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The Influence of Chatbots, Product Reviews on Purchase Decisions Through Psychological Responses as an Intervening Variable (Case Study on Shopee Users in Malang City)

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INDEXING

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ABSTRACT

E-commerce has grown rapidly, encouraging companies to innovate in improving the quality of service and information by utilizing digital technology, one of which is the use of chatbots and product reviews. This study aims to determine the Influence of Chatbots and Product Reviews on Purchasing Decisions through Psychological Responses as Intervening Variables on Shopee Users in Malang City. In this study used 97 respondents who use the Shopee application who have interacted with Chatbot. The sampling technique used purposive sampling. Data were collected using a questionnaire. The data analysis technique in this study is Path Analysis using SmartPls version 4.0. The results of the study indicate that chatbots and product reviews have a positive and significant effect on psychological responses and a positive and significant effect on purchasing decisions, in addition psychological responses do not have a positive and significant effect on purchasing decisions. From these findings, it is identified that psychological responses have not been able to mediate the relationship between chatbots and product reviews on purchasing decisions.

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INTRODUCTION

A chatbot is a software application in the field of Natural Language Processing (NLP) designed to facilitate interaction with a computer program in a manner similar to how we interact with humans (Dari et al., 2019). Chatbots use artificial intelligence (AI) to understand questions, provide answers, and engage in more complex conversations. Chatbots are used to facilitate interactions with customers through quick responses (Firdaus et al., 2020)

In digital marketing strategies, chatbots can provide interactive and fast service to consumers through digital platforms such as WhatsApp, e-commerce sites, and websites. Chatbot features provide quick answers, offer 24/7 service, and make it easier for consumers to file complaints (Ramadhani, 2024) as cited in the journal (Rifky Ramadhani et al., 2024). The use of chatbots on Shopee aims to improve service efficiency and customer satisfaction, which is ultimately expected to influence users' purchasing decisions. Chatbots and virtual assistants have a significant impact on increasing customer satisfaction, which ultimately influences purchasing decisions (Soetiyono et al., 2024)

A product review is an assessment or opinion given by consumers who have purchased and used a product. Reviews typically consist of descriptive text, star ratings, photos, or videos and are published on the Shopee e-commerce platform. Product reviews can help other

consumers assess a product's quality and value before making a purchase. Conscientious consumers tend to pay attention to reviews left by previous buyers available on the Shopee marketplace (Ilmiyah & Krishernawan, 2020).

In this case, either chatbot and product reviews play a role in shaping consumers' psychological responses. Psychological responses include emotional and cognitive emotions such as trust, satisfaction, security, and confidence in purchasing decisions. A communicative and efficient chatbot can foster trust and satisfaction with the service, while positive product reviews can foster feelings of confidence and security in the quality of the product being purchased.

Based on the above phenomena, a deeper understanding of how chatbots and product reviews influence purchasing decisions through psychological responses as intervening variables is necessary. Furthermore, it is important to understand how the interaction between humans and technology improves service and information quality. Therefore, the formulation of this research is as follows:

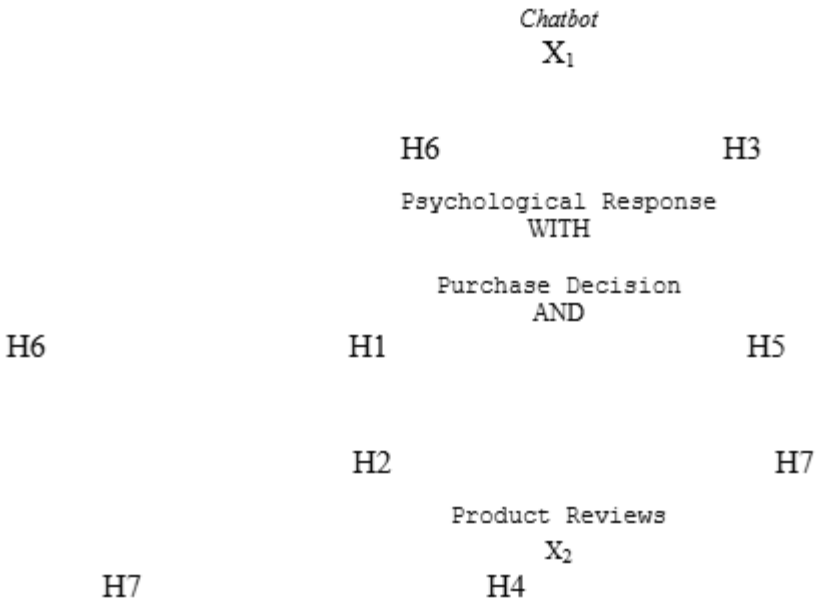
Chatbots have now become a crucial part of e-commerce, helping automate processes, provide a better customer experience, and provide more efficient service (Rhoyhan et al., 2025). We know that AI chatbots are crucial in the world of e-commerce, especially online stores, as they enable small businesses to get started (Fitra Ramadhan, 2021).

Product reviews can be said to be feedback given by consumers to online stores after consumers purchase their products. According to (Ebbers et al, 2022) a product review is a report in the media where someone gives an opinion on the service or product purchased. A review from a customer means having the meaning of an opinion from someone who has received a service or product from a transaction activity.

In the digital age, particularly on e-commerce platforms, purchasing decisions are increasingly influenced by easy access to information. Chatbots, as automated services, help consumers obtain information quickly, accurately, and in real time, thereby reducing doubt and uncertainty when choosing a product. Meanwhile, product reviews written by other users serve as social proof (social proof) which can increase confidence and positive perceptions of the products offered.

Therefore, to improve purchasing decisions, the quality of chatbot service and the quality of product reviews play a very important role in influencing the level of consumer trust and satisfaction so that it can ultimately influence consumer purchasing decisions.

Based on the identification of the problems that have been described, the image of the research model in this study is below;



Hypothesis:

H1: It is suspected that chatbots have a positive and significant influence on the psychological responses of Shopee users.

H2: It is suspected that product reviews have a positive and significant influence on the psychological responses of Shopee users.

H3: It is suspected that chatbots have a positive and significant influence on Shopee users' purchasing decisions.

H4: It is suspected that product reviews have a positive and significant influence on Shopee users' purchasing decisions.

H5: It is suspected that psychological responses influence purchasing decisions.

H6: It is suspected that chatbots influence purchasing decisions through the psychological responses of Shopee users.

H7: It is suspected that product reviews have a positive and significant influence on purchasing decisions through the psychological responses of Shopee users.

LITERATURE REVIEW

The method used in this study is a quantitative approach. This type of research examines the influence between independent variables, dependent variables, and intervening variables. This research focuses on causal relationships by demonstrating the existence of independent variables, dependent variables, and intervening variables.

This research was conducted in Malang City, East Java, with a sample of 97. In determining the number of samples, the author used the Leme show technique.

The quantitative data in this study used a Likert scale obtained from a questionnaire. The data sources in this study were primary and secondary data. The research variables and measurement indicators are as follows:

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Table 1 The Research Variables and Measurement Indicator

Variables	Operational Definition	Indicator
Chatbot (X_1)	The Chatbot variable in this study is defined as the level of user perception of the quality of interaction and service provided by the chatbot on the e-commerce platform.	1. User Convenience (*Easy of Use*) 2. Accuracy of Information (*Information Accuracy*) 3. Responsiveness (*Responsiveness*) 4. Reliability (*Reliability*) 5. Security (*Security*)
Product Reviews (X2)	Product base variables **i**n this study, consumer perceptions of the content and quality of product reviews on e-commerce platforms are examined.	1. Awareness (*Awareness*) 2. Frequency (*Frequency*) 3. Comparison (*Comparison*) 4. Influence *(Effect*)
Psychological Response (AND_1)	Response Variable Psychology is the emotional reaction of Shopee e-commerce platform users which is formed by the quality of chatbot service and the quality of product reviews.	1. Satisfaction 2. Trust 3. Risk Perception 4. Comfort
Purchase Decision (AND_2)	The Purchase Decision Variable in this study is defined as the level of consumer confidence and action in deciding to purchase a product on an e-commerce platform after considering information, digital interaction experiences, and perceived psychological conditions.	1. Recognition of Needs 2. Information Search 3. Alternative Evaluation 4.Purchase Decision

Path analysis is the method used in this study. The researcher used path analysis to find causal links, aiming to show how outside and inside factors directly or indirectly affect each other. According to Sugiyono (2018:70), path analysis is part of a regression model that can be used to analyze causal relationships between one variable and another. Path analysis is used by utilizing correlation, regression, and paths to determine the intervening variable.

RESEARCH METHOD

1. Research design

The research design used is a quantitative associative design that examines the relationship between independent and dependent variables. Associative research is a research approach that investigates the relationship between two or more variables. The type of research used is quantitative research, which aims to identify relationships or explain the causes of changes based on exchanged facts and to derive generalizations from quantitative

data (numbers), grounded in a positivist perspective that reality is fragmentary, observable, and measurable. Meanwhile, in quantitative research, data is obtained from reports related to the study. The population in this study consists of Shopee users in Malang City.

2. Research location

This study was conducted in Malang City, East Java Province, Indonesia, from November 25 to December 30.

3. Types of research

In the research process, there is an important aspect that must be considered: the research method. This is because the research method is a crucial component of the research process. Its purpose is to ensure that the research is focused on the specific subject being studied. In its true sense, a method is a way or approach. Meanwhile, according to the Kamus Besar Bahasa Indonesia (KBBI), a method is a systematic approach used to facilitate the implementation of various activities in achieving predetermined objectives. This study employs a quantitative approach. Quantitative research is used to study a population or a sample typically selected at random to collect data, with the aim of testing the proposed hypothesis.

4. Population and Sample

a. Population

A population is a generalization of a previously defined area by the researcher that possesses specific characteristics and qualities intended for study, from which conclusions are subsequently drawn. The population used by the researcher in this study consists of active Shopee users in Malang City, East Java, Indonesia, who have interacted with a chatbot and are between the ages of 18 and 35, capable of making independent purchasing decisions.

b. Sampling Method

The method used to determine the sample size in this study is the Lemeshow formula. This formula was chosen because the exact size of the Shopee user population in Malang City is unknown. A population that is not clearly defined or is very large cannot be calculated using sampling formulas that require a specific population size; therefore, the Lemeshow formula was selected as the appropriate approach for this social research.

$$n = \frac{Z^2 p(1-p)}{d^2}$$

Notes:

n: sample size

Z: Z-value based on a 95% confidence level (Z = 1.96)

p: population proportion (0.5 is used because the actual proportion is unknown, resulting in maximum variance)

d: margin of error (in this study, 10% or 0.10)

Since there is no data on the proportion of Shopee users in Malang City that is relevant to the research variables, a p-value of 0.5 was used, in accordance with Lemeshow's recommendation, to produce a more accurate and representative sample size estimate. By substituting this value into the formula, the following calculation was obtained:

$$n = \frac{Z^2\, p(1-p)}{d^2}$$

$$n = \frac{1{,}96^2 \times 0{,}5\ (1-0{,}5)}{0{,}10^2}$$

$$n = \frac{3{,}8416 \times 0{,}25}{0{,}01}$$

$$n = \frac{0{,}9604}{0{,}01}$$

$$n = 96{,}04$$

Rounded to 97 samples

Based on these calculations, the minimum number of samples required for this study is 97 respondents.

5. Data Collection Techniques

The data and information in this study were collected using the data collection technique known as purposive sampling via a questionnaire. According to Campbell et al (2020), purposive sampling is a technique for selecting data sources based on specific criteria. There are several types of data collection methods, including questionnaires, interviews, observations, and documentation. This study employs data collection methods involving questionnaires and documentation.

a. Questionnaires.
   According to Haenlein et al (2020), a questionnaire is a data collection method conducted by providing respondents with a set of written questions or statements to be answered.
b. Documentation.
   Read et al (2017) defines documentation as a data collection method involving the careful examination and analysis of documents created by the research subjects themselves or by others for the study.
c. Observation.
   The observation method is a data collection method involving direct observation or careful examination at the research site or in the field.
d. Interview.
   An interview is a direct conversation or dialogue involving a question-and-answer exchange between the interviewer and the interviewee to obtain information.
e. Literature Review
   Through a literature review, researchers obtain information, theories, concepts, and findings from previous studies related to the variables under investigation. The data from this literature review serves as the basis for developing the theoretical framework, strengthening the research argument, and helping researchers understand the

relationships among the variables in the study.

RESULT AND DISCUSSION

Validity Test

The validity test in this study was calculated based on the items or variables of Chatbot (X), Product Reviews (X2), Psychological Response (Z), and Purchase Decision (Y). Data collected from 97 respondents was then processed using IBM SPSS Statistics 27.0.

Table 2 Data Collect from 97 Respondents

Statement	r-Count	r-Table	Information
X_1P1	0.840	0.199	Valid
X_1P2	0.780	0.199	Valid
X_1P3	0.775	0.199	Valid
X_1P4	0.807	0.199	Valid
X_2P1	0.386	0.199	Valid
X_2P2	0.792	0.199	Valid
X_2P3	0.809	0.199	Valid
X_2P4	0.786	0.199	Valid
ZP1	0.872	0.199	Valid
ZP2	0.803	0.199	Valid
ZP3	0.844	0.199	Valid
YP1	0.859	0.199	Valid
YP2	0.827	0.199	Valid
YP3	0.780	0.199	Valid
YP4	0.808	0.199	Valid

The results of the validity test of the questionnaire instrument for the Chatbot variable (X1) consisting of 4 statements, the Product Review variable (X2) consisting of 4 statements and the psychological response variable (Z) consisting of 3 statements and the purchasing decision variable (Y) consisting of 4 statements as a whole are valid because the r-calculated value > r-table 0.1966 and the significance value (Sig.) < 0.05.

Reliability Test

The purpose of the reliability test is to determine the consistency of the measuring instrument in its use, or in other words, the measuring instrument has consistent results when used repeatedly at different times.

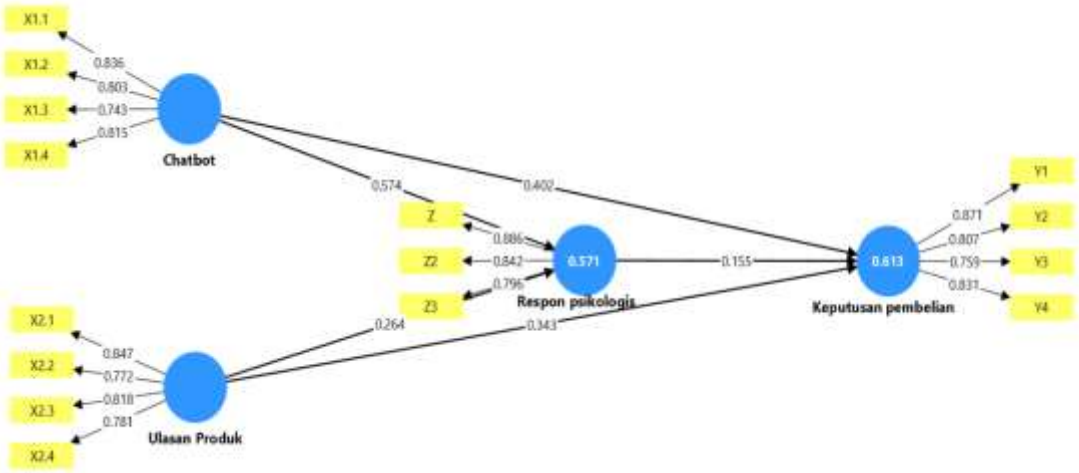
Table 3 Data of Reliability Test

Variables	Total Item	Cronbachs Alpha	Information
Chatbot	4	0.827	Reliable
Product Reviews	4	0.819	Reliable
Psychological Response			
Purchase Decision	3	0.780	Reliable
	4	0.835	Reliable

The data above shows that all variables are reliable and the instrument is suitable for use. This is evidenced by an r value of > 0.7.

Another Model

Model testing (outer model) used to determine the specific relationship between latent variables and their manifest variables, this test includes convergent validity, discriminant validity and reliability.



Discriminant Validity

In this section, the results of the discriminant validity test will be described. Discriminants validity using the cross-loading value. An indicator is declared to meet the requirements discriminant validity when the value cross-loading the indicator on the variable is the largest compared to other variables.

The following is cross loading each indicator:

Table 4 Cross loading each Indicator

Chatbot	Purchase decision	Psychological response	Product Reviews	Chatbot
X1.1	0.836	0.598	0.616	0.567
X1.2	0.803	0.629	0.574	0.363
X1.3	0.743	0.401	0.469	0.325
X1.4	0.815	0.603	0.634	0.526
X2.1	0.540	0.549	0.541	0.847
X2.2	0.346	0.457	0.373	0.772
X2.3	0.507	0.560	0.518	0.818
X2.4	0.406	0.558	0.444	0.781
Y1	0.701	0.871	0.633	0.587
Y2	0.543	0.807	0.523	0.479
Y3	0.476	0.759	0.352	0.382
Y4	0.569	0.831	0.564	0.671
WITH	0.613	0.523	0.886	0.558
Z2	0.621	0.552	0.842	0.570
Z3	0.593	0.563	0.796	0.351

Source: Output Program Smart PLS 4,2026

Based on the table above, it is stated that there are several indicators in the research variables that have a value cross loading which is smaller than the value cross loading on other variables so that they must be known and observed further. Another way to measure discriminant validity is to see the value square root of average variance extracted (AVE). The recommended value is above 0.5 for a good model.

Heterotrait-Monotrait Ratio (HTMT)

Some experts argue that cross-loading and the Fornell-Larcker Criterion are not sufficiently sensitive in assessing discriminant validity. The HTMT is an alternative method

recommended for assessing discriminant validity (Umarah et al., 2023). This method uses a multitrait-multimethod matrix as the basis for measurement. The HTMT value must be less than 0.9 to ensure discriminant validity between two constructs (Henseler et al., 2015).

Table 5 Data Result Multitrait-Multimethod

	Chatbot	Purchase decision	Psychological response	Product Reviews
Chatbot				
Purchase decision	0.832			
Psychological response	0.891	0.777		
Product Reviews	0.673	0.777	0.717	

Source: Output Program Smart PLS 4,2026

Based on the data above, it can be seen that each variable has a value HTMT< 0.9, this shows that the research variables meet the value requirements HTMT, so it can be concluded that all variables have a very good level of discriminant validity.

Construct Reliability Test

a. Composite Reliability & Average Variance Extracted (AVE)

Composite Reliability is a part used to test the reliability value of indicators on a variable. A variable can be declared to meet the requirements. Composite reliability when it has value composite reliability > 0,7.

Then it can also be seen by looking at the reliability of the construct or latent variable which is measured by looking at the value cronbach's alpha from the indicator blocks that measure the construct. A construct is stated reliable if the value cronbach's alpha above 0.7. The following illustrates the construct results for each variable, namely Chatbot, product reviews, psychological responses, and purchasing decisions with each variable and indicator. The following table shows the loading values for the research variable constructs resulting from running the program. SmartPLS in the following table:

Table 6 Loading Values for Variable Construct Resulting

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Chatbot	0.813	0.824	0.876	**0.640**
Purchase decision	0.836	0.855	0.890	**0.669**
Psychological response	0.794	0.796	0.879	**0.709**
Product Reviews	0.820	0.827	0.881	**0.649**

Source: Output Program Smart PLS 4, 2026

Based on the table above, it shows that Average Variance Extracted (AVE) each variable, namely chatbot and product reviews and psychological responses and Purchase Decisions have constructs > 0.5 meaning all constructs reliable. Those it can be stated that each variable has discriminant validity which is high.

Meanwhile, the value can be seen in the table above. Composite reliability each variable shows a construct value of >0.7. These results indicate that each variable has fulfilled the requirements. Composite reliability so it can be concluded that all variables have a high level of reliability.

Next in the table above discriminant validity each variable shows a construct value > 0.7, thus these results indicate that each research variable has met the value requirements. Cronbach's alpha, so it can be concluded that all variables have high reliability.

So it can be concluded that the indicators used in this study have discriminant validity

high in compiling each variable.

Path Coefficients or Path Coefficient

Next, path coefficients are measured between constructs to see the significance and strength of the relationship and also to test the hypothesis. Path coefficients range from -1 to +1. The closer the value is to +1, the stronger the relationship between the two constructs. A relationship closer to -1 indicates a negative relationship (Sarraf et al., 2024).

Table 7 Data Path Coefficients

Path Coefficient	
Chatbot-> Purchase decision	**0.402**
Chatbot-> Psychological response	**0.574**
Psychological response -> Purchase decision	**0.155**
Product Reviews -> Purchase Decision	**0.343**
Product Reviews -> Psychological Response	**0.264**

Source: Output program SmartPlS 4, 2026

The path coefficient values in the table range from 0.155 to 0.574 and are all positive, indicating a unidirectional relationship between the variables. However, none of the values approach +1, indicating that the relationship is not yet considered strong. Overall, these results indicate that the influence between constructs in the model is weak to moderate, with higher values indicating a more dominant relationship than others.

Hypothesis Testing

After assessing the outer model analysis, the next step is to evaluate the relationships among the latent constructs as hypothesized in this study. Hypothesis testing in this study was conducted by examining T-statistics and P-values. Specifically, the use of T-statistics and P-values in hypothesis testing is necessary to ensure that the relationships among the tested variables are statistically significant, providing an objective basis for decision-making, and supporting the validity and reliability of the research findings. Furthermore, this approach allows researchers to avoid inferential errors and ensures that findings can be scientifically generalized (Andriyani et al., 2020). In other words, a hypothesis is accepted if the T-statistic value is > 1.96 and the P-value is < 0.05. The following are the results of the path coefficients for direct effects:

Table 8 Result Path Coefficients

	Original sample (O)	**The sample mean (M)**	**Standard deviation (STDEV)**	**T-statistic (|O/STDEV|)**	**P-value (P values)**
Chatbot -> Purchase decision	0.402	0.386	0.117	3.438	**0.001**
Chatbot-> Psychological response	0.574	0.572	0.108	5.317	**0.000**
Psychological response -> Purchase decision	0.155	0.170	0.121	1.284	**0.202**
Product Reviews -> Purchase Decision	0.343	0.366	0.102	3.382	**0.001**
Product Reviews -> Psychological Response	0.264	0.234	0.117	2.250	**0.027**

Source: Output Program Smart PLS 4, 2026

Hypothesis 1: The chatbot (X1) has a positive and significant effect on psychological response (Z), as evidenced by a T-statistic value of >1.96 and a P-value of <0.05. Therefore, it can be concluded that the chatbot contributes to shaping the psychological response of Shopee e-commerce users (Dewi, A. P, 2025).

Hypothesis 2: Product reviews (X2) have a positive and significant effect on psychological response (Z), as the T-statistic value is greater than 1.96 and the P-value is less than 0.05. Therefore, it can be concluded that product reviews contribute to shaping the psychological response of Shopee e-commerce users (Putri et al, 2024).

Hypothesis 3: The chatbot (X1) has a positive and significant effect on purchase decisions (Y), as the T-statistic is greater than 1.96 and the p-value is less than 0.05. Therefore, it can be concluded that the chatbot contributes to shaping purchase decisions among Shopee e-commerce users (Wahyu Setyowati, 2025).

Hypothesis 4: Product reviews (X2) have a positive and significant effect on purchasing decisions (Y), as the T-statistic is greater than 1.96 and the p-value is less than 0.05. Therefore, it can be concluded that product reviews contribute to shaping purchasing decisions among Shopee e-commerce users (Jumawan et al, 2024).

Hypothesis 5: The hypothesis that psychological response (Z) has a positive and significant effect on purchase decisions (Y) was rejected, as the T-statistic value was <1.96 and the P-value was >0.05. Therefore, it can be concluded that psychological response does not contribute to purchase decisions among Shopee e-commerce users (Arum & Khoirunnisa, 2021).

Table 9 hypothesis testing

	Original sample (O)	**The sample mean (M)**	**Standard deviation (STDEV)**	**T-statistic (|O/STDEV|)**	**P values**
H6	0.089	0.093	0.072	1.243	**0.217**
H7	0.041	0.039	0.034	1.192	**0.236**

Source: Output Program Smart PLS 4, 2026

Hypothesis 6: The chatbot (X1) does not have a positive and significant effect on purchase decisions (Y) through psychological responses (Z). This hypothesis is rejected because the T-statistic is <1.96 and the p-value is <0.05. Therefore, it can be concluded that the chatbot does not contribute to the purchase decisions made by Shopee users through psychological responses (Bayu et al, 2025).

Hypothesis 7: P Product reviews (X1) do not have a positive and significant effect on purchase decisions (Y) through psychological responses (Z). This hypothesis is rejected because the T-statistic is <1.96 and the p-value is <0.05. Therefore, it can be concluded that product reviews do not contribute to the purchase decisions made by Shopee users through psychological responses (Pramesti & Abdillah, 2024).

CONCLUSION

Based on the research results, it shows that Chatbot has a positive and significant effect on the psychological response of Shopee users. Interaction through chatbot It can influence user emotions, including satisfaction, trust, and comfort. This demonstrates that responsive and informative chatbot services can facilitate user access to responsive and accurate information, leading to feelings of satisfaction and trust in the platform.

Furthermore, product reviews also have a positive and significant impact on Shopee users' psychological responses. Viewing product reviews on the e-commerce platform can influence Shopee users' trust in a product.

Chatbot has a positive and significant impact on purchasing decisions. This demonstrates that chatbots, as a digital customer service tool, can facilitate users' access to information. This convenience can encourage users to make purchases.

Furthermore, product reviews also have a positive and significant influence on purchasing decisions. Positive product reviews can encourage users to make a purchase.

Psychological responses do not have a positive and significant influence on purchasing decisions. Emotional feelings such as trust, satisfaction, and comfort felt by users are shaped by service quality. Chatbot and the quality of product reviews does not necessarily encourage users to make a purchase.

Chatbots do not have a significant positive influence on purchasing decisions through psychological responses. Emotional feelings such as satisfaction, trust, and comfort generated by the quality of chatbot service do not necessarily influence users' purchasing decisions.

Product reviews do not have a positive and significant impact on purchasing decisions through psychological responses. Emotional feelings such as satisfaction, trust, and comfort generated by the quality of product reviews do not necessarily influence users' purchasing decisions.

REFERENCES

Authored Book

Sugiyono. (2018). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Ke-26. Bandung : Alfabeta

Dissertation From a Database

Dewi, A. P. (2025). Analisis Pengaruh Personalisasi Terhadap Customer Experience pada Penggunaan Chatbot: Studi Kasus Chatbot E-Commerce Shopee (Doctoral dissertation, Universitas Islam Indonesia).

Wahyu Setyowati, W. S. (2025). Pengaruh Konten Influencer, Chatbot, dan Kebijakan Pengembalian Produk Terhadap Keputusan Pembelian Konsumen pada Marketplace Shopee di Kabupaten. (Doctoral dissertation, UNDARIS).

Journal Articles

Andriyani, N., Hamzah, R., & Siagian, R. (2020). Pengaruh lingkungan kerja dan disiplin kerja terhadap kinerja karyawan dan motivasi kerja sebagai variabel intervening pada PT Aquavue Vision International. JEBI| Jurnal Ekonomi Bisnis Indonesia, 15(1), 24-32.

Arum, D., & Khoirunnisa, R. N. (2021). Hubungan antara kontrol diri dengan perilaku konsumtif pada mahasiswi psikologi pengguna e-commerce shopee. Character Jurnal Penelitian Psikologi, 8(9), 92-102.

Bayu, S., Rahmadi, S. B., & Religia, Y. (2025). Peran Artificial Intelligence dan Stimulus Digital Dalam Keputusan Pembelian Generasi Z pada E-Commerce: Tinjauan Literatur Berbasis Model SOR. Jurnal Manajemen Pemasaran, 1(1), 15-24.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., ... & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of research in Nursing, 25(8), 652-661.

Ebbers, T., Kool, R.B., Smeele, L.E. et al. (2022). The Impact of Structured and Standardized Documentation on Documentation Quality; a Multicenter, Retrospective Study. J Med Syst 46, 46. https://doi.org/10.1007/s10916-022-01837-9

Firdaus, V. A. H., Saputra, P. Y., & Suprianto, D. (2020). Intelligence chatbot for Indonesian law on electronic information and transaction. *IOP Conference Series: Materials Science and Engineering*, *830*(2). https://doi.org/10.1088/1757-899X/830/2/022089

Fitra Ramadhan, F. (2021). Chatbot pada E-Commerce berbasis Android dengan Pendekatan Natural Language Processing. *JCSE Journal of Computer Science an Engineering*, *2*(1), 27–39. http://icsejournal.com/index.php/

Haenlein, M., Anadol, E., Farnsworth, T., Hugo, H., Hunichen, J., & Welte, D. (2020). Navigating the New Era of Influencer Marketing: How to be Successful on Instagram, TikTok, & Co. California Management Review, 63(1), 5-25.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43, 115–135.

Ilmiyah, K., & Krishernawan, I. (2020). Pengaruh Ulasan Produk, Kemudahan, Kepercayaan, Dan Harga Terhadap Keputusan Pembelian Pada Marketplace Shopee di Mojokerto. *Maker: Jurnal Manajemen*, *6*(1), 31–42. https://doi.org/10.37403/mjm.v6i1.143

Jumawan, J., Soesanto, E., Cahya, F., Putri, C. A., Permatasari, S. A., Setyakinasti, S., & Ottay, M. L. (2024). Pengaruh Online Consumer Review Dan Kualitas Produk Terhadap Keputusan Pembelian di Marketplace Shopee. SENTRI: Jurnal Riset Ilmiah, 3(6), 2854-2862.

Putri, A. A., Rahadatul'Aisyi, L., Permatasari, P. D., & Iskandar, T. (2024). Analisis perilaku mahasiswi sebagai konsumen muslim terhadap daya beli produk online di e-commerce shopee. ESENSI: Jurnal Manajemen Bisnis, 8-24.

Rahmawati, R., & Suwarni, E. (2023). Ulasan Produk dan Jumlah Produk Terjual Dampaknya pada Keputusan Pembelian di Marketplace Shopee. Jurnal Digital Bisnis, Modal Manusia, Marketing, Entrepreneurship, Finance, & Strategi Bisnis (DImmensi), 3(1), 46-53.

Ramadhani, D. R., Birawa, M. S., Sholikah, D. S., & Prabandanu, R. M. A. A. H. (2024). Analisis pengaruh kualitas pelayanan berbasis chatbot terhadap kepuasan pelanggan dalam transaksi online dengan objek aplikasi Shopee. Journal of Exploratory Dynamic Problems, 1(3), 104-115.

Read KB, LaPolla FW, Tolea MI, Galvin JE, Surkis A. Improving data collection, documentation, and workflow in a dementia screening study. J Med Libr Assoc. 2017 Apr;105(2):160-166. doi: 10.5195/jmla.2017.221

Rhoyhan, D. B. S., Mukhtar, U., & Afrylianto, M. A. A. (2025). Penerapan Kecerdasan

Buatan Dalam E-Commerce: Efisiensi. *Jurnal Mahasiswa Teknik Informatika*, *9*(1), 788–800.

Sarraf, S., Kar, A. K., & Janssen, M. (2024). How do system and user characteristics, along with anthropomorphism, impact cognitive absorption of chatbots – Introducing SUCCAST through a mixed methods study. *Decision Support Systems*, *178*(December 2023), 114132. https://doi.org/10.1016/j.dss.2023.114132

Soetiyono, A., Kurnia, Y., & Kurnia, R. (2024). Pengaruh Penggunaan Chatbot dan Asisten Virtual terhadap Peningkatkan Kepuasan Pelanggan serta Dampaknya terhadap Pengambilan Keputusan Pembelian. *ECo-Buss*, *6*(3), 1367–1381. https://doi.org/10.32877/eb.v6i3.1169

Umaroh, S., Rindiyani, R., & Prasetyo, M. R. (2023). Pengaruh kualitas sistem aplikasi OVO terhadap kepuasan pelanggan. Rekayasa Hijau: Jurnal Teknologi Ramah Lingkungan, 7(1), 49-60.

Proceedings

Pramesti, A. N., & Abdillah, R. F. (2024, December). Dampak rating dan ulasan konsumen terhadap keputusan pembelian di e-commerce. In Prosiding Seminar Nasional Amikom Surakarta (Vol. 2, pp. 1480-1494).