



The Role of Insecurity in Shaping Consumer Purchase Intentions: Mediating Effects of Perceived Usefulness and Ease of Use in Live Commerce

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Abstract

Live commerce platforms facilitate real-time interactions between sellers and buyers, but challenges related to consumer uncertainty can negatively impact their intention to purchase. This study examines how uncertainty affects perceptions of usefulness, ease of use, and the intention to purchase. Additionally, it investigates whether perceived usefulness and ease of use serve as mediators in these relationships. The research adopts a quantitative methodology, collecting data from 150 respondents in Banjarmasin using a questionnaire based on a 5-point Likert scale. The analysis employed Structural Equation Modeling with Partial Least Squares (PLS-SEM) to understand the interrelations among the variables. The findings reveal that insecurity does not significantly impact perceived usefulness, ease of use, or purchase intention, and these perceptions do not act as mediators in the relationship. However, both perceived ease of use and perceived usefulness have a strong and positive effect on purchase intention. These results underscore the need to focus on technology's ease of use and functionality to encourage purchasing behaviour, even when insecurity is present. This suggests that e-commerce businesses should improve their platforms' functional aspects and user-friendliness to enhance consumer engagement. Furthermore, the study encourages future research to delve into more profound psychological aspects and beliefs surrounding consumer insecurity that may influence decision-making in live commerce environments.

Keywords *Insecurity, Usefulness, Ease of Use, Purchase Intention, Live Commerce*

INTRODUCTION

Live commerce has emerged as a significant innovation in e-commerce, enabling real-time interaction between consumers and sellers through video streaming, as well as facilitating immediate purchases (Kim et al., 2023). Previous studies have shown that Perceived Usefulness (PU) and Perceived Ease of Use (PEU) play a crucial role in driving technology adoption and purchase intention across various technology contexts, including e-commerce (Agag & El-Masry, 2016; Venkatesh et al., 2016). Technologies perceived as useful and easy to use are more likely to be accepted by consumers, thereby increasing their intention to make a purchase (Davis, 1989; Venkatesh & Davis, 2000).

However, in the context of live commerce, feelings of insecurity also influence consumer perceptions of technology's usefulness and ease of use (Rodríguez-López et al., 2024). This insecurity can arise from concerns about data security, uncertainty about the platform's reliability, or risks associated with online transactions (Al-Qaysi et al., 2020; Fu, 2021). Such insecurity can hinder technology adoption and reduce consumer purchase intentions (Al-Qaysi et al., 2020; Parasuraman & Colby, 2015).

While many studies have addressed factors influencing technology adoption in e-commerce, few have explored how insecurity impacts PU, PEU, and Intention to Purchase (ITP) in live commerce (Kim et al., 2023; Zhou & Tian, 2022). This research seeks to address this gap by investigating how insecurity affects purchase intention and exploring the mediating effects of

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perceived usefulness and ease of use. This research is crucial for guiding e-commerce platform developers in designing safer and more user-friendly technology to boost consumer purchase intent (Hair et al., 2019; Venkatesh et al., 2016).

LITERATURE REVIEW

Consumers' feelings of insecurity when using new technologies can arise from concerns about privacy, data security, and platform reliability. Previous research has shown that such insecurity can reduce a technology's perceived usefulness, as consumers may doubt the platform's ability to deliver expected benefits (Al-Qaysi et al., 2020; Fu, 2021). In the context of live commerce, insecurity can hinder technology adoption because consumers may not fully trust the platform (Venkatesh & Davis, 2000).

Insecurity can also impact perceived ease of use. Consumers who feel insecure may perceive the technology as more difficult to use or require additional effort to understand its functionality (Agarwal & Prasad, 1998; Wibisono et al., 2023). When consumers are concerned about security risks, they are more likely to find live commerce platforms challenging to use (Al-Qaysi et al., 2020; Parasuraman & Colby, 2015).

In the live commerce context, feelings of insecurity can also reduce consumers' intention to purchase, as fears related to privacy or the risk of fraud may deter them from completing online transactions (Kim et al., 2023; Parasuraman & Colby, 2015; Venkatesh et al., 2003). While insecurity typically has a negative effect on purchase intentions, it is possible that consumer perceptions of the technology's usefulness and ease of use can mediate and alleviate these negative impacts (Rafdinal & Senalasar, 2021; Venkatesh & Davis, 2000).

This research investigates how perceptions of usefulness and ease of use serve as mediators in the link between insecurity and the intention to purchase, proposing that technologies regarded as beneficial and straightforward to use may lessen the adverse effects of insecurity on consumers' buying decisions.

RESEARCH METHOD

This research utilizes a quantitative approach to explore the connections among insecurity, perceived usefulness, perceived ease of use, and purchase intention in live commerce. The quantitative approach was selected because it is well-suited for measuring numerical variables and allows for hypothesis testing using data collected from a defined population (Hair et al., 2019).

The research population consists of residents of Banjarmasin City, with a sample of 150 respondents who have made online purchases through live commerce platforms. A purposive sampling technique was applied to ensure the relevance of the respondents to the study's context (Hair et al., 2011).

Data was gathered through a survey employing a 5-point Likert scale, which assessed levels of insecurity, perceived benefits, ease of use, and the intention to make a purchase. The research instrument was designed based on the previously validated Technology Acceptance Model (TAM) (Davis, 1989; Venkatesh et al., 2003).

The data were analyzed using Structural Equation Modeling with the Partial Least Squares (PLS-SEM) approach. PLS-SEM was chosen because it is capable of handling data with small to medium sample sizes and is appropriate for testing predictive relationships between constructs (Hair et al., 2019; Henseler, 2018). This analysis explores how perceived usefulness and ease of use mediate the connection between insecurity and purchase intention. The conceptual framework of the study is shown in Figure 1.

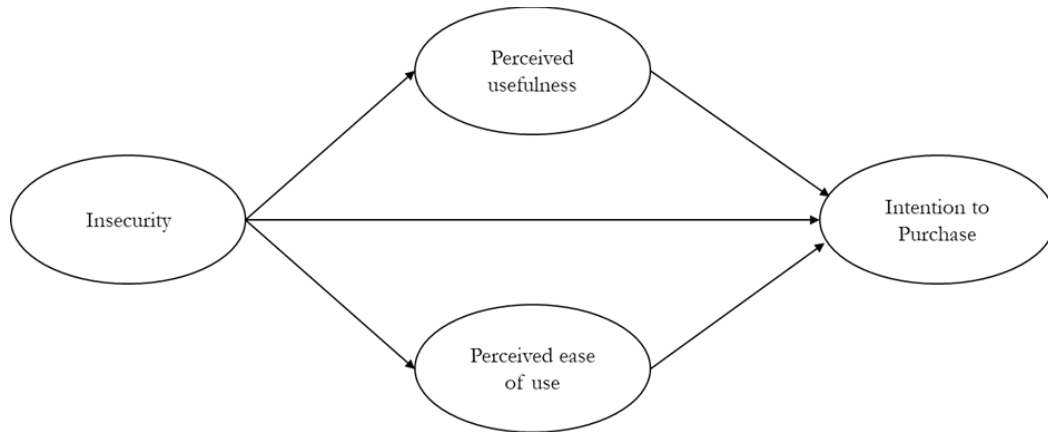


Figure 1. Conceptual Framework

FINDINGS AND DISCUSSION

Table 1 presents the assessment of the measurement model (outer model) using confirmatory factor analysis, which includes tests for validity and reliability.

Table 1. Convergent Validity and Reliability

Variable	Indicator	Loadings	Cronbach's	rho_a	rho_c	AVE
Insecurity	ISC1	0.842	0.874	0.899	0.922	0.799
	ISC2	0.884				
	ISC3	0.952				
Perceived Usefulness	PU1	0.867	0.803	0.805	0.884	0.718
	PU2	0.845				
	PU3	0.829				
Perceived Ease of Use	PEU1	0.917	0.894	0.895	0.934	0.826
	PEU2	0.939				
	PEU3	0.870				
Intentions to Purchase	ITP1	0.925	0.900	0.900	0.938	0.833
	ITP2	0.925				
	ITP3	0.888				

According to Table 1, every indicator in this study has an outer loading above 0.7, demonstrating their validity and appropriateness for subsequent analysis. Furthermore, the AVE for each variable is above 0.5, which confirms good convergent validity for all variables. The next step is to evaluate discriminant validity using the Fornell-Larcker Criterion and Cross-Loading values, as shown in Tables 2 and 3.

Table 2. Fornell Larcker Criterion

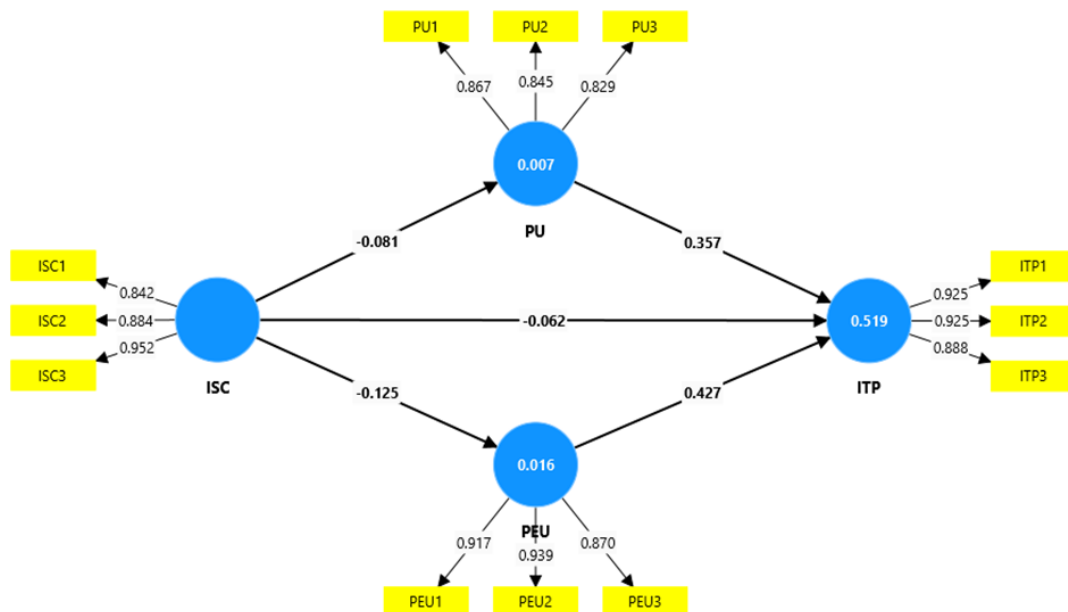
	ISC	ITP	PEU	PU
ISC	0.894			
ITP	-0.144	0.913		
PEU	-0.125	0.663	0.909	
PU	-0.081	0.635	0.640	0.847

Table 3. Cross Loading

	ISC	ITP	PEU	PU
ISC1	0.842	-0.120	-0.109	0.005
ISC2	0.884	-0.115	-0.092	-0.151
ISC3	0.952	-0.150	-0.134	-0.055
ITP1	-0.120	0.925	0.592	0.600
ITP2	-0.141	0.925	0.611	0.524
ITP3	-0.134	0.888	0.612	0.612
PEU1	-0.077	0.572	0.917	0.613
PEU2	-0.148	0.606	0.939	0.587
PEU3	-0.113	0.625	0.870	0.546
PU1	-0.131	0.497	0.509	0.867
PU2	0.025	0.589	0.584	0.845
PU3	-0.111	0.522	0.528	0.829

Based on Tables 2 and 3, all indicators and variables demonstrate good discriminant validity. The subsequent step involves evaluating the reliability of latent constructs by analyzing both composite reliability and Cronbach's Alpha. Table 2 illustrates that the values for these metrics exceed 0.7 for all variables, confirming that the data meets the necessary validity and reliability standards. Thus, the data is deemed suitable for interpreting the conceptual framework.

The next phase involves testing the structural model, also referred to as the inner model test. This analysis includes several testing stages, such as assessing path coefficients, the coefficient of determination (R^2), and conducting hypothesis tests through the bootstrapping technique. Figure 2 depicts the outcomes of this model analysis.

**Figure 2.** Model Evaluation Results

According to Figure 2, the path coefficients between Insecurity and Perceived Usefulness, Perceived Ease of Use, and Purchase Intention are negative. This suggests that insecurity reduces Perceived Usefulness and Ease of Use and weakens consumers' purchase intention. Looking at the coefficient of determination (R^2) values, the impact of Insecurity on Perceived Usefulness is 0.007,

or 0.7%, which falls into the weak category. The impact of Insecurity on Perceived Ease of Use is 0.016, or 1.6%, also categorized as weak. The combined impact of Insecurity, Perceived Usefulness, and Ease of Use on Intention to Purchase is 0.519, or 51.9%, categorized as medium.

Next, hypothesis testing is conducted using bootstrapping techniques, analyzing the t-statistics and P-values. A hypothesis is considered acceptable if t-statistics > 1.96. The results of the direct and indirect effect hypothesis testing using the bootstrapping technique are displayed in Table 4.

Table 4. Results of Direct and Indirect Effects Hypothesis Testing

Hypothesis	Effects	Path	T statistics	P values	Conclusion
ISC -> PU	Direct	-0.081	0.682	0.495	Rejected
ISC -> PEU	Direct	-0.125	1.445	0.149	Rejected
ISC -> ITP	Direct	-0.062	1.018	0.309	Rejected
PU -> ITP	Direct	0.357	4.393	0.000	Accepted
PEU -> ITP	Direct	0.427	4.845	0.000	Accepted
ISC -> PU -> ITP	Indirect	-0.029	0.638	0.523	Rejected
ISC -> PEU -> ITP	Indirect	-0.053	1.305	0.192	Rejected

Based on Table 4, The findings indicate that insecurity has no significant impact on Perceived Usefulness. Consumers who feel insecure when using live commerce platforms do not appear to associate these feelings with the perceived usability of the technology. This may be because consumers are more focused on the functionality and tangible benefits offered by the platform, such as ease of access and more comprehensive product information. Consumers tend to separate perceived risks from the platform's ability to meet their needs (Al-Qaysi et al., 2020).

Additionally, the perceived ease of use is not impacted much by insecurity. Consumers who feel insecure do not necessarily find the technology difficult to use. This may be attributed to increasing technological literacy among consumers and their prior positive experiences with other e-commerce technologies (Wicaksono et al., 2023). Consumers seem to have become accustomed to the uncertainties and risks associated with digital technologies, which do not prevent them from experiencing the convenience of using live commerce platforms.

Moreover, insecurity does not significantly impact consumers' intention to purchase. Despite concerns about data privacy or security, consumers' intention to purchase is not diminished. This may be because consumers are more focused on the functional benefits offered by live commerce platforms, such as ease of shopping and direct access to products through real-time interaction (Kim et al., 2023). As a result, perceived insecurity becomes less relevant in their purchasing decision-making.

On the other hand, purchase intention is significantly positively impacted by perceived usefulness. When consumers find live commerce platforms useful, they are more likely to make a purchase. This aligns with the Technology Acceptance Model (TAM), which identifies perceived usefulness as a key factor in technology adoption (Davis, 1989). The usefulness of features like live streaming and detailed product information adds value and motivates consumers to engage more actively with the platform.

Similarly, Perceived Ease of Use positively influences Purchase Intention. The easier a live commerce platform is to use, the more likely consumers will purchase. Intuitive and user-friendly technology lowers barriers to technology adoption, making consumers more inclined to use the platform for shopping. Features like simple interfaces and streamlined payment processes are crucial for increasing consumer engagement (Kim et al., 2023).

Finally, although Perceived Usefulness and Ease of Use significantly increase purchase intentions, these variables do not mediate the relationship between Insecurity and Purchase Intention. While consumers may feel insecure when using live commerce platforms, their perceptions of the platform's usability and ease of use are not strong enough to counteract the effects of insecurity on purchase intent. This suggests that insecurity is more related to emotional factors, such as trust and risk, that cannot be fully mitigated by the ease or usefulness of the technology (Gefen et al., 2003). Therefore, insecurity remains a barrier to purchase intention, even when consumers recognize the platform's usefulness and ease of use.

CONCLUSIONS

This study found that insecurity does not have a significant impact on Perceived Usefulness and Ease of Use, or Purchase Intention, and these perceptions do not mediate the relationship. However, Perceived Usefulness and Ease of Use were shown to positively impact Purchase Intention. Despite the presence of insecurity, consumers tend to prioritize the usability and convenience of the technology when making purchase decisions. Nonetheless, emotional factors such as trust and risk remain relevant in shaping purchasing behaviour.

LIMITATION & FURTHER RESEARCH

Some of the drawbacks of this study include the small sample size, which only includes residents of Banjarmasin City, and the use of a quantitative approach, which may not fully capture the psychological aspects of consumer behavior. Notwithstanding these drawbacks, the research advances the Technology Acceptance Model (TAM) literature by emphasizing the significance of perceptions of usability and ease of use in driving purchase intent, even in the face of insecurity.

For future research, it is recommended to adopt a qualitative approach for deeper exploration, in addition to a bigger and more varied sample to enhance the findings' generalizability. Additionally, trust and risk factors should be further investigated to offer a more thorough comprehension of consumer behaviour.

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