

The Impact of Physical Distribution Service Quality, Price and Brand Image on JNE Customer Satisfaction

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Abstract: The rapid increase in online business has resulted in greater expanded delivery services that ease consumers to deliver goods. Due to the large number of delivery service companies, competition is getting tougher. Therefore, companies need to satisfy their customers. This study aims to determine the influence of physical distribution service quality, price, and brand image on customer satisfaction with JNE courier service. This study employed a convenience sampling method for collecting data from 124 respondents who had used the courier service surveyed to test three hypothesized relationships among the constructs of physical distribution service quality, price, and brand image on customer satisfaction using variance-based structural equation modeling (PLS-SEM). The findings of this study showed that physical distribution service quality, price, and brand image have a positive effect on customer satisfaction.

Keywords : Physical Distribution Service Quality, Price, Brand Image, Courier Service, JNE

Peningkatan pesat dalam bisnis online telah menghasilkan layanan pengiriman yang lebih luas yang memudahkan konsumen untuk mengirimkan barang. Karena banyaknya perusahaan jasa pengiriman, persaingan semakin ketat. Oleh karena itu, perusahaan perlu memuaskan pelanggan mereka. Penelitian ini bertujuan untuk mengetahui pengaruh kualitas layanan distribusi fisik, harga, dan citra merek terhadap kepuasan pelanggan terhadap jasa kurir JNE. Penelitian ini menggunakan metode convenience sampling untuk mengumpulkan data dari 124 responden yang telah menggunakan jasa kurir yang disurvei untuk menguji tiga hipotesis hubungan antara konstruksi kualitas layanan distribusi fisik, harga, dan citra merek terhadap kepuasan pelanggan menggunakan pemodelan persamaan struktural berbasis varians (PLS-SEM). Temuan penelitian ini menunjukkan bahwa kualitas layanan distribusi fisik, harga, dan citra merek berpengaruh positif terhadap kepuasan pelanggan.

Kata Kunci : Kualitas Jasa Distribusi barang, Harga, Brand Image, Jasa Kurir, JNE

1. Introduction

At the beginning of the Covid-19 pandemic in Indonesia, the performance of the transportation, postal and courier support services sector was one of the worst service sectors. This is due to the large-scale social restriction policy aimed at suppressing the spread of Covid-19 and making transportation movements limited, which has an impact on the courier and postal services sector. It was recorded that in the first quarter of 2020, growth experienced minus 10.87%, in the second quarter minus 34.70% and experienced an increase in the third quarter of 41.31%, and fell again in the fourth quarter to 5.64% (Pancawati, 2021). Nevertheless, the flow of goods delivery experienced growth of up to 40% in 2021, where warehousing and postal and courier services experienced the

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fastest positive growth compared to other logistics sub-sectors, driven by the growth of last mile delivery from e-commerce (C. Indonesia, 2020).

The large size and growth of the courier service market encourage the emergence of new courier service companies and the efforts of old players to maintain their existence amid increasingly high competition. In 2023, Top Brand Indonesia determined J&T Express as the first ranked courier service with a market share of 33.30%, followed by JNE as the second top brand with a market share of 29.10%, then TIKI 10.60%, Pos Indonesia 7.30%, and DHL 7.20% (T. B. Indonesia, 2023).

For companies, brand image has an important meaning and is part of a marketing strategy to show product differences with competitors (Erdil, 2015). Brand image creates many consequences, one of which is customer satisfaction (Taqi & Muhammad, 2020).

Customer satisfaction is essential to thrive in a highly competitive market so as to retain existing customers, gain new customers, and ultimately keep customers loyal to the brand. As it is well known, many dissatisfied customers do not complain but move to competitors. As a result, companies do not have the opportunity to talk to these dissatisfied customers and help consumers solve their problems (Wirtz, 2017). Today consumers have many choices to meet their expectations. Customer satisfaction is the pleasant satisfaction that customers have when using a product, meaning that consumers feel that the use has met certain expectations, desires, requirements, and goals (Oliver, 2000). Satisfaction depends on the overall purchase and use of the target service and product presentation, compared to the expectation of repurchase over time (Fornell, 1992).

In creating customer satisfaction, service quality is important in products service (Liung & Syah, 2017). Courier services provide package delivery, goods delivery, and mail delivery services (Li et al., 2022). The service products also vary, ranging from regular products, same day, next day, to discounted shipping costs. Courier services focus on physical service quality known as PDSQ (Lutfianto, 2014b). PDSQ relates to the timeliness and flow of goods that can be accounted for from the receipt of goods until the goods reach consumers (Lutfianto, 2014a).

In addition, price is also a factor that can create consumer satisfaction and encourage people to decide to make purchases (Jabid et al., 2023). Price is an exchange rate that can be equated with money or other goods for the benefits obtained from a good or service (Limbongan & Panggeso, 2021). Meanwhile (Kotler, 2007) states that the definition of price is not only measured in currency but can be seen in the form of benefits received by consumers for the sacrifices they make.

This research focuses on customer satisfaction at a courier service, Jalur Nugraha Ekakurir or JNE. Its thirty-three years of experience serving the public, especially imported goods delivery services, has made JNE well known in Indonesia. JNE has seven service products that can be selected by its customers, they are JNE Regular, JNE YES, JNE OKE, JNE SS, JNE Trucking, JNE Pick Up-Point, and JESIKA (JNE, 2023). The popularity of JNE and its position in the Top Brand in Indonesia does not make it free from consumer complaints. Social media sources show consumer complaints such as the package sent does not match with what the buyer receives, the package does not arrive at the promised time or the JNE package tracking feature does not work. Companies need

to respond quickly to complaints submitted by consumers if they do not want their consumers to switch to other competitors (Rayasa et al., 2019).

Based on previous researches, it is known that generally research that examines the consequences of customer satisfaction from physical distribution service quality is carried out on the delivery of manufactured products, garments, convenience stores, online retailers and logistics service providers (Gandhi et al., 2018; Su et al., 2023), so it is necessary to conduct research on physical distribution service quality as an antecedent variable along with brand image and price that test customer satisfaction in courier services.

The research is focused on analyzing the factors that can give contribution on creating customers satisfaction, they are PDSQ, price and brand image on JNE services product.

Parasuraman et al., (1988) created SERVQUAL as an instrument for measuring service quality, including reliability, assurance, tangibles, empathy, responsibility in the service sector. Physical Distribution Service Quality is a concept that refers to the quality of service provided in the process of physical distribution of products from the point of production to the point of consumption. PDSQ is related to the certainty of time and flow of goods which can be represented starting from transportation, accessibility, until the condition of the goods arriving at the buyer (Samanhudi, 2019). In this case, to measure the quality of a distribution service, PDSQ can be used as a service technique. PDSQ can be categorized into 3 dimensions, namely Timeliness, Availability, and Quality (Rahmad Romdloni et al., 2022). The PDSQ concept was refined by (Xing et al., 2010) regarding constructs or dimensions in the availability of a product, quality of delivery, timeliness of delivery, status of the order, information and conditions of the order.

By providing the best service and quality, customers will feel satisfied, providing a good image for the company so they are willing to become regular customers (Ika Utami Yulihapsari¹, Juliater Simarmata², Yosi Pahala³, Veronica⁴, 2023). (Mentzer et al., 2001) states that the features that accompany physical distribution services can be a benefit for companies through superior service levels, the ability to deliver goods to the right place at the right price, and the right information that will satisfy customers. (Marina et al., 2018) proves that physical distribution service quality (PDSQ) has a positive effect on customer satisfaction.

H1: There is a positive influence between PDSQ on customer satisfaction

Relationship between Price and Customer Satisfaction

Price is the amount of money charged for a product (goods or services), or the amount of value that consumers must pay to get the benefits of the product (Kotler, 2012). Price has become the main part and point for customers in assessing something offered by the market (Suri & Monroe, 2003). However, (Foxall, 1999) states that price is a factor that does not play an important role in influencing the distribution of new products or services on the market. Therefore, it is difficult for a market to determine the price of a product.

By setting appropriate and reasonable prices, it is hoped that it can have a positive impact on service customer satisfaction (Maulana, 2016). According to research results from Setiadi et al., (2016) price has a positive and significant effect on customer satisfaction, meaning that price conformity can increase customer satisfaction. Likewise, if the price is not appropriate then customer satisfaction will be low (Kencana, 2018). The benefits obtained depend on the high and low prices Charged (Pribadi et al., 2022). Price also has a significant influence on repeat purchase interest (Ongkowijoyo, 2022) and price plays an important role in the marketing mix, because price determination will be directly related to the income received by the company (Ariyanti et al., 2022).

H2: There is a positive influence of price on customer satisfaction

Relationship between Brand Image and Customer Satisfaction

Brand image is very necessary for marketing where customers infer product quality based on the brand image and subsequently generate purchasing behavior. An image is developed in the minds of customers through the impact of promotions, advertising, word-of-mouth public relations, and customer encounters with products and services (Kandampully & Suhartanto, 2003). Porter et al., (2003) measuring brand image from two dimensions, namely symbols and function. Regarding its function, it focuses on the utility of the brand, whereas in terms of symbolic images it is contained in rotating words and status symbols. (Venessa & Arifin, 2017; Tjahjono et al., 2021) explains that because of the brand image and beliefs that arise in the minds of customers, customers can compare one brand with another.

According to (Upamannyu & Sankpal, 2014b) cognitive and emotional perceptions that consumers produce towards the brand. Kettler considers brand image to be a combination of the image produced by consumers and the message conveyed by the company. When a customer has information about a product and service that makes the customer have confidence in that product, then that is when a brand image already exists (Mehta, 2020). Meanwhile (Aaker, 2004) states that brand equity is difficult to develop, maintain and adapt. The supply environment has become messy, confusing and complicated, caused by the proliferation of products, brands and sub-brands.

Brand image refers to the perception that consumers have about a brand or company, while customer satisfaction is the level of satisfaction or satisfaction felt by customers with the products or services provided by the brand. According to research (Sondoh et al., 2007) brand image has an influence on customer satisfaction. (Onyancha, 2013; Bloemer et al., 1998) found that image has a very positive influence on satisfaction (Fitria et al., 2016). Consumers who are accustomed to using certain brands tend to have consistency in brand image (Az'zahra Namira, Lestari Ayu Megarani, 2020). Therefore, the relationship between brand image and customer satisfaction is close and influences each other in the business world.

H3: There is a positive influence between brand image on customer satisfaction

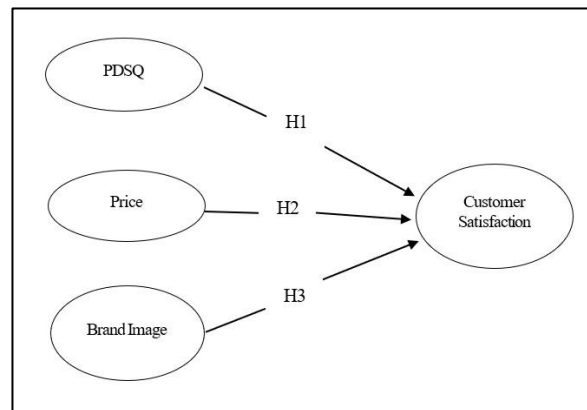


Figure 1. Conceptual Framework

2. Research method

Reasearch Instrument

The survey instrument was adopted from (Gunawan, 2023; Hasan et al., 2020; Slack et al., 2020) for data collection from JNE customers. The final questionnaire consists of a total of 26 items, of which 15 items are included in the Physical Distribution Service Quality (PDSQ), namely (1) Delivery date as specified (2) Delivery time as specified (3) Goods are delivered according to the specified delivery date (4) Goods are delivered on time (5) Goods are delivered according to the type of service selected (Diplomat, Super Speed, YES, Regular Service, OKE, JTR, International Service, Jesika). (6) JNE informs consumers of the type of goods delivery service (Diplomat, Super Speed, YES, Regular Service, OKE, JTR, International Service, Jesika) (7) Alternative types of services (Diplomat, Super Speed, YES, Regular Service, OKE, JTR, International Service, Jesika) help customers choose the time to deliver goods as needed (8) Before being sent, JNE inspects the goods first to ensure further handling of the goods (9) JNE informs the estimated time when the demand for delivery of goods is very high (10) Goods received are in accordance with the order (11) Goods received are complete in accordance with the order (12) The condition of the goods received is in good condition (13) Certainty of the conditions required in returning goods (14) Return (return) of goods is easy to do (15) Guaranteed replacement of goods in case of damage / loss.

Furthermore, Price which consists of 4 items, namely (1) JNE rates are affordable (2) JNE rates are in accordance with the quality provided (3) JNE rates are comparable to the benefits of its services (4) JNE rates are competitive compared to the prices offered by other shipping services. Brand Image which consists of 4 items, namely (1) JNE has a good reputation (2) Shipping goods with JNE is relatively safe (3) The digital service system owned by JNE is very modern (4) JNE has a better reputation than other shipping services and the last 3 items included in Customer Satisfaction, namely (1) I feel very satisfied using JNE (2) Based on experience, I am satisfied using JNE shipping services (3) I am happy to use JNE as a choice of goods delivery service.

Table 1. Measurement of variable

Variable	Operational definition	Source
PDSQ	Timeliness	Specify delivery date Specify deliver time slot Deliver on the first date arranged Deliver in time slot Ability to deliver quickly
	Availability	(Xing et al., 2010)
		Availability confirmation
		Alternative offer
		Order checking
		Waiting time for out-of-stock situation
	Condition	Order accuracy
		Order completeness
		Order condition
	Return	Easy return,
		Prompt of collection
		Prompt of replacement
Price	Price Affordability	(Gunawan, 2023)
	Conformity of price	
	Conformity of price with benefit	
	Price competitive	
Brand Image	Good reputation of the JNE	(Hasan et al., 2020)
	Safety goods delivery	
	Modern system	
	Better image than competitors	
Customer Satisfaction	I am very satisfied for use JNE	(Slack et al., 2020)
	Based on overall experience with JNE, I am very satisfied	
	I am happy to using JNE ass a delivery service	

Sample design and data collection

This study aims to investigate the role of PDSQ, Price, and Brand Image in determining JNE customer satisfaction. To achieve this goal, the target population of this study was identified to all customers who have used JNE services. This research uses a quantitative approach method. Data collection was carried out descriptively using a questionnaire method, data analysis, and multiple linear regression analysis modelling using SEM-PLS. The variables to be tested in this research are X1: PDSQ, X2: Price, X3: Brand Image, and Y: Customer satisfaction as the dependent variable. The sample size of this study was 124 JNE customer respondents. The population in this study are JNE customers with an unknown population size. The survey was conducted to collect JNE customers in the DKI Jakarta area, and respondents were based on demographics and type of work. This study analysed multiple linear regression modelling data using SEM-PLS.

According to SEM-PLS, the results are first assessed on Hair et al. (2018) outer model consisting of reliability, convergent validity, and discriminant validity of the measurement model, then the inner model, the structural predictability of the model measured by the Coefficient of Determination (R²), Effect Size (F²) and cross-validated redundancy (Q²).

With an unknown population, the researcher used the Lemeshow technique to get a minimum of 100 respondents. After that, the questionnaire was distributed and the final result was 124 respondents.

Analytical methods

Data were analysed using SmartPLS4. PLS SEM is used to build and test statistical models that are generally in the form of causal relationship models. PLS SEM combines aspects of regression analysis, path analysis, and confirmatory factor analysis so that it can cover the limitations of these models. SEM is used to evaluate the relationship between latent and manifest variables and to evaluate the quality of the model built. In addition, the choice of PLS-SEM was made based on its ability to check the validity and reliability of the instrument (confirmatory factor analysis), test the relationship model between variables (path analysis), and obtain a suitable model for prediction (structural model analysis and regression analysis) (Harahap, 2020). In addition, this study has a relatively small sample, therefore, PLS-SEM is most suitable for this study (Siregar et al., 2023). Given the guidelines suggested by (Leguina, 2015) the measurement model is evaluated separately before the evaluation of the structural model. In addition, to ensure data quality and consistency of the structural model, it is also conducted along with other validity and reliability test before conducting PLS-SEM analysis.

3. Result and Discussion

Result

The data was analysed descriptively and used modelling multiple linear regression analysis. The analysis is divided equally into the outer model: validity test consisting of convergent validity and discriminant validity, calculation of reliability and inner model. Then, in the final stage, it will be tested using bootstrapping method.

Tabel 2. Characteristics of Respondents

Demographic Variables	Frequency	Percentage
Gender		
Man	68	54,8%
Woman	56	45,16%
Age		
17-25	66	53,22%
26-35	45	36,29%
36-45	7	5,64%
>45	6	4,83%
Education Background		
Senior High School	37	29,83%

Diploma/Bachelor	82	66,12%
Postgraduate	5	4,03%
Delivery Location		
Jabodetabek	88	70,96%
Non-Jabodetabek	36	29,03%
Visit Frequency		
2-5 times	55	44,35%
6-10 times	24	19,35%
>10 times	43	34,67%
Domicile		
West Jakarta	40	32,25%
Central Jakarta	21	16,93%
South Jakarta	21	16,93%
East Jakarta	21	16,93%
Nort Jakarta	21	16,93%
Total	124	100

Source: Data Processed by Author (2023)

According to the demographics of the respondents in the table above, 54.8% of the respondents were male and 45.16% were female. 53.22% of respondents are about 17 to 25 years old, 36.29% of respondents are 26 to 35 years old, 5.64% are 36 to 45 years old and 4.83% are more than 45 years old. 29.83% of respondents had a high school education, 66.12% of respondents were diploma/graduate, and 4.03% of respondents were postgraduate. 70.96% of respondents make more deliveries in Jabodetabek and as many as 29.03% of respondents make deliveries outside Jabodetabek. The frequency of using the service for 2 to 5 times usage was 44.35%, 6 to 10 times usage was 19.35% and also more than 10 times usage was 34.67%. Then as many as 32.25% of respondents live in West Jakarta, 16.93% in North Jakarta, 16.93% in Central Jakarta, 16.93% East Jakarta, and 16.93% in South Jakarta.

Analysis of reflective measurement models

According to (Sarstedt et al., 2021) an Average Variance Extracted (AVE) value of 0.5 or more indicates that the construct can explain 50% or more of the variation in its items. From the table, the AVE value of the BI, CS, P and PDSQ variables has a value above 0.5 which indicates sufficient convergent validity and means that one latent variable is able to explain more than half of the variation of its indicators on average.

According to (Ghozali & Latan, 2015) a good cross loading value is above 0.7. The Cross Loading value of each construct is tested to ensure that the construct correlation with the measurement item is greater than other constructs. Based on this table, the Cross Loading value of each variable item has a value above 0.7. For example, the BI variable item has a Cross Loading value of 0.880 and is above 0.7. The Cross Loading value of BI has a higher correlation with the CS (0.726), P (0.586) and PDSQ (0.685) variables. So it can be concluded that the discriminant validity requirements have been met.

According to (Wong, 2013) variables can be said to have good discriminant validity if the root AVE value of each construct is greater than the correlation value between constructs and other constructs. From the table, the root AVE value is the value on the diagonal axis (bolded). The table shows that the AVE root value is greater than the correlation value of other variables. For example, the BI variable has an AVE root value of 0.849, which is greater than the AVE root value of the CS variable (0.793), P (0.601) and PDSQ (0.787).

Table 3. Convergent Validity Test

Path	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Brand Image	0.869	0.878	0.911	0.721
Customer Satisfaction	0.903	0.908	0.939	0.838
Price	0.925	0.929	0.947	0.816
PDSQ	0.961	0.962	0.965	0.649

Source: Results of data processing using SEM PLS

Table 4. Cross loading test

	Brand Image	Customer Satisfaction	Price	PDSQ
BI1	0.880	0.726	0.586	0.685
BI2	0.896	0.722	0.594	0.765
BI3	0.872	0.639	0.468	0.668
BI4	0.739	0.595	0.369	0.536
CS1	0.784	0.938	0.529	0.703
CS2	0.729	0.926	0.575	0.686
CS3	0.660	0.881	0.578	0.587
P1	0.552	0.543	0.930	0.572
P2	0.475	0.555	0.906	0.486
P3	0.552	0.605	0.898	0.596
P4	0.600	0.493	0.879	0.548
PDSQ1	0.617	0.523	0.395	0.795
PDSQ10	0.635	0.590	0.490	0.816
PDSQ11	0.657	0.624	0.570	0.806
PDSQ12	0.664	0.530	0.481	0.782
PDSQ13	0.622	0.642	0.536	0.839
PDSQ14	0.645	0.593	0.478	0.760
PDSQ15	0.559	0.572	0.480	0.787
PDSQ2	0.650	0.658	0.551	0.861
PDSQ3	0.668	0.627	0.524	0.860
PDSQ4	0.620	0.561	0.498	0.787
PDSQ5	0.643	0.540	0.402	0.811

PDSQ6	0.623	0.524	0.490	0.788
PDSQ7	0.627	0.561	0.437	0.766
PDSQ8	0.648	0.566	0.512	0.811
PDSQ9	0.633	0.577	0.502	0.808

Source: Results of data processing using SEM PLS

Table 5. Fornier Larcker

Path	Brand Image	Customer Satisfaction	Price	PDSQ
Brand Image	0.849			
Customer Satisfaction	0.793	0.915		
Price	0.601	0.611	0.903	
PDSQ	0.787	0.722	0.610	0.806

Source: Results of data processing using SEM PLS

Analysis of structural model

Testing of the inner model is a model development based on theory to analyze the relationship between external and internal variables that have been listed in the conceptual framework. (Harsanti et al., 2016) if the p value is below 0.05 then Ha is accepted. Conversely, if the p value is above 0.05 then Ha is rejected. Meanwhile, in this study bootstrapping for each variable in the conceptual model contained in Figure 2 below are all accepted.

Table 6. Hypothesis Testing

Model	Original Sample (O)	T-Statistics	P-Values	Desicion
Brand Image -> Customer Satisfaction	0.539	4.358	0.000	H1: Supported(+)
Price -> Customer Satisfaction	0.167	2.047	0.041	H2: Supported(+)
PDSQ -> Customer Sastisfaction	0.196	2.485	0.013	H3: Supported(+)

It can be concluded from the hypothesis test that:

H1: PDSQ contributes positively to JNE customer satisfaction

H2: Price contributes positively to JNE customer satisfaction

H3: Brand image contributes positively to JNE customer satisfaction.

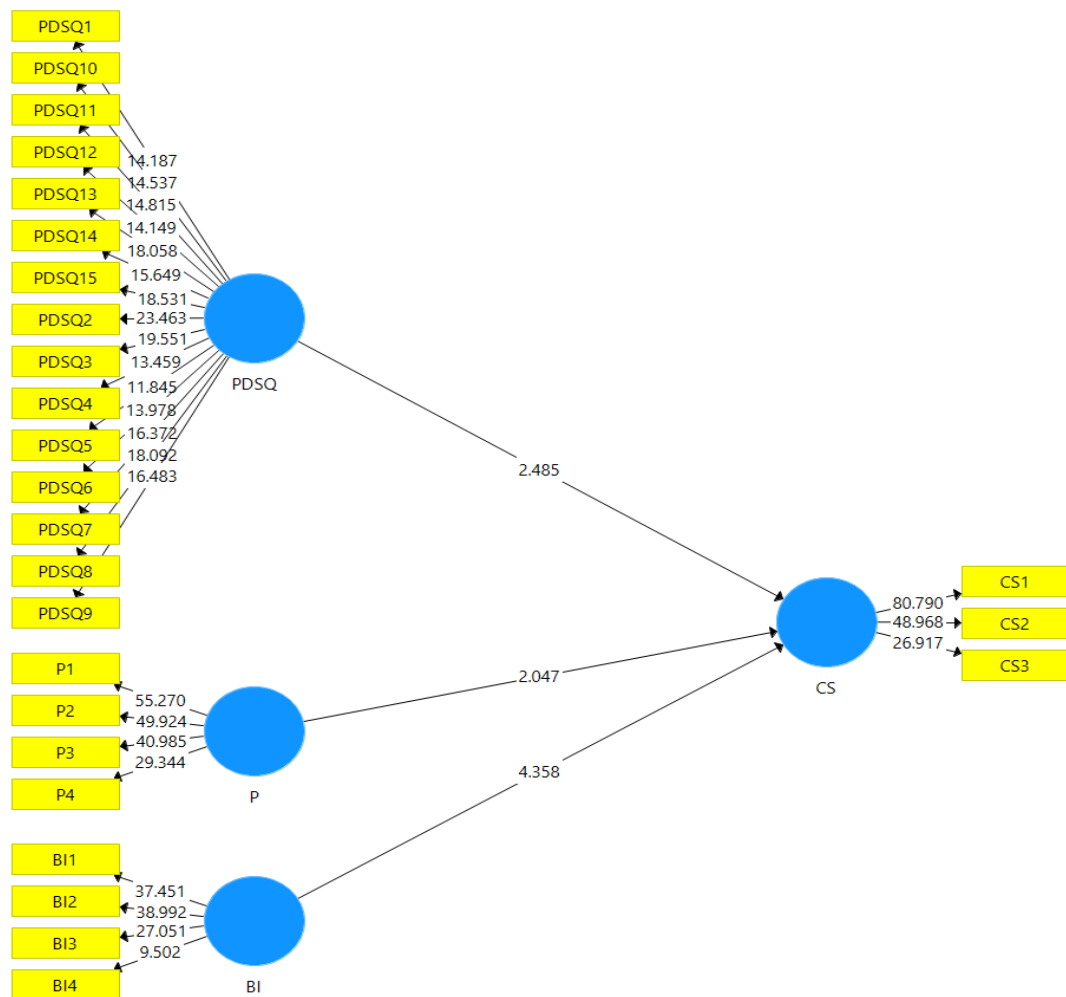


Figure 2. Structural Model Full Bootstrapping

Discussion

The path coefficient resulting from the calculation of service quality makes a positive contribution to customer satisfaction of 2.485. From this coefficient value, it explains that the higher the quality of service, the more the satisfaction of the customer itself increases. It means that JNE customers feel a level of satisfaction when using JNE services. This research is in line with (Wendha et al., 2013; Sondakh, 2015) that perceived quality of service exceeds expectations, it means that the service provides a high value that will encourage the creation of customer satisfaction. (Marina et al., 2018) in his research also states that the direction of the influence of the PDSQ variable on customer satisfaction is positive. The results of this study are also in line with research by (Amelia et al., 2021) that the quality of service provided by PT JNE to customers affects the satisfaction obtained by customers after using JNE delivery services. in which the results showed that service quality has a positive and significant relationship with customer satisfaction.

The path coefficient resulting from the calculation where the price makes a positive contribution to customer satisfaction is 2.047. This positive path coefficient value indicates that price can increase customer satisfaction. Price is a factor that affects the level of customer satisfaction and is also an important factor in sales. The results of this study illustrate that the price charged by JNE is in accordance with what customers expect, it means that when JNE offers a more affordable price, it will create higher customer satisfaction. Research results from (Tatuil, 2013) is that nowadays customers are smarter and will choose the best price when using a service. It can be concluded that Price has a positive and significant relationship with Customer Satisfaction.

From the calculation of the path coefficient, where Brand Image makes a positive and significant contribution to Customer Satisfaction is 4.358. This positive path coefficient value indicates that a good company image can increase perceived value. This research is also in line with the findings of (Upamannyu & Sankpal, 2014) that there is a very strong and positive relationship between Brand Image and Customer Satisfaction. From (Abbas et al., 2021) that if customers are satisfied with the brand, it will increase customer satisfaction and customer satisfaction will help build Brand Image. A research by (Chairunnisa, 2018) also shows that there is a positive and significant effect of Brand Image on Customer Satisfaction. In which Brand Image has a positive and significant relationship with customer satisfaction.

From the results of research on the 3 variables that influence customer satisfaction, the result was that for the PDSQ variable the highest loading value was found in timeliness, in the price variable, the highest loading value is in price affordability, and for the brand image variable, the highest loading value is reputation of JNE.

4. Conclusion

This research shows that physical distribution, service quality, price and brand image influence customer satisfaction. It can be interpreted that the research model and the literature review carried out by previous researches are consistent with this results study. Increasing the implementation of PDSQ, price and brand image will increase customer satisfaction. In this case, brand image has the greatest contribution, followed by PDSQ and price which also contribute to increasing customer satisfaction. Because brand image has a big influence on customer satisfaction, it means that the company has instilled a good image to its customers so that customers feel satisfied after using the services provided by JNE.

Implication

This research confirms that PDSQ, price and brand image have a positive effect on customer satisfaction, so the JNE company must be aware of the importance of these three aspects to fulfill customer satisfaction. Moreover, because brand image in this research has greater results compared to other variables, the company must maintain the quality of the services and prices provided so that the brand image generated has a positive impact on customers who use JNE services.

Research Limitations

This research has research limitations so that the results in this research cannot be generalized. The variables in this research are only PDSQ, price, and brand image, further research may be conducted by using more variables. This research was conducted only in the DKI Jakarta area that made it less extensive. Perhaps next research can be conducted in different area or different city.

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