

Understanding Purchase Decisions in Indonesian Social Commerce: The Effects of Social Proof, Perceived Scarcity, Perceived Value, and Parasocial Interaction through the Stimulus–Organism–Response Perspective

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Abstract

The rapid growth of social commerce has transformed consumer purchasing behavior, making it essential to understand the factors that influence purchase decisions in digital environments. This study aims to examine the effects of social proof, perceived scarcity, perceived value, and parasocial interaction on purchase decisions in social commerce in Indonesia. A quantitative research approach with a survey method was employed. Data were collected through an online questionnaire distributed to 100 social commerce users in Indonesia aged 20–35 years, selected using purposive sampling. The research instrument was tested for validity and reliability, and the data were analyzed using multiple linear regression with SPSS Statistics 25 for Windows. The results indicate that social proof, perceived scarcity, perceived value, and parasocial interaction simultaneously have a significant effect on purchase decisions. Partially, all four variables were found to have positive and significant effects on purchase decisions. Among the examined variables, perceived scarcity showed the strongest influence, followed by parasocial interaction, social proof, and perceived value. Furthermore, the coefficient of determination indicates that these variables explain 33.2% of the variance in purchase decisions, while the remaining 66.8% is influenced by other factors outside the research model. These findings contribute to the social commerce literature by highlighting the importance of social, psychological, and value-related factors in shaping consumer purchase decisions. The results also provide practical implications for businesses in developing effective digital marketing strategies to enhance consumer engagement and purchasing behavior.

Keywords:

Social Proof; Perceived Scarcity; Perceived Value; Parasocial Interaction; Purchase Decision; Social Commerce.

1. INTRODUCTION

The rapid advancement of digital technology has transformed various aspects of human life, including commercial activities and consumer purchasing behavior. The increasing accessibility of the internet and social media has accelerated the growth of digital commerce worldwide, particularly in emerging economies such as Indonesia. According to Digital Reports (2025), Indonesia had approximately 212 million internet users in January 2025, representing an internet penetration rate of 74.6% of the total population. The report also revealed an increase of 17 million users compared to the previous year, indicating a substantial expansion of digital connectivity. Furthermore, active social media users reached 143 million, accounting for more than half of the Indonesian population. This rapid digitalization has created significant opportunities for businesses to

engage consumers through technology-based commercial platforms and has fundamentally reshaped the way consumers search for information, evaluate products, and make purchasing decisions.

One of the most significant developments resulting from this transformation is the emergence of social commerce. Social commerce represents the integration of social media technologies into online commercial activities, enabling consumers to interact, communicate, and conduct transactions within the same digital environment. Unlike traditional e-commerce, which primarily focuses on transactional processes, social commerce emphasizes social interaction, user-generated content, and community engagement throughout the purchasing journey. Platforms such as TikTok Shop, Instagram, and Shopee have become prominent examples of social commerce ecosystems by providing interactive features including live streaming, product reviews, ratings, comment sections, and real-time recommendations. These features facilitate direct communication between sellers and consumers while simultaneously allowing users to influence one another's purchasing decisions.

The growing popularity of social commerce has significantly altered consumer behavior. Contemporary consumers increasingly rely on digital information before making purchase decisions. Rather than depending solely on traditional advertising, consumers often seek product reviews, ratings, recommendations, and experiences shared by other users. Consequently, purchasing decisions are no longer driven exclusively by rational evaluations of product attributes and prices but are also influenced by social and psychological factors emerging from digital interactions. Understanding these determinants has therefore become an important research area within digital marketing and consumer behavior literature.

The Indonesian social commerce market exhibits several distinctive consumer characteristics that make it an important context for examining purchase decision behavior. Indonesian consumers are generally recognized as highly active social media users and tend to rely heavily on interpersonal communication, online communities, and peer recommendations when evaluating products and services. Purchasing decisions are frequently influenced by collective opinions, electronic word-of-mouth, influencer endorsements, and interactive features such as live streaming, product reviews, and user-generated content. Moreover, promotional campaigns including flash sales, limited-time discounts, free shipping, and exclusive offers have become integral elements of consumers' online shopping experiences, often encouraging impulsive and emotion-driven purchases. These characteristics indicate that Indonesian consumers are not only motivated by functional product attributes but are also highly responsive to social influence and psychological cues embedded within social commerce platforms. Consequently, Indonesia provides a particularly relevant setting for investigating how social proof, perceived scarcity, perceived value, and parasocial interaction jointly shape consumer purchase decisions.

Among the factors frequently associated with consumer decision-making in social commerce is social proof. Social proof refers to a psychological phenomenon in which individuals rely on the opinions, behaviors, or experiences of others when making decisions under conditions of uncertainty. In online environments, social proof is commonly represented by customer reviews, ratings, testimonials, purchase counts, and endorsements that provide signals regarding product quality and credibility. Previous studies have demonstrated that positive social proof can enhance consumer trust and increase the likelihood of purchase decisions by reducing perceived risk and uncertainty. For example, Mulyono et al. (2024), Toji and Sukati (2024), and Mia and Maulana (2023) reported that online reviews and social proof positively influence consumer purchasing decisions. However, contradictory findings have also emerged. Alyssa and Lisnawati (2025) found that excessive and diverse reviews may generate information overload, leading consumers to experience confusion and difficulty in making purchase decisions. These inconsistent findings indicate that the relationship between social proof and purchase decisions requires further investigation.

Another factor that has attracted considerable scholarly attention is perceived scarcity. Perceived scarcity refers to consumers' perception that a product or promotional opportunity is limited in quantity or available only for a restricted period. In social commerce environments, marketers frequently employ scarcity-based strategies through messages such as "limited stock," "flash sale," "only available today," and "exclusive edition." Such strategies are intended to create urgency and encourage immediate purchases by triggering consumers' fear of missing out. Several studies have found that scarcity perceptions positively influence purchase decisions by increasing product desirability and perceived value. Aggarwal et al. (2023), Cengiz and Şenel (2026), and Sjukun et al. (2022) reported significant positive effects of scarcity-based promotions on consumer purchasing behavior. Nevertheless, Son and Yoon (2024) argued that excessive use of scarcity tactics may be perceived as manipulative, potentially reducing consumer trust and weakening purchase intentions. These conflicting findings suggest the need for further empirical examination within different social commerce contexts.

Perceived value also plays a crucial role in determining consumer purchasing decisions. Perceived value refers to consumers' overall evaluation of the benefits received relative to the costs incurred when acquiring a product or service. Consumers assess not only economic considerations but also functional, emotional, and social benefits associated with a purchase. Research has consistently identified perceived value as a key determinant of purchase decisions. Fortuna et al. (2025), Yeo et al. (2020), and Udayana et al. (2022) found that higher perceived value significantly increases consumers' willingness to purchase products through digital platforms. However, Lee et al. (2023) suggested that perceived value may not always be the dominant predictor

of purchase decisions, particularly when emotional influences and social trends become more salient. Such inconsistencies highlight the necessity of examining perceived value alongside other social and psychological factors.

In addition to social proof and perceived scarcity, the rise of influencer marketing has introduced a new dimension to consumer behavior research through parasocial interaction. Parasocial interaction refers to a one-sided psychological relationship in which audiences develop feelings of closeness and emotional attachment toward media personalities, influencers, or content creators despite having no direct interpersonal relationship with them. Through live streaming, storytelling, and continuous engagement on social media platforms, influencers often create a sense of intimacy that fosters trust and credibility among followers. Previous studies have demonstrated that parasocial interaction positively influences consumer trust, purchase intentions, and purchasing behavior. Aini and Abdurrahman (2025), Wang and Musa (2024), and Mubarak et al. (2021) reported that stronger parasocial relationships increase consumers' responsiveness to product recommendations. Conversely, Candra (2023) found that the effectiveness of parasocial interaction may diminish when influencers are perceived as overly commercialized or lacking authenticity. Therefore, the role of parasocial interaction in shaping purchase decisions remains an important area for further exploration.

The theoretical foundation of this study is primarily grounded in the Stimulus–Organism–Response (S–O–R) framework. According to the S–O–R model, external environmental stimuli influence internal psychological processes, which subsequently generate behavioral responses. In the context of social commerce, social proof, perceived scarcity, and parasocial interaction function as external stimuli that shape consumers' internal evaluations and perceptions, including perceived value, ultimately leading to purchase decisions. Furthermore, this study is supported by the Theory of Planned Behavior (TPB), which explains how attitudes and social influences contribute to behavioral intentions and decision-making processes, as well as Social Influence Theory, which emphasizes the impact of social interactions and reference groups on consumer behavior.

Although numerous studies have examined the effects of social proof, perceived scarcity, perceived value, and parasocial interaction on consumer purchasing behavior, several research gaps remain. First, previous studies have produced inconsistent findings regarding the significance and direction of these relationships. Second, most existing studies have investigated these variables independently rather than integrating them within a comprehensive research framework. Third, limited empirical research has simultaneously examined these determinants within the context of social commerce in emerging economies, particularly Indonesia, where social commerce adoption continues to grow rapidly. Consequently, a more comprehensive understanding of how these factors collectively influence purchase decisions remains underdeveloped.

To address these gaps, this study aims to investigate the influence of social proof, perceived scarcity, perceived value, and parasocial interaction on purchase decisions among social commerce users in Indonesia. Specifically, the study seeks to examine both the individual and simultaneous effects of these variables on consumer purchasing behavior. By integrating multiple social, psychological, and value-related determinants into a single framework, this research provides a more comprehensive perspective on consumer decision-making in social commerce environments.

The findings of this study are expected to contribute to both theory and practice. From a theoretical perspective, this research extends the application of the Stimulus–Organism–Response framework within social commerce by integrating multiple determinants of purchase decisions into a unified model. It also contributes to the growing literature on digital consumer behavior in emerging markets. From a practical perspective, the findings may assist businesses, marketers, and social commerce platform operators in developing more effective marketing strategies by optimizing social proof, scarcity tactics, perceived value creation, and influencer-based engagement while minimizing potential negative effects such as information overload and perceived manipulation.

The remainder of this paper is organized as follows. The next section reviews the relevant literature and develops the research hypotheses. The subsequent section presents the research methodology, including research design, sampling procedures, and measurement instruments. The following section reports the empirical findings and data analysis results. The discussion section interprets the findings in relation to existing theories and previous studies. Finally, the paper concludes by summarizing the main findings, discussing theoretical and managerial implications, and providing recommendations for future research.

2. RESEARCH METHOD

This study employed a quantitative research approach with a cross-sectional survey design to examine the influence of social proof, perceived scarcity, perceived value, and parasocial interaction on purchase decisions in social commerce. A quantitative approach was considered appropriate because it enables the measurement and statistical testing of relationships among variables and allows the proposed hypotheses to be empirically verified. The study was grounded in the Theory of Planned Behavior (TPB), Stimulus–Organism–Response (S–O–R) Theory, and Social Influence Theory, which provide a theoretical basis for explaining consumer purchasing behavior in digital commerce environments.

The population of this study consisted of social commerce users in Indonesia who had previously purchased products through platforms such as TikTok Shop, Shopee Live, and Instagram Shop. These users were selected because they are frequently exposed to digital marketing activities, including online reviews, ratings, influencer recommendations, live-streaming promotions, and limited-time offers that may affect purchasing decisions. Since the exact number of social commerce users in Indonesia is unknown, a non-probability sampling technique was adopted. Specifically, purposive sampling was employed to ensure that respondents met the criteria relevant to the objectives of the study. The inclusion criteria required respondents to be between 20 and 35 years old, have experience purchasing products through TikTok Shop, Shopee Live, or Instagram Shop, and have conducted at least two transactions within the previous six months. The minimum sample size was determined using Cochran's formula for unknown populations with a confidence level of 95% and a margin of error of 10%. The calculation yielded a minimum requirement of 97 respondents. To improve data quality and anticipate incomplete responses, the final target sample size was increased to 100 respondents. Furthermore, snowball sampling was utilized during the data collection process, whereby initial respondents were encouraged to share the survey link with other individuals who met the study criteria.

Data were collected through an online questionnaire distributed using Google Forms. Before accessing the main questionnaire, respondents were required to complete a screening section designed to confirm their eligibility as active social commerce users. The questionnaire link was disseminated through various social media platforms and digital communication channels to reach potential respondents efficiently. The instrument consisted of two sections. The first section gathered demographic information, while the second section measured the study variables using statements adapted from previous validated studies. All questionnaire items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The use of a Likert scale was considered suitable because it enables respondents to express the degree of agreement with each statement and facilitates quantitative analysis.

The study included four independent variables and one dependent variable. Social proof was measured using indicators adapted from Jaya et al. (2023), including the number of reviews, rating level, number of likes, number of buyers, and endorsements from experts, celebrities, or public figures. Perceived scarcity was measured through three dimensions proposed by Dillon (2022), namely material resource scarcity, time scarcity, and psychological resource scarcity. Perceived value was assessed using the dimensions of emotional value, social value, quality/performance value, and price/value for money adapted from Witoelar et al. (2024). Parasocial interaction was measured using the dimensions of feeling of friendship, feeling of togetherness, and feeling of caring as proposed by Angelina and Henuk (2024). Meanwhile, purchase decision was measured using indicators adapted from Kotler and Armstrong (2021), including product decision, brand decision, channel decision, purchase quantity decision, and purchase timing decision.

Both primary and secondary data were utilized in this research. Primary data were obtained directly from respondents through the online questionnaire, whereas secondary data were collected from scholarly journals, books, conference proceedings, and other academic publications relevant to social commerce, consumer behavior, and digital marketing. The combination of primary and secondary data enhanced the comprehensiveness of the research and strengthened the theoretical foundation underlying the study.

Prior to hypothesis testing, the validity and reliability of the measurement instrument were evaluated. Item validity was assessed using the Pearson Product-Moment Correlation test. Questionnaire items were considered valid when the significance value was less than 0.05. Reliability was examined using Cronbach's Alpha coefficient, where values above 0.70 indicated satisfactory reliability and values above 0.90 indicated excellent reliability. These procedures ensured that the instrument accurately measured the intended constructs and produced consistent results.

The collected data were analyzed using IBM SPSS Statistics version 25. Descriptive statistical analysis was first conducted to summarize respondent characteristics and provide an overview of responses for each variable. Subsequently, classical assumption tests were performed to ensure that the regression model met the required statistical assumptions. Normality was assessed using the Kolmogorov-Smirnov test, with significance values greater than 0.05 indicating normally distributed residuals. Linearity was evaluated using the Deviation from Linearity test, where significance values greater than 0.05 indicated a linear relationship between variables. Multicollinearity was examined using Variance Inflation Factor (VIF) and tolerance values. A VIF value below 10 and a tolerance value above 0.10 indicated the absence of multicollinearity. Heteroscedasticity was tested using significance values, where values greater than 0.05 indicated homoscedastic residuals.

To examine the influence of social proof, perceived scarcity, perceived value, and parasocial interaction on purchase decision, multiple linear regression analysis was employed. The regression model estimated the effect of each independent variable on the dependent variable while controlling for the influence of the remaining variables. Hypothesis testing was conducted using t-tests to assess the individual effect of each independent variable and F-tests to evaluate the simultaneous effect of all independent variables on purchase decision. A significance level of 0.05 was adopted throughout the analysis. In addition, the coefficient of determination (R^2) was calculated to determine the proportion of variance in purchase decision explained by the independent variables included in the model.

Ethical considerations were carefully addressed throughout the research process. Participation in the study was entirely voluntary, and respondents were informed about the purpose of the research before completing the questionnaire. Informed consent was obtained electronically at the beginning of the survey. Respondents were assured that their responses would remain anonymous and confidential and would be used solely for academic purposes. No personally identifiable information was collected, thereby ensuring participant privacy and data protection.

Despite the rigorous procedures adopted in this study, several limitations should be acknowledged. First, the use of non-probability sampling limits the generalizability of the findings to the entire population of social commerce users in Indonesia. Second, the study relied on self-reported data, which may be affected by response bias or social desirability bias. Third, the cross-sectional design captured respondents' perceptions at a single point in time and therefore does not permit causal inferences. Nevertheless, these limitations were mitigated through the use of screening questions to ensure respondent suitability, the adoption of validated measurement scales from previous studies, and the application of established statistical procedures to ensure the reliability and validity of the findings.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Respondent Characteristics

This study collected data from 100 social commerce users in Indonesia through an online questionnaire. All collected responses met the research criteria and were included in the analysis. No outliers were identified during the data screening process; therefore, all responses were retained for further analysis. The demographic profile of the respondents is presented in table 1.

Table 1. Respondent Characteristics (n = 100)

Characteristics	Category	Frequency	Percentage
Gender	Male	43	43%
	Female	57	57%
Age	20-23 years	31	31%
	24-27 years	26	26%
	28-31 years	26	26%
	32-35 years	17	17%
Education	High School	20	20%
	Diploma (D3)	19	19%
	Bachelor (S1)	22	22%
	Master (S2)	22	22%
	Others	17	17%

Source: Primary Data Processed (2026)

Table 1 shows that female respondents accounted for 57% of the sample, while male respondents represented 43%. Based on age distribution, respondents aged 20–23 years constituted the largest group (31%), followed by those aged 24–27 years and 28–31 years, each representing 26% of the sample. Regarding educational background, respondents with bachelor's and master's degrees each accounted for 22% of the total sample. These findings indicate that the respondents were predominantly young adults with relatively diverse educational backgrounds.

3.1.2. Descriptive Statistics and Measurement Model

Descriptive statistics were analyzed to provide an overview of the research variables. The results include the minimum value, maximum value, mean, and standard deviation for each construct. The descriptive statistics are presented in table 2.

Table 2. Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Deviation
Social Proof	100	5	25	15.00	6.37
Perceived Scarcity	100	5	25	15.00	6.40
Perceived Value	100	5	25	15.00	6.48
Parasocial Interaction	100	5	25	15.00	6.41
Purchase Decision	100	3	15	9.00	3.77

Table 2 shows that all independent variables have identical mean scores of 15.00, indicating a moderate level of respondents' perceptions regarding social proof, perceived scarcity, perceived value, and parasocial

interaction. Meanwhile, purchase decision has a mean score of 9.00. The standard deviation values range from 3.77 to 6.48, suggesting an acceptable level of response variation among participants.

To ensure the quality of the measurement instrument, validity and reliability tests were conducted. The validity test was performed using Pearson correlation analysis, while reliability was assessed using Cronbach's Alpha. The results are presented in tables 3.

Table 3. Validity Test Results

Variable	Indicator	$r_{\text{calculated}}$	Significance	r_{table}	Conclusion
Social Proof	X1.1	0,896	0,000	0,1966	Valid
	X1.2	0,880	0,000	0,1966	Valid
	X1.3	0,908	0,000	0,1966	Valid
	X1.4	0,885	0,000	0,1966	Valid
	X1.5	0,914	0,000	0,1966	Valid
Perceived Scarcity	X2.1	0,902	0,000	0,1966	Valid
	X2.2	0,902	0,000	0,1966	Valid
	X2.3	0,907	0,000	0,1966	Valid
	X2.4	0,893	0,000	0,1966	Valid
	X2.5	0,901	0,000	0,1966	Valid
Perceived Value	X3.1	0,904	0,000	0,1966	Valid
	X3.2	0,918	0,000	0,1966	Valid
	X3.3	0,923	0,000	0,1966	Valid
	X3.4	0,922	0,000	0,1966	Valid
	X3.5	0,891	0,000	0,1966	Valid
Parasocial Interaction	X4.1	0,913	0,000	0,1966	Valid
	X4.2	0,903	0,000	0,1966	Valid
	X4.3	0,878	0,000	0,1966	Valid
	X4.4	0,903	0,000	0,1966	Valid
	X4.5	0,910	0,000	0,1966	Valid
Purchase Decision	Y.1	0,868	0,000	0,1966	Valid
	Y.2	0,898	0,000	0,1966	Valid
	Y.3	0,883	0,000	0,1966	Valid

Table 3 shows that all measurement items have correlation coefficients exceeding the critical value ($r_{\text{table}} = 0.1966$) and significance values below 0.05. Therefore, all indicators are considered valid and suitable for further analysis.

The reliability of each construct was subsequently examined using Cronbach's Alpha. The results are presented in table 4.

Table 4. Reliability Test Results

Variable	Cronbach' Alpha	Threshold Value	Conclusion
Social Proof	0,939	0,70	Reliable
Perceived Scarcity	0,942	0,70	Reliable
Perceived Value	0,949	0,70	Reliable
Parasocial Interaction	0,942	0,70	Reliable
Purchase Decision	0,859	0,70	Reliable

Table 4 shows that all variables have Cronbach's Alpha values above the recommended threshold of 0.70. These findings indicate satisfactory internal consistency and confirm that the measurement instrument is reliable for subsequent statistical analysis.

3.1.3. Assumption Testing

3.1.3.1. Normality Test

The normality test was conducted using the Kolmogorov–Smirnov test to determine whether the research data were normally distributed. A significance value greater than 0.05 indicates that the data are normally distributed.

Table 5. Normality Test Results

Sig. Value	Threshold	Result
0,088	0,05	Normally Distributed

Table 5 shows that the Kolmogorov–Smirnov significance value is 0.088, which is greater than 0.05. Therefore, the data are normally distributed and meet the normality assumption required for multiple regression analysis.

3.1.3.2. Linearity Test

The linearity test was performed to examine whether the relationship between each independent variable and the dependent variable was linear. A significance value of Deviation from Linearity greater than 0.05 indicates a linear relationship.

Table 6. Linearity Test Results

Variable Relationship	Sig. Value	Threshold	Result
Social Proof → Purchase Decision	0,932	0,05	Linear
Perceived Scarcity → Purchase Decision	0,486	0,05	Linear
Perceived Value → Purchase Decision	0,075	0,05	Linear
Parasocial Interaction → Purchase Decision	0,224	0,05	Linear

Table 6 shows that all significance values are greater than 0.05. Therefore, the relationships between Social Proof, Perceived Scarcity, Perceived Value, Parasocial Interaction, and Purchase Decision are linear, indicating that the linearity assumption has been satisfied.

3.1.3.3. Heteroscedasticity Test

The heteroscedasticity test was conducted using the Glejser method. A significance value greater than 0.05 indicates the absence of heteroscedasticity.

Table 7. Heteroscedasticity Test

Variable	Sig. Value	Threshold	Result
Social Proof	0,396	0,05	No Heteroscedasticity
Perceived Scarcity	0,524	0,05	No Heteroscedasticity
Perceived Value	0,410	0,05	No Heteroscedasticity
Parasocial Interaction	0,193	0,05	No Heteroscedasticity

Table 7 indicates that all independent variables have significance values above 0.05. Therefore, the regression model does not suffer from heteroscedasticity and satisfies the homoscedasticity assumption.

3.1.3.4. Multicollinearity Test

The multicollinearity test was conducted by examining Tolerance and Variance Inflation Factor (VIF) values. A Tolerance value greater than 0.10 and a VIF value lower than 10 indicate the absence of multicollinearity.

Table 8. Multicollinearity Test Results

Variable	Tolerance Value	VIF Value	Tolerance Threshold	VIF Threshold	Conclusion
Social Proof	0,955	1,047	> 0,10	< 10	No Multicollinearity
Perceived Scarcity	0,983	1,017	> 0,10	< 10	No Multicollinearity
Perceived Value	0,974	1,026	> 0,10	< 10	No Multicollinearity
Parasocial Interaction	0,982	1,018	> 0,10	< 10	No Multicollinearity

Table 8 shows that all variables have tolerance values above 0.10 and VIF values below 10. Therefore, no multicollinearity problem exists among the independent variables, indicating that the regression model satisfies the multicollinearity assumption.

3.1.4. Regression and Hypothesis Testing

3.1.4.1. Multiple Regression Analysis

Multiple linear regression analysis was conducted to examine the effects of Social Proof, Perceived Scarcity, Perceived Value, and Parasocial Interaction on Purchase Decision in social commerce platforms in Indonesia. The regression results are presented in table 9.

Table 9. Multiple Regression Analysis Results

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1,660	1,557		-1,066	0,289
Social Proof	0,126	0,050	0,213	2,529	0,013
Perceived Scarcity	0,251	0,049	0,426	5,150	0,000
Perceived Value	0,103	0,048	0,177	2,126	0,036
Parasocial Interaction	0,231	0,049	0,394	4,749	0,000

Table 9 shows that all independent variables have positive regression coefficients. These findings indicate that higher levels of Social Proof, Perceived Scarcity, Perceived Value, and Parasocial Interaction are associated with higher Purchase Decision. Among all predictors, Perceived Scarcity demonstrates the strongest effect ($\beta = 0.426$), indicating its dominant contribution to purchase decision formation.

3.1.4.2. Coefficient of Determination

The coefficient of determination was employed to assess the explanatory power of the independent variables on Purchase Decision. The results are presented in table 10.

Table 10. Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	0,599	0,359	0,332	3,077

Table 10 indicates that the Adjusted R Square value is 0.332. This result suggests that Social Proof, Perceived Scarcity, Perceived Value, and Parasocial Interaction collectively explain 33.2% of the variance in Purchase Decision, while the remaining 66.8% is explained by other factors not included in the model.

3.1.4.3. Hypothesis Testing

Hypothesis testing was conducted using the partial test (t-test) and simultaneous test (F-test) to examine both the individual and collective effects of the independent variables on purchase decision. Based on the regression results presented in Table 9, the significance values for social proof, perceived scarcity, perceived value, and parasocial interaction were 0.013, 0.000, 0.036, and 0.000, respectively. All significance values are below 0.05, indicating that social proof, perceived scarcity, perceived value, and parasocial interaction have positive and significant effects on purchase decision. Therefore, all proposed hypotheses are supported. Furthermore, the results of the simultaneous test (F-test) are presented in table 11.

Table 11. Results of the Simultaneous Test (F-test)

F _{value}	F _{table}	Sig	Conclusion
12,311	2,70	0,000	Significant Effect

Table 11 shows an F-value of 12.311 with a significance value of 0.000. Since the significance value is below 0.05, it can be concluded that social proof, perceived scarcity, perceived value, and parasocial interaction simultaneously have a significant effect on purchase decision in social commerce platforms in Indonesia.

3.2. Discussion

The findings indicate that social proof has a positive and significant effect on purchase decision in social commerce platforms in Indonesia. This result suggests that the higher the level of social proof perceived by consumers, the greater their likelihood of making a purchase. In the context of social commerce, social proof is reflected through customer reviews, product ratings, purchase counts, user comments, and recommendations from other consumers, all of which can enhance consumer confidence in a product. These findings support the notion that consumers rely on the experiences and behaviors of others when making decisions under conditions of uncertainty (Christiana et al., 2024). The results are also consistent with social proof theory, which argues that individuals tend to follow the actions of the majority when making purchasing decisions (Purnamasari & Marianingsih, 2026). Furthermore, the findings align with Wang and Shahzad (2024), who reported that social proof within social commerce environments increases consumer trust and confidence in products. Similar findings were reported by Nurdin et al. (2025), who found that positive experiences shared by other consumers through reviews, ratings, testimonials, and recommendations strengthen consumer trust and encourage purchasing behavior. Therefore, social proof represents an important factor that businesses should consider when seeking to improve purchase decisions in social commerce environments (Nikmah & Zaidah, 2022).

The results also demonstrate that perceived scarcity has a positive and significant effect on purchase decision. This finding indicates that consumers are more likely to make purchases when they perceive a product as scarce or limited in availability. Within social commerce platforms, scarcity perceptions can be created through limited-stock notifications, time-limited promotions, flash sales, and messages indicating that products are nearly sold out, all of which generate a sense of urgency among consumers (Unsiya & Widjaja, 2026).

These findings support the argument that scarce products are perceived as more valuable, thereby increasing consumers' desire to obtain them. The results are consistent with Zalfa et al. (2025), who found that perceived scarcity enhances product attractiveness and accelerates consumer purchase decisions. The findings also support Yanti et al. (2025), who reported that scarcity strategies create psychological pressure in the form of fear of missing out, thereby encouraging immediate purchases. Additionally, Rahmadani and Hidayat (2025) found that scarcity perceptions increase consumers' perceived product value and strengthen their intention to purchase. Consequently, the strategic implementation of scarcity cues can serve as an effective approach to increasing purchase decisions in social commerce environments (Bernandy & Arifah, 2025).

Furthermore, the study reveals that perceived value has a positive and significant effect on purchase decision. This finding suggests that consumers are more likely to purchase products when they perceive that the benefits received outweigh the costs or sacrifices incurred. In social commerce settings, perceived value is derived not only from product quality but also from shopping experiences, transaction convenience, emotional benefits, and social benefits associated with product usage (Winoto et al., 2022). The findings are consistent with Mranani and Lastianti (2022), who identified perceived value as a major determinant of consumer purchase decisions. When consumers believe that a product provides benefits that meet or exceed their expectations, their confidence in making a purchase increases. The results also support Hartanto and Laij (2024), who found that perceived value plays a crucial role in shaping consumer behavior in digital environments. Moreover, Alfariasi et al. (2022) argued that perceived value consists of functional, emotional, and social dimensions that collectively influence purchase decisions. Therefore, businesses should focus on delivering superior value to consumers through product quality, benefits, and competitive pricing in order to strengthen purchase decisions (Febriyantoro et al., 2025).

Finally, the findings indicate that parasocial interaction has a positive and significant effect on purchase decision. This result suggests that stronger emotional connections between consumers and influencers or content creators increase the likelihood of purchasing behavior. Parasocial interaction refers to a one-sided psychological relationship that fosters feelings of closeness, trust, and emotional attachment between audiences and public figures they follow on social media (Islami, 2026). The findings support Salsabila and Zulfiningrum (2025), who found that parasocial relationships enhance consumer trust in influencer recommendations. The results are also consistent with Huda and Sara (2026), who demonstrated that strong parasocial relationships improve the effectiveness of social media marketing because influencers are perceived as credible and relevant sources of information. Furthermore, Wardah and Uyun (2025) found that emotional attachment developed through parasocial interaction strengthens consumer confidence in promoted products and encourages purchasing behavior. Therefore, influencer marketing strategies that successfully build emotional connections with audiences can serve as an effective means of increasing purchase decisions within social commerce platforms (Munawwaroh et al., 2025).

The findings of this study can also be interpreted within the context of Indonesia's distinctive cultural characteristics. Indonesian society is generally characterized by a collectivist culture, in which individuals tend to value social harmony, group opinions, and interpersonal relationships when making decisions. Consequently, consumers are more likely to consider recommendations, reviews, and experiences shared by others before purchasing products through social commerce platforms. In addition, the popularity of community-based interactions, influencer culture, and live-stream shopping has strengthened consumers' reliance on social cues and emotional engagement throughout the purchasing process. Promotional strategies such as flash sales, limited-time offers, and free shipping are also particularly effective because Indonesian consumers tend to respond positively to time-sensitive incentives and value-oriented purchasing opportunities. These cultural characteristics help explain why social proof, perceived scarcity, perceived value, and parasocial interaction collectively exert significant influences on purchase decisions in the Indonesian social commerce context.

4. CONCLUSION

This study examined the effects of social proof, perceived scarcity, perceived value, and parasocial interaction on purchase decisions in social commerce in Indonesia. The findings revealed that all four variables have positive and significant effects on purchase decisions, both individually and simultaneously. Among the variables examined, perceived scarcity showed the strongest influence, followed by parasocial interaction, social proof, and perceived value. These findings contribute to the growing literature on social commerce by demonstrating that consumers' purchase decisions are influenced not only by perceived product value but also by social and psychological factors embedded in digital interactions. The results highlight the importance of customer reviews, ratings, scarcity-based promotional strategies, and influencer-consumer relationships in shaping consumer purchasing behavior. From a practical perspective, businesses operating in social commerce platforms should strengthen social proof, optimize scarcity-based marketing strategies, enhance customer value, and collaborate with influencers who can establish meaningful emotional connections with their audiences. These strategies may increase consumer confidence and encourage purchase decisions. Nevertheless, this study has several limitations. First, the relatively small sample size of 100 respondents may

limit the generalizability of the findings to the broader population of social commerce users in Indonesia. Second, the use of a non-probability sampling technique may reduce the representativeness of the sample. Third, the cross-sectional research design captures consumer behavior at only one point in time and therefore cannot explain changes in purchasing behavior over time or establish causal relationships. In addition, the study relied on self-reported online questionnaires and did not differentiate respondents based on product categories. Future research is therefore recommended to employ larger and more diverse samples using probability sampling techniques where feasible, adopt longitudinal research designs to better capture changes in consumer behavior over time, and incorporate additional variables such as trust, brand image, electronic word of mouth (e-WOM), and customer engagement to provide a more comprehensive understanding of consumer behavior in social commerce. Overall, this study provides empirical evidence regarding the factors influencing purchase decisions in Indonesian social commerce and offers insights for both researchers and practitioners in developing effective digital marketing strategies.

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