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THE ROLE OF CUSTOMER SATISFACTION MEDIATES THE INFLUENCE OF SERVICE INNOVATION AND PRODUCT QUALITY ON CUSTOMER LOYALTY IN AGRICULTURAL PRODUCTS: A STUDY ON CUSTOMERS AT PT. TANIHUB BALI

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ABSTRACT

E-Commerce is the use of the internet or technology to purchase goods, sell goods, send goods, or even exchange data online. Agricultural *E-Commerce* around the world is growing very rapidly. Developed countries such as the United States, Japan, Canada are currently also increasingly developing agricultural *E-Commerce* which is quite serious in the world. Customer loyalty is certainly important for *E-Commerce* like Tanihub to gain profits by expanding their business as well as supporting companies to obtain further funding. The purpose of this study was to test and explain the effect of customer satisfaction in mediating service innovation and product quality on customer loyalty in Tanihub Bali. This research is a quantitative associative research conducted in Badung Regency and Denpasar City. The data used consisted of 130 samples, collected by distributing questionnaires containing questions that had been tested for validity and reliability. The analysis technique uses *the Structural Equation Model (SEM)* with the Smart PLS3.3.3 analysis tool. According to the findings, service innovation and product quality had a favorable and considerable impact on consumer happiness and loyalty. Furthermore, in Tanihub Bali, customer satisfaction has a favorable and strong influence on customer loyalty, as well as the ability to partially mediate the relationship between service innovation and customer loyalty and partially mediate the relationship between product quality and customer loyalty. This study is expected to provide empirical data for future research and to contribute to the advancement of marketing management science, particularly in the areas of service innovation, product quality, customer satisfaction, and customer loyalty. Management benefits can be utilized as a marketing approach to build customer loyalty to Tanihub Bali.

KEY WORDS

Service Innovation, product quality, customer satisfaction, customer loyalty.

Agriculture is one of the sectors that can boost the nation's economic conditions during the Covid-19 pandemic, because the agricultural sector is one of the sectors that contributes to GDP (Gross Domestic Product) (Erik, 2021). Agricultural products have different characteristics from non-agricultural products, namely perishable, bulky, seasonal, scattered locations, and various qualities. Because of these factors, special management is needed from both the supply chain and marketing aspects of agricultural products (Jaya, 2020). However, during the current Covid-19 pandemic there are still many farming communities who lack access to marketing their agricultural products. One effort to improve it is to build a digital platform, one of which is E-Commerce that can be used by farmers to market their products. (Erik, 2021).

E-Commerce is the use of the internet or technology to purchase goods, sell goods, send goods, or even exchange data online. When viewed from this definition and comparing it with reality, it turns out that there are many types of E-Commerce activities in Indonesia, ranging from buying and selling products through marketplaces, sending goods via online couriers, paying all types of bills online, etc. (Turban, 2018). Agricultural E-Commerce around the world is growing very rapidly. Developed countries such as the United States, Japan, Canada are currently also increasingly developing agricultural E-Commerce which is quite serious in the world. Even though the system used for each country is different, the goal to be achieved is the same, namely to make the agricultural business more effective

and efficient in the future so that this business has market opportunities and provides high profits for these business people according to (Agus, 2020). One of the E-Commerce companies engaged in agricultural / agritech products is the Tanihub Group. The company, which was founded in 2016, was founded by 6 young people who have a desire to advance farmers in Indonesia. Tanihub Group assists farmers in distributing agricultural products to end customers or known as B2C using online applications. Apart from offering it to end customers, Tanihub Group also distributes agricultural products to other businesses known as B2B. The other businesses in question are divided into several categories, namely UMKM, Hotels, Restaurants and Modern Trade such as supermarkets.

The business-oriented social networking web, LinkedIn Tanihub, was recorded as a Top Startup company in 2021, which means that Tanihub is a company with great potential in the world of agriculture and technology. In addition, in 2021 Tanihub managed to obtain series B funding from investors to support their business expansion. According to (Afzarul, 2020), a deeply held commitment to repurchase or repatronize the favored product or service in the future, independent of situational factors or marketing efforts that may promote switching behavior. Customer happiness is a key aspect for the continuity of company activities, according to Indra (2021). Satisfying the demands of customers has an impact on enhancing excellence and establishing loyalty. So retaining client loyalty is crucial for E-Commerce companies like Tanihub to profit by developing their business and assisting companies in obtaining finance at the next level. The development of Tanihub Branch Bali transactions from January to August 2021 had decreased transactions by 15% several times in February and 22% in June 2021. After checking the customer complaint data that came in from January to August, there were several customer complaints in June regarding product quality, these customers did not make transactions again in the Tanihub application until December 2021 as well as there were customer complaints regarding the H + 1 time of receiving goods, because they would be used for catering preparations. Several incidents of these complaints had an impact on the loyalty of Tanihub Bali customers.

Many factors influence customer loyalty, such as service innovation, product quality, service quality, price fairness (Yu Sheng, 2018; Siregar, 2018; Cempaka, 2016). Customer loyalty is a widely researched research variable, but transaction conditions at Tanihub Bali are still occasionally decreasing, which is suspected by the customer loyalty factor, which is very interesting to study considering the number of transactions and company profits will be very influential for the future Tanihub can obtain funding in the next stage. Furthermore, research on customer loyalty in Agricultural E-Commerce enterprises is uncommon.

The empirical results of previous research regarding the influence of service innovation variables, product quality and customer satisfaction as mediation on customer loyalty variables showed varied results, some had a positive effect and no effect. Innovation is one of the core values implemented by Tanihub which contains the point "Innovation, reliability and efficiency are things that we uphold. Appreciate creative ideas, methods and strategies to create the best solutions". Service innovation does not only involve new services but new technologies, new networks and new procedures (Dewar, 1986). Better service also attracts more new customers thereby increasing company profits (Ramsey, 1997). Utami's previous research (2015) showed that the results of Salon My Dream show that service innovation has a positive effect on customer loyalty, meaning that the higher the service innovation, the higher customer loyalty can be. Similar results were also obtained by Indra (2021) with the research object PT. Pegadaian obtains service innovation results that have a positive and significant effect on Customer Loyalty. In addition to the two studies above, there are several studies conducted by Yu Sheng (2018) with the research object of banks in Ghana obtaining similar results where service innovation has a positive and significant effect. However, there are several studies that state the opposite, namely research by Chan (2017) research on car factories Taiwan obtained service innovation results that did not have a significant effect on customer loyalty and research by Maryam (2016) also obtained insignificant results between service innovation and Samsung customer loyalty in Iran. In addition to the effect of service innovation, there is also the effect of product quality on customer loyalty.

The quality of agricultural products sold at Tanihub has certainly gone through a sorting

process carried out by the quality control team, so that the quality of the products that reach consumers is guaranteed. Product quality is the ability of the product to carry out its functions which include durability, reliability, ease of use and repair as well as other characteristics (Machfoedz, 2005). Previous research by Kukuh (2015) with the object of the BTM Doro Sharia Financial Services Cooperative product quality directly affects customer loyalty. Inka's (2014) research with the Mc Donald Customer research object had similar results, indicating that product quality has a positive and substantial influence on customer loyalty, implying that the greater the product quality, the higher the customer loyalty. Shanti (2015) reported similar results for Molto goods, indicating that product quality has a favorable and substantial influence on consumer loyalty. The most recent study that found the similar outcomes was done by Siregar (2017) on RM Kampoeng Deli consumers, where product quality has a favorable and substantial influence.

While there are several studies that show the opposite results, Melysa (2013) found that Telkomsel product quality has no significant effect on customer loyalty, and Shaneen (2018) found no significant relationship between product quality and customer loyalty in Industrial Engineering Malaysia. Tambrin's (2019) research found no significant relationship between product quality and customer loyalty for Bangkalan Batik. Customer satisfaction has an impact on customer loyalty in addition to service innovation and product quality.

Customer satisfaction is described as a person's emotion of delight or disappointment as a result of comparing the product's performance (result) with the expected performance (or outcome) (Kotler, 2016). Customer happiness, according to Hikmah (2020), is dependent on projected product performance in providing value relative to buyer expectations. Buyers are unsatisfied when product performance falls significantly short of client expectations. According to previous study performed by Utami (2015) with the object my Dream salon, customer happiness has a positive influence on customer loyalty, which means that better customer pleasure can enhance customer loyalty. According to Desy's (2017) research on online florist operations, customer satisfaction has a favorable and significant influence on customer loyalty. Shandy's (2014) research at the Happy Garden restaurant also found that customer happiness has a favorable and substantial influence on customer loyalty. Yu Sheng's (2018) research, where the focus of investigation was the banking industry in Ghana, yielded comparable conclusions to earlier research, namely that customer satisfaction has a positive and substantial influence on customer loyalty.

Several studies, however, argue otherwise, such as Afrazul (2020) with the research object of Grab customers obtaining insignificant results between customer satisfaction and customer loyalty, and Pereira (2016) with research conducted at the Dalam Diak Cooperative obtaining insignificant results between customer satisfaction and customer loyalty. Aside from loyalty, various other factors impact consumer happiness, such as product quality and service innovation. Indra (2021) did previous study using the research object PT. Pegadaian and obtained service innovation outcomes that have a favorable and significant effect on customer satisfaction. Innovation is the most important aspect in increasing consumer pleasure. Then there are several studies that yield the same conclusions, namely Yu Sheng (2018) with the research object of the Banking Sector in Ghana and Yoyo (2019) with the research object of the Gracia Clinic in Bogor where both studies obtained the same results, namely service innovation has a positive and significant effect on customer satisfaction. On the other hand, there were several studies that obtained different results, namely Anggit (2018) obtained the results that Service Innovation did not have a significant effect on Railway customer satisfaction in Yogyakarta and Dao's research (2018) in Taiwan which examined telecom services obtained insignificant results between service innovation on customer satisfaction. Aside from having a direct impact on customer happiness, it also has an indirect impact on customer loyalty through mediating service innovation and product quality. Rachmad (2009) then conducted research on product quality and customer satisfaction with the research object of Bank Mandiri in East Java, obtaining the result that product quality has a positive effect on customer satisfaction, with the serviceability indicator as a measure of product quality variables having the greatest influence on customer loyalty. The same results were obtained by Kukuh (2015) with the object of the Doro Sharia Financial

Services Cooperative, product quality directly affects customer satisfaction. This means that the higher the product quality, the higher the customer satisfaction. Kharisma (2017) found similar results, namely that the quality of BRI KUR products has a favorable and significant effect on consumer satisfaction. While Johanes (2014) obtained different results, obtaining product quality results at Resto Cabanan Manado did not have a significant effect on customer satisfaction, price was a factor that had a significant effect on customer satisfaction, and research by Bader (2017) obtained insignificant results on product quality on customer satisfaction with study in Restaurant.

METHODS OF RESEARCH

This research is an associative research which uses a quantitative method. The research location will be carried out in 2 cities in Bali, namely Denpasar and Badung. Research in these two areas is because Tanihub Bali has only just opened in the Denpasar and Badung areas. The objects examined in this study are service innovation, product quality, customer satisfaction and customer loyalty. The population in this study are customers of Tanihub Bali. The sample in this study is Tanihub application customers who are domiciled in Kab. Badung and Denpasar City. The recommended number of samples is 5 to 10 times the number of indicators which means using 110 samples. The sampling technique used is non-probability sampling with a purposive sampling approach, namely by selecting samples with certain criteria, namely: (1) Customers who shop through the Tanihub application or customers who transact online, (2) Domiciled in Badung Regency and Denpasar City, (3)) A person who conducts transactions more than once from January to August 2021. Non-probability sampling with a purposive sample approach was adopted, and the data was analyzed using descriptive and inferential statistics (PLS). This study's tool is a questionnaire (a series of questions). The variables in this study are measured using a semantic differential scale, which involves looking at the responses from respondents via a distributed questionnaire and classifying them according to their various categories with a score of 1 to 5, also known as the Likert Scale.

RESULTS OF STUDY

The purpose of this study was to examine the impact of customer happiness in mediating the effect of service innovation and product quality on agricultural product customer loyalty. Data was gathered by delivering surveys to 130 Tanihub Bali clients. It was also carried out from June 20th, 2022 to July 7th, 2022 for the dissemination of this questionnaire. From the results of the questionnaire distribution, 130 respondents were obtained who matched the research criteria. Respondents were determined by purposive sampling with the consideration that the respondent had made a transaction or shopped at Tanihub Bali in the last 6 months.

The profiles of 130 respondents in this study will be broken down by address, age, gender, occupation, income and shopping frequency. The details of the data description can be seen in Table 1.

The characteristics of the respondents are shown in table 1. It describes respondents who have made transactions or shopped at Tanihub Bali for at least the last 6 months and respondents who have transacted at Tanihub Bali come from various categories such as address, age, gender, occupation, income and shopping frequency. The data above shows that the dominant customers who transact at Tanihub Bali are domiciled in the Denpasar City area, namely 62.3% with the majority of customer ages being 31-35 years old, namely 40% and for the gender category, dominated by men, namely 56.2 %. This means that Tanihub Bali's customers are men with generation Y or the millennial generation where this generation lives side by side with technological developments and also has a tendency for high levels of consumption compared to generations of X (Erin, 2021).

Judging from the job category, Tanihub's customers are dominated by private employees with a contribution of 53.8%. Consumers who work in private companies most

often transact through online applications (Budiman, 2017). So that private employee respondents tend to transact online to complete the need for fresh products. Furthermore, for the highest customer income category, it is dominated by the range of Rp. 5,000,001 to Rp. 10,000,000, which is 36.9%, respondents with this income are certainly able to shop or transact on the Tanihub Bali application.

Table 1 – Characteristics Respondents

No	Variable	Classification	Amount (Person)	Percentage
1	Address Stay / domicile	Regency. Badung	49	37.7%
		City. Denpasar	81	62.3%
	Total		130	100%
2	Age	15 – 20 Years old	1	0.8%
		21–25 Years old	6	4.6%
		26 – 30 Years old	27	20.8%
		31–35 Years old	52	40.0%
		36–40 Years old	29	22.3%
	> 40 Years old	15	11.5%	
Total		130	100%	
3	Sex	Man	73	56.2%
		Woman	57	43.8%
	Total		130	100%
4	Work	Lecturer	1	0.8%
		Mother House Ladder	3	2.3%
		Employee Country	27	20.8%
		Employee Private	70	53.8%
		Student	2	1.5%
	Self-employed	27	20.8%	
Total		130	100%	
5	Income	< IDR 1,000,000	4	3.1%
		Rp 1,000,000 – Rp 5,000,000	4	3.1%
		Rp. 5,000,001 – Rp 10,000,000	48	36.9%
		IDR 10,000,001- Rp 15,000,000	44	33.8%
		Rp. 15,000,001 – Rp 20,000,000	22	16.9%
	> IDR 20,000,000	8	6.2%	
Total		130	100%	
6	FrequencyShopping	2 until 3 times a month	44	33.8%
		More from 3 time in a month	25	19.2%
		Very in period time more from a month	4	3.1%
	Very in a month	57	43.8%	
Total		130	100%	

In the shopping frequency grouping, the highest is once a month, which is 43.8%. This shows that there is customer loyalty because they spend at least once a month at Tanihub Bali and there are even customers who shop 2 to 3 times a month, which is 33.8%.

In this structural model there are two dependent variables, namely: customer satisfaction (M) and customer loyalty (Y). The coefficient of determination or R² of each dependent variable can be presented in Table 2.

Table 2 – Value R-square

Variable	R-square	R-square adjusted
Satisfaction customer (M)	0.696	0.691
Loyalty customer (Y)	0.687	0.680

As shown in Table 2, the model of the influence of service innovation and product quality on customer satisfaction has an R-square value of 0.696, which means that 69.6% of the variability of customer satisfaction variables can be explained by the variability of service innovation variables and product quality, while 30.4% is explained by other variables not studied. The model of the influence of service innovation, product quality, and customer satisfaction on customer loyalty then yields an R-square value of 0.687, implying that 68.7%

of the variability of customer loyalty variables can be explained by the variability of service innovation, product quality, and customer satisfaction variables, while the remaining 31.3% is explained by other variables.

Partial Least Square (PLS) analysis is used in this study to test the research hypothesis that has been stated previously. Figure 1. shows the results of an empirical research model analysis using *Partial Least Square (PLS)* analysis.

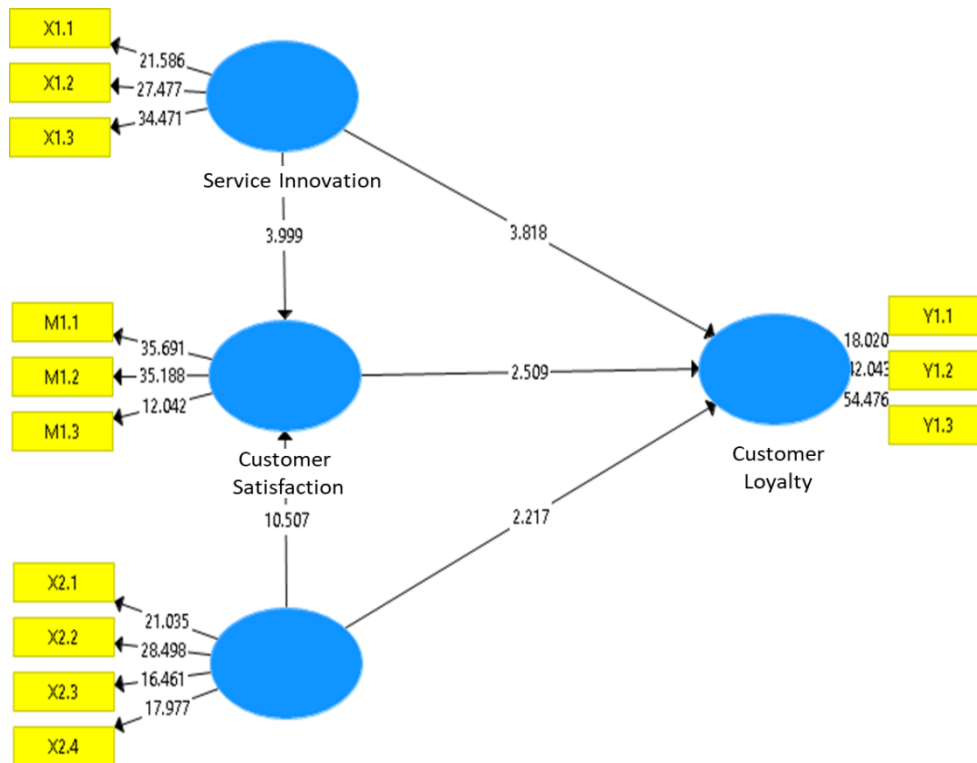


Figure 1 – Direct Influence Empirical Model

If seen in Figure 1 above, it can be explained that service innovation has a direct effect on customer loyalty with a statistical t value of 3.818. Product quality also has a direct effect on customer loyalty with a statistical t value of 2.217. Service innovation has a direct effect on customer satisfaction with a statistical t value of 3.999. Product quality has a direct effect on customer satisfaction with a statistical t value of 10.507. Customer satisfaction has a direct effect on customer loyalty with a statistical t value of 2.509.

Table 2 shows the results of the total influence test between variables as follows:

Table 2 – Total Influence Test Results Between Variables

Hypothesis	Path Coefficient Between Variables	Coefficient Track	T Statistics	P Value	Information
H1	Service innovation (X1) → Customer loyalty (Y)	0.344	3,818	0.000	H1 is accepted
H2	Customer satisfaction (M) → Loyalty customer (Y)	0.342	2,509	0.012	H2 is accepted
H3	Product quality (X2) → Customer satisfaction (M)	0.249	2,217	0.027	H3 accepted
H4	Service innovation (X1) → Customer satisfaction (M)	0.277	3,999	0.000	H4 accepted
H5	Product quality (X2) → Customer loyalty (Y)	0.642	10,507	0.000	H5 accepted

If seen in Table 2, the influence between variables can be explained as follows:

1. Testing the hypothesis on the influence of service innovation on customer loyalty yields a path coefficient value of 0.344, indicating that service innovation has a positive effect on customer loyalty. The t Statistics value obtained is 3.818 (> t-critical 1.96) with a p value of 0.000 0.050, indicating that the influence of service innovation on customer loyalty is substantial. As a result, hypothesis 1 (H1), which argues that service innovation has a positive and significant effect on customer loyalty, is accepted;

2. The path coefficient result for testing the hypothesis on the influence of customer satisfaction on customer loyalty is 0.342, indicating that customer satisfaction has a positive effect on customer loyalty. The t Statistics value was 2.509 (> t-critical 1.96) and the p value was 0.012 < 0.050, indicating that the influence of customer satisfaction on customer loyalty is significant. As a result, hypothesis 2 (H2) is accepted, which asserts that customer satisfaction has a positive and significant influence on customer loyalty;
3. Testing the hypothesis on the effect of product quality on customer loyalty produces path coefficient value of 0.249, so product quality has a positive effect on customer loyalty. The t Statistics value obtained is 2.217 (> t-critical 1.96) with a p value of 0.027 < 0.050, so the effect of product quality on customer loyalty can be said to be significant. Thus, hypothesis 3 (H3) which states that product quality has a positive and significant effect on customer loyalty is accepted;
4. Testing the hypothesis on the effect of service innovation on customer satisfaction produces path coefficient value of 0.277, so service innovation has a positive effect on customer satisfaction. The t Statistics value was 3.999 (> t-critical 1.96) with a p value of 0.000 < 0.050, so the effect of service innovation on customer satisfaction was significant. With that, then hypothesis 4 (H4) is states that service innovation has a positive and significant effect on customer satisfaction received;
5. The path coefficient result for testing the hypothesis on the effect of product quality on customer satisfaction is 0.642, indicating that product quality has a positive effect on customer satisfaction. The calculated t Statistics value is 10.507 (> t-critical 1.96) with a p value of 0.000 < 0.050, indicating that the effect of product quality on customer satisfaction is substantial. As a result, hypothesis 5 (H5) is accepted, which asserts that product quality has a positive and significant effect on consumer satisfaction.

Table 3 shows the results of testing the indirect effect hypothesis in this study which can be described as follows:

Table 3 – Results Test Influence No Direct (Specific Indirects effect)

n/n	Original sample (O)	Sample Means (M)	standardDeviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 (Service innovation) -> Y1 (Customer Satisfaction) -> Y2(Loyalty Customer)	0.095	0.093	0.040	2,359	0.019
X2 (Product quality) -> Y1 (Customer Satisfaction) -> Y2(Loyalty Customer)	0.220	0.222	0.095	2,320	0.021

If seen in Table 3 above, the results of the indirect influence between variables can be obtained as follows:

- Service innovation on customer loyalty through customer satisfaction obtains a correlation value of 0.095 with a t statistic of 2.359 > 1.96, and the magnitude of the p value is 0.019 < 0.050, so that the indirect effect between service innovation on customer loyalty through customer satisfaction can be stated as significant;
- Product quality on customer loyalty through customer satisfaction obtains a correlation value of 0.220 with a t statistic worth 2.320 > 1.96, and a p value of 0.021 < 0.050, so that there is a significant positive indirect effect between service innovation on customer loyalty through customer satisfaction.

Mediation Variable Examination:

- Customer satisfaction is able to mediate positively on the indirect effect of service quality on customer loyalty. Based on these results, it can be interpreted that customer loyalty can increase if the quality of service is getting better and customers have a high sense of satisfaction;
- Customer satisfaction is able to mediate positively on the indirect effect of product quality on customer loyalty. Based on these results, it can be interpreted that customer loyalty can increase if the product quality is better and the customer has a high sense of satisfaction.

DISCUSSION OF RESULTS

The results of the data obtained indicate that service innovation has a positive and significant impact on customer loyalty. So that renewal of service innovation with the emergence of several new services such as Cash On Delivery payments, time to receive goods and time to complain about complaints given by Tanihub Bali will have an impact on increasing Tanihub Bali customer loyalty to always shop for agricultural products.

Service innovation is well perceived towards customer loyalty at Tanihub Bali and has a real impact. These findings also explain how much service innovation provided by Tanihub Bali will guarantee customers to have a sense of loyalty to Tanihub Bali. This research supports the results of a previous study by Utami (2015) which showed that the results of Salon My Dream showed that service innovation had a positive effect on customer loyalty, meaning that the higher the service innovation, the higher customer loyalty. Similar results were also obtained by Indra (2021) with the research object PT. Pegadaian obtains service innovation results that have a positive and significant effect on Customer Loyalty. In addition to the two studies above, there are several studies conducted by Yu Sheng (2018) with the research object of banks in Ghana obtaining similar results where service innovation has a positive and significant effect.

The Influence of Customer Satisfaction on Loyalty

The results of the analysis above show that customer satisfaction has a positive and significant impact on customer loyalty. So that the higher customer satisfaction with Tanihub Bali, the higher the sense of loyalty of Tanihub Bali customers. Vice versa, if the lower the customer satisfaction with Tanihub Bali, the lower the customer loyalty of Tanihub Bali.

Customer satisfaction is well perceived and has a real impact on customer loyalty at Tanihub Bali. This finding also explains that when customers shop at Tanihub Bali, they are satisfied with the service and quality of the products provided so that they are able to make a significant contribution to customer loyalty.

This study backs up the findings of Utami's (2015) research with the item my Dream salon, which found that customer happiness has a positive influence on customer loyalty, implying that the more the customer satisfaction, the higher the customer loyalty may be. According to Desy's (2017) research on online florist operations, customer satisfaction has a favorable and significant influence on customer loyalty. Shandy's (2014) research at the Happy Garden restaurant also found that customer happiness has a favorable and substantial influence on customer loyalty. The author's most recent research was Yu Sheng's (2018), which examined the banking system in Ghana and found comparable conclusions to prior studies, namely that customer satisfaction has a positive and substantial influence.

The Influence of Product Quality on Loyalty

The results of the analysis above show that product quality has a positive and significant influence on customer loyalty. So that the higher the quality of the products provided by Tanihub Bali, the higher the sense of loyalty of Tanihub Bali customers. Vice versa, if the lower the quality of the products provided by Tanihub Bali, the lower the loyalty of Tanihub Bali's customers.

Product quality can be well perceived and real towards Tanihub Bali's customer loyalty. These findings explain that good product quality (not rotten and free of foreign matter) provided by Tanihub Bali will guarantee that these customers will be loyal to the agricultural products offered by Tanihub Bali.

This study supports the results of previous research by Kukuh (2015) with the object of the BTM Doro Sharia Financial Services Cooperative product quality directly affecting customer loyalty. Inka's research (2014) with the Mc Donald Customer research object also obtained the same results where product quality had a positive and significant effect on customer loyalty, meaning that the higher the product quality the higher the customer loyalty. The same results were obtained by Shanti (2015) which produced the same results for Molto products where product quality had a positive and significant effect on customer loyalty. The

last research that obtained the same results was conducted by Siregar (2017) with the object of research being RM Kampoeng Deli customers where product quality has a positive and significant effect.

The Influence of Service Innovation on Customer Satisfaction

The results of the analysis above show that service innovation has a positive and significant impact on customer satisfaction. So that the more service innovations provided by Tanihub Bali, the higher the sense of customer satisfaction from Tanihub Bali. Vice versa, if there are fewer service innovations provided by Tanihub Bali, the lower Tanihub Bali customer satisfaction will be.

Service innovation is well perceived on customer satisfaction at Tanihub Bali and has a real impact. This finding also explains that a number of service innovations such as the Tanihub Bali customer feature can determine the reception hours will guarantee customers to feel satisfied with Tanihub Bali services.

This research supports the results of previous research by Indra (2021) with the research object of PT. Pegadaian obtains service innovation results that have a positive and significant influence on customer satisfaction. Innovation is the highest contributing factor in contributing to customer satisfaction. Then there are several studies that yield the same conclusions, namely Yu Sheng (2018) with the research object of the Banking Sector in Ghana and Yoyo (2019) with the research object of the Gracia Clinic in Bogor where both studies obtained the same results, namely service innovation has a positive and significant effect on customer satisfaction.

The Influence of Product Quality on Customer Satisfaction

The results of the analysis above show that product quality has a positive and significant impact on customer satisfaction. So that the higher the quality of the products provided by Tanihub Bali, the higher customer satisfaction with Tanihub Bali. Vice versa, if the lower the quality of the products provided by Tanihub Bali, the lower customer satisfaction with Tanihub Bali will be.

Product quality can be well perceived and real to Tanihub Bali's customer satisfaction. These findings explain that good product quality (not rotten and free of foreign matter) will increase Tanihub Bali's customer satisfaction.

This study backs up the findings of a previous study conducted by Rachmad (2009) with the research object of Bank Mandiri in East Java, which found that product quality has a positive effect on customer satisfaction, with the serviceability indicator as a measure of product quality variables having the greatest influence on customer loyalty. Kuku (2015) discovered similar results with the BTM Doro Sharia Financial Services Cooperative's product quality directly affecting customer happiness. This means that the higher the product quality, the higher the client satisfaction. Kharisma (2017) discovered the same results, namely that the quality of BRI KUR products has a favorable and significant effect on consumer satisfaction.

The Role of Customer Satisfaction Mediating Service Innovation toward Customer Loyalty

The results of the analysis that has been carried out, the results show that customer satisfaction is able to mediate service innovation significantly to customer loyalty. So from these results it can be seen that customer decisions when shopping are not only focused on the service innovations provided by Tanihub Bali but are related to customer satisfaction that can shop well. Because of this, service innovation is needed that is able to meet customer satisfaction so as to create a high sense of customer loyalty.

The results of this study support previous research by Utami (2015), it is proven that service innovation influences customer loyalty through customer satisfaction, meaning that customer satisfaction can mediate service innovation on customer loyalty. Likewise Shandy's research (2014) Customer satisfaction at the Happy Garden restaurant significantly mediates service innovation on customer satisfaction at the Happy Garden restaurant. Indra's research

(2021), with research objects at PT. Pegadaian obtains customer satisfaction results mediating service innovation significantly to customer loyalty.

The Role of Customer Satisfaction Mediating Product Quality toward Customer Loyalty

The results of the analysis that has been carried out, the results show that customer satisfaction is able to mediate product quality significantly to customer loyalty. Although product quality can create customer loyalty, customer satisfaction can help further increase customer loyalty. This happens because customers are loyal to Tanihub Bali as a result of the good quality of the products provided and customer satisfaction due to the achievement of expectations for the quality of the products provided by Tanihub Bali.

The results of this study support the results of previous research by Kukuh (2015) with the object of the BTM Doro Sharia Financial Services Cooperative that customer satisfaction influences the relationship between product quality and customer loyalty. This shows that increasing customer loyalty can be done by increasing customer satisfaction and good product quality. Likewise, Rachmad's research (2009) with the research object of Bank Mandiri in East Java obtained the result that customer satisfaction is significant in mediating product quality on customer loyalty. Similar results were also obtained by Yusuf (2019) with research on customer satisfaction of the Samsung Brand which is significant in mediating product quality on customer loyalty.

Research Implications

The results of the research can be used by management, especially for the marketing sector so that companies can increase customer loyalty to always shop for agricultural product needs at Tanihub Bali. As with new service innovations that have been proven to have a significant effect on customer loyalty at Tanihub Bali with innovative ideas such as payment features, time of receipt and time of complaint complaints can affect increased customer loyalty. Likewise, product quality where clean products are protected from foreign objects, not dirty, neatly closed packaging has an impact on customer loyalty to always provide agricultural products at Tanihub Bali.

CONCLUSION

Based on the results of the discussion and previous research, it is proven that service innovation has a significant effect on customer loyalty. So that Tanihub Bali must implement several new innovations such as COD payments, time to receive goods and service time to complain so that customers become loyal shopping on the Tanihub Bali application

Tanihub Bali must continue to maintain the quality of its products both in terms of product freshness, cleanliness, size and product packaging will increase customer loyalty to shop at Tanihub Bali, because according to previous research and the discussion above that product quality also has a positive and significant effect on customer loyalty.

Tanihub Bali must also maintain customer satisfaction because it is proven in previous research and the discussion above where customer satisfaction has a significant effect on customer loyalty, so Tanihub Bali must meet customer expectations and needs so that loyal customers shop for agricultural products at Tanihub Bali.

There is a need for other new service innovations provided by Tanihub Bali to maintain customer interest so they keep shopping at Tanihub Bali. In addition, product quality must also be maintained and even improved so that customers have confidence in the cleanliness and quality of the fruits and vegetables provided by Tanihub Bali.

REFERENCES

1. Afzarul. 2020. "The Effect of Service Quality, Price and Trust on Customer Loyalty Through Customer Satisfaction Studies on Grab Bike Customers at Al-Azhar Islamic High School 4" (thesis). Jakarta: STIE Jakarta.

2. Antanegoro, R. 2017. "Analysis of the Influence of Product Innovation, Service Innovation and Service Quality on Customer Satisfaction and Loyalty" (thesis). Banten: Sultan Ageng Tirtayasa University.
3. Anggit, Gunito. 2018. "The Impact of Service Innovation on Customer Satisfaction and Increasing Customer Value at Railway Stations" (thesis). Yogyakarta: Indonesian Islamic University.
4. Agus, Moh. 2020. "The Impact of Partnership Patterns Through Agricultural E-Commerce (Case in Citrus Farmers with PT. TaniHub Indonesia in Malang Regency)" (thesis). Malang: Brawijaya University.
5. Apsan, M (2021). "Building Consumer Loyalty on Online Buying and Selling Platforms Through Consumer Satisfaction Influenced by Perceived Convenience" (thesis). Lampung: University of Lampung.
6. Bader, Almohaimeed 2017. Restaurant quality and customer satisfaction. *Journal International review of Management and Marketing*, 7:42-49.
7. Bahruddin, Muhammad. 2015. "The Influence of Trust and Customer Satisfaction on Customer Loyalty". (thesis). Jombang: PGRI Dewantara Jombang
8. Dear. 2017. E-Commerce User Profile In The Work Field Of The Center For The Assessment And Development Of Communications Bbppki Medan. *Journal of Communication and Development Research*, 18:21-29.
9. Cempaka, Dharmadewi 2016. "The Influence of Price Fairness, Corporate Image on Satisfaction and Loyalty of Garuda Indonesia Domestic Flight Service Users in Denpasar" (thesis). Denpasar: Mahasraswati University.
10. Dao, Thita. 2018. Exploring The Impacts Of Service Innovation On Customer Satisfaction In The Telecom Industry: A Perspective From Interactive And Supportive Service Innovations. *International Journal of Innovation Management*, 2:12-14.
11. Desy, Trisnadewi. 2017. "The Effect of Consumer Satisfaction Mediating Prices on Consumer Loyalty in Shopping at Online Florists in Denpasar" (thesis). Denpasar: Udayana University.
12. Dewar, RD, & Dutton, JE 1986. The adoption of radical and incremental innovations: An empirical analysis. *Journal of Management Science*. 3:33- 36.
13. Durst, S., et al. 2013. Service innovation and its impact: What do we know about. *Research on Enterprise Management and Economics*, 21: 65-72.
14. Erik, Blasius 2021. "Smart Farmer as a Digital Platform Optimization in Marketing of Agricultural Products During the Covid-19 Pandemic" (thesis). Medan: State University of Medan.
15. Hikmah, Nurul 2020. "The Influence of Customer Engagement and E-Service Quality on Online Repurchase Intention with Customer Satisfac as an Intervening Variable in the Shopee Marketplace" (thesis). Kebumen: STIE Putra Bangsa.
16. Beautiful. 2012. "The Influence of Price and Service Quality on Customer Loyalty Through Satisfaction Variables (Studies at Workshop Ahass 0002- Astra Motor Siliwangi Semarang)" (thesis). Semarang: Diponogoro University.
17. Indra, Akba. 2021. "The Influence of Product Innovation, Service Innovation and Service Quality on Customer Loyalty at Pt. Pegadaian Through Satisfaction as an Intervening Variable" (thesis). Jakarta: Jakarta Veterans National Development University
18. Inca. 2014. "The Influence of Product Quality and Service Quality on Customer Satisfaction in Forming Customer Loyalty" (thesis). Malang: Brawijaya University.
19. Jaya, Rahman. 2020. "Review of Supply Chain Management of Sustainable Agricultural Products: Conceptual, Current Issues, and Future Research" (thesis). Bogor: Bogor Agricultural Institute.
20. Johannes, Gerardo. 2014. "The Influence of Product Quality, Price, and Service Quality on User Satisfaction of Cafe and Resto Cabana Manado". Manado: Sam Ratulangi University.
21. Jui, Chan. 2017. Scientific Programming. Research into the Influence of Internal Interdepartmental Integration on Service Innovation and Customer Loyalty. Taiwan,

- June 12-13.
22. Jurman, Jamaluddin. 2020. "Innovation of Online-Based Citizen Complaint Services in Pakatto Village, Gowa Regency". (thesis) Makasar: University of Muhammadiyah Makassar
 23. Steady. 2015. "The Influence of Product Quality and Service Quality on Customer Loyalty Through Customer Satisfaction" (thesis). Semarang: Semarang State University.
 24. Kotler, P., Keller, KL 2016. Marketing Management 15e: Global Edition. New Jersey: Pearson. P. 600-672.
 25. Kharisma, Nawang. 2017. "Product Quality and Service Quality on Customer Satisfaction and Loyalty" (thesis). Semarang: Stikubank University.
 26. Khin, S., Ahmad, NH, & Ramayah, T. 2010. Product innovation among ICT technopreneurs in Malaysia. Journal of Business Strategy, 6: 397-406.
 27. Larasati, Annesya (2019). "Analysis of Supply Chain Risk on Perishable Products Using the Hor (House Of Risk) Method" (thesis) Yogyakarta: Yogyakarta Islamic University of Indonesia.
 28. Maryam, Atashfaraz. 2016. Procedia Economics and Finance. Impact Of E-Service Innovation On Brand Equality And Customer Loyalty In Samsung International Corporation. Iran, March 12-13.
 29. Nasution, Amalia 2022. "PT Pos Indonesia's Efforts in Implementing Service Innovation in the Era
 30. Industrial Revolution 4.0" (thesis). North Sumatra: State Islamic University of North Sumatra.
 31. Oliver, Richard 2017. Whence Consumer Loyalty. Journal Marketing. 63:33-44.
 32. Pereira, Daniel. 2016. "The Influence of Service Quality on Satisfaction and Dadirah Cooperative Customer Loyalty in Dili Timor-Leste" (thesis). Denpasar: Udayana University.
 33. Ramadhani, Annisa (2021) "Analysis of Payment Methods in Increasing Consumer Purchase Interest in E-Commerce: An Overview of the Perspective of Islamic Economics" (thesis). Lampung: State Islamic University of Raden Intan Lampung.
 34. Rachmad, Hidayat 2009. "The Influence of Service Quality, Product Quality and Customer Value on Bank Mandiri Customer Satisfaction and Loyalty" (thesis). Bangkalan: Unijoyo.
 35. Ramsey, RP, & Sohi, RS 1997. Listening to your customers: the impact of perceived salesperson listening behavior on relationship outcomes. Journal of Academy Marketing Science. 6: 222-232.
 36. Rasmikayati, Elly 2020. "Consumer Preferences for Modern Retail "Private Label" Associated with Consumer Characteristics" (thesis). Bandung: Padjadjaran University.
 37. Surya, Nana. 2017. "Customer Satisfaction Mediates Product Quality and Price Fairness on Mcdonalds Brand Loyalty in Denpasar City" (thesis). Denpasar: Udayana University.
 38. Shandy, Widjoyo. 2014. "The Influence of Service Quality and Product Quality on Customer Satisfaction and Consumer Loyalty at Happy Garden Surabaya Restaurant" (thesis). Surabaya Petra Christian University.
 39. Shaneen, Mansori. 2018. The Effects of Product Quality on Customer Satisfaction and Loyalty: Evidence from Malaysian Engineering Industry. Sunway College. International Journal of Industrial Marketing, 1: 20-35.
 40. Shanti, Pranithi. 2015. "The Role of Customer Satisfaction in Mediating the Effect of Product Quality on Customer Loyalty in Molto Clothing Fragrance Products" (thesis). Denpasar: Udayana University.
 41. Sholehuddin, Sulton 2021. "Dimensions of Service Quality on Consumer Satisfaction " (thesis). Malang: Islamic University of Malang.
 42. Siregar, Nufa. 2017. "The Influence of Image, Product Quality and Price on Customer Loyalty at Kampoeng Deli Medan Restaurant" (thesis). Medan: University of Pancasila Development.

43. Turban et al. 2018. *Electronic Commerce 2018: A Managerial and Social Networks Perspective*. Germany: Springer.
44. Tambrin, Muhamad 2019. The Effect of Price and Product Quality Towards Customer Satisfaction and Customer Loyalty on Madura Batik. *International Tourism and Hospitality Journal*, 1: 1-9.
45. Utami, Bunga 2015. "The Influence of Service Innovation on Customer Loyalty with Customer Satisfaction as an Intervening Variable" (thesis). Semarang: Semarang State University.
46. Wahyuni, Sri. 2021. " The Effect of Timely Reception and Service Quality on Customer Satisfaction of J&T Express Pekanbaru (Case Study on J&T Express Payung Sekaki)" (thesis). Riau: Muhammadiyah University of Riau
47. Yu, Sheng. 2018. Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana. *International Journal of Bank Marketing*, 2: 22-32.
48. Yusup, Rendi 2018. "Analysis of Product Quality and Service Quality on Purchasing Decisions and Their Implications for Two Way Cake Claresta Karawang Customer Satisfaction" (thesis). Karawang: Mercubuana University.
49. Yoyo, Lovely. 2019. "The Influence of Medical Service Quality and Administrative Service Innovation on Patient Satisfaction" (thesis). Jakarta: IPWI.
50. Yurini, Anom. 2015. "Strategy to Improve the Quality of Organic Fresh Vegetable Products at CV. Golden Leaf Farm Bali" (thesis). Bali: Udayana University.
51. Zeithaml, VA, Berry, LL, and Parasuraman, A. 1996. The behavioral consequences of service Quality. *Journal of Marketing*, 2:28-35.
52. Zakia, Ella. 2015. "The Influence of Service Quality and Service Innovation on Consumer Satisfaction at the Fruit of the Heart Hospital in Kudus Regency" (thesis). Semarang: Semarang State University.