

EJCBLT

ISSN:3031-7355

<https://doi.org/10.61796/ejcbt.v1i7.849>

ANALYSIS OF PRODUCT ASSESSMENT RELATIONSHIP TO E-COMMERCE PRODUCT PURCHASE INTEREST SANJAI 3 SAUDARA

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Abstract: E-commerce has become a major platform for online transactions, where product ratings by customers serve as an indicator of quality and trust. This research aims to develop a web-based e-commerce application for Sanjai 3 Saudara and explore the impact of product ratings on online purchase interest. The application was developed using the Waterfall method, PHP, and the CodeIgniter Framework. The relationship between product ratings and purchase interest for the two best-selling products was analyzed using the Product Moment Correlation technique. To analyze the relationship between product assessment and e-commerce product purchase interest, you can break down the study into several key areas. The results showed a positive correlation between product ratings and online purchase interest, with a correlation coefficient of 0.703 for Sanjai Balado Bulat and 0.603 for Rendang Telur, indicating a strong correlation category. This approach will help provide a comprehensive analysis of how product assessments affect e-commerce purchase interest and offer actionable insights for improvement

Keywords: E-commerce, correlation coefficient, rating, buying interest.

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Introduction

The development of information and communication technology has brought significant changes in various aspects of life, including in the trade sector (Farid Ahmadi et al., 2018). In the past, before the existence of information systems, many business actors only sold their products offline in physical stores, with sales reach limited to the area around the store and sales results that were less than optimal (Arief & Novita, 2021). Now, with the need to increase sales, business actors are utilizing information systems to market products online. This allows them to promote their business more widely and efficiently.

E-commerce or electronic commerce is an innovation that utilizes internet technology to support online buying and selling of products or services. In Indonesia, e-commerce has developed rapidly and has become one of the main choices for consumers to fulfill their daily needs. (Hardiky et al., 2021).

Through online marketing, consumers can see the products offered through websites that can be accessed anytime and anywhere (Winarsih & Yono, 2021). Ease of access and affordable prices are the main reasons for consumers to shop online. In this process, consumers have considered the product to be purchased, payment method, and price. Several factors encourage consumers to buy products online including product reviews, ease of payment methods, and other factors that support purchasing interest. Product reviews, which are a summary of previous consumer experiences, are an

important reference for potential buyers to assess product quality and its suitability to the description. (Sitorus et al., 2023)

One e-commerce site that is quite popular is Sanjai 3 Saudara, which is known for its regional specialty products. In increasingly tight e-commerce competition, product evaluation by consumers is an important factor that can influence purchasing interest (Praditya et al., 2021). Good product ratings can increase consumer confidence and encourage purchasing decisions, while poor ratings can reduce purchase interest and harm the seller's reputation. (Kurniadi, 2023)

This research aims to analyze the relationship between product assessment and interest in purchasing products in Sanjai 3 Saudara e-commerce. By understanding this relationship, it is hoped that we can gain deeper insight into the factors that influence consumer purchasing interest, as well as provide recommendations for Sanjai 3 Brothers to improve their marketing and service strategies.

Methods

The type of research used is a quantitative method. Quantitative research methods can be interpreted as research methods that are based on the philosophy of positivism, used to research certain populations or samples, collecting data using research instruments, quantitative/statistical data analysis, with the aim of testing predetermined hypotheses. This method is used because in this research the data used is in the form of numbers and processed using the correlation study method. This correlation study studies the relationship between two or more variables in other variables. (Utomo et al., 2023)

Correlation and regression analysis methods are used to identify and measure the strength of the relationship between product assessment and purchase intention. Apart from that, sentiment analysis of consumer reviews was also carried out to get a more complete picture of consumer perceptions of Sanjai 3 Brothers products (Siringoringo & Jamaludin, 2019).

It is hoped that the results of this research can make a significant contribution to the development of more effective and efficient e-commerce marketing strategies. This research was carried out in several stages which were carried out in a structured and systematic manner. The research stages carried out were problem identification, data collection, software development and research implementation.

The correlation test is a statistical technique that can be used to measure how strong the relationship is between two variables. The results are expressed in a correlation coefficient that ranges from -1 to 1, with a value of 0 indicating there is no relationship. To analyze the data that has been collected, researchers use the product moment correlation formula to find out whether there is a relationship between product ratings and interest in buying products online in *E-Commerce*.

The Product Moment correlation formula used by researchers is as follows:

$$r_{xy} = \frac{n \sum xy - \sum x \sum y}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

Information:

r_{xy} : Correlation coefficient between x and y

$\sum xy$: product of x and y

n: Many respondents

$\sum x$: variable x

$\sum y$: variable y

This formula is used to find out whether there is a relationship between one variable and another variable. The results of the calculation will be seen based on the correlation coefficient interpretation guideline table, with the following table of provisions:

Table 1 .

Correlation Coefficient Interpretation Table

Coefficient Interval	Relationship Level
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Currently
0.60 – 0.799	Strong
0.80 – 1,000	Very strong

Software Development Method, the application development process in this research uses the Waterfall model. This method is also called the waterfall model which provides a sequential software development flow approach starting from analysis, design, coding and testing. The stages of the waterfall method are in Figure 1 below:

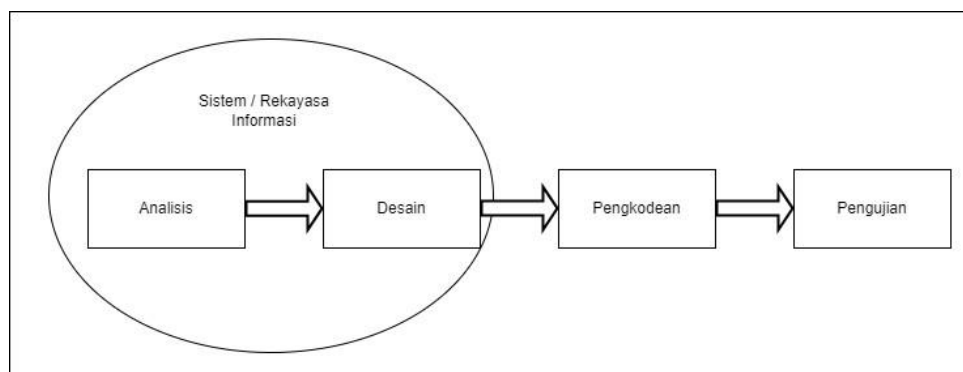


Figure 1 .

Waterfall Method

Results and Discussion

In the current study, the focus was on studying the impact of industrial investment as an independent variable on the Iraqi economic growth described by three dependent variables (Foreign

Use Case Diagrams are designed to describe interactions between actors and the system. The actors involved in this *e-commerce application* are admin and customers. The admin in this system is the manager of this *e-commerce application*, while the customer is the user or buyer, where customers can make transactions on products in the *e-commerce application*. Figure 2 shows the *Use Case Diagram design for the Sanjai 3 Brothers e-commerce application*.

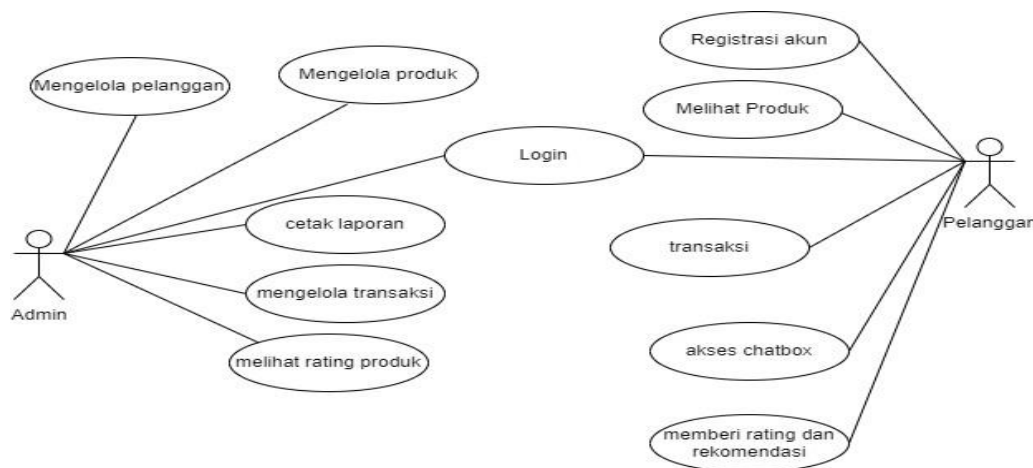


Figure 2.
Use Case Application Diagram

The research results present data using a population, namely all buyers at the Sanjai 3 Brothers *e-commerce* and the samples in this study were taken from several products that are widely sold. Figure 3 shows sample research data obtained from the Sanjai 3 Brothers *e-commerce application*:

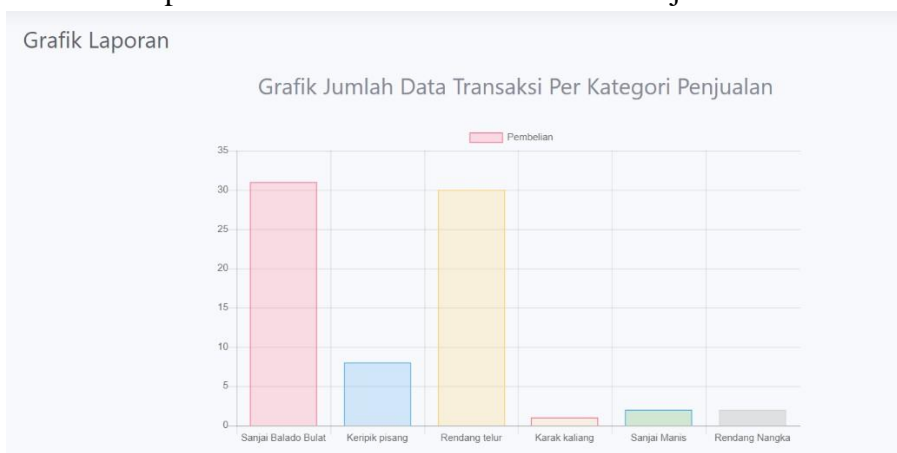


Figure 3.
Sales Chart
Table 2.
Research Sample

No	Product name	Price	Ratings	Amount
1	Sanjai Balado	Rp. 10,000	4,166	30
2	Egg Rendang	Rp. 45,000	4,300	30

Correlation analysis of assessment (x) with buying interest (y)

1. Correlation Analysis of Sanjai Balado Bulat Products

Table 3 .
Correlation results for round sanjai balado products

	Ratings	Interest
Pearson Correlation Ratings	1	0.704**
Sig. (2-tailed) N		,000
	30	30
Interest Pearson Correlation	0.704**	1
Sig. (2-tailed) N	,000	
	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the results of manual calculations and using SPSS, the correlation coefficient (r) between product rating and interest in purchasing round sanjai balado products was 0.704. This shows that the correlation level is in the " *Strong* " category. To determine the magnitude of the influence of product assessment (

$$\begin{aligned} \text{Coefficient of determination} &= r^2 \times 100 \% \\ &= (0.704)^2 \times 100\% \\ &= 49.4 \% \end{aligned}$$

Based on the calculation results above, it can be seen that the influence of rating on purchasing interest in round sanjai balado products is 49.4%, while the remainder is the contribution of other variables not examined in this research.

Other Variable Ratings

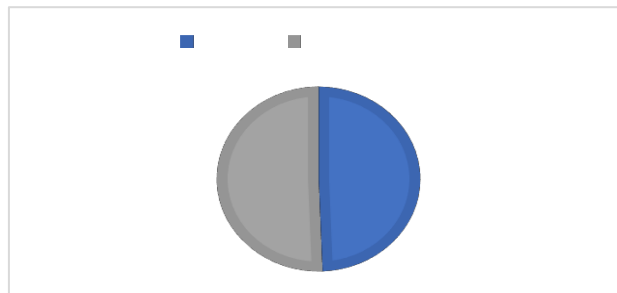


Figure 4.
Sanjai Balado Round Product Determination Chart

2. Correlation Analysis of Egg Rendang Products

Table 3
Correlation results for egg rendang products

	Ratings	Interest
Pearson Correlation Ratings	1	0.604**
Sig. (2-tailed) N		,000
	30	30
Interest Pearson Correlation	0.604**	1
Sig. (2-tailed) N	,000	
	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the results of manual calculations and using SPSS, the correlation coefficient (r) between product rating and interest in purchasing round sanjai balado products is obtained at 0.604. This shows that the correlation level is in the " *Strong* " category.

Coefficient of determination = $r^2 \times 100\%$

= $(0.63)^2 \times 100\%$

= 36.36 %

Based on the calculation results above, the influence caused by the rating on purchasing interest in egg rendang products is 36.36 % .

Variable Rating other

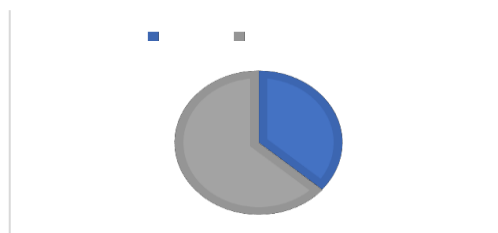


Figure 5

Egg Rendang Product Determination Chart

Application Implementation

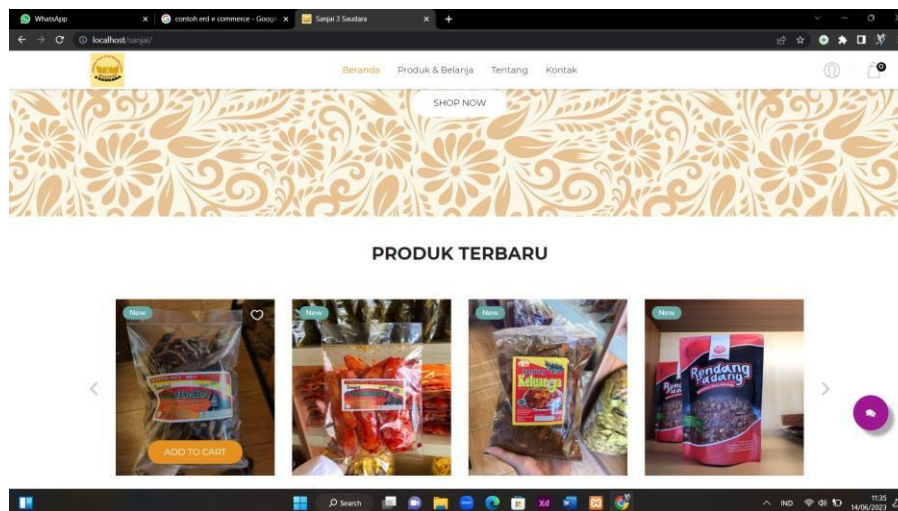


Figure 6

Main Page Display

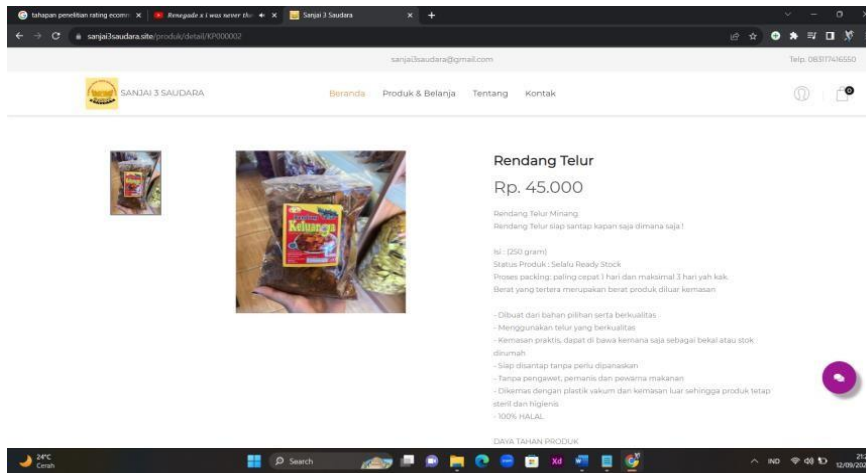


Figure 7
Product Details Page View

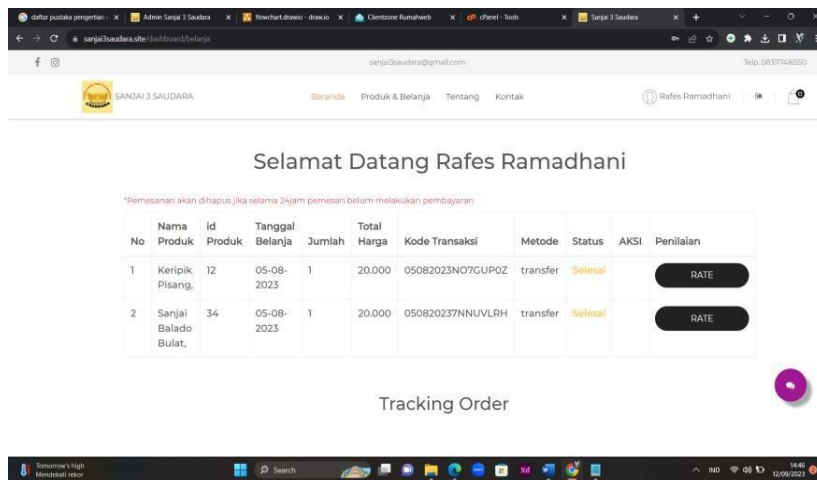


Figure 8
Customer Order Page View

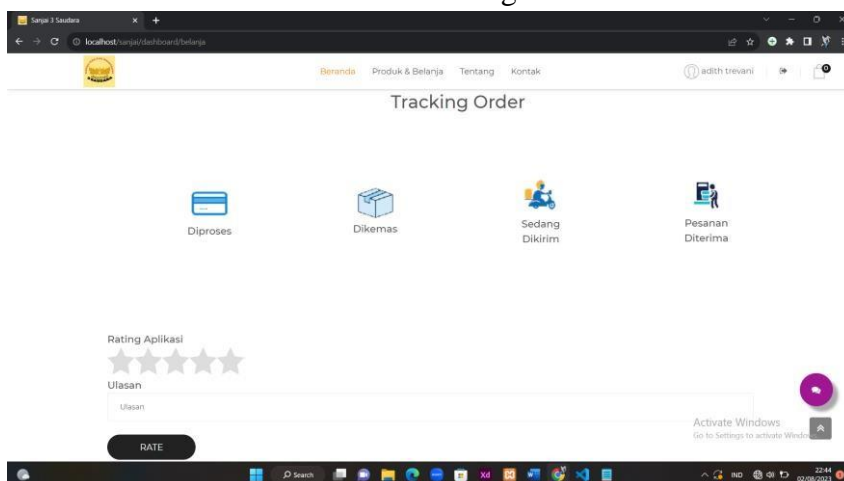


Figure 9
Tracking Page Display

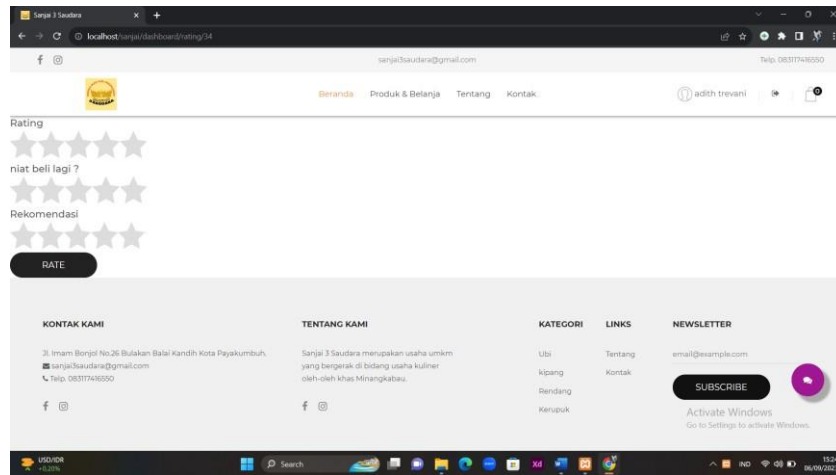


Figure 10
Rating Page Views

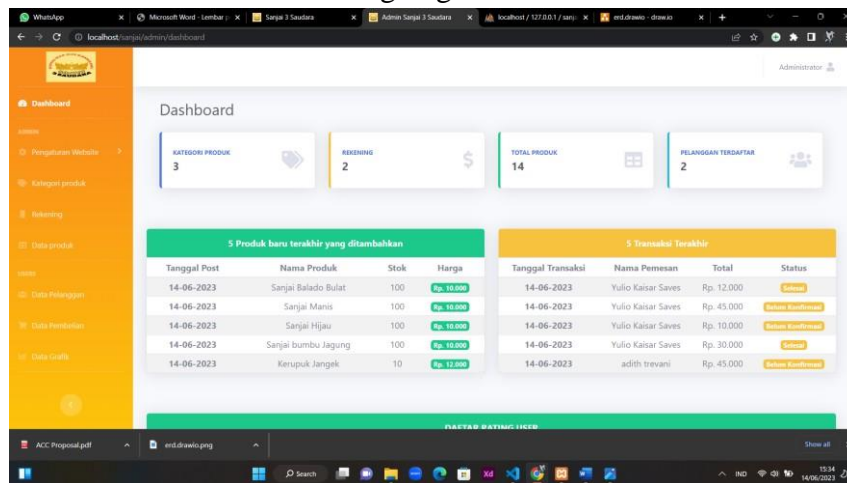


Figure 11
Admin Dashboard View

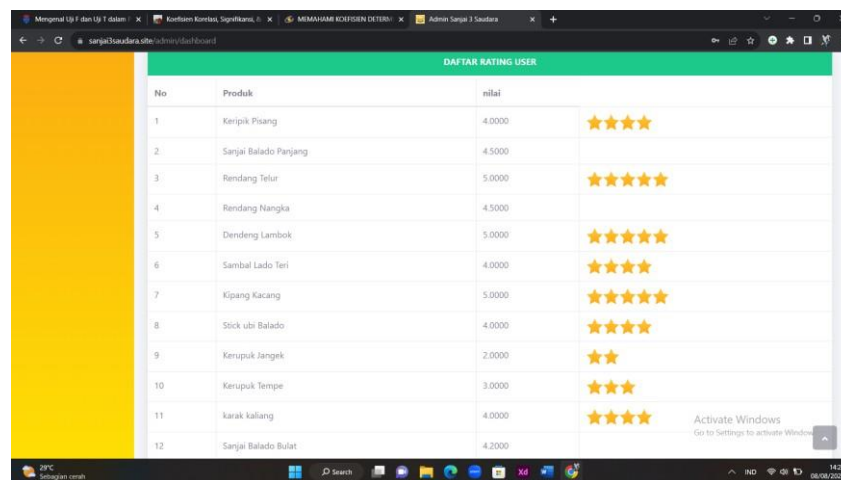


Figure 12
Admin Rating Page Display

Discussion

Based on the calculation results above, the correlation coefficient (*r*) value obtained between the product rating and buying interest in the Sanjai Balado Round product on the Sanjai 3 Brothers e-commerce application is 0.704 and for the Egg Rendang product, the correlation between the rating

and buying interest is 0.604. This means that the level of relationship between these two variables for both types of products is in the " *Strong* " category.

This shows that the better the product assessment, the more it will influence interest in purchasing a product on the Sanjai 3 Brothers *e-commerce application*.

If the product rating is not good, consumers will hesitate to make purchases online. Because product assessment is a reference and a benchmark for potential buyers who want to know whether the product being sold meets the buyer's expectations. By purchasing online, potential buyers see direct assessments from other buyers who have previously purchased the product. Compared to direct purchases at offline stores, buyers cannot see product ratings from previous purchases

Conclusion

The results of this research indicate that product assessment has a significant influence on interest in purchasing products on Sanjai 3 Saudara e-commerce. Higher product ratings consistently correlate positively with increased consumer interest in purchasing the product. Consumers tend to be more trusting and interested in buying products that have positive ratings and reviews compared to products with low ratings.

The application is able to provide guidelines for purchasing products online by utilizing ratings as a reference for customers in purchasing a product online. The relationship between product assessment and interest in purchasing products online on the Sanjai 3 Brothers Application is in the form of a positive relationship which shows that the higher the rating a customer gives to a product, the higher the interest in purchasing the product online.

In addition, this research found that other factors such as price and product quality also play an important role in influencing purchase intention. However, product ratings remain one of the main indicators used by consumers in making purchasing decisions, especially on e-commerce platforms that allow consumers to rate and review products directly.

From these results, it can be concluded that increasing product ratings, through managing product and service quality, as well as promotions that encourage positive reviews, can be an effective strategy to increase purchasing interest. Sanjai 3 Brothers are advised to continue to pay attention to and respond proactively to customer reviews, because good reviews not only help improve product image but also directly influence potential consumers' purchasing decisions.

This research was carried out with two variables X and Y, so it is hoped that future research can examine more varied subjects. In preparing data collection instruments, other researchers are expected to develop measuring instruments and consider the conditions of the subjects at the research site.

References

- [1] Farid Ahmadi, Sunyoto, and Anindya Ardiansari, "Pengaruh Perdagangan Online Terhadap Perilaku Masyarakat Kota Semarang," *J. Riptek*, vol. Vol. I2, N, no. 2, pp. 107–118, 2018.
- [2] I. R. Arief and I. Novita, "Penerapan E-Commerce Untuk Mengoptimalkan Penjualan Pada Toko Gita Giza," *IDEALIS Indones. J. Inf. Syst.*, 2021, doi: 10.36080/idealism.v4i1.2823.
- [3] M. I. Hardiky, D. K. Nova, A. Rahmadewi, and N. Kustiningsih, "Optimalisasi Digital Payment Sebagai Solusi Pembayaran UMKM Roti Kasur," *J. Ris. Entrep.*, 2021, doi: 10.30587/jre.v4i1.2193.

- [4] T. W. Winarsih and Y. D. W. Yono, "Melatih Karakter Kewirausahaan Siswa SMK Melalui Pemasaran Online," *J. Pendidik. Ekon. Akunt. dan Kewirausahaan*, 2021, doi: 10.29407/jpeaku.v1i1.16287.
- [5] D. Sitorus, M. Batubara, C. A. P. Hutagalung, and A. A. Nasution, "Pengaruh Harga, Promosi, dan Ulasan Produk Terhadap Keputusan Pembelian Di E-Commerce Lazada Pada Mahasiswa Fakultas Psikologi UNPRI Medan," *Nusant. J. Ilmu Pengetah. Sos.*, 2023.
- [6] A. R. Praditya, S. Yulianto, and J. Prasetyo, "Game Theory Dalam Penentuan Strategi Pemasaran Optimal Dalam (Studi Kasus Persaingan E-Commerce Shopee dan TokoPedia)," *TIN Terap. Inform. Nusant.*, 2021.
- [7] H. Kurniadi, "Penilaian Produk dan Gratis Biaya Kirim Pada Keputusan Pembelian di Shopee," *Bul. Stud. Ekon.*, 2023, doi: 10.24843/bse.2023.v28.i02.p10.
- [8] S. B. Utomo, E. Andriani, and E. K. Devi, "Pengaruh Penilaian Produk dan Testimoni Pelanggan terhadap Keputusan Pembelian di Platform E-commerce Bukalapak di Indonesia," *Sanskara Ekon. dan Kewirausahaan*, 2023, doi: 10.58812/sek.v2i01.271.
- [9] R. Siringoringo and J. Jamaludin, "Text Mining dan Klasterisasi Sentimen Pada Ulasan Produk Toko Online," *J. Teknol. dan Ilmu Komput. Prima*, 2019, doi: 10.34012/jutikomp.v2i1.456.