.
- Financial Service Conduct Authority (2020). More about insurance: Short-term insurance. Available from: <https://www.fscamymoney.co.za/Financial%20Safeguard/More%20about%20Short%20term%20insurance.pdf>

- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. doi: [10.1177/002224378101800104](https://doi.org/10.1177/002224378101800104).
- Frankenfield, J. (2021). Peer-to-Peer (P2P) insurance: What it is, how it works, Investopedia. Available from: <https://www.investopedia.com/terms/p/peertopeer-p2p-insurance.asp>
- Gao, J. (2022). Comparison of fintech development between China and the United States. *International Journal of Innovative Science and Research Technology (IJISRT)*, 1150-1155. doi: [10.5281/zenodo.6563524](https://doi.org/10.5281/zenodo.6563524),1-32. ISSN-2456-2165. Available from: <https://www.ijisrt.com>
- Guenther, P., Guenther, M., Ringle, C. M., Zaefarian, G., & Cartwright, S. (2023). Improving PLS-SEM use for business marketing research. *Industrial Marketing Management*, 111, 127–142. doi: [10.1016/j.indmarman.2023.03.010](https://doi.org/10.1016/j.indmarman.2023.03.010).
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis* (7th ed.). Pearson.
- Kabir, S. M. S. (2016). Basic guidelines for research, an introductory approach for all disciplines. Book Zone Publication, Chittagong. - References - Scientific Research Publishing. (n.d.). Available from: [https://www.scirp.org/\(S\(czeh2tfqw2orz553k1w0r45\)\)/reference/referencespapers.aspx?referenceid=2705906](https://www.scirp.org/(S(czeh2tfqw2orz553k1w0r45))/reference/referencespapers.aspx?referenceid=2705906)
- Kang, H., & Ahn, J. W. (2021). Model setting and interpretation of results in research using structural equation modeling: A checklist with guiding questions for reporting. *Asian Nursing Research*, 15(3), 157–162. doi: [10.1016/j.anr.2021.06.001](https://doi.org/10.1016/j.anr.2021.06.001).
- Klausser, V. J., Salampasis, D., & Kaiser, A. (2022). Driving the future of FinTech-led transformation in financial services: Business trends and the new face of open innovation. In *Transformation Dynamics in FinTech: An Open Innovation Ecosystem Outlook* (pp. 127–159). doi: [10.1142/9789811239731_0005](https://doi.org/10.1142/9789811239731_0005).
- Kline, R. B. (2023). *Principles and practice of structural equation modeling* (Fifth Edition). (Methodology in the Social Sciences) (Fifth). The Guilford Publications.
- Knoesen, M. (2021). Increase in claims and regulatory enquiries. FA News. Available from: <https://www.fanews.co.za/article/short-term-insurance/15/general/1217/increase-in-claims-and-regulatory-enquiries/32204> (accessed 27 June 2022).
- KPMG (2021). The South African insurance industry survey 2021. Available from: <https://home.kpmg/za/en/home/media/press-releases/2021/10/kpmg-south-african-insurance-industry-survey-2021.html>
- Levantesi, S., & Piscopo, G. (2022). Mutual peer-to-peer insurance: The allocation of risk. *Journal of Co-operative Organization and Management*, 10(1), 100154. doi: [10.1016/j.jcom.2021.100154](https://doi.org/10.1016/j.jcom.2021.100154).
- Lim, W. M., & Weissmann, M. A. (2023). Toward a theory of behavioral control. *Journal of Strategic Marketing*, 31(1), 185–211. doi: [10.1080/0965254X.2021.1890190](https://doi.org/10.1080/0965254X.2021.1890190).
- Luo, Y., Tang, L., Kim, E., & Wang, X. (2022). Hierarchical formation of trust on peer-to-peer lodging platforms. *Journal of Hospitality and Tourism Research*, 46(7), 1384–1410. doi: [10.1177/10963480211031399](https://doi.org/10.1177/10963480211031399).
- Makri, C., & Neely, A. (2021). Grounded theory: A guide for exploratory studies in management research. *International Journal of Qualitative Methods*, 20, 160940692110136. doi: [10.1177/16094069211013654](https://doi.org/10.1177/16094069211013654).
- McDonald, R. P. (1999). *Test theory: A unified treatment*. Reading, MA: Addison-Wesley.
- Mensah, R. O., Agyemang, F., Acquah, A., Babah, P. A., & Dontoh, J. (2020). Discourses on conceptual and theoretical frameworks in research: Meaning and implications for researchers. *Journal of African Interdisciplinary Studies*, 4(5), 53–64.
- Mention, A. L. (2021). The age of FinTech: Implications for research, policy and practice. *The Journal of FinTech*, 1(1), 2050002. doi: [10.1142/S2705109920500029](https://doi.org/10.1142/S2705109920500029).

- Olesen, P. B., Chester, A., Ham, S., & Johansson, S. (2019). Commercial lines insurtech: A pathway to digital. McKinsey & Company. Available from: <https://www.mckinsey.com/industries/financial-services/our-insights/commercial-lines-insurtech-a-pathway-to-digital> (accessed 27 June 2022).
- Sarma, H., D'Este, C., Ahmed, T., Bossert, T. J., & Banwell, C. (2021). Developing a conceptual framework for implementation science to evaluate a nutrition intervention scaled-up in a real-world setting. *Public Health Nutrition*, 24(S1), s7–s22. doi: [10.1017/S1368980019004415](https://doi.org/10.1017/S1368980019004415).
- Sy, A. N., Maino, R., Massara, A., Perez-Saiz, H., & Sharma, P. (2019). Departmental Paper No. 2019/004. In *FinTech in Sub-Saharan African countries: A game changer?* (19th ed., 04). Washington: International Monetary Fund.
- Van Der Cruysen, C., De Haan, J., & Roerink, R. (2021). Trust in financial institutions: A survey. *Journal of Economic Surveys*, 37(4), 1214–1254. doi:[10.1111/joes.12468](https://doi.org/10.1111/joes.12468).
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. doi: [10.1287/mnsc.46.2.186.11926](https://doi.org/10.1287/mnsc.46.2.186.11926).
- Ventre, I., & Kolbe, D. (2020). The impact of perceived usefulness of online reviews, trust and perceived risk on online purchase intention in emerging markets: A Mexican perspective. *Journal of International Consumer Marketing*, 32(4), 287–299. doi: [10.1080/08961530.2020.1712293](https://doi.org/10.1080/08961530.2020.1712293).

Further reading

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. doi: [10.1007/bf02310555](https://doi.org/10.1007/bf02310555).

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