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An Empirical Evaluation of the Technology Acceptance Model for Peer-to-Peer Insurance Adoption: Does Income Really Matter?

Sylvester Senyo Horvey [1,*], Euphemia Godspower-Akpomiemie [1] and Richard Asare Boateng [2]

[1] Wits Business School, Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg P.O. Box 2193, South Africa; euphemia.godspowerakpomiemie@wits.ac.za
[2] Department of Finance, University of Ghana Business School, University of Ghana, Legon, Accra P.O. Box LG 78, Ghana; richasaboateng@yahoo.com
* Correspondence: sylvester.horvey@wits.ac.za or sylvester.horvey@gmail.com

Abstract: One essential component of insurance technology (Insurtech) is peer-to-peer (P2P) insurance, which represents a transformative shift from conventional insurance to digital platforms by fostering community-based risk sharing. This study contributes to the body of knowledge by engaging the Technology Acceptance Model (TAM2) to explore how perceived usefulness, perceived ease of use, subjective norms, and perceived trust influence the adoption of P2P insurance, and the moderating influence of income on these relationships. This study used a self-administered survey questionnaire to collect data from short-term insurance clients in South Africa. The survey was analysed using the confirmatory factor analysis and structural equation modelling (SEM) approach. The findings demonstrate that perceived usefulness, ease of use, and subjective norms present a significant positive influence on the adoption of P2P insurance, underscoring the relevance of value, ease of use, and social influence in predicting the adoption of insurance technologies, particularly P2P insurance. However, perceived risk and trust exhibit a positive but statistically insignificant relationship. Additionally, this study reveals that income exerts a significant positive moderating influence on perceived usefulness, ease of use, and subjective norms in affecting P2P adoption, implying that individuals with higher incomes are responsive to these factors when considering P2P insurance. This study highlights the need for policies that support the development of digital infrastructure, as its accessibility and ease of use, including social norms, are predicted as essential drivers of P2P insurance adoption. Also, policymakers should focus on creating a regulatory environment that encourages accountability and openness to P2P insurance.

Keywords: peer-to-peer adoption; insurance; Insurtech; income; technology acceptance model; TAM2; South Africa

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1. Introduction

Technology has become a disruptive force in this modern era, changing consumer experiences and industries. Technological developments, ranging from blockchain and the Internet of Things (IoT) to Artificial Intelligence (AI), have stimulated innovation, efficiency, and customisation in a variety of industries, including healthcare, banking, retail, and insurance (Horvey & Odei-Mensah, 2025a). The insurance industry has seen a tremendous change since the advent of Insurtech. According to Braun and Schreiber (2017) and Cosma and Rimo (2024), Insurtech is any technologically driven innovation in the insurance industry, including software, applications, platforms, start-ups, and products and services. Gómez (2024) adds that Insurtech is any innovation driven by technology that

creates value in the insurance sector by offering data-driven, customer-centred solutions in the digital age. The goal is to improve and automate various aspects of insurance, including the traditional insurance models. Insurtech has played a pivotal role in the transformation of the insurance sector by developing several solutions that tackle the industry's problems, such as presenting a personalised offer that challenges the traditional business, improving customer relationships, developing new products, creating new revenue streams, lowering costs, enhancing underwriting, and increasing operational efficiency, all of which are creating new opportunities (Sosa & Montes, 2022; Kiwanuka & Sibindi, 2024). This change is not only incremental; rather, it represents a reconsideration of how insurance is viewed, offered, and utilised in this digital era.

One significant development in the Insurtech space is the rise of peer-to-peer (P2P) insurance. P2P insurance is an innovative insurance model that leverages digital platforms to pool risk premiums and distribute risks among individuals with common interests or affinities (Denuit et al., 2022). The growth of digital technology and social media platforms, which enable users to easily share access to goods and services through a peer-to-peer system, has encouraged the proliferation of resource-sharing models (Stephen & Toubia, 2010). The European Insurance and Occupational Pensions Authority (EIOPA) defines P2P as "generally commercialized as a risk-sharing network where a group of individuals with mutual interests or similar risk profiles pool their premiums together to insure against a risk" (EIOPA, 2019, p. 25). Thus, P2P insurance enables individuals with similar interests to share the risk among themselves. It is a decentralised network that enables participants to combine their resources to compensate participants who suffer losses (Abdikerimova & Feng, 2022; Ma & Ren, 2023). Unlike the traditional insurance system wherein an insurer assumes all the risks in exchange for a premium, P2P insurance distributes the risks among its members, and participants mostly receive the unused premiums back at the end of the coverage period. Peer-to-peer insurance employs digital channels to facilitate risk sharing between individuals or small groups, as opposed to traditional insurance, which requires policyholders to communicate with centralised institutions (Levantesi & Piscopo, 2022). This idea addresses long-standing problems with traditional insurance, such as excessive costs, a lack of transparency, and a general mistrust of insurers. P2P insurance has become a strong option that meets the needs of tech-savvy customers by using technology to connect members, streamline procedures, and improve the user experience. Although P2P insurance is beneficial to the insurance industry, there are still challenging issues, including its ease of use, usefulness, trust, norms, risk, and acceptance. This is essential given that customers' understanding and acceptance of this innovative approach influence its adoption.

In light of this, the Technology Acceptance Model (TAM) provides a strong theoretical foundation for examining these processes because it has been widely applied to assess technology acceptance in a variety of domains. The TAM is rooted in the Theory of Reasoned Action (TRA) by (Fishbein & Ajzen, 1975), which explains that two primary factors, including perceived usefulness (PU) and perceived ease of use (PEOU), influence whether or not potential users will accept and use technology (Davis, 1989). This was further extended into the TAM2 by Venkatesh and Davis (2000), who posit that users' behavioural intentions to embrace technology are mostly determined by perceived usefulness (PU), perceived ease of use (PEOU), subjective norms (SNs), perceived risk (PR), and perceived trust (TRU). In the context of P2P insurance, these factors play a crucial role in influencing consumer behaviour as individuals weigh the benefits and drawbacks of participating in a peer-driven insurance model. For example, potential users may be influenced by subjective norms, or the perceived social influence to use a platform, particularly when peer groups, family, or friends are participating in the same risk-sharing pool. Additionally,

P2P platforms' perceived usefulness, which is exemplified by cost reductions, transparency, and quick claims processing, is crucial in convincing customers of their superiority over traditional insurance models (Naicker & Van Der Merwe, 2018). As a result, understanding the TAM's role in P2P insurance is essential for insurers, developers, and policymakers looking to scale P2P insurance. Even though several theoretical models have been developed to explain technology acceptance behaviour, this study considers the TAM2 due to its ability to incorporate the social dimension into its framework, which is ignored by the TAM1 and Task–Technology Fit (TTF) models (Davis, 1989; Goodhue & Thompson, 1995). Similarly, the Theory of Planned Behaviour (TPB) is less accurate for researching the adoption of digital platforms because it concentrates on attitudes, subjective norms, and perceived behavioural control rather than capturing technology-specific perceptions like PU and PEOU through explicit constructs (Ajzen, 1991). Given these limitations, the TAM2 is more appropriate since it uniquely captures the social influence, behavioural dimensions, and technology-driven aspects of P2P insurance. Additionally, the complexity of the Unified Theory of Acceptance and Use of Technology (UTAUT) makes it less parsimonious for studies interested in user perceptions within socially interactive platforms like P2P insurance, which further supports the suitability of the TAM2 in this context.

Despite the success of P2P insurance and its growing recognition, there remains a significant gap in examining how technology acceptance, particularly the TAM2, drives P2P insurance adoption. From the literature, it can be seen that previous studies have explored several issues, such as the manager's perception of the adoption of mobile technology in life insurance (Naicker & Van Der Merwe, 2018) and the impact of trust on online insurance claims and health insurance (Gebert-Persson et al., 2019; Catacutan & Mabesa, 2024). There has also been extensive research conducted to understand the perspectives, challenges, and importance of Insurtech (Cosma & Rimo, 2024; Holland & Kavuri, 2024). Ahmad et al. (2024) also investigated the influence of Insurtech on the insurance premium performance, revealing that technologies aid in bringing in new customers and keeping hold of existing ones, which contributes to the daily rise in premium volumes. Kiwanuka and Sibindi (2024) add that digital literacy and Insurtech promote insurance inclusion. Despite these efforts, there is a dearth of research on the behavioural aspects that impact adoption from the perspective of potential users. Although the TAM2 has been extensively used to comprehend the acceptance of technology in a variety of fields, its use in P2P insurance is still relatively new. This gap needs to be closed if the rapidly evolving subject of Insurtech is to progress in both academic and practical understanding.

The most closely related study is by Dörfling and Godspower-Akpomiemie (2024), who explored the factors influencing individuals' willingness to adopt P2P insurance. However, a major limitation of this study is the omission of essential moderating features, such as income. This study, therefore, extends this line of enquiry by offering insights into how income levels moderate the relationship between the TAM2 constructs and P2P insurance. This is essential given that income plays a crucial role in explaining the diverse adoption patterns observed in the nascent P2P insurance industry since it influences consumer perceptions of platform trustworthiness, social influence, and usefulness (Teo et al., 2012). Also, individuals with higher incomes may have different views on the pricing and reliability of the platform (Ishengoma, 2024). According to Raza et al. (2020), individuals with higher incomes have higher risk tolerance and are open to exploring new financial solutions, such as P2P insurance, and vice versa. Additionally, individuals with higher incomes can easily access technology and digital literacy to understand and use digital platforms. Hence, they may be more likely to have a positive opinion of P2P insurance because they are affected by social or professional networks that value innovation. Furthermore, Raza et al. (2020) and Tomasi and Ilankadhir (2024) narrate that individuals'

risk perceptions, cost sensitivity, and value expectations are influenced by their income levels, and these factors are crucial when embracing technology-driven financial solutions like P2P insurance. Since they have greater access to resources, are more digitally literate, and have a greater appetite for risk, individuals with higher incomes are typically more exposed to technology and are more eager to embrace innovative financial products.

Given the above, this study contributes to the body of knowledge by examining how income drives the relationship between the TAM2 constructs and the adoption of P2P insurance in the short-term insurance market in South Africa. The South African short-term insurance market provides an interesting backdrop for studying the adoption of P2P insurance because of its dynamic and continuously ever-changing market structure. South Africa has one of Africa's most developed insurance markets, with a well-established infrastructure for short-term insurance products, like property and motor insurance. Despite its complexity, the business continues to face challenges, including high premium rates, low penetration among the poor, and a lack of trust in traditional insurers (Horvey & Odei-Mensah, 2024). These challenges have led to the growth of innovative alternatives such as P2P insurance, which provides more affordability, transparency, and user-centric services. Another reason for considering short-term insurance is that it is more adaptable to the P2P model due to its often-lower levels of complexity and short contract terms, which makes it an ideal starting point for assessing consumer interest in embracing technology-driven, community-based insurance solutions. Additionally, short-term insurance, which includes property and motor insurance, among others, is a high-penetration product and is most prevalent and easily accessible in the insurance market, especially in regions where consumers are more inclined to use digital and alternative insurance models like P2P insurance. Furthermore, the South African market is ideally suited to investigate the moderating impact of income on technology adoption due to its diversity in terms of income levels. Also, the growing internet access and prevalence of smartphones are indicators of the nation's profound digital revolution, which is changing consumer behaviour and facilitating the expansion of digital platforms.

This study is important because it has real-world implications for Insurtech developers, marketers, and policymakers. This study advances the knowledge of P2P insurance adoption via the perspective of the Technology Acceptance Model, which significantly adds to the growing body of knowledge on Insurtech. The results will provide practitioners with practical methods for creating user-centred platforms that appeal to a range of individuals with different financial capacities and improve accessibility, usability, and trust. Marketers will be able to create tailored advertisements that appeal to customer categories and promote wider adoption with the help of knowledge of the moderating influence of income. Policymakers can use the results of this study to create regulatory frameworks that support inclusion and confidence in P2P insurance models while guaranteeing their sustainability and scalability. Furthermore, this research helps to develop a consumer-focused, egalitarian digital insurance ecosystem by filling in theoretical gaps and tackling real-world issues. The survey-based approach is appropriate since it reveals customers' perceptions of P2P insurance, aiding them to make informed choices in light of their income levels. This will help P2P insurers to design tailor-made models to promote equity and financial stability.

The rest of this paper is structured as follows: Section 2 discusses the literature and presents the research hypotheses. Section 3 presents the data and technique for analysis. This is followed by the results and interpretation in Section 4, and a discussion of the results in Section 5. Section 6 concludes and provides recommendations.

2. Literature Review

2.1. Traditional Insurance Model

Under the traditional insurance model, a policy binds the insurer and the policyholder through a contractual agreement, where the insurer accepts an agreed premium from the policyholder in exchange for a benefit payout due to eventualities (Abdikerimova & Feng, 2022). Out of the premiums paid, the benefits are paid to claimants who have incurred losses or damages on their insured properties. The overarching purpose is to cover the insured against pre-loss circumstances regarding properties, health, law, life, and incapacitation, among others. The coverage can extend to third parties, for instance, where the insured injures, damages, or destroys another person's property unintentionally.

To sustain the contractual agreement and relationship with numerous clients, the insurer serves as the hub of the contract. The policyholder (insured) pays the premium in advance, in most instances monthly. Insurance benefits are paid out from the pool of policyholders' premiums, and where any policyholder has not incurred any losses (and therefore, no claims are made), the insurer pays other policyholders' claims from the pool of unclaimed policies. Both parties (the insurer and the policyholder) can decide to cancel the policy at any time (Abdikerimova & Feng, 2022; Feng et al., 2024; Levantesi & Piscopo, 2022).

However, the major challenge faced by the insurer is the ability to measure and aggregate the risk the policyholder is exposed to, which is the major determinant of the premium (information asymmetry). Another challenge is related to the cost that a policyholder incurs to qualify for the insured benefit. In many instances, the insurer builds other fee structures into the premium, which exposes the policyholder to a higher premium relative to the benefits in the case of any eventualities. In some cases, some policyholders do not necessarily claim any benefit till the end of the contract or the expiration of the assets (items) insured (Carlin, 2009; Carlin et al., 2014). More so, there is the presence of adverse selection due to the information asymmetry. To increase their profit margin, the insurer introduces limited coverages, exemptions, and "excess payment" clauses while drafting the insurance contract, which limits some policyholders from presenting claims during eventualities. Such clauses exclude some policyholders from benefiting from insurance contracts for which they have fully paid (Chollet, 2002). Furthermore, financial institutions, including insurance companies, are opaque in nature, which fuels the challenges clients are exposed to, increasing a lack of trust in the traditional insurance model (Agyei et al., 2020). These challenges are fuelled by the common perception that insurers will seek reasons to reject claims rather than comply with contractual agreements. Moreover, the insurance brokers' remunerations are commission-based, thereby leading to an increase in the sale of unreliable insurance products mostly for self-financial benefits at the detriment of policyholders' interests (Guiso, 2021).

2.2. Peer-to-Peer (P2P) Insurance Model

Due to the influx of digital technologies and their effects on business models, there is a demand for more accessible, flexible, efficient, reliable, and cost-effective services in all industries, including the financial industry (Alt et al., 2018; Horvey & Odei-Mensah, 2025b). The technology-driven tool initiated by financial technology (Fintech) in the financial industry has escalated to the insurance sector, giving rise to Insurtech (technology innovation in insurance). Arumugam and Cusick (2008) forecasted that the peer-to-peer concept of Fintech operations would also probably spread to the insurance market. The concept that insurance clients prefer services from peers instead of focusing on and believing in traditional insurance companies that are naturally opaque in nature has been supported by some renowned insurance authors (Gomber et al., 2017; Moenninghoff & Wieandt, 2013).

This move to peers for coverage is argued to minimise information asymmetry and its accomplices: moral hazard and adverse selection.

The identified challenges in the traditional insurance model and the effects of digital technologies on businesses have led to the changing behaviour of both insurance clients and insurance companies, which has led to the proposal and adoption of Insurtech business concepts. In line with Fintech, through Insurtech, insurance companies have introduced insurance policies that are more flexible, efficient, cost-effective, and easily accessible compared to the traditional insurance model. For instance, the same concept of crowdfunding and P2P lending in Fintech led to the concept of P2P insurance (Clemente & Marano, 2020).

According to Levantesi and Piscopo (2022), P2P insurance is "an insurance mutual aid in a modern and digital guise", which implies that it is basically an insurance model wherein the traditional mutual aid insurance is revitalised. Traditional mutual aid insurance is a type of old protection practice by ancient societies, where the society gather funds to protect each other's financial needs in the case of property loss or financial misfortune (Abdikerimova & Feng, 2022; Levantesi & Piscopo, 2022). With the aid of technology and digital transformation strategies, the P2P insurance model allows the pool of funds from peers (such as friends, families, colleagues, and social media contacts) from diverse risk categories to compensate each other for property and financial losses. It is argued that this new concept of insurance (P2P) helps policyholders to mitigate and cut down on traditional insurance costs. It is a form of risk-sharing network that allows participants to contribute to a pool of funds and risks. Together, they provide coverage to those who suffer the loss of or damage to the insured property(ies) (Clemente & Marano, 2020). The majority of P2P insurance platforms are hosted by technology companies (Insurtechs) to compete with clients. They design and offer customised insurance solutions that meet customer expectations in this digital era.

Contrary to the traditional insurance model, where the insurer bears all the risk, in the P2P insurance model, the network of participants bears the financial responsibility of the members; therefore, there is no role or a limited role of the central authority because all participants are both "insurers" and "policyholders" (insured). The participants use the common funds to settle small claims in the group. Any surplus at the end of the year is distributed as refunds among the members, and the insurer provides indemnity only if the insurance claims surpass the accumulated pooled funds from the peers. Unlike the traditional insurance model, where fewer claims have no benefit to the policyholders, in the P2P insurance model, fewer claims enhance cashback to the network of participants. Most importantly, the P2P insurance model encourages transparency during the process and execution of insurance contracts, as every member of the network has access to the platform (Abdikerimova & Feng, 2022).

The originator and major provider of the P2P insurance model is Alecto GmbH, founded in 2010 and currently known as Friendsurance. In Friendsurance, individuals create platforms and collaborate with each other to pool funds together, bear each other's insurance responsibilities, and reduce the cost of insurance (Bednarczyk & Pasierbowicz, 2018; Inder, 2022; Ostrowska & Ziemiak, 2020; Rego & Carvalho, 2020). In Friendsurance, a participant will not pay more for an insurance policy, as is the case in the traditional insurance model. On average, the amount of cashback to the participants at the end of the year is 30% of their total premium (Bednarczyk & Pasierbowicz, 2018). Similar to the German P2P insurance broker (Friendsurance), in 2023, an English insurance broker (Guevara)[1] started its operations based on the P2P model, focusing on only motor vehicle insurance. The major aim of Guevara is to organise a group of drivers who wanted to save money on insurance policies, as they experience the exorbitant cost of the traditional insurance model (Bednarczyk & Pasierbowicz, 2018). In Guevara, the cashback from

premiums depends on the number of participants in a particular network. If the number of participants in a platform is over 100, at the end of the contract (mostly a one-year period), the premium cashback could be up to 50% of the amount contributed.

In the P2P insurance model, each member has a stake in the policy and contributes a premium to the platform. The premium is split into two parts: the first part is kept in the group's account, which is available to all the group members, while the second part is kept with the insurance broker. In the event of small insurance claims, the damages are paid from the group account, thereby relieving the issuance broker of administrative costs and minor insurance claims. Where there are large claims due to substantial damages, the claims are paid by the insurance broker from the second portion of the funds that all the members contributed (Bednarczyk & Pasierbowicz, 2018; Inder, 2022; Ostrowska & Ziemiak, 2020; Rego & Carvalho, 2020). If none or a few cases were reported and claimed during the period, the participants receive part of the funds that were deposited in the group's account. This approach entails that the P2P insurance model mitigates the inherent conflicts of the traditional insurance model, where the insurer pockets the remnant premium if not paid out due to the existence of few or no claims during the period. This principle is practically deployed by both Friendsurance and Guevara and leads to a low insurance contribution (premium) by the insured. More so, the group receives compensation from the insurance broker for effectively handling small insurance cases (Abdikerimova & Feng, 2022; Bednarczyk & Pasierbowicz, 2018). Due to the operations of the P2P insurance model, there is no risk or profit margin factored into the premium price, which, in turn, lowers the cost of the insurance plan (Donnelly et al., 2014).

2.3. Factors That Influence the Adoption of Peer-to-Peer Insurance

Despite the existence of enhanced technology and digital integration in businesses, as well as the identified benefits of the P2P insurance model, which has changed the landscape of short-term insurance, there is still limited adoption of the P2P insurance model by both insurance clients and insurance companies. The recent literature (Dörfling & Godspower-Akpomiemie, 2024; Kim & Kim, 2024; Milanović et al., 2020) has identified some factors that affect the adoption of P2P insurance using some academic theories, for instance, the Technology Acceptance Model (TAM) (Venkatesh & Bala, 2008; Venkatesh & Davis, 2000; Venkatesh et al., 2003). Some of the factors identified as affecting the adoption of the P2P insurance model are mostly factors related to the product, which include its perceived ease of use, perceived usefulness, perceived risk, perceived trust, relevance, and result in demonstrability. The major identified factor related to the user is the "subjective norm" of the person adopting the P2P insurance. For the purpose of this study, we focused on perceived ease of use, perceived usefulness, perceived risk, perceived trust, and subjective norms.

2.3.1. Perceived Usefulness

Perceived usefulness, as identified in the literature, is considered an important factor that influences the choice of technology adoption (Adams et al., 1992; Davis, 1989; Hendrickson et al., 1993; Segars & Grover, 1993; Szajna, 1994; Mamun et al., 2021). These renowned authors have empirically argued that the adoption and replacement of technologies depend on the usefulness of the technology towards achieving product or service effectiveness and efficiency (Raza et al., 2020). In this case, for a P2P insurance model to be adopted by clients, there should be some level of thought that such a platform will be useful to the clients compared to the existing or traditional models. Based on the foregoing, we hypothesise the following:

H_1. *Perceived usefulness influences the intention to adopt P2P insurance.*

2.3.2. Perceived Ease of Use

In accordance with the literature, a person's intention to adopt a technology is affected by that person's perception of how user-friendly the technology is (Davis, 1989; Venkatesh & Bala, 2008; Venkatesh et al., 2012). This also applies to the adoption of technology in the financial industry (Alt et al., 2018; Chiu, 2016), including insurance businesses (Milanović et al., 2020). This entails that before insurance clients decide on whether to shift from a traditional insurance model to a P2P insurance model, they may consider how much effort they may need to acclimatise to the P2P insurance platform (Adams et al., 1992; Davis, 1989; Hendrickson et al., 1993; Subramanian, 1994). Therefore, we argue along the same line that perceived ease of use may affect the client's decision to shift from traditional insurance to P2P insurance usage. Given this, we hypothesise the following:

H_2. *Perceived ease of use influences the intention to adopt P2P insurance.*

2.3.3. Perceived Risk

Perceived risk has been identified as another factor that influences technology adoption (Venkatesh et al., 2012; Venkatesh & Zhang, 2010). It is about how consumers view the risks they are exposed to when considering purchasing products and/or making payments for services (Blankertz, 1969). In this recent era of cybersecurity and cybercrimes and the unpredictable nature of internet services, risk perception has become a significant consideration during online purchases and service provisions, especially in the financial industry, where there are high inherent uncertainties surrounding online transactions (Al-Gahtani, 2011; Aldammagh et al., 2021; Alrawad et al., 2023). Based on these empirical arguments about the effect of perceived risk on online transactions, we argue that perceived risk will influence a client's intention to switch from a traditional insurance model to a P2P insurance model. As a result, the third hypothesis of this study is stated as follows:

H_3. *Perceived risk influences the intention to adopt P2P insurance.*

2.3.4. Subjective Norms

Subjective norms are one of the user-related factors considered in the TAM2 that affects technology adoption. It is a user-related factor rather than a product/service factor, where clients may think of how people around them perceive their actions or behaviours towards either adopting or not adopting a particular technology (Venkatesh & Bala, 2008), including insurance adoption (Mamun et al., 2021). It is argued that people who are significant to some individuals may affect how such individuals engage with the intention to behave towards or adopt/adapt to new inventions (Ajzen, 1991, 2020; Al Kurdi et al., 2021; Madden et al., 1992). In this study, we argue that a client's subjective norms may affect the adoption of P2P insurance, especially in this era of digitisation influx. Thus, we hypothesise the following:

H_4. *Subjective norms influence the intention to adopt P2P insurance.*

2.3.5. Perceived Trust

Trust has been identified as a significant factor when it comes to technology adoption and usage, which is linked to risk due to the nature of internet service (high porosity to uncertainties and cybercrimes) (Agyei et al., 2020). According to the literature, trust is a significant criterion for involvement in merchandise, especially in this digital era. A low level of intended usage of an online platform is linked to a low level of trust in the specific platform or dealer/merchant (Gefen et al., 2003; Hamideh et al., 2018; Reichheld & Schefter, 2000; Uche et al., 2021). Moreover, on online platforms, the possibility of merchant slyness seems high, as there is no direct interaction between merchants and clients (Koch et al.,

2011; Reichheld & Schefter, 2000). Hence, we argue that trust is a substantial factor when considering the adoption of online insurance platforms (P2P). In this light, we hypothesise the following:

H_5. *Perceived trust influences the intention to adopt P2P insurance.*

2.4. Other User-Related Factors

Some theories, especially modified theories of technology adoption, indicate that more user-identified factors can affect technology adoption in conjunction with product-related factors. For instance, the unified theory of technology adoption (UTAUT) and its modified version (UTAUT 2) include user-identified factors in determining factors that affect technology adoption (Venkatesh et al., 2003, 2012; Venkatesh & Zhang, 2010). Some of the user-identified factors include attitude towards usage, self-efficacy, and anxiety, as well as demographic factors (age, gender, experience, voluntariness, etc.), especially moderating factors within the product-relative factors. However, in analysing how these factors affect the adoption of the P2P insurance model, most of the literature focuses on the product-identified factors while ignoring the user-identified factors (Dörfling & Godspower-Akpomiemie, 2024; Milanović et al., 2020). In contrast, some authors only considered the user-identified factors as moderators while focusing on the product-related factors (Kim & Kim, 2024). Though the literature has extensively analysed the effects of these factors on technology adoption, few have focused on the effects on the adoption of the P2P insurance model. Where some have only descriptively analysed demographic variables (Dörfling & Godspower-Akpomiemie, 2024; Milanović et al., 2020), others treat them as moderating factors, where Kim and Kim (2024) found that the age factor does not affect the intention to adopt digital insurance. However, the focus has been on age, gender, and education level. To the best of our knowledge, there is no empirical consideration of the effect of the income levels of insurance clients on their intention to adopt P2P. Most importantly, Kim and Kim (2024) suggested further research on the effect of income levels on digital insurance adoption/acceptance, considering that the moderating influence of this variable is essential, given that consumers' income levels have a significant impact on their access to and usage of digital platforms (Schiopu, 2015), particularly in the financial sector, including insurance. As initially discussed, higher-income earners are more likely to have greater access to technology, better internet connectivity, and the resources to patronise innovative products like P2P insurance (Raza et al., 2020). Moreover, the perceived usefulness and ease of use of digital platforms is influenced by income levels. For instance, higher-income earners are more likely to be accustomed to innovative technologies and, as a result, find digital platforms more user-friendly and intuitive (Tomasi & Ilankadhir, 2024). Due to their increased familiarity, these individuals are more likely to embrace new technologies such as P2P platforms. Additionally, subjective norms illustrate that individual behaviour is shaped by social influences. Thus, high-income earners mostly have large social networks, which might include peers who are early adopters of innovative technology. This may stimulate P2P adoption given that these individuals are influenced by their social networks that endorse P2P adoption. Given these insights, we focused on the income level, where we empirically analysed the income levels of insurance clients when interacting with how the identified product-related factors (perceived ease of use, perceived usefulness, perceived risk, perceived trust, and subjective norms) affect their intention to switch from the traditional insurance model to a P2P insurance model.

2.5. Purpose and Hypotheses

Based on this identified gap in the consideration of demographic factors in the adoption and acceptance of P2P insurance, this study seeks to empirically analyse the effect of

the interaction of the income levels of insurance clients with product-related factors on the intention to adopt, accept, and engage in the use of the P2P insurance model. This paper was guided by the Technology Acceptance Model 2 (TAM2) in the establishment of its hypotheses, extending the TAM2 model (Venkatesh & Davis, 2000) and taking into consideration the product-based factors (perceived ease of use, perceived usefulness, perceived risk, perceived trust) that affect technology adoption. Hence, we hypothesise the following:

H_6. *Income positively moderates the relationship between perceived usefulness and individuals' intention to adopt P2P insurance;*

H_7. *Income positively moderates the relationship between perceived ease of use and individuals' intention to adopt P2P insurance;*

H_8. *Income positively moderates the relationship between perceived risk and individuals' intention to adopt P2P insurance;*

H_9. *Income positively moderates the relationship between subjective norms and individuals' intention to adopt P2P insurance;*

H_{10}. *Income positively moderates the relationship between perceived trust and individuals' intention to adopt P2P insurance.*

This study excluded gender from the model due to the sensitivity of the variable during interviews and survey collections (Sidani et al., 2009). This argument was justified, as most of our participants declined to respond to the gender questions in our survey. Experience was also excluded, as the P2P insurance concept is in its infant stage; therefore, we assume that the experience variable may not be a significant factor in terms of addressing the adoption of the P2P insurance model.

2.6. Conceptual Framework

This framework, as shown in Figure 1, is informed by the Technology Acceptance Model 2 (TAM2), which is relevant in the adoption of technologies (Venkatesh & Davis, 2000), which we extend to incorporate income levels, which could impact the adoption of the P2P insurance model (Kim & Kim, 2024). Here, we present the graphical narration of the hypotheses in the conceptual model, which helps to understand the purpose and focus of the paper at a glance (Leshem & Trafford, 2007). It explains the relationships among the variables of interest, highlighting our focus on income levels as the factors that contribute to the adoption of the P2P insurance model (Varpio et al., 2020).

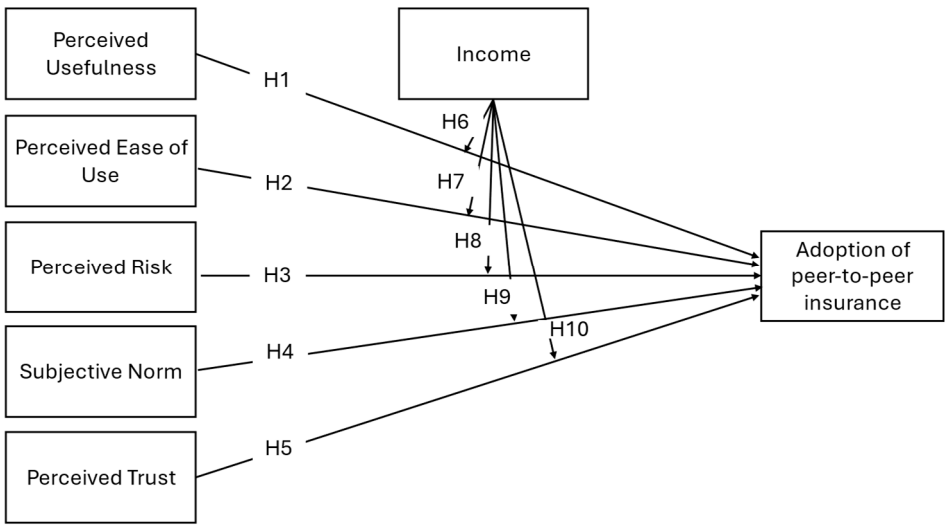


Figure 1. Conceptual framework.

3. Methodology

3.1. Data Collection and Sampling

This study investigates the role of the TAM2 (i.e., perceived usefulness, perceived ease of use, perceived trust, subjective norms, and perceived risk) in shaping P2P insurance, emphasising the moderating role of income. This provides insight into the impact of digitisation on the insurance industry, with interest in how individual income levels moderate this relationship. To achieve this, the positivist research paradigm and the cross-sectional quantitative design were employed. A self-administered survey questionnaire was used to collect data from short-term insurance clients. Online surveys have gained popularity among academics and were judged appropriate for this study due to their affordability, design flexibility, and ability to gather a large sample of diverse respondents from a variety of places (De Gregorio & Sung, 2010). The survey was distributed to clients via Qualtrics, a leading platform for developing and sharing online questionnaires. The researchers were able to accurately and methodically document the perceptions and readiness of clients to acquire P2P insurance through efficient data collection from a diverse sample. Clients of short-term insurance were selected as the population of interest in order to ascertain whether they intended to employ short-term insurance systems or replace P2P insurance systems with more conventional short-term insurance models. A convenience sampling method was employed for data collection. Convenience sampling is a non-probability sampling technique where participants are selected based on their availability, accessibility, and willingness to participate (Emerson, 2021). South Africa was purposively selected for this study because it has the highest insurance market in Africa, with a penetration rate of about 12%, and is well advanced in the adoption of technology in their business operations, particularly in insurance (Horvey & Odei-Mensah, 2024). Ethics approval was obtained from the University of the Witwatersrand before data collection, and a cover letter explaining the purpose of the study was sent with the questionnaire. The participants were guaranteed anonymity and confidentiality because no personal information that could be linked to any specific respondent was gathered, and they were reassured that the data were only being used for research. By responding to a yes-or-no question, respondents were asked to express their informed consent to take part in this study. A link to the survey was shared via emails and social media platforms such as LinkedIn, WhatsApp, and Facebook in an effort to increase the number of respondents.

3.2. Profile of Respondents

Out of the total respondents surveyed, 104 were eligible for analysis. The majority of the respondents (28.4%) were between the ages of 51 and 60, followed by individuals between 61 and 70 years, representing 19.6%. This indicates that the majority of the respondents were older adults. Respondents below 30 years of age were represented by 15.7%, while those between the ages of 31 and 40 and 41 and 50 were represented by 12.8% and 15.7%, respectively. The lowest representation came from participants aged 71 and above, making up only 6.9%, highlighting the reduced involvement from the oldest age group in this study's subject matter. Regarding education, 41.2% highlighted that they had a postgraduate degree, which was followed by 22.5% with a diploma, and undergraduates represented 11.8%. Individuals with matric were represented by 20.6%. This shows that a significant proportion of the respondents were highly educated and likely to possess advanced knowledge and skills, which could influence their understanding and engagement with the study topic. Also, most of the respondents fell within the middle-income bracket, indicating that their annual incomes ranged between ZAR 197001 and ZAR 400000, which is 22.5%. This suggests that the sample primarily consisted of individuals with moderate financial capacities. A total of 21.6% reported higher earnings between

ZAR 688,001 and ZAR 1,481,000, indicating a significant representation of higher-income individuals, and 11.6% earned between ZAR 400001 and ZAR 688000. Just a few of the respondents earned between ZAR 86001 and ZAR 197000 (9.8%), between ZAR 19001 and ZAR 86000 (13.7%), and below ZAR 19,000 (13.7%).

3.3. Measures

Every item used to gauge the constructs was taken from the literature and was scored on a 7-point Likert scale, where 1 denotes "strongly disagree" and 7 denotes "strongly agree". The TAM2 questionnaire was adapted to evaluate the intention to use an information system for peer-to-peer insurance (Venkatesh & Davis, 2000). Perceived usefulness (PU) was measured with four items from (Davis, 1989). Four items derived from Davis (1989) were used to measure the perceived ease of use (PEOU). Also, the subjective norms (SNs) were measured with two items from (Venkatesh & Davis, 2000; Shih & Fang, 2004). Perceived risk (PR) and perceived trust (PT) were measured with four and five items, respectively (Dash & Saji, 2008). The Behavioural Intention (BI) scale for peer-to-peer insurance was adapted from (Chin et al., 2018).

3.4. Analyses

This study used the commonly accepted two-stage approach to examine the relationship among the constructs (Anderson & Gerbing, 1988). The confirmatory factor analysis (CFA) was employed in the first stage to assess the validity of the measurement model and the discriminant validity of each construct (Lin & Hsieh, 2006). The CFA is used to investigate the psychometric properties of measurement scales and to assess the construct validity and reliability of subjective measurement instruments (Montoya-Weiss & Calantone, 1994). This study further assessed the convergent validity and discriminant validity using the composite reliability and the average variance extracted (AVE). Following this, a regression analysis was performed using the structural equation modelling (SEM) approach from SPSS AMOS 29. The model fit was evaluated using well-known indices such as the Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker–Lewis Index (TLI) in order to ensure the validity and robustness of the findings. The findings from the analysis are presented in the next section.

4. Results and Interpretations

4.1. Assessment of the Measurement Model

To examine this study's reflective measurement approach, we evaluated the validity and reliability of each construct using factor loading, composite reliability, Cronbach's alpha, and the AVE. The convergent validity of the items was assessed by factor loadings and AVEs. As displayed in Table 1, the factor loadings range from 0.746 to 0.967 and are well above the minimum threshold of 0.50, as established by Hair et al. (2014). This provides sufficient support for convergent validity. Similarly, the AVE values of 0.696 to 0.880 are within the minimum acceptable value of 0.50, as Fornell and Larcker (1981) suggested, confirming the convergent validity for all the constructs measured. The Cronbach's alpha and composite reliability (CR) were calculated to assess the reliability of each item. Table 1 reveals that the reliability measures for the modified measurement model are above the acceptable standards (alpha > 0.70, AVE > 0.50, and CR > 0.70) established by Hair et al. (2013) and Nunnally (1978). That is, each construct's internal consistencies (Cronbach's alpha values of 0.853 to 0.942 and composite reliability values of 0.867 to 0.951) are larger than the minimum threshold of 0.70.

Table 1. Measurement model.

Constructs	Items	Loadings	Alpha	CR	AVE
Perceived Risk (Dash & Saji, 2008)			0.853	0.868	0.696
	PR1	0.831			
	PR2	0.898			
	PR3	0.746			
	PR4	0.854			
Perceived Usefulness (Davis, 1989)			0.942	0.951	0.852
	PU1	0.866			
	PU2	0.953			
	PU3	0.939			
	PU4	0.932			
Perceived Ease of Use (Davis, 1989)			0.937	0.943	0.841
	PEOU1	0.914			
	PEOU2	0.867			
	PEOU3	0.959			
	PEOU4	0.926			
Subjective Norms (Venkatesh & Davis, 2000; Shih & Fang, 2004)			0.867	0.917	0.880
	SN1	0.920			
	SN2	0.956			
Perceived Trust (Dash & Saji, 2008)			0.812	0.934	0.789
	TRU1	0.923			
	TRU2	0.910			
	TRU3	0.921			
	TRU4	0.901			
	TRU5	0.899			

Source: authors' compilation.

4.2. Discriminant Validity

Table 2 presents modest correlations among the constructs. It further reveals that the square root of the AVE for each construct is greater than the inter-construct correlations, confirming discriminant validity as specified by (Hair et al., 2011). This implies that this study's constructs are actually different from one another and do not measure the same underlying component. Consequently, the measures employed in this research are appropriate for assessing the various constructs.

Table 2. Correlation.

	PU	PEOU	SN	PR	TRU
PU	**0.93**				
PEOU	0.8 ***	**0.92**			
SN	0.37 ***	0.4 ***	**0.94**		
PR	0.57 ***	0.63 ***	0.52 ***	**0.85**	
TRU	0.73 ***	0.75 ***	0.48 ***	0.77 ***	**0.89**

Note: the results of the confirmatory factor analysis serve as the basis for the correlations, which are based on the square root of the AVE on the diagonal in bold; *** correlations are significant at $p < 0.01$.

4.3. Assessment of the Structural Model

To evaluate the research hypotheses in the conceptual model, SEM analysis was created using the retained items for each construct in SPSS AMOS. Furthermore, the structural model's fit statistics yielded excellent indices, affirming that the data fit the model. These included $\chi^2 = 228.80$; df = 125; $\chi^2/df = 1.83$; Standard Root Mean Square Residual (SRMR) = 0.06; Room Mean Square Error of Approximation (RMSEA) = 0.05; Tucker–Lewis Index (TLI) = 0.91; Comparative Fit Index = 0.94. The standardised path

coefficients and t-values for each of the direct and indirect effects that were hypothesised in the conceptual model are presented in Table 3.

Table 3. SEM results.

H	Path	β Estimate	*t*-Value	*p*-Value	Interpretation	Result
	Direct Relationship					
H1	PU → BI	0.413	3.153	0.002	Significant	Accepted
H2	PEOU → BI	0.167	4.913	0.000	Significant	Accepted
H3	PR → BI	0.230	1.756	0.079	Not Significant	rejected
H4	SN → BI	0.220	2.716	0.034	Significant	Accepted
H5	TRU → BI	0.066	0.455	0.618	Not Significant	Rejected
	Moderation Effects					
H6	PU*Income → BI	0.272	3.106	0.002	Significant	Accepted
H7	PEOU*Income → BI	0.287	3.102	0.002	Significant	Accepted
H8	PR*Income → BI	0.356	1.020	0.308	Not Significant	Rejected
H9	SN*Income → BI	0.848	2.382	0.017	Significant	Accepted
H10	TRU*Income → BI	0.310	0.851	0.394	Not Significant	Rejected

4.4. SEM Results (Direct and Moderation Effects)

Concerning the direct relationship between the constructs, the results showed that perceived usefulness has a positive significant relationship with behavioural intentions (β = 0.413, t-value = 3.153, $p < 0.002$). Again, this study found an insignificant positive relationship between perceived risk and behavioural intentions (β = 0.230, t-value = 1.756, $p < 0.079$). This implies that perceived risk may not be a key driver of behaviour. Instead, other factors, such as perceived usefulness or ease of use, are likely to exert stronger effects on behavioural intentions. Regarding the relationship between subjective norms and behavioural intentions, the study found a significant positive relationship (β = 0.220, t-value = 2.716, $p < 0.034$). This means that social influence may strongly affect individuals' intentions to engage in a particular behaviour or purchase a product or service. The findings further show that perceived trust has a non-significant relationship with behavioural intentions (β = 0.066, t-value = 0.455, $p < 0.618$), while perceived ease of use has a positive significant relationship with behavioural intentions (β = 0.287, t-value = 3.102, $p < 0.002$), suggesting that individuals are more likely to engage in a behaviour when the associated system, tool, or process is easy to understand and use.

It is hypothesised in this study that income can cause a variation in the relationship between perceived usefulness and behavioural intentions, perceived risk and behavioural intentions, subjective norms and behavioural intentions, perceived trust and behavioural intentions, and perceived ease of use and behavioural intentions, as discussed in Section 2, which aligns with the assumption behind the moderating effect. This moderating effect was tested and analysed, as presented in Table 3. To carry out the test of moderation, multiple regression analysis with interactions was used. The composite scales derived from the CFA analysis were used as continuous variables with the interaction effects applied (that is, the moderating effect of *INCOME* on the *PU → BI. Path*, *PR → BI. Path*, *SN → BI. Path*, *TRU → BL path*, and *PEOU-BI path*). According to Baron and Kenny (1986), in a moderation test, the interaction/moderating term(s) should be a statistically significant predictor symptom of the relationship between the constructs being tested, as well as be able to change the relationship's direction and/or strength.

As displayed in Table 3, the interaction effect income is significant among three constructs. From the findings, income moderates the relationship between *perceived usefulness* and the *behavioural intention* to adopt P2P insurance (β = 0.272, t-value = 3.106, $p < 0.002$). Further, the study revealed that income significantly moderates the relationship between

subjective norms and the *behavioural intention* to adopt P2P insurance (β = 0.848, t-value = 2.382, $p < 0.017$). This suggests that an individual's income level influences the extent to which social pressure (subjective norms) affects their intention to engage in a particular behaviour. Again, the findings show that income significantly moderates the relationship between *perceived ease of use* and the *behavioural intention* to adopt P2P insurance (β = 0.287, t-value = 3.102, $p < 0.002$). This implies that the income level of individuals influences how strongly the perceived usability of a product or service impacts their individual intention to use it. The moderating influence of income on the relationship between perceived trust and risk and the behavioural intention to adopt P2P insurance was insignificant.

5. Discussion

5.1. Perceived Usefulness and Intention to Adopt Peer-to-Peer Insurance

The finding of this study presents a significant positive relationship between perceived usefulness and the intention to adopt P2P insurance. This implies that individuals are more likely to adopt P2P insurance once they see value in it or perceive that it will meet their insurance needs. This confirms the findings of Mamun et al. (2021), who indicate that perceived usefulness is likely to affect the behavioural intentions of consumers in insurance adoption. Raza et al. (2020) add that the adoption and replacement of technologies depend on the usefulness of the technology towards achieving product or service effectiveness and efficiency (Raza et al., 2020; Lim & Weissmann, 2023). This suggests that individuals' positive perception of P2P insurance improves their capacity to effectively manage risks and reduce costs (Chiu, 2016). This highlights how important customer perceptions are to the success of P2P insurance. Thus, addressing perceived usefulness can promote the adoption of P2P insurance. Hence, developing P2P insurance platforms with tangible benefits and reasonable rates should be a top concern for insurance companies.

5.2. Perceived Ease of Use and Intention to Adopt Peer-to-Peer Insurance

This study also confirms the hypothesis that perceived ease of use positively and significantly influences the intention to adopt P2P insurance. This relationship is statistically significant. This affirms the argument from the literature that individuals are more likely to adopt P2P insurance when they find it easy to use (Milanović et al., 2020). This is because before insurance clients decide on whether to shift from a traditional insurance model to a P2P insurance model, they may consider how much effort they may need to acclimatise to the P2P insurance platform (Hendrickson et al., 1993; Subramanian, 1994). The study by Dörfling and Godspower-Akpomiemie (2024) supports this argument. The results affirm the important role of usability in adoption, which provides a competitive advantage in this digital world. The results demonstrate how important it is to invest in digital platforms for P2P insurance that are easy to use. Clear guidelines, simple claims procedures, and efficient onboarding procedures are necessary to attract and retain customers (Adams et al., 1992; Chiu, 2016). This is very important because when users perceive a system as easy to use, they are more confident in it and are less likely to resist adoption. Hence, insurance digital platforms should be simplified so that even the less tech-savvy customers would have no difficulty navigating the platform. Such an approach is likely to promote P2P adoption. Short-term insurance providers can create an atmosphere that encourages customers to think about switching from conventional insurance systems to the online market (Dörfling & Godspower-Akpomiemie, 2024).

5.3. Perceived Risk and Intention to Adopt Peer-to-Peer Insurance

While perceived risk positively influences P2P insurance adoption, the relationship is statistically insignificant at 5%, suggesting that perceived risk does not exert any strong

impact on the intention to adopt P2P insurance. The positive relationship could imply that consumers view the risks they are exposed to before considering digital adoption, such as P2P insurance (Venkatesh et al., 2012; Aldammagh et al., 2021). Conventional models, such as short-term insurance plans, are still preferred by customers because they are seen as reliable and have less risk (Tang et al., 2022). This consistency shows how crucial this is to consumer preferences and choices. This could be attributed to the fact that sometimes positive word-of-mouth, regulations, and a simplified platform could ease concerns about potential risks (Md Husin et al., 2016). This may affect customers' perceptions of P2P platforms as transparent. Although adoption is not greatly hampered by perceived risk, insurers should nevertheless alleviate any concerns by being transparent and honest about their policies, risk-sharing arrangements, and claim procedures to avoid any potential doubt from consumers (Alrawad et al., 2023). Clearly defining how P2P insurance manages fraud, ensures solvency, and protects users' funds will help to build trust and attract sceptical users.

5.4. Subjective Norms and Intention to Adopt Peer-to-Peer Insurance

This study further confirms the hypothesis that subjective norms stimulate the adoption of P2P insurance. This implies that an individual's decision to embrace this novel approach to insurance is significantly influenced by social factors and their perceptions of other people's expectations (Mamun et al., 2021). The literature supports the significant positive relationship between subjective norms and P2P insurance adoption (Dörfling & Godspower-Akpomiemie, 2024). This is because clients consider how people around them perceive their actions or behaviours towards either adopting or not adopting a particular technology (Venkatesh & Bala, 2008). Given this, P2P insurers can deploy social influence and boost the impact of subjective norms by encouraging satisfied customers to inform others about their positive experiences. This can be possible when P2P insurers actively inform customers of the advantages and benefits of their digital solutions (Luo et al., 2022). This can include campaigns featuring testimonials from real users or endorsements from trustworthy people, boosting their credibility and social acceptance. Additionally, P2P insurers could use incentives or prizes to promote referrals to capitalise on subjective norms to facilitate its adoption. By using concise and persuasive marketing, these providers can enable people to make well-informed decisions that suit their changing insurance needs and preferences.

5.5. Perceived Trust and Intention to Adopt Peer-to-Peer Insurance

Trust has been identified as a significant factor when it comes to technology adoption and usage, which is linked to risk due to the nature of internet service (Agyei et al., 2020). The findings show that perceived trust and the intention to adopt P2P insurance have an insignificant positive relationship. The positive relationship supports the argument from the literature (Hamideh et al., 2018; Uche et al., 2021; Luo et al., 2022). This suggests that although trust may have some bearing on consumers' adoption choices, it does not have any strong impact. This is because consumers may already have some level of trust in P2P insurance once they find it useful and easy to use. Although the finding shows that trust might not substantially influence P2P insurance, it might be more important for maintaining engagement and satisfaction over time. Hence, insurers are encouraged to make investments in systems that foster and maintain trust over time.

5.6. The Moderating Role of Income on the Nexus Between Perceived Usefulness and the Intention to Adopt P2P Insurance

The empirical results show that income has a significant positive moderating influence on the nexus between perceived usefulness and P2P insurance adoption. This shows that

the strength of this relationship varies depending on the income levels of individuals. That is, individuals with higher incomes are more likely to pursue their intention to buy P2P insurance when they find it to be useful (Raza et al., 2020). This affirms Teo et al.'s (2012) assertion that income can drive perceived usefulness, which will ultimately influence the adoption of P2P insurance. This is because individuals with higher incomes may have discretionary money to invest in innovative technologies such as P2P insurance, which is more flexible and cost-effective than conventional insurance (Kim & Kim, 2024). Tomasi and Ilankadhir (2024) add that customers with better knowledge of the usefulness of digital systems and more financial capacity are more willing to adopt digital insurance. Given this, P2P insurers may need to adjust their pricing and product offerings to better suit the income levels of different client categories. Adding premium or exclusive services to basic coverage could boost the perceived value and encourage higher-income groups to use them. Adoption may be boosted for lower-income groups by providing flexible, reasonably priced payment options or educational materials on the benefits of P2P insurance.

5.7. The Moderating Role of Income on the Nexus Between Perceived Ease of Use and the Intention to Adopt P2P Insurance

The relationship between perceived ease of use and the intention to adopt P2P insurance is also moderated by income. This is found to be significantly positive. Thus, higher-income earners are more likely to have a greater desire to patronise P2P insurance when they perceive it to be user-friendly (Tomasi & Ilankadhir, 2024). This suggests that the adoption of P2P insurance may be more influenced by the user's financial conditions than just the sole inherent attributes of the product. One possibility is that consumers with higher incomes might have higher standards for user experience and convenience. They are more inclined to consider goods that fit into their busy lifestyles and appreciate services that are straightforward and easy to use. Furthermore, those with higher incomes might have easier access to the technology and tools needed to effectively use P2P insurance (Zhu, 2023). They may feel more at ease embracing new technologies, particularly if the procedure is simple and uncomplicated.

5.8. The Moderating Role of Income on the Nexus Between Perceived Risk and the Intention to Adopt P2P Insurance

The role of income on the nexus between perceived risk and the intention to adopt P2P insurance was found to be positive but insignificant. In other words, while those with higher incomes could be less sensitive to perceived risk when considering P2P insurance, this effect does not present any substantial influence on the adoption patterns. Poan et al. (2022) further explain that insurance is viewed as a waste of money in their nation. People do not think insurance is necessary and are happy with their savings programs. Hence, higher-income earners are more likely to invest in savings rather than adopt digital insurance, which is perceived to increase their risk levels. Aldammagh et al. (2021) expound that consumers view the risks they are exposed to before considering digital adoption, such as P2P insurance. Given this, high-income customers are less likely to adopt P2P insurance, given their perception of the risk factors associated with technology adoption.

5.9. The Moderating Role of Income on the Nexus Between Subjective Norms and the Intention to Adopt P2P Insurance

This study also reveals that income positively and significantly interacts with subjective norms in affecting P2P insurance adoption. The reason is that individuals with higher incomes might have larger social networks, which may include colleagues and peers who are more inclined to innovation and insurance technologies such as P2P insurance. Such people might be more exposed to adoption-promoting societal pressures (Masud

et al., 2020), which makes them more likely to adopt when they perceive that the adoption is accepted by society (Md Husin et al., 2016). Further, higher-income individuals may also have more resources to act on social pressures, allowing them to follow trends more easily compared to lower-income individuals, who might be more cautious or financially constrained.

5.10. The Moderating Role of Income on the Nexus Between Perceived Trust and the Intention to Adopt P2P Insurance

The results show that income has a positive but insignificant moderating effect on the relationship between perceived trust and the intention to adopt P2P insurance. This implies that although the association between trust and adoption may be slightly impacted by money, the effect is not statistically significant. Thus, income has no strong impact on the degree of correlation between adoption intention and perceived trust. In other words, regardless of their wealth, consumers' intention to embrace the P2P model seems to be influenced similarly by their degree of trust in it. Since income has a very small moderating effect on the relationship between trust and adoption, P2P insurance companies should prioritise developing trust with all of their clients, regardless of their income (Catacutan & Mabesa, 2024).

6. Conclusions and Recommendations

6.1. Conclusions

The rapidly emerging field of Insurtech is transforming the insurance industry by leveraging advanced technologies to increase creativity, accessibility, and productivity. Among its notable innovations are P2P insurance platforms, a disruptive paradigm that uses digital solutions to reduce operational costs, decentralise risk sharing, and foster community trust. The behavioural desire to adopt P2P short-term insurance is a significant but understudied component of the Insurtech ecosystem. Given this, this study contributes to this murky area of research using the TAM2 to investigate the roles of perceived benefit, perceived ease of use, subjective norms, perceived trust, and perceived risk in the adoption of P2P insurance in South Africa. This study provides further insights into the moderating influence of income on these relationships. This study used a survey approach to collect data from respondents in South Africa. The survey was analysed using the confirmatory factor analysis and structural equation modelling (SEM) approach. The findings demonstrate that perceived usefulness, ease of use, and subjective norms present a significant positive influence on the adoption of P2P insurance, underscoring the relevance of value, ease of use, and social influence in predicting the adoption of insurance technologies, particularly P2P insurance. In contrast, perceived risk and trust present an insignificant positive relationship, demonstrating that these factors do not exert any substantial influence on P2P insurance adoption. Additionally, this study reveals that income exerts a significant positive moderating influence on perceived usefulness, ease of use, and subjective norms in affecting P2P adoption, implying that individuals with higher incomes are more responsive to these factors when considering P2P insurance. This could be attributed to the fact that they have better access to technology, more financial freedom, and are more aware of the practical and social advantages of P2P insurance, like cost savings and community trust. This emphasises how crucial it is to take socioeconomic variables like income into account when creating and marketing P2P insurance models in order to guarantee efficient targeting and customer engagement.

6.2. Theoretical Implications

This study substantially contributes to the growing body of research on technology acceptance in the insurance sector by extending the applicability of the TAM2 to the emerging context of peer-to-peer (P2P) insurance. This study supports the theoretical underpinnings of the TAM2 in understanding user behaviour toward insurance innovations by empirically showing that perceived usefulness, ease of use, and subjective norms strongly impact P2P insurance acceptance. These results validate the model's applicability outside conventional financial technologies by demonstrating that the fundamental components of the TAM2 continue to be strong predictors of technology-driven service acceptance, even in the relatively new and understudied field of P2P insurance. Additionally, by including income level as a moderating variable, this study extends the theoretical knowledge. This suggests that socioeconomic considerations are crucial in determining how people accept technology in the insurance industry, as seen by the substantial moderating effect of income on the correlations between perceived usefulness, ease of use, subjective norms, and adoption. This extends the TAM2 by highlighting the fact that individuals' financial capacities influence their adoption choices directly, as well as the effectiveness of the traditional TAM2 elements. Therefore, this study offers a nuanced perspective and recommends that future theoretical models on the adoption of technology-based financial services, such as P2P insurance, incorporate socioeconomic moderators.

6.3. Practical Implications

The findings have important policy implications for regulators and insurers to promote P2P insurance. To encourage the adoption of P2P insurance, insurers should create platforms that are useful and easy to use and that have social impacts. Also, policymakers should focus on creating a regulatory environment that encourages accountability and openness to P2P insurance. Although perceived risk and trust were found to be insignificant, a robust regulatory framework that supports consumer protection, data security, and conflict resolution is essential to ensure stability and trust. Also, policies should support the development of digital infrastructure, as accessibility and ease of use are seen as essential drivers of P2P insurance adoption. From a practical perspective, insurers should prioritise customer-centric designs to ensure that P2P platforms are user-friendly and offer real-time benefits. Thus, P2P insurers should encourage adoption and position themselves as trustworthy, user-friendly alternatives to traditional insurance models. Providers of short-term insurance can create an atmosphere that encourages customers to think about switching from conventional insurance systems to the online market. In order to encourage long-term engagement, insurers should proactively explain the platform reliability and highlight effective claim procedures, as trust and risk perception may play a bigger role in keeping users over time. By increasing social influence, providing incentives for early adopters to discuss their experiences might hasten diffusion even more.

Moreover, it is crucial for P2P insurance providers and policymakers to recognise that the perceived usefulness, ease of use, and social influence of P2P insurance platforms are more likely to be influenced by individuals with greater incomes. Given this, marketing strategies and platform designs should emphasise these aspects to attract and retain this user base. Further, regulators should concentrate on enacting laws that guarantee consumer protection, equity, and transparency for all income levels in the peer-to-peer (P2P) insurance paradigm. Moreover, efforts should be made to improve P2P insurance solutions' price, accessibility, and trust in order to minimise any potential obstacles for lower-income groups. P2P insurance models can expand their adoption, encourage financial inclusion, and help diversify the insurance market by doing this. Furthermore, since income does not significantly moderate the relationship between trust and adoption, it will be imperative to

ensure that P2P platforms adhere to strict consumer protection requirements, such as open and transparent claims procedures and the complete disclosure of how money is managed. Authorities can also help providers build their image by implementing mechanisms for monitoring and selecting P2P insurers to ensure their dependability. This will ensure that customers of all income levels may adopt this more widely as a result.

6.4. Limitations and Future Research Directions

Despite the contribution of this study, there are some limitations that provide room for future research. The first limitation of this study is the sample size, which was due to time constraints, delays, and incomplete responses to the survey. Future studies should aim for a larger and more representative sample size in order to increase the generalisability of the results. Respondents from diverse ethnic and geographic origins will make it easier to document a greater range of consumer behaviours. This study only considers income as a moderating factor, leaving out other significant demographic factors that may influence adoption patterns. As a result, scholars could expand this study by considering demographic factors such as age, gender, education, and ethnicity, among others, as moderating factors. More so, institutional and cultural differences in P2P insurance adoption could be the subject of comparative studies across different countries or regions. This approach would help discover best practices and provide insights into how geographical differences impact customer behaviour.

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Notes

[1] Due to compliance with the regulatory policy of British motor vehicle insurance, Guevara announced the temporary suspension of operations in November 2017 "www.heyguevara.com (accessed on 17 November 2024)."

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