

# Application of Word of Mouth (WOM), Information Quality, and Brand Trust in Increasing Customer Loyalty of Rice Seeds of Inpari 32 Variety

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**Abstract:** The purpose of this study was to determine the effect of Word of Mouth (WOM), information quality, and brand trust in increasing customer loyalty of rice seed varieties inpari 32. This research was conducted at Gapoktan Rahayu, Temu Village, Kanor District, Bojonegoro Regency. It is a research that adopts a quantitative approach. In data analysis, this study uses the PLS-SEM (Partial Least Square-Structural Equation Modelling) method to evaluate the impact of Word of Mouth (WOM), Information Quality and Brand Trust variables on Customer Loyalty on Inpari 32 variety products. Based on the results of the study, it was obtained that the first hypothesis to the fifth hypothesis all had a significant effect on increasing customer loyalty for Inpari 32 variety rice seeds. Word Of Mouth (WOM) has a crucial role because it is able to direct, recommend, and provide positive information about the product. Information Quality provides information to customers that the product meets their needs completely and accurately. Brand Trust makes consumers believe in the quality and reliability of the product. Customer loyalty is reflected in their desire to continue to buy products, recommend to others, and are willing to pay more and wait for the availability of goods.

**Keywords:** Brand Trust; Information Quality; Loyalty; Word of Mouth (WOM)

## Introduction

Indonesia is an agrarian country, a country where most of the population or the majority are farmers (Sugeng & Fitria, 2023). For an agrarian country, agriculture plays a very important role both in the sector of fulfilling basic needs, boosting the social sector, the economic sector and trade. Agriculture, forestry, fisheries, and the provision of electricity and gas are among the sectors that make a large and dominant contribution, but their growth is not significant. Therefore, these sectors are classified as sectors with "rapid but depressed development," which indicates that although they make a large contribution, they have

low growth according to the research of (Alowais et al., 2023). Fulfilment of basic needs as the main food source is rice produced by rice farming. The majority of farmers in Indonesia are rice farmers, especially in the Java Island area. Rice is a very important food crop because until now rice is still used as a staple food for most of the world's population, especially Asia. The provision of quality seeds in terms of high productivity is one of the factors that determine success in agricultural development, especially rice in the future. Increasing rice production as a staple food remains a major challenge in the future. Based on the Central Bureau of Statistics (2022) the following is the production of rice in

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East Java in the period of 3 (three) years between 2022-2022 can be seen below (Table 1).

**Table 1.** Rice production in East Java in the last three years (2022-2022)

Description	Year		
	2020	2021	2022
Harvested Area (ha)	1.754.380.30	1.747.481.20	1.693.211.00
Productivity (ku/ha)	56.68	56,02	56.26
Production (tonnes)	9.944.538.26	9.789.587.67	9.526.516.00

In an effort to maintain food self-sufficiency, the Ministry of Agriculture promotes the planting of Inpari 32 rice seeds. Inpari is the singakatan of Inhiba Padi sawah Irrigation, which is an in hibrida rice planted in paddy fields which means a variety developed from one plant through self-pollination so that it has a high level of purity or homozygosity (Hidayat et al., 2019; Dorairaj & Govender, 2023). However, various factors also influence farmers in choosing rice seeds that will be planted because it depends on the farmer's confidence in the product brand and word of mouth information about an agricultural strategy. Someone usually before deciding to make a purchase will look for reliable information first, which can be through Word of Mouth (WOM), which is a form of word of mouth communication carried out by consumers to provide speculation and encouragement so that someone is easier and more likely to talk about a product according to research by (Dwivedi et al., 2021).

Information quality is the consumer's perception of the completeness of the information conveyed clearly conveyed by (Dedeoglu, 2019; Xie et al., 2015; Srivastava et al., 2022). The higher the quality of information provided by the seller, the more it will influence consumers to make purchase intentions on products according to research by Chen et al. (2022), Wang et al. (2023), quality information can be measured in three aspects of the indicator, namely, the company must provide accurate information that is free from writing errors in the delivery of information, then the information submitted must be timely when consumers need information about a product, and the information must be relevant in accordance with the interests of planned decision making according to research (Abubakar et al., 2019; Tomaszewski et al., 2020).

Trust is a person's trust in another person based on experience after interacting that the person will meet the expected needs and the positive value that exists in the brand raises consumer behaviour in trusting the brand, so brand trust is the willingness of consumers to trust the brand by accepting all the risks involved, the hope is that the brand provides positive results according to research by (Lee et al., 2016; Kumar et al., 2021).

According to Tran & Nguyen (2022), Ngo et al. (2024), that trust is directly or indirectly influenced by information quality which then influences consumer behaviour, the existence of clear, accurate and useful information is able to make consumers feel confident and safe and then will make customers choose the product offered, the better the quality of the information provided, it can increase consumer confidence in the product, which will increase purchase intentions. Research conducted by Hernandez-Fernandez & Lewis, (2019) Zhao et al. (2021), Joshi & Rahman (2015), shows that consumers feel that the type of product they trust is reliable and the quality of the product will not disappoint and will get the benefits as expected with this sense of trust encouraging consumers to make purchase intentions.

Customer loyalty is very important for companies that maintain the continuity of their business and the continuity of their business activities, then in the next stage these loyal customers will expand their loyalty to other products made by the same manufacturer, and in the end they are consumers who are loyal to a particular manufacturer or company forever. Customer loyalty is determined by customer satisfaction with a product or service brand according to research by (Ernest Grace et al., 2021; Widjaja et al., 2019; Simangunsong et al., 2018). To maintain existing market share through developing customer loyalty is a company's strategic goal to maintain the business and profitability obtained by the company, so customer loyalty is the key to success achieved by the company because customer loyalty can create customer retention to keep buying the product or service they want.

Gapoktan Sri Rahayu is a Farmer Group Association in the Temu Village area, Kanor District, Bojonegoro Regency, consisting of 4 combined farmer groups, namely the Sri Rejeki Farmer Group, Rindang Farmer Group, Rahayu Farmer Group and Sedulur Tani Farmer Group. Gapoktan Sri Rahayu was formed in 2018 and has a total membership of 1.12 farmers with a total rice farming area of 313 Ha. The purpose of the formation of Gapoktan itself is to accommodate member farmers in meeting the needs related to seeds, fertilisers, water availability and tackling rat pests as well as other supporting activities that help increase agricultural yields and agricultural sector income. Rice farming is an important business sector in Temu Village considering that almost 95% of villagers work as rice farmers on both privately owned agricultural land and leased Village Cash Land (TKD) of 45 Ha which contributes annually to Temu Village in the form of Village Original Income (PAD). The Village Government annually seeks to provide assistance and strengthening facilities both from infrastructure and non-infrastructure to increase

agricultural yields. One of the efforts is to maintain the sustainability of Gapoktan Rahayu.

In the routine activities carried out by Gapoktan, there are deliberations related to strategies in increasing agricultural yields, one of the strategies that are noted every time the deliberation is the selection of rice seeds. Until now, there has been no measuring data or red thread related to the selection of rice seeds in Gapoktan Rahayu even though seeds are one of the determining factors for the success of agricultural businesses, but some farmers voiced that the inpari 32 rice seed variety is the most suitable for what farmers need but how trusting and loyal farmers are to rice seeds of the inpari 32 variety cannot be used as a reference for conclusions because there has never been a study conducted.

So that on the basis of the background above, the researcher wants to know the level of customer loyalty to rice seeds of the Inpari 32 variety using several related variables such as Word of Mouth (WOM), information quality and Brand Trust so that farmers in the future can increase the yield of agricultural businesses which will have a direct impact on improving the household economy, especially farmer members of Gapoktan Rahayu Temu Village, Kanor District, Bojonegoro Regency.

### Method

This research adopts a quantitative approach, in line with the definition of quantitative (Pilcher & Cortazzi, 2024) which describes the measurement of data in the form of numbers and statistics. Quantitative involves scientific calculations to determine the frequency and percentage of responses from respondents through surveys or structured questionnaires. In data analysis, this study uses the PLS-SEM (Partial Least Square-Structural Equation Modelling) method to evaluate the impact of Word of Mouth (WOM), Information Quality and Brand Trust variables on Customer Loyalty on Inpari 32 variety products.

The research location was prioritised at Gapoktan Rahayu, Temu Village, Kanor District, Bojonegoro Regency. The research was conducted through primary data collection using surveys and questionnaires directly on Farmer consumers of Inpari 32 rice seed varieties from 1 October to 15 October 2023. The sampling technique uses non-probability sampling with purposive sampling method, where respondents are selected based on certain criteria characteristics. The number of respondents is determined based on 80% Statistical Power by Cohen, with a minimum number of 75 respondents (Hair, 2014). Respondent criteria involve farmers who are members of Gapoktan Rahayu who actively use Inpari 32 rice seeds. The Conceptual Model of this study has been shown in Figure 1.

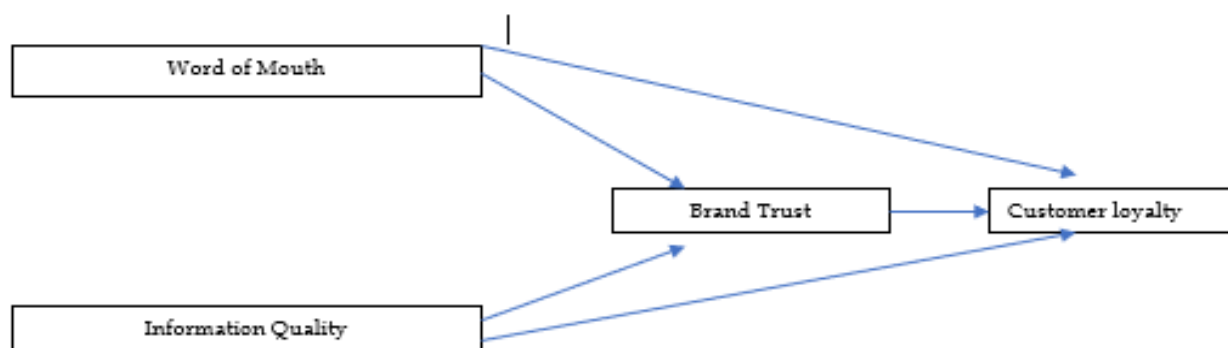


Figure 1. Research conceptual framework

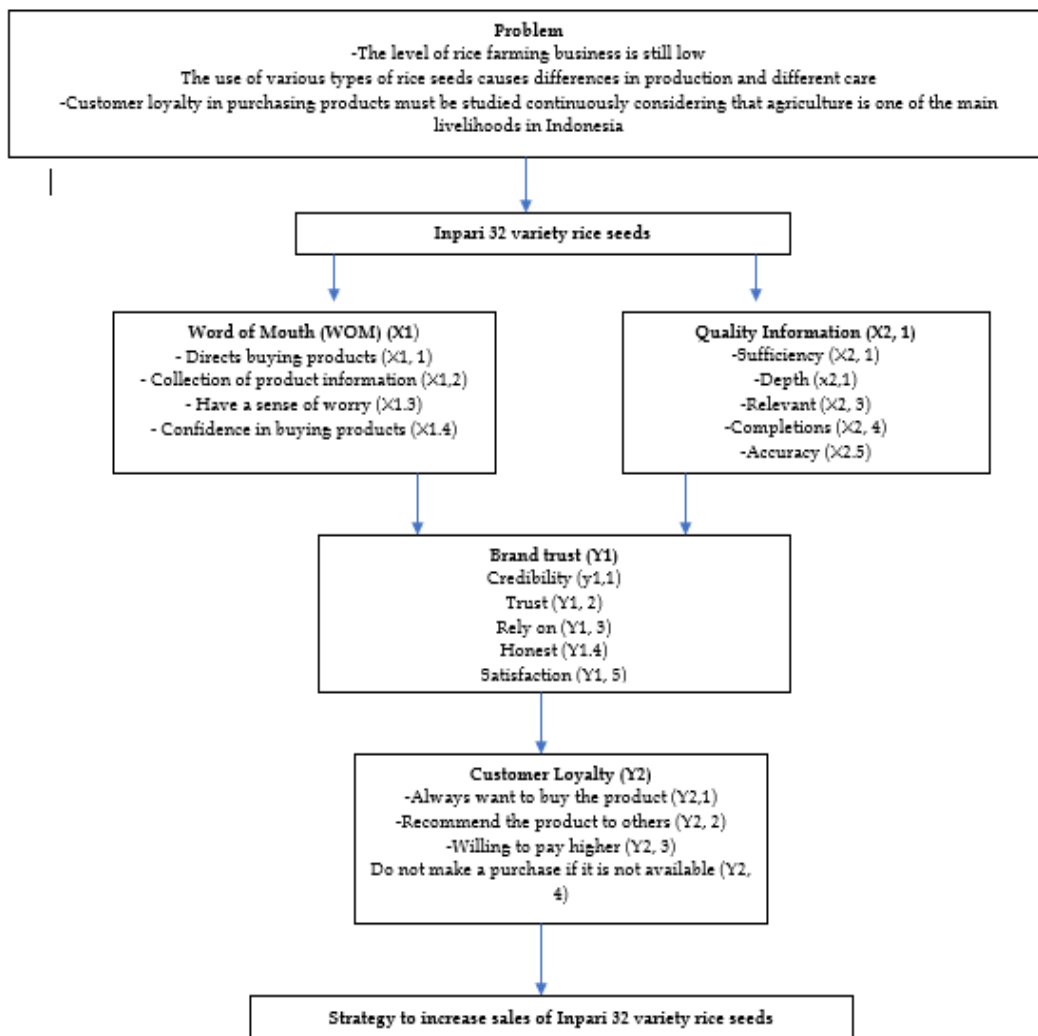


Figure 2. Framework of Thought

The hypothesis proposed in this study is as follows:  
 H1: There is an effect of WOM on customer loyalty. H2: There is an effect of WOM on customers mediated by Brand Trust. H3: There is an effect of Brand Trust on customer loyalty. H4: There is an effect of Information Quality on customer loyalty mediated by Brand Trust. H5: There is an effect of Information Quality on customer loyalty.

This research carefully details the research procedures and ensures that the respondents involved have criteria relevant to the research objectives. The framework applied in the research model using SEM-PLS can be described as follows:

Thus, the results of the study are expected to provide deep insight into marketing communication through WOM, Information Quality and Brand Trust on customer loyalty of Inpari 32 rice seed consumers in Temu Village, Kanor District, Bojonegoro Regency.

## Result and Discussion

In this study, data analysis uses a reflective model in Structural Equation Modeling Partial Least Square (SEM PLS). Therefore, evaluating the accuracy of the criteria between variables is essential, which includes examining the validity and reliability of the relationship between latent variables. Validity and reliability determine the quality of measurement of the constructs used in the model. In addition, this study also involves hypothesis testing to evaluate the statistical significance of the relationship between latent variables proposed in the research conceptual framework. The following are the results of the data processing tests conducted (Table 2).

Research Result

**Table 2. Internal Consistency Reliability and Convergent Validity**

	<i>Cronbach's alpha</i>	(rho_a)	(rho_c)
Accuracy	0.70	0.70	0.87
Safe	0.73	0.73	0.88
Brand Trust	0.92	0.92	0.93
Information Quality	0.90	0.91	0.92
Honest	0.74	0.74	0.88
Sufficiency	0.73	0.75	0.88
Depth	0.86	0.86	0.93
Completeness	0.87	0.87	0.94
Trust	0.74	0.75	0.88
Credibility	0.74	0.74	0.88
Information Collection	0.63	0.63	0.84
Customer Loyalty	0.86	0.88	0.88
Rely on	0.63	0.63	0.84
Steer Buying	0.83	0.84	0.92
Buying Confidence	0.67	0.71	0.85
Relevant	0.79	0.79	0.90
Word of Mouth	0.86	0.86	0.89
Worry	0.66	0.68	0.85

**Table 3. f-square (f2)**

	f-square
Accuracy -> Information Quality	456.85
Safe -> Brand Trust	560.77
Brand Trust -> Customer Loyalty	0.54
Information Quality -> Brand Trust	0.00
Information Quality -> Customer Loyalty	0.04
Honest -> Brand Trust	603.45
Adequacy -> Information Quality	320.52
Depth -> Information Quality	316.61
Completeness -> Information Quality	404.35
Trust -> Brand Trust	602.49
Credibility -> Brand Trust	603.04
Information Collection -> Word of Mouth	629.08
Rely on -> Brand Trust	546.62
Drive to Buy -> Word of Mouth	826.06
Worry -> Word of Mouth	1.065.06
Relevant -> Information Quality	363.82
Word of Mouth -> Brand Trust	0.00
Word of Mouth -> Customer Loyalty	0.00
Buying Confidence -> Word of Mouth	960.91

**Table 4. R-square (R2)**

	<i>R-square</i>	<i>Adjusted R-square</i>
Brand Trust	1.000	1.000
Information Quality	1.000	1.000
Customer Loyalty	0.653	0.638
Word of Mouth	1.000	1.000

**Table 5. Model Fit**

	Saturated Model	Estimated Model
SRMR	0.10	0.10
d_ULS	22.16	22.29
d_G	n/a	n/a
Chi-square	infinite	infinite
NFI	n/a	n/a

**Table 6. Path Coefficient and P-Value**

	X1	X2	Y1	Y2
X1			-0.00	-0.06
P-Value			0.00	0.00
X1.1	0.32			
P-Value	0.00			
X1.2	0.30			
P-Value	0.00			
X1.3	0.29			
P-Value	0.00			
X1.4	0.30			
P-Value	0.00			
X.2			-0.00	0.22
P-Value			0.00	0.00
X2.1		0.22		
P-Value		0.00		
X2.2		0.27		
P-Value		0.00		
X2.3		0.25		
P-Value		0.00		
X2.4		0.26		
P-Value		0.00		
X2.5		0.22		
P-Value		0.00		
Y1				0.67
P-Value				0.00
Y1.1			0.23	
P-Value			0.00	
Y1.2			0.23	
P-Value			0.00	
Y1.3			0.22	
P-Value			0.00	
Y1.4			0.22	
P-Value			0.00	
Y1.5			0.24	
P-Value			0.000	

*Discussion*

From the analysis results in Table 2, it can be concluded that the Information Collection (X1.2) with Cronbach's alpha and Composite reliability (rho\_a) values of 0.63 and 0.63 respectively show moderate or low reliability. Similarly, relying (Y1.3) has values of 0.63 and 0.63. Worry (X1.3) which has a value of 0.66 and 0.68. Buying Confidence (X1.4) with values of 0.67 and 0.53 also shows moderate or low reliability, although Composite reliability (rhoc) values higher than 0.70 indicate good reliability. Therefore, although there are moderate or low reliability values on some dimensions,

the internal consistency reliability and discriminant validity criteria are still met, ensuring the validity and reliability of the research data.

In Table 3, there is a low f2 value of 0.000 between Information Quality (X2) and Brand Trust (Y1), and between WOM (X1) and Brand Trust (Y1) of 0.000, and WOM (X1) and Customer Loyalty (Y2) of 0.006. However, there is a moderate value of 0.046 between Information Quality (X2) and Customer Loyalty (Y2). Meanwhile, high f2 values are observed in the influence between other variables. Nonetheless, an f2 value close



to zero may signify minimal contribution of the related variables to the target variable in the analysis model. This is in line with the criteria of (Xie et al., 2015), where  $f^2$  values are categorised as low (0.005), moderate (0.01), and high (0.025).

Based on Table 4, the R-square ( $R^2$ ) value in the Brand Trust, Information Quality and WOM variables shows an optimal percentage of clarity, which is 100% each. However, in the Customer Loyalty Variable, the R-square value only reaches 65%, indicating that some of the variation in Customer Loyalty can be explained by the model. This is consistent with the criteria presented which divides the R-square value into strong (0.67), moderate (0.33), and weak (0.19). In addition, R-square values of 0.75, 0.50, and 0.25 according to (Kulasooriya et al., 2023), indicate comparable model strength. This conclusion is reinforced by (Johnston et al., 2018), view that a large R-square value in the inner model can indicate multicollinearity. Therefore, the values listed in Table 4 are in accordance with the criteria required in the SEM- PLS model.

Based on Table 5, it shows that the SRMR or Standardized Root Mean Square value is  $0.10-0.10 < 0.10$ , so the fit model can be concluded that the model fits the data. Based on Table 6, we can see the Path Coefficient and P-Value values to analyze the results thoroughly. The influence of the variable Directing to buy products (X1.1) has a value of 10.40% which is higher than the variable Collection of product information (X1.2) by 9.20%, the variable Having a sense of worry (X1.4) by 9.10% and the variable Confidence in buying products (X1.3) by 8.9%. The influence of the Depth variable (X2.2)

has a value of 7.3% which is higher than the Completeness variable (X2.4) with a value of 6.90%, Relevant (X2.3) and the Information Quality variable (X2) Adequacy (X2.1), Accuracy (X2.5) which each have an influence value of 4.90%. The influence of the Brand Trust variable (Y.1) has an influence value of 45.10% higher than the influence value of the Satisfaction variable (Y1.5) of 6.0%, Trust (Y1.2) of 5.4%, Credibility (Y1.1) of 5.30%, Relying (Y1.3) of 5.1% and Honest (Y1.4) of 4.90%.

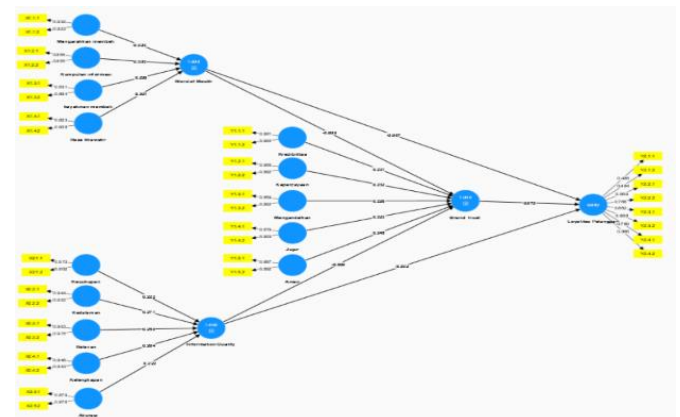


Figure 3. Second Order Path Coefficient

Next, hypothesis testing in this study was carried out using the Stable 3 resampling method by considering the Path Coefficient and P-Value values at the 5% significance level. The hypothesis significance criteria can be accepted if the P-Value value is less than 0.05. Based on hypothesis testing, the following test results are presented in table 7.

Table 7. Hypothesis Test Results

Hypothesis	$\beta$	P-value	Description
X1 → Y2	-0.06	0.00	Accepted
X1 → Y1	-0.00	0.00	Accepted
Y1 → Y2	0.67	0.00	Accepted
X2 → Y1	-0.00	0.00	Accepted
X2 → Y2	0.22	0.00	Accepted

Based on the results listed in table 7, the first hypothesis proves that WOM has a significant effect on customer loyalty with a path coefficient value of -0.06 and a P-value of 0.000. This finding is consistent with the study according to Wibowo et al. (2020), Haris et al. (2022), Sun et al. (2021), Consumers are happy to provide comments to recommend to others to use or buy products at a company, with WOM making it easier for consumers and companies to establish good marketing communication and can share information from Business to Consumer and Consumer to Consumer. This is in line with research according to Kursan Milaković et al. (2020), Bartschat et al. (2022), the benefits

of WOM, namely being able to reduce the level of risk, reduce search costs and uncertainty obtained by customers when buying products or services effectively, so as to influence buying intentions, consumers also get the product information they need and get information from the experiences of other people who have tried products related to products and services and can connect with large groups.

The second hypothesis is also accepted, indicating that WOM has a significant effect on customer loyalty through Brand Trust mediation, with a path coefficient value of -0.000 and a P-value of 0.00. This result is in line with research by Dwivedi et al. (2021), that WOM has a

significant positive effect on brand trust, this is because conversational activities in WOM such as providing positive product reviews can influence consumer confidence. with positive WOM and quality information provided, it will create a consumer trust in the product, trust helps create positive thoughts by reducing all possible risks or uncertainties felt by consumers according to research by (Sung et al., 2023; Alrawad et al., 2023; Anggraini & Sobari, 2023).

The third hypothesis states that Brand Trust has a significant effect on customer loyalty with a path coefficient of 0.67 and a P-value of 0.000. This finding is supported by research by Haudi et al. (2022), that Brand Trust is the perception of trust from a consumer's perspective, based on experience after making transactions or interactions that are characterized by the fulfilment of satisfaction with the product. Trust is built on the expectation that the other party will act according to the wants and needs of consumers according to Cardoso et al. (2022), that in trusting a brand, consumers are willing to rely on a brand even though they face possible risks to the brand because consumers believe that the brand provides a sense of security that is trustworthy, responsible and can have a positive impact on the needs and interests of consumers. trust in the brand is the ability to trust the brand (brand reliability) which comes from consumer confidence in the product's ability to deliver the promised value and brand goodwill (brand intention) which is based on consumer confidence that the brand is able to prioritise consumer interests.

The fourth hypothesis confirms that Information Quality has a significant effect on customer loyalty through Brand Trust mediation with a path coefficient of -0.00 and a P-value of 0.00. This is supported by the opinion according to Dirgantara & Akbar (2022), Jiang et al. (2021), Amsl et al. (2023), the role of information quality is very important to form consumer confidence in making purchasing decisions for a product or brand, preferably in information quality the delivery of information must be detailed and complete about something and the information that has been conveyed about the attributes of the product, brand or company then consumers evaluate and assess, the results of these activities will refer to information quality.

The fifth hypothesis shows that Information Quality has a significant influence on customer loyalty with a path coefficient value of 0.22 and a P-value of 0.002. This finding is supported by research according to Garcia et al. (2020), consumer loyalty is a large commitment by consumers to repurchase a product or service consistently in the future, even though there are situations that will affect behaviour change. According to Rita et al. (2019), state that if someone has a loyal

behaviour towards a company, then that person shows by looking positively at the brand and making repeat purchases in the future.

## Conclusion

Based on the results and discussion of the research that has been described, it can be concluded that the dominant variables in the marketing research of Inpar 32 Rice Seed Variety are as follows, Word of Mouth (WOM) has a very important role because it can direct, recommend and provide positive information to buy products. Information Quality provides information to customers that the product can meet their needs, desires, relevant, complete and accurate details. Brand Trust makes consumers believe, believe that the product is of good quality, reliable, safe and able to provide satisfaction to farmers. Customer loyalty is represented that consumers always want to buy products, recommend, are willing to pay higher and are willing to wait for goods to be available.

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## Author Contributions

Conceptualization; M., A. W. M., S. M.; methodology; M.; validation; A. W. M.; formal analysis; S. M., investigation; M.; resources; A. W. M..data curation: writing—original; S. M. draft preparation; M.; writing—review and editing; A. W. M.; Visualization; S. M. All authors have read and agreed to the published version of the manuscript.

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## Conflicts of Interest

The author declares that there is no conflict of interest in the research and publication of this research.

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