

## THE EFFECT OF BRAND IMAGE AND PRODUCT QUALITY ON CUSTOMER LOYALTY WITH PURCHASING DECISIONS AS AN INTERVENING VARIABLE

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### ABSTRAK

This research aims to analyze the role of Brand Image and Product Quality on Customer Loyalty with purchasing decisions as an intervening variable with research on Quaker cereal customers in Jabodetabek. This research uses a marketing management theory approach and consumer behavior theory. The population of this research is people who have purchased and consumed Quaker instant cereal products who live in the Jabodetabek area with a sample of 240 respondents. Data analysis method using Structural Equation Model-Partial Least Square (SEM PLS). The research results show that brand image does not have a significant effect on purchasing decisions for Quaker products. Brand image does not have a significant effect on customer loyalty through purchasing decisions on Quaker products. Product quality has a significant effect on customers loyalty through purchasing decisions on Quaker products.

**Keywords:** *Brand Image, Product Quality, Purchase Decision, Customer Loyalty*

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### INTRODUCTION

After the COVID-19 pandemic crisis, maintaining a healthy body and increasing the body's immunity is an obligation that can be obtained through the implementation of a healthy lifestyle. According to the results of the Diet Decision Survey (2020) released by Herbalife Nutrition (Gatra, 2021) shows that 58% of respondents in Asia Pacific (Indonesia, Australia, Japan, Malaysia, Philippines, South Korea, Taiwan and Vietnam) have adopted an active healthy lifestyle with better food patterns and exercise during the pandemic. This is a momentum to change diet and lifestyle with the aim of maintaining health and gaining ideal weight.

A healthy lifestyle is a lifestyle that upholds health aspects such as managing environmental hygiene and health, maintaining physical and psychological fitness, providing adequate nutritional intake, so as to achieve good health standards (Lugas et al., 2018). In the Herbalife Nutrition survey (2020), it was also found that as many as 59% of respondents from Indonesia also decided to adopt an active healthy lifestyle with better food patterns and exercise diligently during the pandemic, by consuming more fruits and vegetables, plant-based foods, and reducing rice consumption. And until the current post-pandemic, this lifestyle has become a routine that continues in the community.

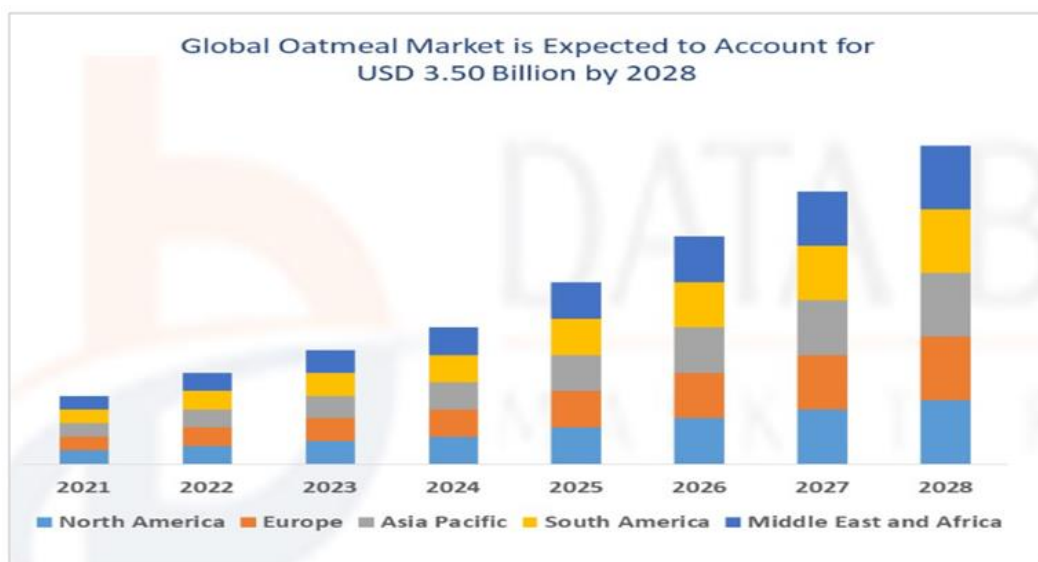
Based on survey Nielsen (2016), new global health and ingredient-sentiment survey, about the changing behavior of people's habits around the world in choosing food and beverages. It shows that people increasingly want healthy food that is accompanied by a healthy diet as well. About 80% of respondents limit or prohibit the consumption of certain foods or beverages. The same survey also showed that about 70% of respondents avoid preservatives in food, flavor ingredients, and synthetic colors. People are increasingly choosing specialized diets that fulfill their desire for healthy food, with organic, low-fat, low-carb foods, or eliminating ingredients based on food sensitivities, allergies, or personal beliefs. Consumers want to eat in a way that truly addresses diet, health and food-as-medicine concerns. Two-thirds of global consumers (68%) say they are willing to pay more for foods without unwanted ingredients. Nielsen retail sales data shows that many North American and European consumers are cutting back on foods

high in fat, sugar and sodium. Half of North American respondents said they follow a special diet, followed by 44% of European respondents. Seventy percent of global respondents said they actively make dietary choices to help prevent health conditions such as obesity, diabetes, high cholesterol or hypertension. According to the World Health Organization (WHO), chronic diseases such as type 2 diabetes, cardiovascular disease and cancer are expected to be the cause of 73% of deaths globally by 2020, up about 60% from 2001.

For many people around the world, oatmeal cereal is the ideal breakfast cereal alternative. It is consumed for its high nutritional content, including high protein, carbohydrates from starch, dietary fiber, vitamins, and minerals. Oatmeal contains more than 26 bioactive substances and is rich in antioxidants, allowing the body to defend against chronic diseases, such as heart disease, diabetes, and cancer. Oatmeal is an ideal food for busy lifestyles as it is easy to prepare and meets the body's daily nutritional needs.

Oatmeal is one of the most popular breakfast foods consisting of oats and liquid, such as boiled water or cow's milk or plant-based milk. There is a large market for oatmeal in developed Western countries, where oatmeal is popularly consumed as a breakfast item. However, the oatmeal market is currently growing in many developing countries as well, due to the increasing trend of healthy eating. It can be predicted that this trend is likely to increase global oatmeal consumption over the next five years. Based on research by Data Bridge Market Research 2020, the Oatmeal Market is expected to reach US\$ 3.50 Billion by 2028 growing 4.90% in the forecast period 2021 to 2028.

**Chart 1.1 Growth of the World Oatmeal Market**



Source: [www.databridgemarketresearch.com/reports/global-oatmeal-market](https://www.databridgemarketresearch.com/reports/global-oatmeal-market), (2021)

Oatmeal is a popular breakfast food consisting of oats and a liquid, such as boiled water or cow's milk or plant-based milk. There is a large market for oatmeal in developed Western countries, where oatmeal is popularly consumed as a breakfast item. However, the oatmeal market is currently growing in many developing countries as well, due to the increasing trend of healthy eating. It can be predicted that this trend is likely to increase global oatmeal consumption over the next five years. Based on research by Data Bridge Market Research 2020, the Oatmeal Market is expected to reach US\$ 3.50 Billion by 2028 growing 4.90% in the forecast period 2021 to 2028.

Apart from practical reasons, oatmeal cereals also fall into the category of healthy foods that contain nutrients and prevent diseases. According to the ministry of health 2022, such as wheat

or oatmeal foods that contain water insoluble fiber that is beneficial to health, including a good type of food and rich in fiber content, so it can overcome gastrointestinal diseases and reduce the risk of colon cancer, help lose weight, help control cholesterol levels. For people with diabetes, oatmeal is a very important food because it can maintain blood sugar levels. This food can nourish the heart by lowering bad cholesterol (LDL) due to its fiber content. Whole grains, brown rice, or corn as the main source of carbohydrates can reduce the risk of heart disease, diabetes, and some cancers, obesity, and other health problems. This is because of the protein, antioxidants, B vitamins, minerals (iron, magnesium, and zinc) and fiber contained in these grains.

From the results of the survey conducted (Nutrition, 2021), 37% of Gen Z and Millennials are starting to eat breakfast more often in the morning and half of the survey respondents already eat breakfast six to seven days per week on a regular basis. However, the breakfast habit should start by considering not only the frequency of breakfast but also the nutrition contained in the breakfast menu. Breakfast should contain healthy and balanced nutrients such as fiber, vitamins, minerals that the body needs. A nutritious breakfast can provide energy for the body and brain to stay active in activities such as work, school, sports, and others.

In general, Indonesians consider breakfast as just filling the stomach, without fulfilling the completeness of nutrition and fiber content. Based on food consumption data from the 2018 Basic Health Research (Riskesdas) Report, it was found that breakfast in Indonesian children is still of low quality. This is according to the data obtained, namely 44.6% of school-age children have a low-quality breakfast. This condition is based on the fact that 9 out of 10 Indonesians consume less fiber. Data from the total diet survey (SDT) of the Indonesian Ministry of Health's Research and Development Agency in 2020 showed that 25,000 children aged 6-12 years in 34 provinces, 47.4 percent of children did not meet the minimum energy needs at breakfast with low nutritional quality and unmet vitamin and mineral intake. Nutrition Adequacy Rate (AKG) according to the Ministry of Health (2022) Women aged 16-18 years are 29 grams per day, while men are 37-grams per day. Women aged 19-29 years are 32 grams per day, while men are 37 grams per day. Women aged 30-49 years are 30 grams per day, while men are 36 grams per day. This need will decrease at the age of more than 49 years and continue to decrease with age.

The Indonesian Ministry of Health 2019 stated that many people consume too much of the wrong types of food, and they consume very low amounts of healthy food, that the daily diet is the biggest killer than smoking and is now the cause of 1 in 5 deaths worldwide. The average person in many parts of the world consumes ten times the recommended amount of sugar and 86 percent more sodium per person than the safe limit. The study also warned that too many people are consuming fewer whole grains, fruit, nuts and seeds to maintain a healthy life. About 11 million deaths worldwide are attributed to poor diet. So far, cardiovascular disease, which is usually caused or exacerbated by obesity, is still the leading killer. The study examined consumption and disease trends between 1990-2017.

One of the consequences of Indonesians' low awareness of breakfast containing fiber, many health issues arise, such as gastrointestinal diseases, constipation, risk of colon cancer, heart disease, blood sugar or diabetes, cholesterol, obesity. Based on basic health research data (Riskesdas) (2018) from the ministry of health, in Indonesia 93.5% of people still have difficulty meeting the 30 grams of fiber that is a daily requirement. According to the World Health Organization (WHO), the recommended intake of fiber is 25-30 grams per day. The Dietary Reference Intake (DRI) of fiber based on the National Academy of Sciences suggests that good fiber consumption is 19-38 grams per day according to the age of each consumer. The average food fiber consumption of the Indonesian population is 10.5 grams per day. This figure shows that the Indonesian population has only met its fiber needs of about one-third of the ideal requirement of 30 grams daily.

Based on all this exposure, this is a great opportunity for food industry companies in creating a product for breakfast containing oatmeal cereal. They are competing to take the world and Indonesian markets by providing products needed by consumers with high product quality, easily available, both from an easily accessible location and competitive prices. One of the breakfast cereal brands in Indonesia is Quaker which contains oats.

The Quaker Oats Company which is an American food company based in Chicago introduced a healthy and instant cereal food, namely Quaker. Quaker is one of the most well-known cereal brands in Indonesia that provides heart-healthy, high-carbohydrate, high-fiber, high-protein nutrition that is conveniently packaged to suit people's lifestyles. Quaker was created for those who need instant products but still want to consume healthy food. Quaker is rich in carbohydrates as a source of energy. Made from 100% whole oat grains that are high in beta-glucan, oatmeal also contains protein that can lower cholesterol in the blood.

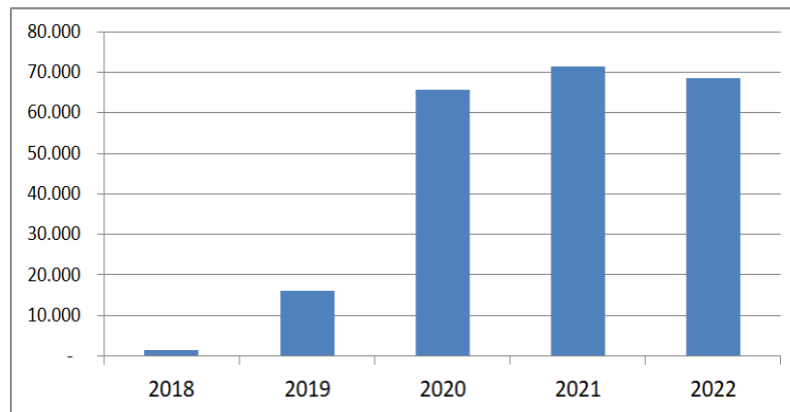
**Table 1.2 Survey Results Factors affecting Brand Image, Product Quality, Purchasing Decisions, Customer Loyalty on Quaker product brands**

Variable	Questions	Respondent	Agree	Disagree
Brand Image	The well-known brand image of Quaker products influences my purchasing decisions	30	76,7%	23,3%
Product Quality	The good quality of Quaker products influences my purchasing decisions	30	76,7%	23,3%
Customer Loyalty	Quaker is always my choice in buying healthy breakfast products	30	26,7%	73,3%

Source: data processing results, (2023)

The results of the pre-survey in table 1.2 conducted by the author by asking questions to 30 respondents regarding brand image, product quality for the Quaker brand, show the results of the brand image for Quaker products are well known enough to influence purchasing decisions by 76.7%, and the good quality of Quaker products also influences purchasing decisions by 76.5%, but in the customer loyalty variable Quaker is not always the choice in buying oatmeal products seen as much as 73.3% answered disagree, and only 26.7% answered agree. So, this is a big challenge for Quaker companies in Indonesia to further increase customer loyalty by conducting more vigorous promotions, competitive prices, easily accessible locations with product availability in online markets or offline markets, a variety of product flavors that are preferred by children and adults, so that Quaker customers can become more loyal and always choose Quaker to be the first choice of nutritious healthy breakfast.

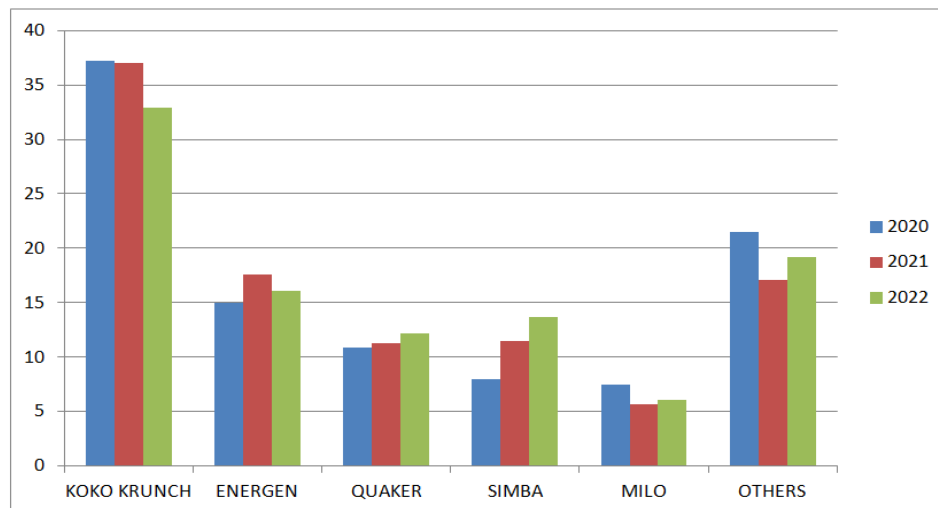
**Figure 1.3 Sales of Quaker products in the Jabodetabek area at the company PT. TRS**



Source: TRS sales report (2018-2022)

Sales of Quaker products in the Jabodetabek area at the company PT. TRS before and after the covid-19 pandemic from the results of graph 1.3, it can be seen that sales in 2020, namely during the Covid-19 pandemic, there was a significant increase of 308% compared to the previous year. Likewise in 2021, there was also an increase of 9% compared to the previous year, while in 2022 there was a decrease in sales of -4% compared to the previous year, even so this figure is still positive 4% compared to the beginning of the 2020 pandemic.

**Chart 1.4 Market Share Data of Cereals in one of the offline stores in Indonesia**



Source: Data processed by researchers, (2023)

Furthermore, from the market share data for the RTE breakfast cereal product category, from graph 1.4, it can be seen that the largest market share of cereals comes from the Koko Krunch brand, then in second place is the Energen brand, and Quaker is in third place in 2020 and 2021. However, this position was shifted by the Simba brand in 2022.

**Table 1.5 Top Brand Index of Breakfast Cereals**

Brand	Year				
	2019	2020	2021	2022	2023
Ceremix	4.20	5.50	6.20	4.60	3.60
Energen Cereal	52.70	52.20	53.70	54.80	52.00
Koko Krunch	29.80	28.30	25.10	25.50	28.90
Milo	6.60	8.20	7.80	8.00	9.70
Simba	6.60	5.60	7.20	6.40	5.70

Sumber: Top Brand Award ([www.topbrand-award.com](http://www.topbrand-award.com)) (2023)

From the data in table 1.5 above, it can be seen that the top five Top Brand Award for the breakfast cereal category are Energen, Koko Krunch, Milo, Simba, Ceremix. In the last five years the Energen brand has occupied the top position, although in 2020 there was a decrease in percentage compared to 2019. However, Energen remains the market leader and has a market share above 50%. Meanwhile, in second place in the Top Brand Award is Koko Krunch, followed by Milo in third place and Simba in fourth place. Meanwhile, the Quaker brand did not enter the top five Top Brand Award for this product category.

The results of the Top Brand Award data for breakfast foods in 2023 show that Quaker must try hard to make customers loyal to Quaker products and make purchasing choices. This happens because the quality of Quaker products is considered unable to compete with these other cereals. Such as a blander taste and the absence of a variety of other flavors compared to other products, so Quaker has not been able to meet the taste that customers expect.

From the data above, Quaker has not been able to dominate the breakfast cereal market, especially in Indonesia. Thus, Quaker needs to identify factors that can influence purchasing decisions by customers so that they can boost sales. This is stated by Listyorini et al. (in Muratin, 2021) that high consumer purchasing decisions will increase sales volume so that company profits increase. So, in order to increase profits, companies must take into account consumer purchasing decisions for these goods or services.

According to several studies that have been conducted regarding factors that can influence customer purchasing decisions, brand image. As in research conducted by (Patimah, et al, 2023), Gunawan (2022), (Tambun et al., 2023) and (Agustina, et al, 2018) who found a significant influence on brand image on purchasing decisions. According Keller (1993) cited in Gunawan (2022) associations can be built when someone tries the brand directly and receives information about the brand or indirectly makes conclusions based on one's brand knowledge. In other words, brand image talks about consumer perceptions of a brand so that it influences them in determining the decision to buy.

Apart from brand image, product quality is considered to be able to participate in increasing customer purchasing decisions. This is evidenced in studies conducted by (Patimah, et al, 2023), (Talhah, 2022), Gunawan (2022), and (Agustina, et al, 2018) which found significant results of the influence between product quality on purchasing decisions. According to Cooper and Kleinschmidt (Ahmaddien, I., & Widati, 2019) every business has only two choices, namely success in product development so as to create product excellence or failure in achieving its business goals because the product is unable to compete in the market. Therefore, it can be said that food service business owners must always maintain product quality so that the sustainability of their business is guaranteed.

After deciding to buy a product, the existence of loyalty is an element that can support consumers in buying products and services regularly or repeatedly, and loyalty is also able to attract new customers. According to (Rane et al., n.d.) customer loyalty is a strong emotional relationship that consumers have with a brand and the possibility of making repeat purchases. Thus, the usefulness of brand loyalty can be said to be a measure of the attraction between

customers to a brand. So, to achieve customer loyalty, companies must be able to create a brand image and brand identity of a product in order to attract consumer attention and maintain market share.

Customer loyalty in consuming oatmeal is because they believe that there are many benefits in the content of oatmeal for health and the diet program they are currently undergoing. Research from the US National Health and Nutrition Examination Survey shows that people who regularly eat oatmeal tend to be healthier and have an ideal weight than those who do not regularly eat oatmeal (Afifah, 2020).

In several studies regarding the relationship between product quality and brand image on customer loyalty, as well as customer loyalty on purchasing decisions. In (Andharesti, A., & Nirawati, 2023) and (Syahdan & Aisyah, 2020) it was found that product quality and brand image have an effect on customer loyalty. Likewise, in the research of (Lubis, 2023), Gunawan (2021), and (Ahmaddien, I., & Widati, 2019) it was found that product quality has an effect on customer loyalty. Meanwhile, research by (Talhah, 2022) and Purba (2021) found that customer loyalty has a significant effect on purchasing decisions.

The novelty in this study is in the sample used, namely cereal products with the Quaker brand, which no one has previously examined regarding customer loyalty as a mediator between the influence of brand image and product quality on purchasing decisions. In addition, the population and samples used are consumers in Jabodetabek. This is because every year the number of cereal sales increases, besides that the level of mobility in big cities is high so that many people choose practical food for breakfast such as cereals.

Based on the description of the background of the problem above, the researcher wants to find out more about how the influence of brand image and Quaker product quality on consumer purchasing decisions in choosing Quaker products for a healthy breakfast through the role of customer loyalty to the Quaker brand. Thus, the research title to be raised is "The Effect of Brand Image and Product Quality on Customer Loyalty with Purchasing Decisions as an Intervening Variable".

## **METHODS**

This research is a quantitative research method that has the aim of testing hypotheses with the aim of seeing whether a variable can affect other variables (Sekaran, U., & Bougie, 2017). Quantitative research was chosen to be able to measure the effect of the variables of brand image, product quality, customer loyalty, and purchasing decisions. Researchers will answer the objectives of this study by looking at the influence of the variables in this study.

In addition, this research also uses descriptive research, which is research that aims to describe the variables that exist in the character of a person, situation or certain phenomena. Therefore, this research includes descriptive research that is able to describe the relevant aspects of existing phenomena (Sekaran, U., & Bougie, 2017).

## **RESULTS AND DISCUSSION**

The object of this research is the Quaker trademark as a healthy breakfast cereal. Quaker became the leading trademark for the industry of planting, growing and milling enhanced oats. Starting in 1974, the Quaker center in collaboration with several parties built an Oat breeding center with the aim of improving quality and maintaining the availability of whole oats for each Quaker product. In 1877, Quaker was registered as the first trademark for breakfast cereal. Henry Seymour and Williams Heston, as former owners of Quaker have claimed the Quaker brand as a symbol of a product that has proven to be of good quality.

Based on the Criteria for Mediation Testing Results, it was found that the direct and indirect effects produced the same results, namely positive results, because both model constructs were influenced by the influence of exogenous variables. Exogenous variables also change mediator

variables, which change endogenous (Hair et al., 2022). And the determination of whether the hypothesis is accepted or rejected is explained as follows:

### **Analysis and Discussions**

#### **Analysis of the Effect of Brand Image on Purchasing Decisions**

Based on the results of hypothesis testing, it states that the H1 hypothesis is rejected with a T-statistics value of 1.331 ( $>1.68$ ), P-Values of 0.184 ( $>0.05$ ) and an Original Sample (O) value of 0.119. From these results, the T-statistics are greater than 1.68 and the P-Values value is greater than 0.05, so it can be concluded that H1 is rejected and it is stated that there is an influence of Brand Image on Purchasing Decisions.

In the research of (Patimah, et al, 2023), (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021), (Tambun et al., 2023), and (Agustina, et al, 2018), brand image can significantly influence purchasing decisions. This indicates that the usefulness of brand loyalty can be said to be a measure of attraction between customers to the image of a brand.

#### **Analysis of the Effect of Product Quality on Purchasing Decisions**

Based on the results of hypothesis testing, it states that hypothesis H2 is accepted. With a T-statistics value of 4.842 ( $>1.68$ ), P-Values of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.392. From these results, the T-statistics are greater than 1.68 and the P-Values value is smaller than 0.05, so it can be concluded that H2 is accepted and it is stated that there is an effect of Product Quality on Purchasing Decisions.

In the research of (Patimah, et al, 2023), (Talhah, 2022), (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021), and (Agustina, et al, 2018), product quality has an influence on purchasing decisions. This indicates that food service business owners must always maintain product quality so that the sustainability of their business is guaranteed.

#### **Analysis of the Effect of Brand Image on Customer Loyalty**

Based on the results of hypothesis testing, it states that the H3 hypothesis is accepted. With a T-statistics value of 2.801 ( $>1.68$ ), P-Values of 0.005 ( $<0.05$ ) and an Original Sample (O) value of -0.258. From these results, the T-statistics are greater than 1.68 and the P-Values value is smaller than 0.05, so it can be concluded that H3 is accepted and it is stated that there is an effect of Brand Image on Customer Loyalty.

In research by (Andharesti, A., & Nirawati, 2023) and (Syahdan & Aisyah, 2020) brand image has an influence on customer loyalty. This indicates that brand image is synonymous with consumer perceptions of a brand, thus influencing it in increasing customer loyalty.

#### **Analysis of the Effect of Product Quality on Customer Loyalty**

Based on the results of hypothesis testing, it states that hypothesis H4 is accepted. With a T-statistics value of 7.144 ( $>1.68$ ), P-Values of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.594. From these results, the T-statistics are greater than 1.68 and the P-Values value is smaller than 0.05, so it can be concluded that H4 is accepted and it is stated that there is an effect of Product Quality on Customer Loyalty.

In the research of (Lubis, 2023), (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021), and (Ahmaddien, I., & Widati, 2019) product quality has an influence on Customer Loyalty. This indicates that product quality is closely related to customer loyalty. If consumers are satisfied with the quality of the product they buy, then these consumers will be loyal to the product they buy.



### **Analysis of the Effect of Purchasing Decisions on Customer Loyalty**

Based on the results of hypothesis testing, it states that hypothesis H5 is accepted. With a T-statistics value of 4.773 ( $>1.68$ ), P-Values of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.352. From these results, the T-statistics are greater than 1.68 and the P-Values value is smaller than 0.05, so it can be concluded that H5 is accepted and it is stated that there is an influence of Purchasing Decisions on Customer Loyalty.

In (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021) it was found that purchasing decisions have a significant effect on customer loyalty. This indicates that the existence of loyalty is an element that can support consumers in buying products and services regularly or repeatedly, and loyalty is also able to attract new customers.

### **Analysis of the Effect of Brand Image on Customer Loyalty Through Purchasing Decisions**

Based on the results of hypothesis testing, it states that hypothesis H6 is rejected. With a T-statistics value of 1.175 ( $<1.68$ ), P-Values of 0.240 ( $>0.05$ ) and an Original Sample (O) value of 0.042. From these results, the T-statistics are smaller than 1.68 and the P-values are greater than 0.05, so it can be concluded that H6 is rejected and it is stated that Brand Image has no significant effect on Customer Loyalty through Purchasing Decisions.

In the research of (Krismonanda, F., & Iskandar, 2021) it was found that brand image has an effect on purchasing decisions. Meanwhile, in the research of (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021) it was found that purchasing decisions have a significant effect on customer loyalty. Purchasing decisions are considered to mediate the influence between brand image on customer loyalty.

### **Analysis of the Effect of Product Quality on Purchasing Decisions Through Customer Loyalty**

Based on the results of hypothesis testing, it states that hypothesis H7 is accepted. With a T-statistics value of 3.636 ( $>1.68$ ), P-Values of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.138. From these results, the T-statistics are greater than 1.68 and the P-Values value is greater than 0.05, so it can be concluded that H7 is accepted and it is stated that there is an effect of Product Quality on Purchasing Decisions through Customer Loyalty.

In the research of (Krismonanda, F., & Iskandar, 2021) it was found that product quality has an effect on purchasing decisions. Meanwhile, in the research of (Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, 2021) it was found that purchasing decisions have a significant effect on customer loyalty so that purchasing decisions are considered to mediate the influence between product quality and customer loyalty.

#### **1) Predictive model assessment (Predictive model assessment)**

Predictive model assessment using PLS predicted in Smart PLS 3.0. PLS Predicted is used to estimate model parameters, and evaluate the predictive power of the model. PLS predicted results will produce Q2predict, RMSE and MAE values for PLS and naïve LM. The predictive power of the model is done by comparing the PLS model results with naïve LM (Linear Model) for the Q2predict, RMSE and MAE values. Q2predict is expected to have a value  $> 0$  and the value of Q2predict PLS  $>$  Q2predict LM. Meanwhile, the RMSE and MAE values in the PLS model are expected to be smaller than the RMSE and MAE values in the LM model (Hair et al., 2022). This can lead to four possible outcomes, including the following:

- a. If all indicators in the PLS-SEM analysis have lower RMSE (or MAE) values compared to naïve LM, then the model has high predictive power.

- b. If most (or the same number) of indicators in the PLS-SEM analysis produce smaller prediction errors than the naïve LM, indicating the model has moderate predictive power.
- c. If a small proportion of the dependent construct indicators produce lower PLS-SEM prediction errors compared to the naïve LM, indicating that the model has low predictive power.
- d. If the PLS-SEM analysis (compared to LM) results in a lower prediction error in terms of RMSE (or MAE) for no indicators, indicating that the model has no predictive power.. (Hair et al., 2022).

Based on the understanding above, the PLS predicted test results are obtained as follows:

**Table 4.20 PLS Predict Measurement Results**

Indicator	Q <sup>2</sup> predict - PLS	Q <sup>2</sup> predict - LM	Description
KPM01	0,446	0,230	PLS > LM
KPM02	0,171	0,159	PLS > LM
KPM03	0,370	0,198	PLS > LM
KPM04	0,380	0,124	PLS > LM
KPM05	0,297	0,216	PLS > LM
KPM06	0,458	0,128	PLS > LM
KPM07	0,041	0,002	PLS > LM
KPM08	0,572	0,169	PLS > LM
KPM09	0,071	0,011	PLS > LM
KPM10	0,077	0,028	PLS > LM
LP01	0,277	0,264	PLS > LM
LP02	0,420	0,221	PLS > LM
LP03	0,260	0,207	PLS > LM
LP04	0,477	0,409	PLS > LM
LP05	0,385	0,298	PLS > LM
LP06	0,511	0,166	PLS > LM

**Source: Data processed using SmartPLS (2023)**

Based on the results of the PLS Predict measurement in table 4.20, the Q<sup>2</sup>predict value > 0 is obtained, so it can be continued with the measurement of RSME and MAE, and all Q<sup>2</sup>predict PLS model indicators have a value greater than the Q<sup>2</sup>predict LM model value.

**Table 4.21 RMSE Measurement Results**

Indicator	RMSE - PLS	RMSE - LM	Description
KPM01	0,017	0,988	PLS < LM
KPM02	0,997	1,005	PLS < LM
KPM03	0,209	1,104	PLS < LM
KPM04	0,002	0,956	PLS < LM
KPM05	0,023	0,937	PLS < LM
KPM06	0,783	0,963	PLS < LM

Indicator	RMSE - PLS	RMSE - LM	Description
KPM07	1,082	1,104	PLS < LM
KPM08	0,389	0,881	PLS < LM
KPM09	0,894	0,923	PLS < LM
KPM10	0,938	0,963	PLS < LM
LP01	0,900	0,908	PLS < LM
LP02	0,722	0,872	PLS < LM
LP03	0,725	0,949	PLS < LM
LP04	0,101	0,975	PLS < LM
LP05	0,079	1,021	PLS < LM
LP06	0,178	1,115	PLS < LM

Source: Data processed using SmartPLS (2023)

Based on the RMSE measurement results in table 4.21, all indicators have a PLS RSME value < LM.

Table 4.22 MAE Measurement Results

Indicator	MAE - PLS	MAE - LM	Description
KPM01	0,593	0,764	PLS < LM
KPM02	0,708	0,755	PLS < LM
KPM03	0,502	0,844	PLS < LM
KPM04	0,627	0,710	PLS < LM
KPM05	0,606	0,664	PLS < LM
KPM06	0,434	0,731	PLS < LM
KPM07	0,856	0,857	PLS < LM
KPM08	0,472	0,654	PLS < LM
KPM09	0,676	0,697	PLS < LM
KPM10	0,718	0,732	PLS < LM
LP01	0,636	0,650	PLS < LM
LP02	0,498	0,662	PLS < LM
LP03	0,477	0,708	PLS < LM
LP04	0,658	0,704	PLS < LM
LP05	0,609	0,742	PLS < LM
LP06	0,776	0,838	PLS < LM

Source: Data processed using SmartPLS (2023)

The MAE measurement results in table 4.22, all indicators have MAE PLS < LM values. Based on the measurement of Q2predict, all indicators have PLS> LM results and based on the measurement of RMSE and MAE, all indicators have PLS < LM results, so it can be concluded that this study has high predictive power.

### 1) Robustness Check

#### Measurement Model Test (Measurement Models)

The measurement model is carried out using CTA analysis (Confirmatory Tetrad Analysis). Confirmatory Tetrad Analysis decides whether to specify measurement models reflectively or formatively through theoretical thinking. Confirmatory Tetrad Analysis in PLS-SEM empirically evaluates the causal relationship for latent variables and indicator specifications in the measurement model (Hair et al., 2022).

The criteria used in the measurement model (Measurement Models) are if Tetrads ( $\tau$ ) produces a CI adj value with a range of numbers that exceeds zero, it can be concluded that it is a reflective model, but if Tetrads ( $\tau$ ) produces a CI adj value with a range of numbers that does not exceed zero, it can be concluded that it is a formative model (Hair et al., 2022). The results of the CTA (Confirmatory Tetrad Analysis) measurement are as follows:

**Table 4.23 Purchase Decision CTA Measurement Results**

Purchase Decision	Original Sample (O)	T Statistics ( O/STDEV )	P Values	CI adj (Low, Up)
KPM01,KPM02,KPM03,KPM04	0,280	3,027	0,003	(-0.018, 0.575)
KPM01,KPM02,KPM04,KPM03	0,320	3,815	0,000	(-0.053, 0.591)
KPM01,KPM02,KPM03,KPM05	0,182	2,135	0,033	(-0.094, 0.452)
KPM01,KPM03,KPM05,KPM02	-0,049	1,207	0,228	(-0.175, 0.083)
KPM01,KPM02,KPM03,KPM06	0,117	1,416	0,157	(-0.150, 0.381)
KPM01,KPM02,KPM03,KPM07	0,056	0,657	0,511	(-0.217, 0.326)
KPM01,KPM02,KPM03,KPM08	-0,042	0,538	0,591	(-0.294, 0.206)
KPM01,KPM02,KPM09,KPM03	-0,010	0,153	0,878	(-0.213, 0.192)
KPM01,KPM02,KPM10,KPM03	0,016	0,258	0,796	(-0.183, 0.211)
KPM01,KPM02,KPM07,KPM04	0,138	1,566	0,118	(-0.144, 0.421)
KPM01,KPM02,KPM04,KPM08	0,097	1,289	0,198	(-0.145, 0.340)
KPM01,KPM02,KPM09,KPM04	0,170	2,299	0,022	(-0.068, 0.407)
KPM01,KPM02,KPM06,KPM05	0,156	1,789	0,074	(-0.127, 0.431)
KPM01,KPM02,KPM05,KPM07	0,085	0,892	0,373	(-0.220, 0.394)
KPM01,KPM02,KPM08,KPM05	0,042	0,597	0,551	(-0.186, 0.268)
KPM01,KPM02,KPM09,KPM05	0,128	1,738	0,083	(-0.109, 0.365)

<b>Purchase Decision</b>	<b>Original Sample (O)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>	<b>CI adj (Low, Up)</b>
<b>KPM01,KPM06,KPM08,KPM02</b>	0,050	1,749	0,081	(-0.040, 0.142)
<b>KPM01,KPM02,KPM06,KPM10</b>	0,006	0,080	0,936	(-0.236, 0.253)
<b>KPM01,KPM06,KPM10,KPM02</b>	0,037	1,319	0,188	(-0.053, 0.128)
<b>KPM01,KPM02,KPM09,KPM07</b>	0,233	2,801	0,005	(-0.032, 0.501)
<b>KPM01,KPM02,KPM10,KPM08</b>	0,214	2,449	0,015	(-0.068, 0.491)
<b>KPM01,KPM03,KPM04,KPM07</b>	0,127	1,786	0,075	(-0.097, 0.358)
<b>KPM01,KPM06,KPM07,KPM03</b>	-0,023	0,636	0,525	(-0.143, 0.092)
<b>KPM01,KPM04,KPM06,KPM09</b>	-0,099	2,037	0,042	(-0.256, 0.054)
<b>KPM01,KPM04,KPM10,KPM07</b>	0,071	1,466	0,143	(-0.084, 0.225)
<b>KPM01,KPM05,KPM07,KPM08</b>	0,089	2,221	0,027	(-0.041, 0.217)
<b>KPM01,KPM06,KPM09,KPM08</b>	0,059	1,261	0,208	(-0.089, 0.212)
<b>KPM01,KPM06,KPM10,KPM08</b>	0,122	2,279	0,023	(-0.049, 0.293)
<b>KPM01,KPM07,KPM10,KPM09</b>	0,068	1,915	0,056	(-0.044, 0.184)
<b>KPM02,KPM03,KPM09,KPM05</b>	0,006	0,091	0,928	(-0.215, 0.228)
<b>KPM02,KPM05,KPM08,KPM04</b>	-0,292	4,085	0,000	(-0.527, 0.068)
<b>KPM02,KPM04,KPM09,KPM10</b>	0,033	0,724	0,469	(-0.112, 0.177)
<b>KPM02,KPM06,KPM09,KPM07</b>	0,013	0,183	0,855	(-0.214, 0.244)
<b>KPM03,KPM04,KPM10,KPM05</b>	0,048	0,805	0,421	(-0.140, 0.243)
<b>KPM04,KPM05,KPM06,KPM07</b>	0,256	3,812	0,000	(-0.045, 0.476)

Source: Data processed using SmartPLS (2023)

Based on the CTA (Confirmatory Tetrad Analysis) measurement of the Purchase Decision in able 4.23, the CI adj value of all Tetrads ( $\tau$ ) results in a range of numbers that exceeds zero, so it can be concluded that the Purchase Decision has a reflective measurement model.

**Table 4.24 Customer Loyalty CTA Measurement Results**

<b>Consumer Loyalty</b>	<b>Original Sample (O)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>	<b>CI <i>adj</i> (Low, Up)</b>
<b>LP01,LP02,LP03,LP04</b>	0,123	2,158	0,031	(-0.035, 0.282)
<b>LP01,LP02,LP04,LP03</b>	0,146	2,745	0,006	(-0.003, 0.394)
<b>LP01,LP02,LP03,LP05</b>	0,077	1,497	0,135	(-0.064, 0.224)
<b>LP01,LP03,LP05,LP02</b>	-0,031	0,707	0,480	(-0.157, 0.090)
<b>LP01,LP02,LP03,LP06</b>	0,050	0,880	0,379	(-0.107, 0.210)
<b>LP01,LP02,LP04,LP05</b>	0,217	3,451	0,001	(-0.043, 0.394)
<b>LP01,LP02,LP05,LP06</b>	0,159	2,352	0,019	(-0.030, 0.348)
<b>LP01,LP03,LP04,LP06</b>	0,122	1,700	0,090	(-0.076, 0.325)
<b>LP01,LP03,LP06,LP05</b>	0,138	1,961	0,050	(-0.063, 0.328)

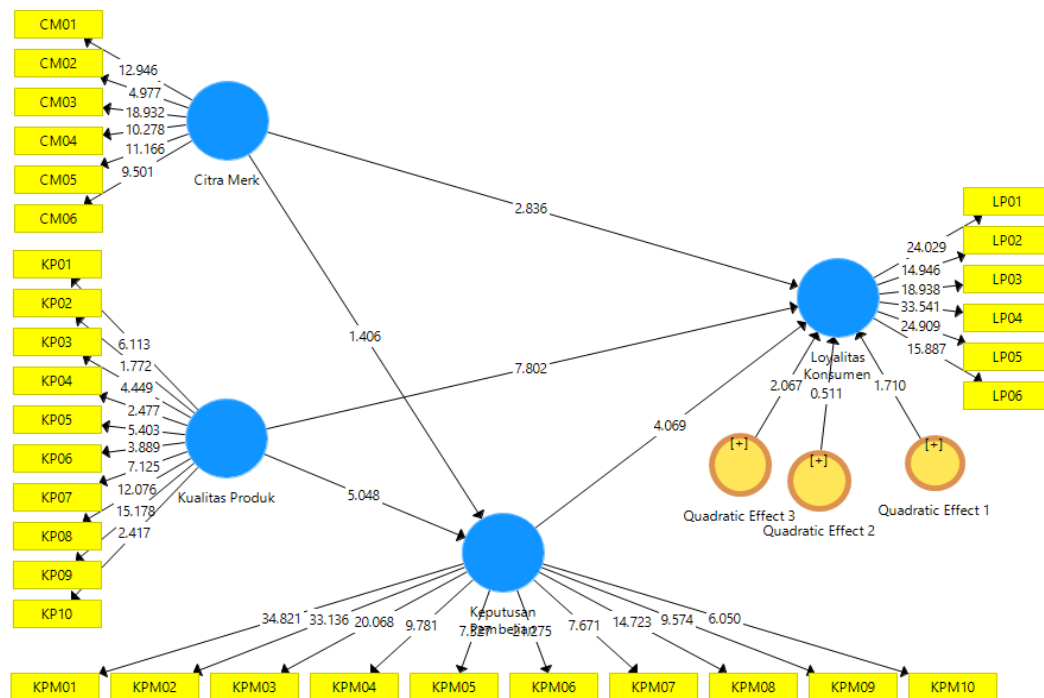
Source: Data processed using SmartPLS (2023)

Based on the CTA (Confirmatory Tetrad Analysis) measurement of Consumer Loyalty in table 4.24, the CI adj value of all Tetrads ( $\tau$ ) produces a range of numbers that exceeds zero, so it can be concluded that for Consumer Loyalty has a reflective measurement model.

### **Structural Models Test with Quadratic Effect**

Structural tests were carried out using quadratic effects in SmartPLS 3.0 and then bootstrapping. This test is conducted to see whether the model has a linear or nonlinear relationship between its variables. The results of the quadratic effect with bootstrapping in SmartPLS 3.0 are described as follows:

**Gambar 4.1 Model Bootstrapping uji nonlinear effect (Quadratic Effect)**



## Measurement Results *Quadratic Effect*

**Table 4.25 Quadratic Effect**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
<b>Quadratic Effect 1 -&gt; Citra Merk</b>	-0,072	-0,068	0,042	1,710	<b>0,088</b>
<b>Quadratic Effect 2 -&gt; Purchase decision</b>	-0,023	-0,015	0,044	0,511	<b>0,609</b>
<b>Quadratic Effect 3 -&gt; Product Quality</b>	0,094	0,092	0,045	2,067	<b>0,059</b>

Source: Data processed using SmartPLS (2023)

Based on the results of measuring the quadratic effect in table 4.25, the results show that the quadratic effect of Brand Image, Product Quality and Purchasing Decisions has P values > 0.05 so it can be concluded that the relationship is linear.

## Result and Discussions

### Analysis of the Effect of Brand Image on Purchasing Decisions

Based on the results of hypothesis testing, it states that the H1 hypothesis is accepted with a T-statistic value of 1.331 (>1.96), a P-Value of 0.184 (<0.05) and an Original Sample (O) value of 0.119. From these results, the T-statistic value is smaller than 1.96 and the P-Value value is greater than 0.05, so it is concluded that H1 is rejected, Brand Image has a positive but insignificant effect on Purchasing Decisions.

This can be interpreted that a positive Brand Image cannot provide a significant increase in purchasing decisions for Quaker cereal products. In this study, Brand Image is not a determining factor to influence purchasing decisions for Quaker cereal products.

The Brand Image of Quaker cereal has a positive impact on the Purchasing Decision of Quaker cereal products, although this impact does not reach the expected level of significance. A number of factors may influence this, such as brand diversity with similar products, intense competition with other cereal manufacturers, as well as external factors such as economic changes. Although the Brand Image has been good in the eyes of the public, it does not necessarily motivate them to buy.

This research is in line or supported by research previously conducted by (Patimah, et al, 2023), (Gunawan, 2022), (Tambun et al., 2023) and (Agustina, et al, 2018), namely the results of the study state that brand image can significantly influence purchasing decisions. This indicates that the usefulness of brand loyalty can be said to be a measure of attraction between customers to the image of a brand.

### **Analysis of the Effect of Product Quality on Purchasing Decisions**

Based on the results of hypothesis testing, it states that the H2 hypothesis is accepted with a T-statistic value of 4.842 ( $>1.96$ ), a P-Value of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.392. From these results, the T-statistic value is greater than 1.96 and the P-Value is smaller than 0.05, so it is concluded that H2 is accepted. Product quality has a positive and significant effect on purchasing decisions.

In previous research conducted by (Patimah, et al, 2023), (Talhah, 2022), Gunawan (2021), and (Agustina, et al, 2018) the results of product quality research have an influence on purchasing decisions. This indicates that food service business owners must always maintain product quality so that the sustainability of their business is guaranteed.

### **Analysis of the Effect of Brand Image on Customer Loyalty**

Based on the results of hypothesis testing, it states that the H3 hypothesis is accepted with a T-statistic value of 2.801 ( $>1.96$ ), a P-Value of 0.005 ( $<0.05$ ) and an Original Sample (O) value of -0.258. From these results, the T-statistic value is greater than 1.96 and the P-Value is smaller than 0.05, so it is concluded that H3 is accepted. Brand Image has a negative and significant effect on customer loyalty.

In previous research conducted by (Andharesti, A., & Nirawati, 2023) and (Syahdan & Aisyah, 2020) the results stated that brand image has an influence on customer loyalty. This indicates that brand image is synonymous with consumer perceptions of a brand so that it influences it in increasing customer loyalty.

### **Analysis of the Effect of Product Quality on Customer Loyalty**

Based on the results of hypothesis testing, it states that the H4 hypothesis is accepted with a T-statistic value of 7,144 ( $>1.96$ ), a P-Value of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.594. From these results, the T-statistic value is greater than 1.96 and the P-Value is smaller than 0.05, so it is concluded that H4 is accepted. Product Quality has a positive and significant effect on Customer Loyalty.

This research is in line or supported by research previously conducted by (Lubis, 2023), (Gunawan, 2022), and (Ahmaddien, I., & Widati, 2019) the results of the study state that Product Quality has a positive and significant effect on consumer loyalty. This indicates that product quality is closely related to customer loyalty. If consumers are satisfied with the quality of the product they buy, then these consumers will be loyal to the product they buy.



### **Analysis of the Effect of Purchasing Decisions on Customer Loyalty**

Based on the results of hypothesis testing, it states that the H5 hypothesis is accepted with a T-statistic value of 4.773 ( $>1.96$ ), a P-Value of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.352. From these results, the T-statistic value is greater than 1.96 and the P-Value is smaller than 0.05, so it is concluded that H5 is accepted. Purchasing decisions have a positive and significant effect on Customer Loyalty.

This research is in line or supported by research previously conducted by Purba, P. Y., Katharina, N., Govindo, R., & Gunawan (2021) with the result that purchasing decisions have a significant effect on customer loyalty. This indicates that the existence of loyalty is an element that can support consumers in buying products or services regularly or repeatedly, and loyalty is also able to attract new customers.

### **Analysis of the Effect of Brand Image on customer loyalty through purchasing decisions**

Based on the results of hypothesis testing, it states that the H6 hypothesis is accepted with a T-statistic value of 1.175 ( $>1.96$ ), a P-Value of 0.240 ( $<0.05$ ) and an Original Sample (O) value of 0.042. From these results, the T-statistic value is greater than 1.96 and the P-Value is greater than 0.05, so it is concluded that H6 is rejected. Brand Image through Purchasing Decisions does not have a positive and significant effect on Consumer Loyalty.

The results of this study are in line with research Krismonanda, F., & Iskandar (2021) The results obtained show that product quality has an effect on purchasing decisions. Meanwhile, in research Purba, P. Y., Katharina, N., Govindo, R., & Gunawan (2021) The results found that purchasing decisions have a significant effect on customer loyalty so that purchasing decisions are considered to mediate the influence between product quality on customer loyalty. This means that this research is in line with the results of previous research, meaning that purchasing decisions can mediate the effect of product quality on customer loyalty.

### **Analysis of the Effect of Product Quality on Consumer Loyalty through Purchasing Decisions**

Based on the results of hypothesis testing, it states that the H7 hypothesis is accepted with a T-statistic value of 3.636 ( $>1.96$ ), a P-Value of 0.000 ( $<0.05$ ) and an Original Sample (O) value of 0.138. From these results, the T-statistic value is greater than 1.96 and the P-Value is smaller than 0.05, so it is concluded that H7 is accepted. Product Quality through Purchasing Decisions has a positive and significant effect on customer loyalty.

The results of this study are in line with research Krismonanda, F., & Iskandar (2021) The results obtained show that product quality has an effect on purchasing decisions. Meanwhile, in research Purba, P. Y., Katharina, N., Govindo, R., & Gunawan (2021) The results found that purchasing decisions have a significant effect on customer loyalty so that purchasing decisions are considered to mediate the influence between product quality on customer loyalty. This means that this research is in line with the results of previous research, meaning that purchasing decisions can mediate the effect of product quality on customer loyalty.

## **CONCLUSION**

Based on the results of the research and discussion previously described, it can be concluded from the relationship between variables that have been tested and analyzed by researchers using the partial least square (PLS) data processing method where there are 7 (seven) hypotheses that can be concluded as follows:

1. Brand image has no significant effect on purchasing decisions for Quaker products. This can be interpreted that a positive Brand Image cannot provide a significant increase in purchasing decisions for Quaker cereal products. In this study, Brand Image

- is not a determining factor to influence purchasing decisions for Quaker cereal products.
2. Product quality has a significant effect on purchasing decisions for Quaker products. This can be interpreted that positive product quality can provide a significant increase in purchasing decisions for Quaker products.
  3. Brand image has no significant effect on customer loyalty to Quaker products. This indicates that brand image is synonymous with consumer perceptions of a brand so that it affects it in increasing customer loyalty.
  4. Product quality has a significant effect on customer loyalty to Quaker products. This can be interpreted that product quality plays an important role in forming customer loyalty. Consumers tend to choose good quality products to consume food and drinks for their bodies because this is related to their health. So, if the product quality is good, consumers will not look for other products because they trust the product.
  5. Purchasing decisions have a significant effect on customer loyalty to Quaker products. This can be interpreted that when consumers have a positive purchasing decision on Quaker cereal products, they tend to be more interested in buying again later, this is what is called the formation of customer loyalty. The positive experience of the first purchase has a strong impact on customer loyalty so that consumers will continue to choose that product compared to other products.
  6. Brand image has no significant effect on customer loyalty through purchasing decisions for Quaker products. This can be interpreted that Brand Image through purchasing decisions does not have a positive and significant impact on customer loyalty for Quaker cereal products. Brand image has helped consumers to make purchasing decisions about a product because of their trust in the brand with a good image. So that on the next occasion, consumers will purchase products with the same brand.
  7. Product quality has a significant effect on customer loyalty through purchasing decisions for Quaker products. This can be interpreted that product quality through purchasing decisions has a positive and significant impact on customer loyalty for Quaker cereal products. This reflects that because of the good quality, buyers will make their first purchase and so on because they believe the good quality is good for prolonged consumption for their bodies.

## REFERENCE

- Afifah, M. N. (2020). "Petik Manfaat Oatmeal untuk Diet, Begini Variasi Olahannya". <https://health.kompas.com/read/2020/06/28/180300268/petik-manfaat-oatmeal-untuk-diet-begini-variasi-olahannya?page=all>. Diakses 24 Juni 2023.
- Agustina, N. A., Sumowo, S., & Wijyantini, B. (2018). "Pengaruh Kualitas Produk, Citra Merek, Dan Harga Terhadap Keputusan Pembelian. *Jurnal Penelitian Ipteks*, 3(2), 186-196."
- Ahmaddien, I., & Widati, E. (2019). "Pengaruh Kualitas Pelayanan, Kualitas Produk Dan Keputusan Pembelian Terhadap Loyalitas Pelanggan Go Food Melalui Variabel Kepuasan. *Jurnal Intekna: Informasi Teknik Dan Niaga*, 19(1), 40-45."
- Andharesti, A., & Nirawati, L. (2023). "Pengaruh Brand Image, Kualitas Produk Dan Kepercayaan Pelanggan Terhadap Loyalitas Pelanggan Sereal Sarapan Pagi Energen. *Jurnal Pendidikan Ekonomi (JURKAMI)*, 8(1), 186-195."
- Gatra. (2021). *Riset Herbalife: Pandemi Jadi Momentum Pola Hidup Sehat*. <https://www.gatra.com/detail/news/517212/gaya-hidup/riset-herbalife-pandemi-jadi-momentum-pola-hidup-sehat>.
- Gunawan. (2022). *Keputusan Pembelian Konsumen Marketplace Shopee Berbasis Social*

*Media Marketing. PT Inovasi Pratama Internasional.*

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd Editio). SAGE. <https://doi.org/10.1007/978-3-030-80519-7>
- Krismonanda, F., & Iskandar, I. (2021). *Pengaruh Variasi Produk Dan Citra Merek Terhadap Keputusan Pembelian Ulang Pada Susu Setia Di Tenggara. Jurnal Ekonomi & Manajemen Indonesia*, 21(2), 36-48.
- Lubis, R. G. (2023). *Pengaruh Citra Merek dan Kualitas Produk terhadap Loyalitas Konsumen pada Beibycih Boutique Medan.*
- Lugas, J., Susanti, E., & Kholisoh, N. (2018). *KONSTRUKSI MAKNA KUALITAS HIDUP SEHAT ( Studi Fenomenologi pada Anggota Komunitas Herbalife Klub Sehat Ersanddi Jakarta ).* 2(1), 1–12.
- Nutrition, H. (2021). *Herbalife Nutrition. Obtenido de Herbalife Nutrition.*
- Patimah, S., Hasyim, M., Al Sukri, S., & Hadayanti, D. (2023). Analysis The Influence of Price, Promotion, Distribution, Product Quality and Brand Image on Purchase Decision of Cereal Product. *JEMSI (Jurnal Ekonomi, Manajemen, Dan Akuntansi)*, 9(1), 179-185.
- Purba, P. Y., Katharina, N., Govindo, R., & Gunawan, R. (2021). *Pengaruh promosi, harga dan loyalitas pelanggan terhadap keputusan pembelian produk minyak gemuk di PT. Cipta Sarana Jaya Abadi. Jurnal Paradigma Ekonomika*, 16(4), 785-798.
- Rane, N. L., Achari, A., & Choudhary, S. P. (n.d.). *ENHANCING CUSTOMER LOYALTY THROUGH QUALITY OF SERVICE: EFFECTIVE STRATEGIES TO IMPROVE CUSTOMER SATISFACTION, EXPERIENCE, RELATIONSHIP, AND ENGAGEMENT.*
- Sekaran, U., & Bougie, R. (2017). *“Metode Penelitian Untuk Bisnis: Pendekatan Pengembangan Keahlian Edisi 6 Buku 2.”*
- Syahdan, S., & Aisyah, S. (2020). Peramalan Indeks Harga Konsumen (IHK) Kota Tarakan dengan Metode Double Exponential Smoothing dari Brown. *JMPM: Jurnal Matematika Dan Pendidikan Matematika*, 5(1), 54–64.
- Talhah, R. M. A., & Hanandewa, H. (2022). “Pengaruh Citra Merek, Kualitas Produk, Dan Harga Terhadap Keputusan Pembelian Melalui Loyalitas Pelanggan (Studi Kasus Pengguna Produk Oriflame Di Wilayah Rw 08 Kelurahan Kelapa Dua Jakarta Barat. *Jurnal Manajemen Bisnis Almatama*, 1(2), 129-134.”.
- Tambun, G. V. R., Putra, S. S., & Digdowiseiso, K. (2023). Pengaruh Store Atmosphere Harga dan Brand Awareness Terhadap Keputusan Pembelian Kopi Buatan Orang Rumah. *Management Studies and Entrepreneurship Journal (MSEJ)*, 4(6), 8946–8952.