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The Effect of Social Media on Complex Buying Behavior in the Insurance Industry with Age as a Moderating Variable

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ABSTRACT: The increasing popularity of social media has provided a new opportunity for businesses to boost sales. The slow growth of the insurance penetration rate in Malaysia leaves many Malaysians at financial risk. Hence, understanding how social media can affect complex buying behavior should help insurance companies boost their sales. This study will focus on the Klang Valley population since it is diverse in terms of race, financial status and religion, making it a suitable sample. This study uses the theory of Reasoned Action and Social Identity Theory to investigate how social media can affect complex buying behavior in the insurance industry, with age as a moderating factor. The methodology used in this study is an online survey. It was designed and distributed to target respondents in Klang Valley using purposive sampling. A total of 211 responses were gained, and only 178 of them were valid responses. The responses were analyzed using SPSS and partial least square structural equation modeling (PLS-SEM). The finding of the study discusses both user review and social proof, which were discovered to have significant influence on complex buying behavior in the insurance industry. However, social media influencers do not significantly affect complex buying behavior. Furthermore, it was also found that age does not moderate the relationship between user review and complex buying behavior in the insurance industry. The results contribute to the academic literature by reinforcing the relevance of TRA and SIT in understanding consumer decision-making in complex purchases.

Keywords: Social Media, User Review, Social Proof, Social Media Influencer, Complex Buying Behavior

INTRODUCTION

Social media refers to websites and applications that let users create and share information or take part in social networking (Obar & Wildman, 2015). The world has changed because of social media. The rise of social media is an example of how rapidly and dramatically social behavior can change: something that is now part of one-third of the world's daily existence was unimaginable less than a decade ago (Ortiz-Ospina & Roser, 2023). Now, social media is more closely linked to business than ever before (Appel et al., 2020). Popular social media platforms have integrated a wide range of possibilities for customers to interact with brands and businesses alike, some social media like Facebook and Instagram even allowing users to purchase goods or services directly from the app(Cao et al., 2021). Most customers nowadays carry their spending power in their pockets. They will use social media to research product reviews on where to or not to purchase (Kowalewicz, 2022). Previous studies have found that social media can affect complex buying behavior (Doe & Smith, 2023). User reviews in social media, social proof and social media influencers play a pivotal role in shaping this behavior (Abduraimov, 2023).

Existing studies in the field of social media have predominantly focused on a few specific areas, leaving gaps in the exploration of other relevant factors that may potentially affect complex buying behaviour. Most studies have been using the theory of reasoned action to support buying behavior in the fashion industry (Xue, 2023; Chowdhury, 2024), the food industry, and other tangible products, but it has not been applied in complex buying behavior settings, especially in the insurance industry (Wei & Wong, 2023). However, given the importance of trust and credibility in the insurance industry, it is important to understand how social media factors such as user review, social proof and social media influencer serve as the key factors in shaping consumer buying behaviour with age as the moderating factor(Ahmed & Ashraf, 2023; Weller, 2016; Wibowo et al., 2020).

In light of this, this study integrates the TRA and SIT to explore the factors influencing complex buying behaviour in the insurance industry, responding to the growing need to understand how social media can affect complex buying behaviour. This study will examine the role of user review, social proof and social media influencers in shaping complex buying behaviour. This research contributes to the growing body of literature on social media-driven consumer behaviour in complex buying behaviour and will provide valuable insights for both academics and practitioner(Arora, 2024; Daugherty & Hoffman, 2014; Digital, 2023).

Based on the above mentioned, this study aims to provide insurance companies, agents, and other complex businesses with some implications, especially on how user review, social proof and social media influencer affect complex buying behaviour motive(Aragoncillo & Orús, 2018; Hussain & Ali, 2021; K. B. Lim et al., 2022)Next, the literature review will be presented in section 2, followed by the development of the conceptual model and the hypothesis in section 3. Next, the study will discuss the results and discussions in sections 4 and 5.

Theoretical Foundation

The study uses both SIT and TRA as informing theory to study the effect of social media on complex buying behaviour in the insurance industry. The TRA provides a foundation for understanding the dependent variable, while Social identity theory SIT supports the independent variables such as user reviews, social proof and social media influencers by focusing on how online communities can influence individuals on social media in shaping their complex buying behaviour.

Social Identity Theory (SIT) and Consumer Decision-Making

Social Identity Theory defines a social group as a group that provides people with a feeling of identity and self-esteem (Mcleod et al., 2011). This theory tends to conform people's behaviour, attitudes, and actions to the norms and ideals of these communities. Consumers frequently make purchase decisions that reflect their social identities. Social Identity Theory is used to support the independent variables, which are social media user reviews, social proof and social media influencers.

User reviews on social media can serve as a type of social proof. When potential clients read positive reviews from others, especially those they know and trust, it supports their idea that acquiring a certain insurance product is the best option. This is because they see those reviewers as members of their social group, and conforming to the group's behaviour reinforces their social identity.

The concept of social proof states that people base their behaviours on those of others. In the insurance market, which frequently includes complex decision-making, witnessing a big number of individuals, especially those with similar identities or values, will help select a specific insurance policy that can have a substantial impact on a potential buyer's decision (Dwivedi, 2021). They see the product's popularity as an indication of its quality and dependability (Geodegebure, 2022).

Social media influencers frequently maintain a close, trusted relationship with their followers, who may regard them as role models or members of the same social group (Kim & Kim, 2022). When influencers support an insurance product, their followers are more likely to regard the endorsement as legitimate and reliable (Coutinho et al., 2023). If the influencer's identification is similar to the followers' own social identities, they are more likely to be affected by the suggestion and consider purchasing the goods.

Purchasing insurance can usually be a complex process since it requires big financial commitments and faith in the product. Consumers often want confirmation that they are making the correct decision (Sanjeewa et al., 2019). They might feel more secure in their decision after seeing good social proof (such as reviews, influencers, and the acts of others in their social networks). According to Social Identity Theory, this reassurance is effective because it corresponds with their desire to make decisions that conform to the norms and values of their social group (Khadka, 2024).

In the insurance industry, Social Identity Theory supports the idea that social proof, user reviews, and social media influencers influence potential buyers' purchasing decisions by aligning them with the behaviours and expectations of the social groups with which they identify. This congruence is especially critical in complicated purchasing scenarios such as insurance, where trust and confidence are essential.

- User review

In the insurance industry, social media user reviews have a significant impact on how consumers make purchasing decisions (Yang, 2024). User reviews on social media platforms may have a big impact on customers' choices about insurance products as they turn more and more to online sources for advice and suggestions. Compared to commercial content, user reviews on social media are frequently seen as being more real and honest (Cook et al., 2021). Consumers depend on these reviews for advice because they value peer opinions and experiences more than conventional advertising.

Consumers are influenced by recommendations from people they know and trust; thus, positive ratings from these relationships may have an impact on their choices. Reviews have a platform to reach a large audience, thanks to social media (Gupta & Chopra, 2020)Positive reviews can swiftly gain traction and awareness and influence potential consumers' decisions. Visual components like uploaded photographs and videos may increase the persuasiveness of user reviews. Consumers may be more impressed when actual individuals share their insurance experiences through visual material.

Social media user reviews have a significant impact on how consumers behave in the insurance sector. They offer real-world, realistic, and aesthetically appealing insights into the lives of insurance clients (Wang, 2023)These reviews can persuade customers to select particular insurance providers and products based on the experiences provided by their peers, affecting trust, relatability, and decision-making.

In addition, various age groups have different life stages and related insurance requirements. Younger people may be more concerned with health insurance and travel insurance, whereas older adults may place a higher priority on life insurance or retirement preparation. User evaluations that speak to certain insurance requirements related to an age group can have a significant effect on purchasing decisions (Kao et al., 2022)However, various previous studies have inconsistently reported on this statement. Hence, this study will help to give a clearer understanding of how age moderates the relationship between user reviews and consumer buying behaviour in the insurance industry, addressing the inconsistencies found in previous research.

- Social proof

In the insurance sector, social proof has a substantial impact on customer purchasing decisions. In circumstances when there is uncertainty, people tend to base their conclusions on the acts and behaviours of others, a psychological phenomenon known as social proof (Otterbring & Folwarczny, 2024). Social proof may have a significant influence on how customers pick insurance providers and products in the insurance sector. People frequently seek guidance from their friends, family, and peers while making insurance selections (Laksmi et al., 2022)People are more inclined to consider a certain insurer or policy if someone in their social circle is satisfied with it.

Imitation of behaviour is possible by social proof. People are more likely to follow the trend if they notice that others who are similar to them have bought a specific insurance product or are using a particular insurer since they assume that others support the decision (P. G. Lim et al., 2020). Social evidence may assist in lowering the perceived risk of making the incorrect choice, which is what risk management in insurance is all about. Customers' anxiety about unfavorable results is reduced when they learn that others have successfully acquired insurance from a specific provider and had their claims processed without issue (Dwivedi, 2021).

Furthermore, it has been demonstrated that consumers look for approval of their choices. The choice of a particular insurance product or provider is validated by positive evaluations and recommendations from others, boosting the consumer's confidence in their choice. Given the variety of plans and providers offered by the insurance sector, consumers may feel overloaded with options. Social proof helps decision-making by emphasising the most common and respected solutions, which helps to reduce the number of available possibilities (Amblee & Bui, 2011).

Hence, social proof uses the perspectives and experiences of others to influence customer purchasing decisions. Consumer perceptions of insurance companies, plans, and the value of coverage are substantially influenced by favourable reviews, recommendations, peer behaviour, and the actions of influencers (Rinaldi et al., 2024).

- Social Media Influencer

Within the insurance sector, social media influencers have a big impact on how consumers behave while making purchases (Lie, 2023). Through their online presence and involvement, influencers may affect consumers' views, preferences, and decisions. Through continuous, relatable material, influencers frequently gain the followers' confidence and credibility. Influencers' followers view their endorsements and recommendations of insurance goods as genuine and trustworthy, which can have a beneficial impact on consumer purchasing decisions (Ilieva et al., 2024).

Influencers frequently position themselves as gurus in their specialised fields. Influencers in the insurance sector may enlighten their followers on the many forms of insurance, the available coverage alternatives, and the value of insurance so that customers can make better choices (Ruslan & Mohd Rasid, 2024). Influencers frequently share their personal experiences and stories to build a deep emotional bond with their audience (Belanche et al., 2021). Influencers might inspire customers to think about comparable choices by sharing their own positive experiences with insurance.

Influencers on social media may significantly affect customer purchasing decisions in the insurance sector. By using their honesty, knowledge, personal connections, and capacity to produce meaningful and interesting content, influencers may help people choose insurance providers and products wisely.

a. Theory of Reasoned Action (TRA) and Complex Buying Behaviour

The Theory of Reasoned Action (TRA) is a psychology theory that explains how people choose to engage in specific behaviours (Silverman, 2016). It implies that a person's behaviour is driven by their purpose to do the behaviour, which is impacted by two critical factors: The attitudes: This is how the individual feels about the behaviour. If people think the behavior is advantageous, they are more inclined to engage in it. Subjective Norms: This refers to the social pressure a person experiences from others. Suppose individuals believe that others who are important to them (such as friends, family, or society) expect them to engage in the behaviour. In that case, they are more likely to do so (Janmaimool et al., 2024). So, according to TRA, if someone believes that a behaviour is beneficial and that significant people around them want them to do it, they are more likely to create the intention to engage in that behaviour and then act it out.

The theory of reasoned action was used in this study to support the dependent variable, which is the complex buying behavior. First, the study will look into how the attitude factor can affect complex buying behavior. Consumers have access to an extensive amount of information through social media, including reviews, suggestions, and user experiences. These inputs influence a consumer's perspective towards a product, either positively or negatively. For example, if a buyer often reads great reviews and endorsements for a product on social media, they are more inclined to consider purchasing it.

Social media is an effective tool for social influence. Consumers frequently seek validation and comments on products from their peers, influencers, and the larger community (Gunawan et al., 2023). The pressure or encouragement from these organisations creates subjective norms, persuading customers to match their purchasing behaviour with what they consider to be socially acceptable or desirable (Garcia, 2020).

According to TRA, a consumer's desire to buy a product is the most accurate indicator of their actual purchasing behaviour (Joshi & Rahman, 2015). Social media may greatly influence these intentions by reinforcing favourable views and establishing strong subjective standards, causing customers to plan to buy a product, which frequently leads to real purchase behaviour (Rijitha, 2021).

In this study, TRA helps to explain how social media content such as user reviews, social proof, and social media influencers influence complex buying behavior. TRA will help researchers better understand and measure how social media impacts the way consumers think about, intend to purchase, and ultimately decide to purchase complex products.

Theoretical Integration: TRA and SIT in the Context of Social Media and Insurance Purchasing

Theory of Reasoned Action (TRA) and Social Identity Theory (SIT) provide complementary perspectives on how customers engage with insurance products through social media. While TRA focuses on rational elements of consumer behavior, such as comparing different insurance plans and doing research based on facts (Rozenkowska, 2023). SIT emphasises the importance of social impact and identity in affecting purchase decisions (Salem & Salem, 2018). The merging of these theories provides a more complete picture of how social media influences customer behaviour in the insurance industry.

In this study, SIT and TRA work together to shape consumer behavior in the context of social media and insurance purchases. SIT discusses how social influences such as user reviews, social proof, and social media influencers influence decision-making by creating a sense of trust and group identity. TRA provides a framework for understanding how these impacts translate into real consumer behavior, emphasizing that consumers' attitudes and subjective norms drive their intention to purchase insurance.

Therefore, based on the abovementioned, if a customer is considering buying an insurance plan and sees positive reviews (SIT) about this plan on social media from people he trusts complimenting an insurance company, then he sees a financial influencer (SIT) on TikTok promoting the same insurance plan. He will most likely be convinced that others want him to have it and finally choose to buy it because he connects with these groups and has developed a positive attitude (TRA).

Research Model and Hypotheses

Positive user reviews may shift the scales in favor of one product over another, especially when a buyer is deciding between several high-stakes alternatives. In contrast, unfavorable reviews may cause a customer to reconsider or seek further information, adding to the complexity of the decision-making process (Rane et al., 2024).

Therefore, user reviews on social media are more than simply a passive source of information. They are an active component that influences how customers approach difficult purchase choices (Valkenburg et al., 2021). It emphasises the significance of social media interaction and review management in shaping consumer behaviour in high-involvement purchasing situations.

H1: User reviews in social media are positively related to complex buying behavior

Social proof can minimise the perceived risk of complex transactions. When customers perceive that others have had excellent experiences with a product or service, they feel more secure in making the same decision (Ariffin et al., 2018). This decrease in perceived risk is critical in complex purchasing scenarios with high stakes.

Social proof is an important aspect in influencing customer complex purchasing behaviour. When customers see good indications from others, whether through reviews, ratings, endorsements, or popularity, they are more inclined to participate actively in the purchasing process (Talib & Saat, 2017). This leads to a more educated, confident, and careful decision-making process, especially in complex buying circumstances when the perceived risk is large.

H2: Social proof is positively related to complex buying behavior

Social media influencers frequently create trusted relationships with their followers. When they advocate or propose insurance products, for instance, their followers are more inclined to believe them (Taillon et al., 2020). This trust may inspire customers to investigate and evaluate the recommended insurance products more carefully.

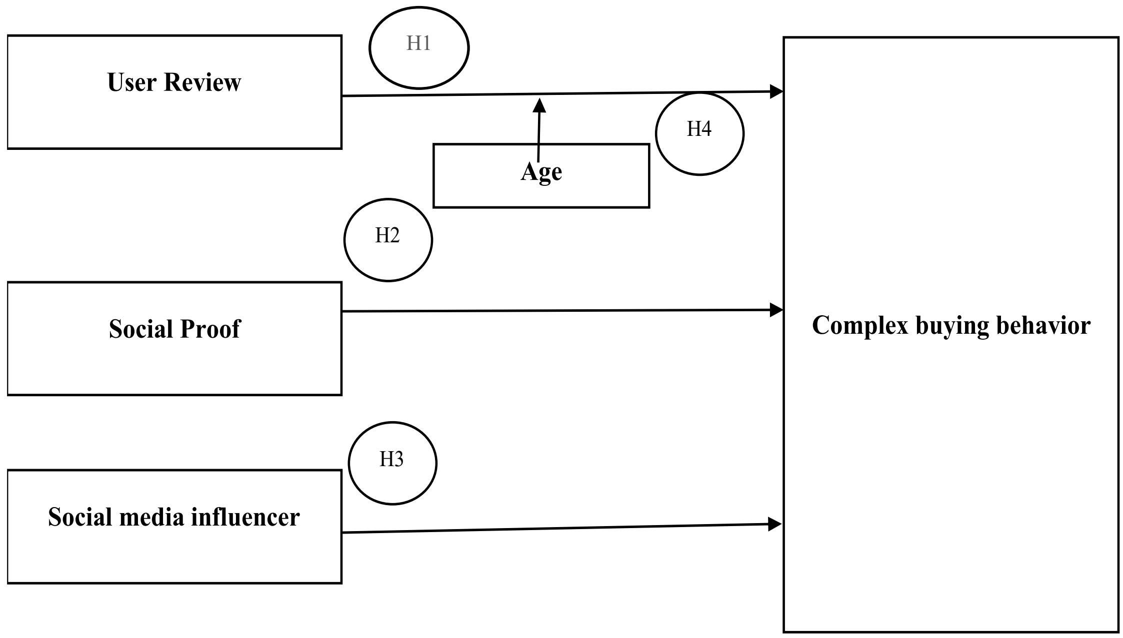
The insurance sector is especially recognized for its complexity, with numerous terms, conditions, and alternatives that can be confusing for customers (Tobing et al., 2022). Influencers frequently simplify this information, allowing their audience better to comprehend the benefits and features of various insurance policies. This simplicity can increase consumers' confidence in their purchase decisions (Azkiah & Hartono, 2023).

H3: Social media influencer is positively related to complex buying behavior.

Consumer decisions can be influenced by user reviews, which can have an impact on the kind of product or service that they select, whether they decide to buy it at all, and how satisfied they are with it overall (Chen, 2021). There may be differences in priorities, values, and preferences among different age groups. People from different generations may find other things to connect with from user feedback (Zhang et al., 2022). While older users may read user evaluations with varying degrees of trust or scepticism, younger users could be more digitally adept and dependent on internet information (Hoffmann et al., 2015).

User reviews may have a greater impact on younger consumers, who are more likely to utilise social media(Unger et al., 2016). For this demographic, social media reviews may have a greater beneficial impact on their purchasing behaviour, making them more inclined to purchase insurance products that have received positive online evaluations (Dwivedi & Lewis, 2021). Older customers may be less impacted by social media reviews, presumably because they prefer more conventional sources of information or have a higher sense of scepticism about online content. For this demographic, the influence of social media reviews on purchasing behaviour may be reduced or perhaps nonexistent (Helversen et al., 2018).

H4: Age moderates the relationship between user review and complex buying behavior.



METHOD

During the data collection, the designed questionnaires were distributed using purposive sampling through Google Forms. Google Forms was chosen for data gathering because of its broad reach and accessibility, enabling quick distribution to social media users and insurance customers in Klang Valley. It also automates data gathering and connects with SPSS and SmartPLS, making the analysis process more efficient and organised. The purposive sampling method was employed in this study due to the unavailability of a complete sampling frame in the given context. The Google Forms were distributed on social media such as Facebook groups that meet the requirement of this study, Twitter, LinkedIn and Telegram groups. This approach assists in selecting valid samples and helps minimize non-response bias (Xi, 2024). It is worth noting that they have utilised a similar method when examining customers' buying behaviour(Javier & Beltrán, 2022).

To ensure the suitability of potential respondents, who need to be social media and insurance users, two pre-screening questions were included as selection criteria in the sampling technique. The first question inquired whether they were social media users. The second question assessed whether they had subscribed to or bought any insurance plan. Respondents who did not meet these pre-screening criteria were excluded from the study. To ensure more accurate responses, the researcher provided a brief introduction in each section to ensure that respondents understood the questionnaire better.

A total of 211 data were collected. After excluding responses that did not meet the study criteria, 178 valid responses were finally confirmed. Table 1 shows the demographic information of the participants with valid responses.

Table 1: Demographic frequency table

Demographic Variable	Category	Percentage	Frequency
Gender	Male	34.8 %	62
	Female	65.2 %	116
Age	20 – 30	47.8 %	85
	31 - 40	20.8 %	37
	41 – 50	16.3 %	29
	51 – 60	15.2 %	27
Annual Income	< 60,000 (Bottom class)	19.7 %	35
	61,000 – 100,000 (Middle Class)	23.0 %	41
	101,000 – 120,000 (Upper class)	39.3 %	70
	>120,000 (upper class)	18.0 %	32
Social Media User	Yes	100 %	178
	No	0 %	0
Insurance user	Yes	100 %	178
	No	0%	0

All constructs' measurement items were adapted based on previous literature, with minor adaptations of social media context. All items of the survey were designed in English. Next, all items were assessed by professors and lecturers, including industry experts who are senior leaders in the insurance industry. Before the questionnaires were distributed, we conducted a pilot test with 30 respondents. The result shows that Cronbach's alpha of all questionnaire items is larger than 0.70 in the pilot study. Thus, all proposed items of each construct are valid and reliable (Hair et al., 2020).

The items of user review were adopted from Hinterstein, 2020: and Mcleod, 2011 (C. Park et al., 2011; Purohit, 2013). For social proof, the items were adopted and adapted from (Hinterstein, 2020) and Chong, 2020. Next, for Social Media Influencer, the items were adopted and adapted from (Jones, 2022). Finally, for consumer buying behaviour the items were adopted from Purohit, 2013 (Chong et al., 2020). These items were measured using a 1-5 Likert scale questionnaire(M. S. Park et al., 2015).

RESULT AND DISCUSSION

The acquired data in this study was analysed using SPSS and Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS. Each tool was chosen based on its unique characteristics in addressing various parts of the research. These methods were selected based on their suitability for effectively addressing the research questions.

Firstly, SPSS was used to assess respondents' demographic profiles and test for common method bias. SPSS is well-known for its ability to handle descriptive statistics, making it an excellent tool for summarising important demographic variables like age, gender and income level. Furthermore, SPSS was used to run Harman's single-factor test to check for common method bias (CMB), ensuring that the variation in responses was not overly impacted by a single component, which might risk the study's credibility.

Secondly, Partial least squares structural equation modeling (PLS-SEM) using SmartPLS was employed in the study to maximize the variance explained in the latent dependent variables and has been widely employed in the social media field (Cheah, 2024). Specifically, the study used SmartPLS-SEM for three reasons. First, it is ideal for complex models with moderators, and SmartPLS can handle the interaction well. Second, many past studies have proven that PLS-SEM is best suited for testing complex variables (Becker, 2023). Since this study has less than 200 responses, AMOS is not suitable for this study.

This study uses SPSS for preliminary analysis and SmartPLS for hypothesis testing to ensure a complete and methodologically sound approach to data analysis.

Measurement model

To assess the measure, the reliability and validity of the construct, Cronbach's Alpha, composite reliability, and AVE (Average Variance Extracted) were used. The table below shows the result of each construct. All construct has a value of Cronbach's Alpha of more than 0.7, which means all are reliable. The composite reliability of all constructs also shows more than 0.7, which means all constructs are reliable. Finally, for validity, all constructs have a total value of more than 0.5, which means that they are acceptable and valid.

The study adopts a five-point Likert scale for consistency across constructs and employs PLS-SEM for hypothesis testing. Reliability and validity assessments confirm that the measurement model is robust and suitable for further analysis.

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE	Interpretation
User Review	.874	0.904	0.576	Reliable and Valid
Social Proof	.957	0.964	0.795	Highly reliable and valid
Social Media Influencer	.880	0.904	0.542	Reliable and valid
Complex Buying Behaviour	.903	0.920	0.538	Reliable and valid

Hypothesis Testing

Hypothesis testing was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) and SPSS to examine the relationships between User Review and Complex Buying Behaviour, with Age acting as a moderating factor. The results of the hypothesis testing are detailed below:

The findings indicate that User Review ($r = .678$, $p < 0.01$) and Social Proof ($r = .661$, $p < 0.01$) have a strong positive correlation with Consumer Behavior. This suggests that higher levels of user reviews and social proof are associated with increased consumer buying behavior.

Additionally, Social Media Influencer ($r = .437$, $p < 0.01$) has a moderate positive correlation with Consumer Behavior, indicating that while influencers impact consumer decisions, their influence is not as strong as user reviews and social proof.

The inter-correlations among the independent variables were also examined. User Review and Social Proof ($r = .731$, $p < 0.01$) showed a very strong correlation, while Social Proof and Social Media Influencer ($r = .580$, $p < 0.01$) demonstrated a moderate correlation. This suggests that social proof and user reviews often coexist to influence consumer behavior.

This study also used SmartPLS to test the hypotheses in addition to SPSS. A relationship is considered statistically significant if the T-value is greater than 1.96 and the P-value is less than 0.05, indicating that the hypothesis is supported at a 95% confidence level.

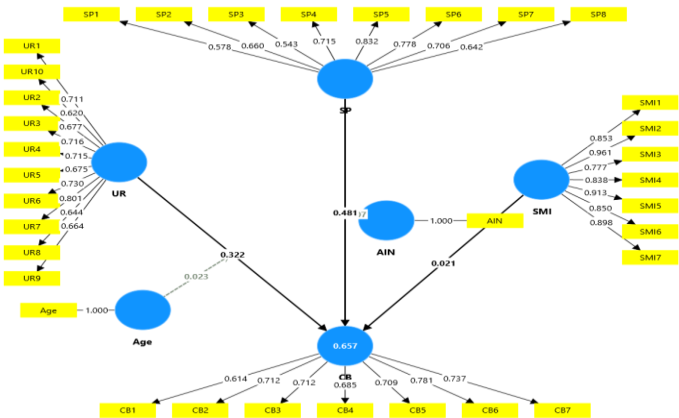


Figure 1: Structural Model

Moderation Analysis

Age was tested using PLS-SEM to assess its moderating effect. This section examines the moderating effects of Age on the relationship between User Review (UR) and Complex Buying Behavior (CB). A moderation analysis was conducted using SmartPLS by assessing the interaction terms (UR × Age). The results indicate whether these moderators significantly influence the strength or direction of the relationships between the independent and dependent variables.

Moderating effect	β (Coefficient)	T-Value	P-Value	Result
UR x Age → CB	0.022	0.417	0.677	Not Significant

Based on the table, age does not significantly moderate the relationship between user review and complex buying behaviour. This is because firstly, the β (Coefficient = 0.022): Age has a very weak moderating effect on the relationship between User Review and Complex Buying Behaviour.

Next, the T-Value = 0.417: This is much lower than the threshold of 1.96, indicating no statistical significance. Finally, the P-Value = 0.677: Since $P > 0.05$, the moderation effect is not significant.

As a result, age does not significantly moderate the relationship between User Review and Complex Buying Behaviour.

Table 2. Hypothesis summary table

Hypothesis	Path	β (Coefficient)	T-Value	P-Value	Result
H1	UR → CB	0.349	2.769	0.006	Supported
H2	SP → CB	0.372	2.785	0.005	Supported
H3	SMI → CB	0.065	0.742	0.458	Not Supported
H4	UR x Age → CB	0.022	0.417	0.677	Not Supported

Discussion Based on Hypothesis Testing Results

The results of the hypothesis testing provide valuable insights into the role of social media factors in influencing consumer buying behavior (CB) within the insurance industry. The findings highlight both significant and non-significant relationships, which contribute to a deeper understanding of the impact of user reviews (UR), social proof (SP), and social media influencers (SMI), as well as the moderating effect of age on consumer behavior.

Hypothesis H1 (UR → CB) is supported ($\beta = 0.349$, $t = 2.769$, $p = 0.006$), indicating that user reviews significantly influence consumer buying behavior. This aligns with previous studies that emphasize the importance of electronic word-of-mouth (eWOM) in guiding purchasing decisions (Abduraimov, 2024). Consumers often rely on peer-generated feedback to assess the credibility and effectiveness of insurance products, making user reviews a critical factor in shaping purchase decisions.

Similarly, H2 (SP → CB) is supported ($\beta = 0.372$, $t = 2.785$, $p = 0.005$), confirming that social proof plays a crucial role in consumer decision-making. This suggests that consumers are influenced by the actions of others, particularly in the insurance industry, where trust and perceived popularity can enhance confidence in purchasing decisions. This finding is consistent with social identity theory (SIT), which posits that individuals conform to group norms when making decisions (Xue, 2023; Chowdhury, 2024).

Contrary to expectations, H3 (SMI → CB) is not supported ($\beta = 0.065$, $t = 0.742$, $p = 0.458$), indicating that social media influencers do not significantly affect consumer buying behavior in the insurance sector. This result diverges from findings in other industries, such as fashion and beauty, where influencers play a dominant role in shaping consumer preferences. A possible explanation is that insurance is a high-involvement, complex purchase requiring expert advice rather than influencer endorsements. Consumers may prefer professional reviews, testimonials, or direct interactions with insurance agents over influencer promotions.

The moderation analysis shows that H4 (UR × Age → CB) is not supported ($\beta = 0.022$, $t = 0.417$, $p = 0.677$), indicating that age does not significantly moderate the relationship between user reviews and consumer behavior. This contradicts prior research suggesting that different age groups may rely on user reviews differently (Ahn & Lee, 2024)A possible reason is the widespread accessibility of online reviews across all age groups, which reduces generational differences in how consumers interpret and act on these reviews.

Implication and Contributions

- Theoretical Contribution

This study extends the Theory of Reasoned Action (TRA) by demonstrating that user reviews and social proof are key drivers of consumer buying behavior in complex purchasing contexts like insurance. However, the insignificant role of social media influencers suggests that influencer marketing strategies may be ineffective in this sector(Chaffey, 2023; Saud et al., 2020). It also extends Social Identity Theory (SIT) by confirming that social influence in the form of user reviews and social proof plays a vital role in shaping complex buying behavior. Consumers rely on online communities to validate their purchase decisions, which aligns with the principles of SIT that emphasize the role of group identity in behavior

- Practical Implications

Insurance companies should prioritize enhancing customer reviews and leveraging social proof strategies such as testimonials and community engagement rather than relying on influencer marketing. They should also encourage satisfied customers to leave reviews on social media platforms like Facebook, X, TikTok and Instagram by offering small incentives like discounts, vouchers, or cakes. Additionally, given that age does not moderate the effect of user reviews, marketing strategies should be consistent across age groups rather than segmented.

Other than that, from a practical perspective, insurance companies should consider implementing AI-driven sentiment analysis to monitor and respond to customer feedback in real time. This will help strengthen trust and engagement. Besides, the company should also consider creating interactive online communities where clients can share their experiences, which reinforces the impact of social proof.

Showing real-time ratings and reviews on advertisements in social media pages, featuring catchy phrases like "Top Rated by 6,000+ Customers" or "Trusted by 2 Million Malaysians," can create a strong bandwagon effect.

CONCLUSION

This study highlights the importance of user reviews and social proof in shaping consumer behavior in the insurance industry while challenging the effectiveness of social media influencers. These findings provide valuable insights for both academic researchers and industry practitioners looking to refine their marketing strategies in the digital landscape. The findings support the idea that consumers depend heavily on user reviews and social proof when making complex financial decisions. The significant effect of User Review and social proof on Complex Buying Behaviour is consistent with findings from prior studies on digital marketing and consumer trust. Moreover, the study also found that age does not significantly moderate the influence of user reviews. This suggests that digital literacy and reliance on user reviews are becoming universal across all age groups.

From a practical perspective, these findings highlight the importance of insurance businesses prioritising user reviews, social proof strategies, and expert endorsements above traditional influencer marketing. Future studies should look at additional moderating characteristics, including income level, financial literacy, and risk perception, to better understand how different customer segments react to digital marketing in the insurance industry. Longitudinal studies might also examine how changing digital trends and emerging technology continue to impact customer trust and decision-making in financial services.(X. J. Lim et al., 2017).

Limitation and Future Research

The study focuses on insurance consumers in Klang Valley, which may not accurately reflect consumer behaviour in other locations or counties. Future studies should look at different geographical places to see whether cultural or economic variables impact the results.

The data was obtained at a single point in time, limiting the capacity to examine how customer preferences change over time. A longitudinal research might provide further insight into how consumers' dependence on user reviews and social proof shifts as digital trends and marketing methods develop.

While this study discovered that social media influencers had little effect on insurance purchase decisions, it did not distinguish between general influencers and industry-specific specialists (such as financial advisers or insurance professionals). Future research could look at whether influencers with higher recognised knowledge and trustworthiness have a greater impact on customer confidence in financial products.

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