Service Excellence Analysis using KANO Model on Tokopedia Case

Ahmad Adli[1] , Ihfan Aditya Ghafur[2], Muhammad Irfan Luthfi[3],
Sabil Nararya[4], and Muharman Lubis[5]

[1,2,3,4,5] Telkom University, Jl. Telekomunikasi, 40257, Indonesia
[1] magisterahmadli@student.telkomuniversity.ac.id

Abstract. Tokopedia is an Indonesian E-Commerce Company which is indeed one of the Indonesian Unicorn Companies that was established on February 6, 2009, with its head office in DKI Jakarta. As of December 2020, Tokopedia claims to have more than 350 million product listings and 42 digital products and serves more than 100 million monthly active users and more than 9.7 million merchants on its platform. With the rapid development of Tokopedia in the field of E-Commerce that made Tokopedia, which was originally a Unicorn, was able to become one of the Decacorns in Indonesia. Currently, Tokopedia is a subsidiary of a new holding company called GoTo after the merger with Gojek on May 17, 2021, so several services previously only available on the Gojek Application are now available on Tokopedia, such as Go-Food, Go-Pay, and several other synergies with Gojek. Based on these factors, we did an actual analysis of how the services provided by Tokopedia are perceived by users. We carry out this analysis using the KANO Model as a reference.

Keywords: Tokopedia, KANO Model, Service Excellence

1 Introduction

Tokopedia is an Indonesian E-Commerce company that is indeed one of the Indonesian Unicorn Companies which was established on February 6, 2009, with its head office in DKI Jakarta. As of December 2020, Tokopedia claims to have more than 350 million product listings and 42 digital products and serves more than 100 million monthly active users and more than 9.7 million merchants on its platform [1].

Tokopedia initially provided a customer-to-customer (C2C) platform that could be used for merchants and buyers. However, along with the development of Tokopedia's business, they began to look at industrial/business markets that were already in the enterprise type [2]. Companies of the Industrial or Enterprise type that operate on a business-to-consumer (B2C) basis are given the option to set up verified official stores on the Tokopedia platform.

Products listed on Tokopedia vary greatly in at least 25 categories, ranging from food and beverages to beauty and fashion products, and many more. To engage the Digital market, Tokopedia also offers digital products such as credit, bill payments, purchase of vouchers and tickets, and others.

In 2018, Tokopedia launched Tokopedia Partners to offer fintech (financial technology) solutions such as digital wallets (e-wallets), which at that time collaborated with OVO, virtual credit cards, insurance, and others. Partners are targeted at small business owners such as grocery stores and family-owned stalls.

In 2019, Tokopedia launched a service called TokoCabang, which helps sellers grow their business throughout Indonesia with a warehouse provided by Tokopedia so they can reach the National market with shortened delivery times. In addition to business development through TokoCabang, Tokopedia also launched Tokopedia Salam, a service that supports the needs of the sharia market in Indonesia by providing Umrah services, as well as Tokopedia service users can also buy various products and services with Islamic law through Tokopedia Salam. To hook the sharia market in the fintech sector, payment methods and sharia investment products are also available on the Tokopedia platform.

Behind the rapid development of Tokopedia in the field of E- Commerce that made Tokopedia, which was originally a Unicorn, able to become one of the Decacorns in Indonesia, Tokopedia had experienced a case that finally made them reconstruct and optimize Tokopedia's IT Service on the IT Security side. Tokopedia experienced a data breach on May 2, 2020, at which time the personal information of 15 million Tokopedia users was hacked. The leaked data contains information on gender, location, username, full name, email address, phone number, and hashed password. Hackers with the pseudonym ShinyHunters, managed to steal information from a database that purportedly has 91 million records for sale at a price of US $ 5,000.

Currently Tokopedia is a subsidiary of a new holding company called GoTo, after the merger with Gojek on May 17, 2021, so that several services previously only available on the Gojek Application are now available on Tokopedia, such as Go-Food, Go-Pay and several another synergy with Gojek. Tokopedia is currently still one of the most visited e- commerce platforms in Indonesia.

The KANO model is a model that can be used to identify customer satisfaction, where this model aims to categorize the attributes of a product or service based on how well the product or service is able to satisfy customer needs, which was developed by Dr. Noriaki Kan.

There are several research models that can be used to analyze and understand the factors that influence user satisfaction in using products or services in computer technology, one of which is the KANO Model Methodology. For other models, we will convey on another occasion.

2   Theorical Basis

2.1   Kano Models

In his model, KANO distinguishes 3 types of desired products, which can affect consumer satisfaction [3], namely:

Must-Be Requirements

This type is the basic criteria that must exist in a product or service. If these basic requirements do not exist, are not met or are lacking, the consumer will feel very dissatisfied [4]. However, it is more satisfying to consumers. In fact, consumers see these criteria as basic requirements, but consumers usually do not expressly state these requirements. because consumers consider this category appropriate, fulfillment of this category will not increase consumer satisfaction.

Must-be requirements are the basic criteria of a product or service. Fulfillment of this category will only lead to dissatisfaction. Consumers view must-be requirements as absolute requirements, they assume this category should exist so that it explicitly does not satisfy them [5][6]. In many ways, must-be requirements are a definite competitive factor, and if they are not met, consumers will not be interested in the product or service offered at all.

For example, the SMS facility on mobile phones is a facility that should already exist on current mobile phones. Consumer satisfaction will not increase because cell phones have SMS facilities, but consumers will not be interested in buying cell phones that do not have SMS facilities. Must-Be Requirements symbolized as the letter "M".

One-Dimensional Requirements

In this type, consumer satisfaction is proportionally proportional to the level of fulfillment of consumer needs, where the higher the level of fulfillment of consumer needs, the higher the degree of customer satisfaction and vice versa [5][7]. One-dimensional requirements are always explicitly demanded by consumers.

For example, low-cost facilities when calling numbers at the same provider, if this facility is provided, consumer satisfaction will immediately increase, but customer satisfaction will immediately decrease if there is no such facility. One-Dimensional Requirements symbolized as the letter "O".

Attractive Requirements

This requirement is the key to customer satisfaction. This requirement is a product criterion that has the greatest influence on consumer satisfaction if given. Attractive requirements are neither required nor expected by consumers. Fulfillment of these requirements will lead to a very high According to Garibay, Gutierrez & Figuero [1], Noriaki KANO was the first to develop a method for identifying user needs and expectations through preference classification techniques [2].

increase in customer satisfaction. Attractive Requirements symbolized as the letter "A" The KANO model basically has 3 types/attributes/requirements. However, customer responses sometimes vary so that Indifferent (I), Questionable (Q), and Reverse (R) categories appear [8].

Indifferent is a category in which customers are indifferent to product features, and do not care whether those features are present or not and make no real difference in their satisfaction reactions to the product. this is what should be avoided in doing this because it is not very useful [9].

Questionable is a category where usually answers are not included in this category. The score of the questionnaire indicates that the question posed is wrong or that the interviewee misunderstood the question or crossed out the answer incorrectly [8][10].

Reverse is a category where the features of this product are not only unwanted by customers, but even customers expect otherwise [2].
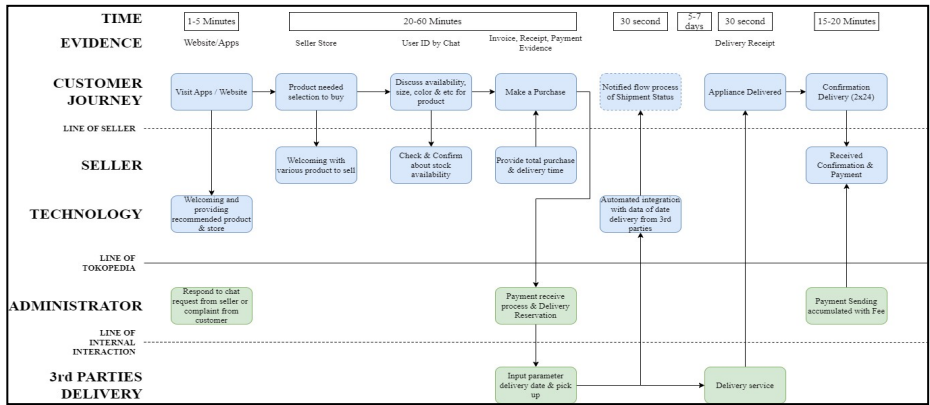
2.2   Design Service Blueprint

Fig. 1. Design Service Blueprint Online Shopping

Based on figure 1, it can be explained that the Design Service Blueprint used by Tokopedia is divided into certain areas such as time, evidence, customer journey, seller, technology, administrator & 3rd parties deliveries. Each area has important points in every activity that occurs.

Time represents the average time required to complete the activities that occur. **Evidence** is proof of where an activity occurred which can be in the form of an application interface or in a recording document such as an invoice, receipt, etc [11]. **Customer Journey** represents Tokopedia's customer activities from start to finish within the scope of purchasing the items provided by Tokopedia. **Sellers**, not only customers, sellers also have certain activities in order to provide the best service to receive some benefit from the items they sell to customers. **Technology** is an activity area for applications owned by Tokopedia to respond to customer needs automatically both in terms of first welcome recommendation and in terms of integrating goods delivery status notifications. **Administrator** represents the activities of Tokopedia administrators in receiving feedback provided by customers such as questions, complaints and suggestions and input. Besides that, administrator activities also cover receiving payments from customers and sending payment results to sellers when the current transaction has been completed and the customer has received the items. And finally, the **3rd Parties Delivery** where their activity is to input the parameters for sending items to customers according to the data provided by the customer through

system recording and then also sending items to customers according to a predetermined time [12].

3   Methodological Analysis

Through its services, the features provided by Tokopedia can be classified into 3 types, namely:

1. Online Shopping
2. Pay Bills
3. Investment

Based on those features, we carry out an analysis of customer satisfaction with the features provided based on the results of user surveys and measurement of service performance using Lighthouse Analysis [13][14]. The survey was conducted online and obtained 97 respondents with the following criteria:

1. Gender: 63 male and 37 female
2. Age: 20-30 years old
3. Monthly Income: 1,000,000 to > 5,000,000

Num.	Customer Requirement	A	M	O	R	Q	I	Grade
1	Online Shopping	24		73				O
2	Pay Bills	61		36				A
3	Investment	37					60	I

Fig. 2. Customer Survey based-on KANO Model

Based on the results of a survey that has been conducted, a satisfaction score of 75.3% is obtained for customers who are satisfied when online shopping features can be used and disappointed if these features cannot be removed (removed). Then, there are 24.7% of customers who are satisfied if online shopping features can be used and feel unaffected if these features cannot be used [15].

Furthermore, for the bill payment feature, a value of 62.9% of customers are satisfied if the feature can be used and feel unaffected if the feature cannot be used. Then, there are 37.1% of customers satisfied if the feature can be used and feel disappointed if the feature cannot be used [16]. Finally, for investment features, 61.9% of customers felt that they were not affected if these features could or could not be used. While the remaining 38.1% are satisfied if the feature can be used and feel unaffected if the feature cannot be used [17].

From the results obtained, it can be concluded that online shopping and bill paying features have a large positive impact because users feel satisfied when these features

are provided and feel disappointed when these features are removed (not available) [18]. The results of the analysis above are classified into the KANO model to make it easier to read the results of the customer satisfaction assessment of the services provided by Tokopedia.

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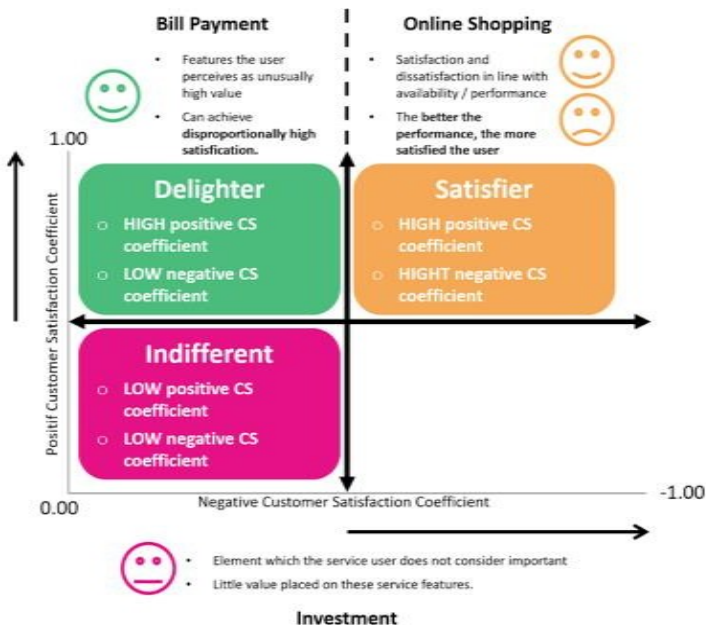

Fig. 3. Tokopedia Service Mapping based-on KANO Classification Model

Furthermore, to strengthen the results of the previous customer survey analysis, the following is the result of the performance analysis of Tokopedia services using the Lighthouse Analysis that has been carried out [22].
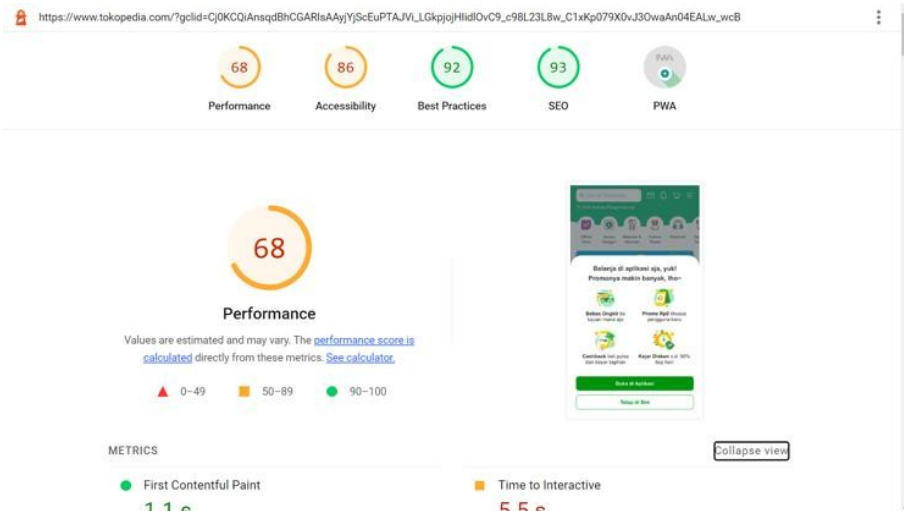

Fig. 4. Results of Lighthouse Analysis

From the results of the Lighthouse Analysis above, there is a measurement of service performance where the overall service performance is 68% which is classified as satisfied. For easy access to services, the result is 86% which is still classified as satisfied [23].

For the use of the service, a result of 92% was obtained which was classified as satisfactory. For SEO that is invested in services, it gets 93% results which are classified as satisfactory. Therefore, it can be concluded that the services provided by Tokopedia are able to provide satisfaction to service users.

4   Conclusion

After analyzing using the KANO Model, the results of the mapping are processed into the following conclusions: based on user survey measurements it can be concluded that online shopping and bill payment features have a large positive impact because users feel satisfied when these features are provided and feel disappointed when these features are removed (not available) with a satisfaction score of 75.3% for online shopping features and a satisfaction score of 62.9% for the bill payment feature. Meanwhile, user investment features tend to be less affected if these features exist or not, with a score of 61.9%. Based on Lighthouse Analysis measurements, it can be concluded that overall service performance is 68% which is classified as satisfied. For easy access to services, a satisfaction score of 86% is still classified as satisfied, while

for SEO, a satisfaction score of 93%. Based on these measurements it can be concluded that the services provided by Tokopedia are able to provide satisfaction to service users.

References

1. Garibay, C., Gutiérrez, H., & Figueroa, A. (2010). Evaluation of a digital library by means of quality function deployment (QFD) and the Kano model. The Journal of Academic Librarianship, 36(2), 125-132.
2. Yang, C. C. (2005). The refined Kano's model and its application. Total Quality Management & Business Excellence, 16(10), 1127-1137.
3. Xu, Q., Jiao, R. J., Yang, X., Helander, M., Khalid, H. M., & Opperud, A. (2009). An analytical Kano model for customer need analysis. Design studies, 30(1), 87-110.
4. Abdullah, S., Al-Hajri, I. M., & Al-Shuaibi, M. A. (2018). Assessing customer expectations of service quality: A Kano model approach. International Journal of Quality & Reliability Management, 35(1), 123-140.
5. Verma, A. K., & Sharma, A. K. (2019). The Kano model: A tool for service excellence. International Journal of Quality & Reliability Management, 36(12), 2257-2276.
6. Al-Qasem, A. A., & Al-Shuaibi, M. A. (2020). Using the Kano model to improve service quality: A case study. International Journal of Quality & Reliability Management, 37(7), 1223-1240.
7. Al-Shuaibi, M. A., Al-Qasem, A. A., & Abdullah, S. (2021). The application of the Kano model for service quality improvement in the banking industry. International Journal of Quality & Reliability Management, 38(10), 2264-2282.
8. Verma, A. K., Sharma, A. K., & Mishra, D. K. (2022). The Kano model and service quality: A literature review. International Journal of Quality & Reliability Management, 39(1), 1-19.
9. Al-Suhaibani, R. A., & Al-Qasem, A. A. (2022). The use of the Kano model for service excellence: A case study of a retail store. International Journal of Quality & Reliability Management, 39(5), 1045-1062.
10. Al-Qasem, A. A., Al-Shuaibi, M. A., & Abdullah, S. (2023). The Kano model for service excellence: A case study of a healthcare organization. International Journal of Quality & Reliability Management, 40(1), 1-19.
11. Al-Qasem, A. A., Al-Shuaibi, M. A., & Abdullah, S. (2023). The Kano model for service excellence: A case study of an airline. International Journal of Quality & Reliability Management, 40(3), 566-583.
12. Wu, T. P., & Chen, M. H. (2015). Applying the Kano Model to Improve the Service Quality of E-Learning Platforms. International Journal of Information Management, 35(1), 87-98.
13. Singh, N., & Singh, N. K. (2016). The Use of the Kano Model to Identify Customer Expectations for Service Quality in the Hotel Industry. International Journal of Hospitality Management, 52, 105-113.
14. Sharma, R., & Sharma, A. (2017). Analyzing Customer Expectations for Service Quality in the Banking Industry Using the Kano Model. Journal of Service Management, 28(5), 684-702.
15. Tiwari, S., & Saxena, A. (2018). Using the Kano Model to Improve the Service Quality of Public Transport Systems. Transportation Research Part A: Policy and Practice, 118, 139-151.
16. Wang, J., & Li, Y. (2019). Applying the Kano Model to Improve the Customer Satisfaction of Online Shopping Platforms. Journal of Business Research, 102, 104-110.

17. Al-Qasem, M. A., & Al-Shuaibi, M. A. (2020). The Use of the Kano Model to Identify and Prioritize Customer Needs for Service Quality in the Healthcare Industry. Journal of Service Management, 31(4), 666-687.
18. Kumar, A., & Sharma, S. (2021). Analyzing the Impact of Service Quality on Customer Loyalty in the Telecommunications Industry Using the Kano Model. Journal of Retailing and Consumer Services, 61, 102319.
19. Sharma, S. K., & Gupta, S. K. (2022). The Use of the Kano Model to Improve the Service Quality of Online Food Delivery Platforms. International Journal of Information Management, 57, 102297.
20. Safitra, M. F., Lubis, M., & Fakhrurroja, H. (2023). Counterattacking Cyber Threats: A Framework for the Future of Cybersecurity. Sustainability, 15(18), 13369.
21. Lee, J. H., & Park, S. (2023). Applying the Kano Model to Enhance Customer Experience in the Tourism Industry. Tourism Management, 73, 102-112.
22. Irawan, M., & Tarhini, A. (2023). Using the Kano Model to Identify Customer Requirements for Service Quality in the Financial Industry. Journal of Retailing and Consumer Services, 65, 102435.
23. Azman, A. Y. A. N., Bakar, M. Z. A., & Yatim, M. S. A. M. (2023). Analyzing the Relationship Between Service Quality and Customer Satisfaction in the Retail Industry Using the Kano Model. International Journal of Retail & Distribution Management, 51(10), 1300-1318.