The Influence of Product Quality, Trust, and Service Quality on Consumer Satisfaction
(Study of Vivan Robot Product Users in Jakarta)

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Abstract. *To find out the influence of product quality which partially influences consumer satisfaction, to find out the influence of trust which partially influences consumer satisfaction, to find out the influence of service quality which partially influences consumer satisfaction of Vivan robot product users in Jakarta. The population in this research are consumers who visit and purchase Vivan Robot products in DKI Jakarta, both individuals and shops. The exact number of population members is not known. The number of samples in this study was 96 respondents. The results of the observations that have been obtained are the product quality. partially has a significant effect on Consumer Satisfaction, Trust partially has a significant effect on Consumer Satisfaction, Service Quality partially has a significant effect on Vivan Robot Consumer Satisfaction.*

Keywords: Product Quality, Trust, Service Quality, Consumer Satisfaction

INTRODUCTION

In this era, everyone definitely has an Android cellphone. Of course, the cellphone will be equipped with supporting accessories such as charge, headset, power bank, memory card, adapter, data cable and many more. One of the best brands in Indonesia is Vivan Robot which is run by PT Wook Global Technology. PT Wook Global Technology is the first B2B (Business to Business) ECommerce platform in Indonesia which sells on a large scale to master dealers and resellers as well as owners of the VIVAN and ROBOT brands with its flagship products in the form of gadget, PC and life style accessories. Apart from that, Wook is also a distributor of well-known brands such as: DJI, Phillips, Sony, HikVision, Vivo, Syma, etc. Consumer satisfaction in purchasing explains that consumer behavior is not only influenced by consumer characteristics but can also be influenced by several factors including product quality, trust and service quality, the variables above mutually influence the consumer satisfaction process. So in this case the variables used are: product quality, trust and service quality, independent variables which influence consumer satisfaction as the dependent variable. Product quality is an important concern for companies when creating a product. Quality products are the main criteria for consumers in selecting products offered by the

company.

Problem Restriction

The author formulates the problem to be discussed in this research into several questions as follows:

1. Does product quality partially influence consumer satisfaction with Vivan robot product users in Jakarta?

2. Does trust partially influence consumer satisfaction with Vivan robot product users in Jakarta?

3. Does service quality partially influence consumer satisfaction with Vivan robot product users in Jakarta?

Therefore, this study aims to determine the effect of each independent variable on the dependent variable, namely the Consumer Satisfaction.

THEORETICAL FOUNDATION

Definition of Product Quality

According to Kotler and Keller (2016) that product quality is the product's ability to carry out its functions, this ability includes durability, reliability, accuracy, which is obtained by the product as a whole. According to Tjiptono (2015), the conventional definition of quality is performance as a direct depiction of a product, reliability, ease of use, aesthetics and so on. In a strategic sense, quality is anything that can provide consumer needs in accordance with what consumers want. According to Arumsari (2012), product quality is the factors contained in an item or result that cause the item or result to be suitable for the purpose of the item being produced. According to Ernawati (2019), product quality is an important factor that influences every customer's decision to buy a product.

Definition of Trust

According to Jogiyanto (2019), trust is an individual's evaluation after obtaining, processing and collecting information, which then results in various judgments and assumptions. Meanwhile, according to Mowen and Minor in their book Sangadji and Sopiah (2013): defining customer trust is all the knowledge possessed by consumers and all conclusions made by consumers about objects, attributes and benefits. Trust as a perception of reliability from a consumer's perspective is based on experience, or more on sequences of transactions or interactions characterized by the fulfillment of expectations of satisfaction. When customers trust a company, these customers will form their own satisfaction. Trust is built over a long period of time and will only develop after repeated encounters with customers to consumers

who have made physical purchases of products, which will be a consideration forthose who make purchases online.

Definition of Service Quality

Manengal (2021) states that service quality is a dynamic condition that is closely related to products, services, human resources, as well as processes and the environment that can at least meet or even exceed the expected service quality. Dzikra (2020) also states that service quality is a strategic system involving all work units or organizational units from leaders to employees so that it meets the needs expected by consumers. According to Tjiptono and Chandra (2011), service quality is a measure of how well the level of service provided meets customer expectations. Based on this definition, service or service quality can be realized through fulfilling customer needs and desires as well as delivery provisions to match customer expectations.

Definition of Customer Satisfaction

According to Hasan (2014), it is a concept that has long been known in marketing theory or application, customer satisfaction is one of the essential goals for business activities, seen as one of the best indicators for achieving profits in the future, and a trigger for efforts to increase customer satisfaction. .Companies measure customer satisfaction regularly because one of the keys to customer retention is customer satisfaction (Kotler and Keller, 2009). When customers achieve their satisfaction with an element of a company's performance, such as regarding delivery, companies need to pay attention to where customers are in terms of how they define delivery of goods.

Framework

After synthesis or temporary conclusions can be formulated, a framework is then prepared. The framework or framework of thought is the rationale for research that is synthesized from facts, observations and literature review. The resulting framework can be an associative / relationship or comparative or comparative framework (Sugiyono, 2022). In this study the framework is asfollows:
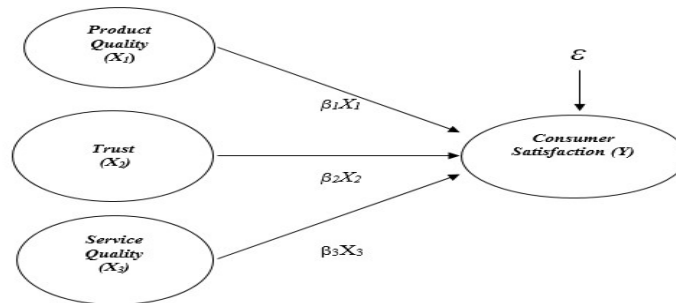
HYPOTHESIS

The Effect of Product Quality on Consumer Satisfaction

Product quality influences consumer satisfaction with a product, consumers will pay attention to product quality by accessing information quickly. The products offered by the company range from designing, establishing production and operations systems, creating marketing programs, distribution systems, and being offered to the market to meet consumer needs. A product is a set of tangible and intangible attributes including color, product quality, good name of the product, good name of the shop, the one selling (retailing) and factory services and retailer services received by buyers to satisfy needs and desires. Everything that can be offered to satisfy a consumer's needs and desires (Alma, 2004). Supported by research conducted by Yudi Pratama, Imam Heryanto, Ashila Dwiyanisa, Imelda Megawati (2021) that product quality has an influence on consumer satisfaction as well as research by Ria Siti Aisyah and Meylani Tuti (2022). This research shows that product quality has an influence on consumer satisfaction.

The Effect of Trust on Consumer Satisfaction

According to Jogiyanto (2019), trust is an individual's evaluation after obtaining, processing and collecting information, which then results in various judgments and assumptions. Trust is a commitment to another company for positive performance results (Anderson and Narus, 2003). Supported by research by Ardiansyah Japlani, Fitriani, Siti Mudawamah (2020), trust has a positive and significant effect on consumer satisfaction, in line with research by Faradilah Meida, Miguna Astuti, Heni Nastiti (2022), trust has a positive and significant effect on consumer satisfaction.

Effect of Quality on Consumer Satisfaction

Services according to Philip Kotler, (2005) are activities or benefits that can be provided by one party to another party which basically do not materialize and do not result in the selection of something. According to Tjiptono (2001), a service is any action or deed that can be offered by a party to another party, which is basically intangible (not physically tangible) and

does not result in ownership of something. According to Yazid (2001), service is a condition related to human products or services, processes and environments that meet expectations. . Supported by research by Ugeng Budi Haryoko, Hapid Rabani (2019) that service quality and product quality influence consumer satisfaction

RESEARCH METHODS

Population

The population in this research are consumers who visit and purchase Vivan Robot products in DKI Jakarta, both individuals and shops. The exact number of population members is not known.

Sample

Because the population in this study is unknown, the Lemeshow formula was used to determine the sample size. The following is the lemeshow formula according to Ridwan and Akdon (2010).

$$n = \frac{Za^2 xPxQ}{L^2}$$

Information:

n = Minimum number of samples required

Zα = Standard value of the distribution according to the value α = 5% = 1.96

P = Prevalence of outcome, because data has not yet been obtained, 50% is used

Q = 1 – P

L = level of accuracy10%

Using the formula above, the number of samples to be taken is:

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

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

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

$$n = 96,04$$

Based on the formula above, the minimum sample size required in this research is 96 respondents.

Research Model

Regression analysis aims to: (i) determine the magnitude of the quantitative influence of changes in X on changes in Y, whether positive or negative, and (ii) estimate or predict the value of Y if variable while correlation aims to determine the relationship between variable X and Y.

The regression equation used in this research is $Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Information:

Y = Consumer satisfaction

a = Constant

$\beta1, ..., \beta3$ = Regression coefficient of each variable

X_1 = Product quality

X_2 = Trust

X_3 = Service quality

ε = Error

Analysis Tool

This research processes data using the software IBM Statilstical Package for the Social Sciences (SPSS)versi 22. The analysis methods used include the test of classical assumptions, coefficient of correlation, coefficient of determination, multiple linear regression, and hypothesis testing.

DISCUSSION

Classical Assumption Test Normality Test
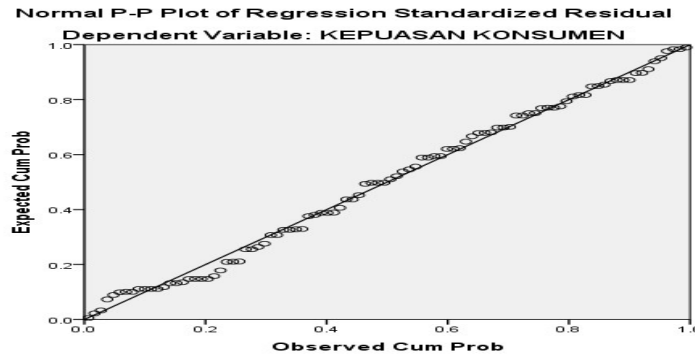
In the image resulting from the SPSS Normal P-P plot output, it shows that the distribution of data points is spread around the diagonal line and the distribution of data points is in the direction of the diagonal line. So, the data on the Consumer Satisfaction variable can be said to be normal.

MulticollinearityT

est

Coefficientsa

| Model		Collinearity Statistics	
		Tolerance	VIF
	Kualitas Produk	.393	2.544
1	Kepercayaan	.324	3.083
	Kualitas Pelayanan	.434	2.305

a. Dependent Variable: KEPUASAN KONSUMEN

From the results above, it can be seen that the variance inflation factor (VIF) value of each variable is the product quality variable of 2.554, the Trust variable of 3.083 and the service quality variable of 2.305, and all three have a Tolerance of more than 0.100 and a VIF of less than 10, because From this it can be concluded that for the variables product quality, trust, and service quality, there is no multicollinearity problem.

Heteroscedasticity Test

The heteroscedasticity test is used to determine whether in a regression model, there is an inequality of variance in the residuals (error) from one observation to another. If the variance of the residuals from one observation to another is constant, then it is called homoscedasticity. And if the variance is different it is called heteroscedasticity. A regression model is said to be

good if heteroscedasticity does not occur. The basis for making a decision whether there is heteroscedasticity or not:

- If the points in the output form a certain regular pattern then heteroscedasticity occurs.
- If the points in the output do not form a certain regular pattern then heteroscedasticity does not occur
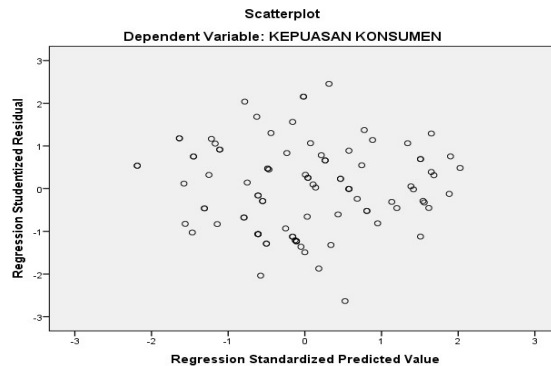
Based on the figure above, it shows the distribution of data points as follows:

1. The data points spread above and below or around the number 0.
2. The data points do not collect only above or below.
3. The distribution of data points should not form a wavy pattern widening then narrowing andwidening again.
4. The distribution of data points should not be patterned.

So it can be concluded that the independent variables are free from assumptions

Hypothesis Test Coefficient (t Test)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.149	.704		3.052	.003
	Kualitas Produk	.817	.067	.856	12.247	.000
	Kepercayaan	260	.061	328	4.262	.000
	Kualitas Pelayanan	.299	.051	.392	5.890	.000

a. Dependent Variable: KEPUASAN KONSUMEN

1. Product quality variables. (t count = 12, 247; Sig = 0.000). tcount (12.247) > ttable (1.66159)

then Ha is accepted and H0 is rejected.Sig value (0.000) < 0.05) then Ha is accepted and H0 is rejected. That is, the coefficient of the product quality variable. (X1) partially has a significant influence on the consumer satisfaction variable.

2. Trust Variable (t = 4.262; Sig = 0.000). tcount (4.262) > ttable (1.66159) then Ha is accepted and H0 is rejected. Sig value (0.000) < 0.05) then Ha is accepted and H0 is rejected.This means that the coefficient of the trust variable (X2) partially has a significant influence on the consumer satisfaction variable.

3. Service quality variable (t count = 5, 890; Sig = 0.000). tcount (5.890) > ttable (1.66159) then Ha is accepted and H0 is rejected.Sig value (0.000 < 0.05) means Ha is accepted and H0 is rejected.This means that the coefficient of the Service Quality variable (X3) partially has a significant influence on the Consumer Satisfaction variable.

Coefficient of Determination (R2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.907[a]	.823	.817	1.125

A. Predictors: (Constant), Kualitas Pelayanan, Kualitas Produk, Kepercayaan

B. Dependent Variable: Kepuasan Konsumen

This figure means that the combined influence of product quality, trust and service quality on consumer satisfaction is 81.7%, while the remaining 18.3% (100% - 81.7%) is influenced by other causal factors originating from outside the regression model. This. For example, price, advertising, company image, social politics and others.

Intepreation of Research Results

The Effect of Product Quality on Consumer Satisfaction

The results of testing the first hypothesis, in this study, show that product quality has a significant influence on consumer satisfaction, this can be seen from the probability value, namely tcount (12.247) > ttable (1.66159) and Sig value (0.000) < 0.05). The results of the author's research show that the product quality variable has a significant effect on Vivan Robot Consumer Satisfaction. This shows that consumers feel that Vivan Robot provides appropriate

product quality, which is expected to ultimately influence consumers' satisfaction in buying products at Vivan Robot. According to research by Yudi Pratama, Imam Heryanto, Ashila Dwiyanisa, Imelda Megawati (2021), Sukaesih, (2019) and Ria Siti Aisyah (2022), the results of their research show that product quality has a significant and positive effect on consumer satisfaction, this proves that the results research conducted by the author with previous research is consistent that there is a significant influence between product quality. on Consumer Satisfaction.

The Effect of Trust in Consumer Satisfaction

The results of testing the first hypothesis in this study show that Trust has a significant influence on Consumer Satisfaction, this can be seen from the probability value tcount (4.262) > ttable (1.66159) and the Sig value (0.000) < 0.05). The results of the author's research show that Trust has a significant effect on Vivan Robot Consumer Satisfaction. This shows that consumers perceive that their trust in Vivan Robot is as promised by the company and ultimately influences consumers towards Vivan Robot Consumer Satisfaction. According to research by Kevin Putra Mahendra and Ratih Indriyani (2018) and Faradilah Meida, Miguna Astuti, Heni Nastiti (2022). The results of their research show that Trust partially influences Consumer Satisfaction, this proves that the results of research conducted by the author with previous research are consistent in that there is a significant influence between Trust and Consumer Satisfaction.

The Effect of Service Quality on Consumer Satisfaction

The results of testing the first hypothesis in this study show that service quality has an influence on consumer satisfaction, this can be seen from the probability value tcount (5.890) > ttable (1.66159) and the Sig value (0.000 < 0.05). The results of the author's research show that service quality has a significant effect on Vivan Robot Consumer Satisfaction. This shows that consumers perceive that the quality of service at the Vivan Robot company is as promised by the company and ultimately influences consumer satisfaction with Vivan Robot. According to research by Ria Siti Aisyah (2022), Ugeng Budi Haryoko, Hapid Rabani (2019) and Desrianto, Sri Afridola (2020), the results of their research show that service quality partially influences consumer satisfaction, this proves that the results of research conducted by the author with previous research it is consistent that there is a significant influence between service quality and consumer satisfaction.

CONCLUSION

Based on the results of research and discussion regarding the influence of product quality, trust

and service quality on consumer satisfaction at Vivan Robot, below the author will summarize the results of the observations presented in the previous chapter, as follows:

1. Product quality. partially has a significant effect on Vivan Robot Consumer Satisfaction.

2. Trust partially has a significant effect on Vivan Robot Consumer Satisfaction.

3. Service quality partially has a significant effect on Vivan Robot Consumer Satisfaction

Managerial Implications

The managerial implications that can be conveyed are as follows:

1. It is hoped that the company will continue to improve product quality, trust and service quality and all employees and company management can continue to improve product quality, trust and service quality so that Vivan Robot always maintains its positioning, which will ultimately have an impact on consumer satisfaction at Vivan Robot.

2.   Things that are still lacking regarding Vivan Robot's product quality, trust and service quality must continue to be improved and perfected so that the final results obtained by the company are even more optimal.

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