

A Design to Improve the Quality of OVO Electronic Money Payment Services in Tokopedia using IPA and PGCV

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ABSTRACT

Currently, many online payment applications have sprung up in the community. This requires online payment application providers to compete in providing the best service for the community. This study aims to design an increase in the service quality of the OVO online payment application in Indonesia. This research applied Importance Performance Analysis (IPA) and Potential Gain in Customer Value (PGCV) methods to map the performance of service attributes and determine the priority service attributes for improvement. Based on the research conducted, the use of IPA and PGCV methods has been successfully utilized to map the performance of service attributes and determine priority attributes that should be improved.



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1. Introduction

Recently, the shopping trend has shifted towards e-commerce. The marketplace is an e-commerce model that functions as an intermediary between buyers and sellers. The number of marketplaces that have sprung up today makes each marketplace compete to improve service quality [1]. Tokopedia is one of the shopping sites in Indonesia that carries the market model and online business mall. Tokopedia allows individuals, small shops, and brands to open and manage online stores. Tokopedia has a program to support the perpetrators of Micro, Small, and Medium Enterprises and individuals to develop their business [2]. All marketplaces are currently collaborating with online payment applications. OVO is an application that provides payment services and online transactions. This application tries to fulfill various needs related to cashless and mobile payment methods. Using OVO, the transaction process is faster because it is more concerned with efficiency and effectiveness [3]. OVO digital payment platform officially cooperates with one of the largest e-commerce in Indonesia, Tokopedia. One of the partnership products is the OVO payment system which now replaces TokoCash as a Tokopedia digital wallet [4].

To find out the extent of the quality of service that the company has done in meeting customer satisfaction and to increase customer loyalty is to use the Importance



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Performance Analysis (IPA) method [5]. The Importance Performance Analysis (IPA) method has advantages compared to other methods. The procedure of the method used is quite simple, limited in power, and Importance Performance Analysis (IPA) methods are flexible enough to be applied in various fields [6]. The Potential Gain in Customer Value (PGCV) method is a complement to the Importance Performance Analysis (IPA) method. This method is an easy method for analyzing customers. This ease provides a way for the Cartesian Importance Performance Analysis (IPA) diagram to be compared in a more detailed qualitative form. This Potential Gain in Customer Value (PGCV) method can analyze each of the attributes studied. These advantages can be used to complete the Importance Performance Analysis (IPA) analysis, where the method only divides attributes into sections that need priority improvement or not [7].

Several studies have been conducted to analyze the effect of customer satisfaction. Singh seeks to determine the dimensions of quality from the perspective of “voice of the consumer” using the Total Interpretive Structural Modelling (TISM) with construct of Usefulness, Ease of Use, Security & Trust, Visual Appeal, Complementary Relationship, and Customer Service [8]. Li, Tan, & Xie describe the development of a conceptual framework to measure the web-based service quality using the Servqual model as a starting point [9]. Nasution, et al. analyze the effect of e-servqual on e-loyalty through e-satisfaction of students who use OVO applications at the Faculty of Economics and Business, University of North Sumatra, Indonesia [10]. Tileng, Utomo & Latuperissa determine the quality of service that is served as a priority to enhance by the Department of Population, Tomohon in serving the public using Importance Performance Analysis (IPA) to analyze [11]. Sukwadi & Jufina apply the IPA and PGCV methods to determine which service attributes should be improved and their priorities in Transjakarta [12].

According to a survey conducted by the daily social id, it is revealed that OVO is at the lowest level for electronic money in competing to attract consumers and have an awareness brand that will be needed to have characteristics compared to others [13]. Previous service quality research on OVO mostly only measured OVO, not specific to which payment the application has. From several service quality measurements on OVO, no one has measured payment using OVO at Tokopedia. Therefore, this study aims to design the quality of OVO electronic payment services in Tokopedia using IPA and PGCV methods.

The structure of this study is presented as follows: Section (2). Methods: presenting discussions such as Proposed Methods and Data Collection. Section (3). Results and Discussion presents the following: Demographics of Respondents, Validity and Reliability Test, Importance Performance Analysis, Potential Gain in Customer Value, and Improvement. Conclusions and suggestions for further research are presented in section (4).

2. Methods

2.1 Proposed Method

This study implemented the IPA and PGCV methods to design the quality of OVO services in Tokopedia. The priority levels that are generated by the Importance Performance Analysis (IPA) method was combined with the Potential Gain in Customer Value (PGCV) method are expected to be able to assist the company to improve their customer satisfaction [14]. The method of importance-performance analysis was used to map service attributes into each quadrant. The potential gain in the customer value method was executed to determine the priority order of the attributes. This study utilized

23 attributes to measure customer perceptions of Tokopedia's payment services through OVO. Identification of service quality dimensions and attributes referred to the previous studies [15] [16] [17] [18] [19]. The attribute assessment of the questionnaire was carried out using a Likert scale with a range of 1 - 5, where the value of 1 means strongly disagree, and value five means strongly agree. The list of questionnaires is shown in Table 1.

Table 1. Dimension and Attribute Questionnaire

Dimension	Attribute number	Question item
Ease of Use	p1	OVO is very easy to use in dealing with Tokopedia
	p2	The steps to make OVO payments in Tokopedia are easy
Speed	p3	Payment transactions using OVO on Tokopedia are fast
	p4	Confirmation of payment transactions using OVO quickly obtained
Customer Service	p5	It is very easy to contact OVO / Tokopedia customer service
	p6	If there is a problem or transaction error, OVO / Tokopedia quickly resolves it
Trust	p7	I believe in the credibility of OVO
	p8	I believe in OVO payment services at Tokopedia
Accuracy	p9	Transactions using OVO on Tokopedia is very accurate
	p10	Transaction record/transaction confirmation using OVO in Tokopedia is very accurate
Website Functionality	p11	The website/application runs well when making OVO payments at Tokopedia
Security	p12	I believe OVO has sufficient security features to protect customer information
	p13	I am sure OVO will not provide customer information to other sites
	p14	I believe that trading using OVO on Tokopedia is safe
Information Quality	p15	Information about OVO in Tokopedia is current and timely
	p16	Information about OVO in Tokopedia is accurate and relevant
	p17	Information about OVO in Tokopedia detail
Efficiency	p18	Using OVO in payment transactions on Tokopedia does not waste much time
	p19	Using OVO in transactions on Tokopedia is easy and does not spend much energy
Responsiveness	p20	Application response when OVO payments in Tokopedia are fast
Usefulness	p21	OVO greatly facilitates payment transactions on Tokopedia
Enjoyment	p22	I like to make payment transactions using OVO at Tokopedia
	p23	I enjoy making payment transactions using OVO on Tokopedia

The mapping of service attributes with IPA began with calculating the level of suitability. The level of conformity (Tki) was used to determine how much the customer was satisfied with the company's performance and how much the service provider understood what the customer wanted for the services they provided. To find the level of suitability, equation (1) was exercised. Xi shows performance of attribute, and Yi is expectation attribute. N describe total of respondent.

$$Tki = \frac{\sum_{i=1}^N Xi}{\sum_{i=1}^N Yi} \times 100\% \tag{1}$$

After calculating the level of conformity, the next step was to calculate the position of the performance (horizontal X) and expectation (vertical Y) axes using equations (2) and (3). k is number of attributes.

$$X = \frac{\sum_{i=1}^N Xi}{k} \tag{2}$$

$$Y = \frac{\sum_{i=1}^N Yi}{k} \tag{3}$$

The next stage was mapping the service attributes into the IPA matrix. The IPA matrix portrayed four quadrants, namely quadrant A (Concentrate here), Quadrant B (Keep up the good work), Quadrant C (Low Priority), and Quadrant D (Possible Overkill). The form of the IPA matrix is presented in Fig. 1.

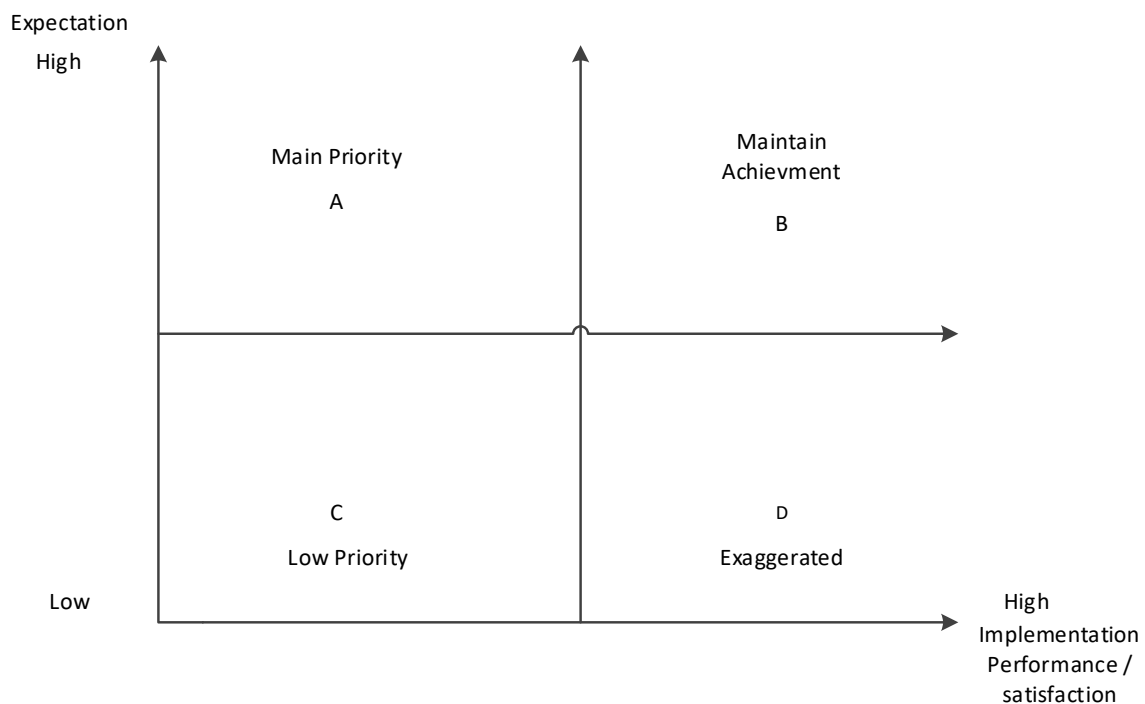


Fig. 1. IPA Matrix

After mapping the service attributes into the IPA matrix, those were sorted by priority using Potential Gain in Customer Value (PGCV). In the PGCV method, there were several steps, namely calculating the Achieved Customer Value (ACV), the Ultimately Desired Customer Value (UDCV), and the index of potential gain in customer value [20]. Furthermore, the formula is presented in Equations (4), (5) and (6).

$$ACV = \bar{X} \times \bar{Y} \tag{4}$$

$$UDCV = \bar{Y} \times X_{max} \tag{5}$$

$$PGCV = UDCV - ACV \tag{6}$$

2.2 Data Collection

Respondents of this research were people who have made payments on Tokopedia using OVO. The questionnaires were distributed to 122 respondents [21]. The sampling technique used was simple random sampling [22]. The process and results of the analysis were presented in the results and discussion section.

3. Results and Discussion

This section describes the characteristics of research respondents, the validity and reliability testing, the mapping of attributes into the IPA quadrants, the prioritizing of service attributes with PGCV, and suggestions for improvements offering.

3.1 Characteristics of Respondents

From the gender of respondents, males dominated more, that was as many as 92 respondents or 75.4%. In comparison, females were as many as 30 respondents or 24.6%, as is shown in

Fig. 2. The number of respondents by <20 years age range was 33 respondents, followed by the age range of 20-30 years by 80 respondents, and the age range of > 30 years was by nine respondents, as is shown in

Fig. 3.

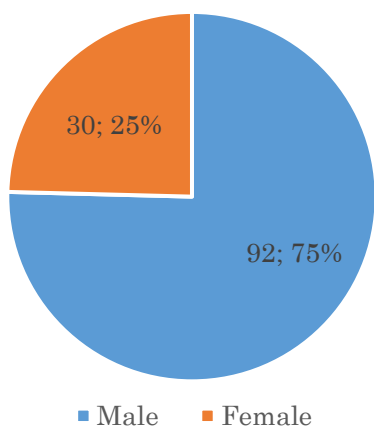


Fig. 2. Gender of Respondents

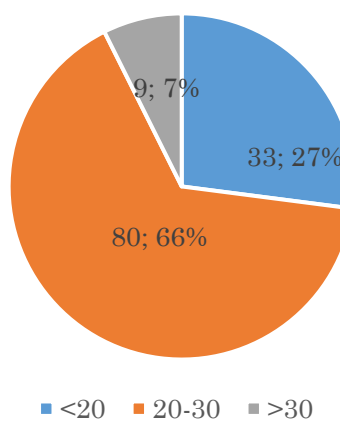


Fig. 3. Age of Respondents

Most of the respondents were students, comprising 24 respondents. Moreover, private employees followed in second place as many as four people. The rest were housewives, entrepreneurs, and others that were one for each, as is shown in Fig. 4. For cities, the highest number of respondents were in Jakarta with 26 respondents followed by Tangerang with 15 respondents, Surakarta with ten respondents, Surabaya with eight respondents, Yogyakarta with seven respondents, Malang with five respondents, Bekasi and Karawang with four respondents, and the rest was spread in various other cities as seen in Fig. 5.

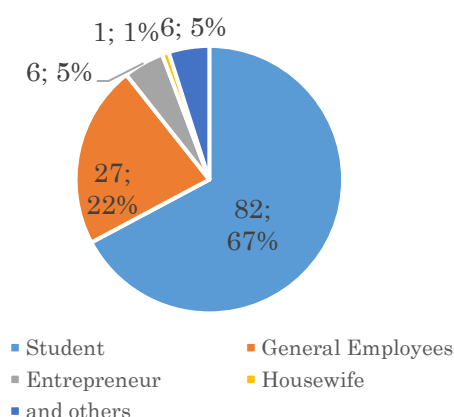


Fig. 4. The occupations of Respondents

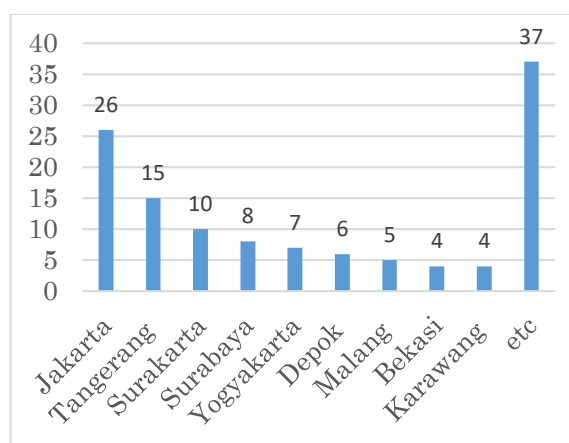


Fig. 5. City of Respondents

3.2 Validity and Reliability Test

The validity testing was done by comparing the correlation value for each factor with the value in the correlation value table. The data are valid if the correlation value for each factor is greater than the value in the correlation value table. The data are declared reliable if the 'α' value is greater than 0.60 [23]. For validity and reliability testing, 30 questionnaires were distributed. From the validity test results, it was found that the correlation value of each attribute was greater than 0.361, so the instrument was declared valid. In the reliability test, the results suggested that the Cronbach's Alpha (α) value for the interest questionnaire was 0.951. For the performance questionnaire, it was 0.948. Thus the questionnaire was considered reliable.

3.3 Importance Performance Analysis (IPA)

Fig. 6 displays the results of the service attribute mapping. From the IPA matrix, it was found that no service attribute was present in quadrant A. It implicated that the customer felt that the service performance was good. Seventeen attributes in quadrant B supported this statement because most service attributes have succeeded in satisfying customers. However, there were still six attributes in the C quadrant, which indicated that customers were less satisfied with service attributes [24] [25]. There were differences in the results found with previous studies. In previous studies, there were service

attributes in quadrant A. Therefore, the use of the PGCV method was carried out on service attributes that were in quadrant C.

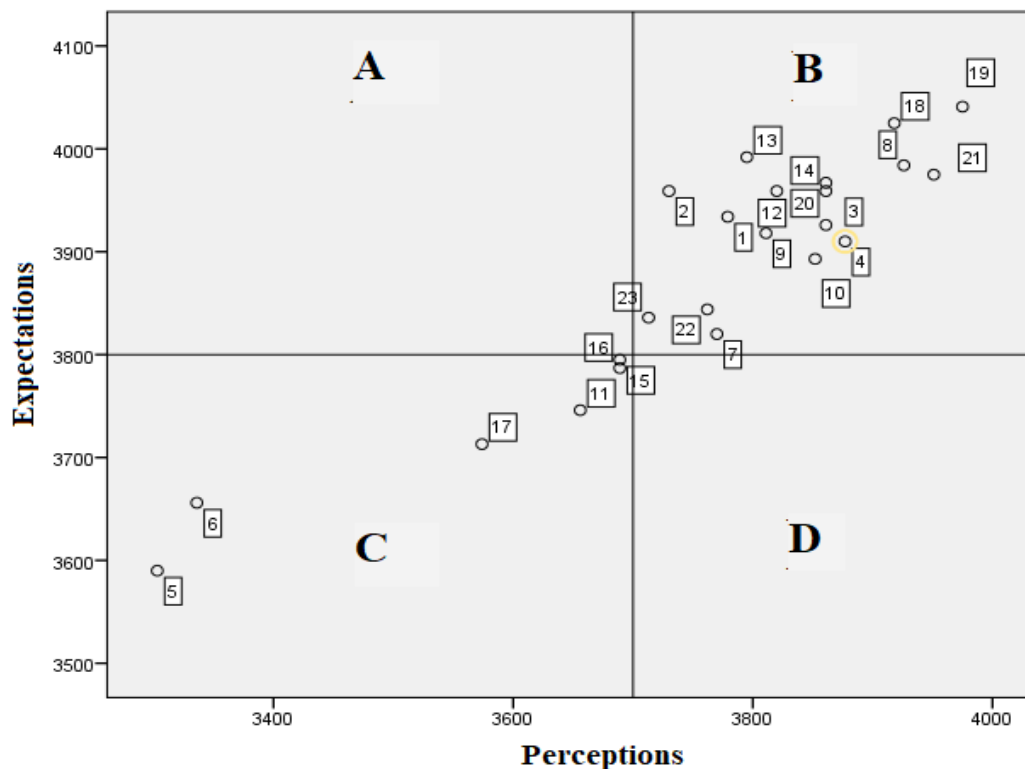


Fig. 6. Cartesian IPA Diagram

3.4 Potential Gain in Customer Value (PGCV)

Table 2 presents a recapitulation of the calculation results using the PGCV method. From the calculation results, it was found that the priority order for service attributes was "It is very easy to contact the OVO/Tokopedia customer service (p5)", "If there is a problem or transaction error, OVO/Tokopedia quickly resolves it (p6)", "Information about OVO in Tokopedia is quite a detail (p17)", "The website/application runs well when making OVO payments at Tokopedia (p11)", "Information about OVO in Tokopedia is current and up to date (p15)" and "Information about OVO in Tokopedia is accurate and relevant (p16)".

Table 2. Potential Gain in Customer Value (PGCV)

No	Expectation average (Y)	Perception average (X)	ACV (X*Y)	UDCV (Y*5)	UDCV-ACV
p5	3.590	3.303	11.859	17.951	6.092
p6	3.656	3.336	12.196	18.279	6.083
p11	3.746	3.656	13.694	18.730	5.035
p15	3.795	3.689	13.998	18.975	4.977
p16	3.787	3.689	13.968	18.934	4.966
p17	3.713	3.574	13.270	18.566	5.296

3.5 Improvement

From the above findings, several remedial measures were proposed as follows: Adding live chat sections, call center contacts and email to the Tokopedia and OVO websites, adding a list of appraisals given from customers to customer service staff after the problem is resolved either through live chat, call center, or email, giving a part to Tokopedia about OVO which will display information/promos along with their terms and conditions, always carrying out regular maintenance or maintenance of the website to anticipate if the server is down, protecting the website/application, and rewarding people who contact the company if they find a gap on the website/application, making scheduled information updates designed to input data for automatic information so that there is no need to manually minimize errors and providing information or promos to customers by customer characteristics both from search history and items that have been purchased.

4. Conclusion

The research results indicate that the current service quality is good, but some services need to be improved. Efforts to improve service quality were carried out on attributes that were prioritized for improvement. The use of Importance Performance Analysis and Potential Gain in Customer Value methods can be asserted to upgrade the quality of OVO services on Tokopedia. Suggestion for further research is to conduct interviews regarding complaints from customers about the services provided to increase the research's accuracy.

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