THE EFFECT OF PRODUCT INNOVATION TO REPURCHASE INTENTION WITH SATISFACTION AS MEDIATION (A STUDY ON REGIONAL TYPICAL FROZEN FOOD PRODUCTS)

Auditia Setiobudi, Priscilla Veliana Audrey
Universitas Ciputra, UC Town, Citraland, Surabaya 60219, Indonesia

Abstract: The food and beverage industry is very promising for industry players due to the growth trend of Indonesia's food and beverage industry. The food and beverage business is starting to grow rapidly in Indonesia so that it attracts many people to innovate. One form of innovation is the frozen food industry. This study aims to determine product innovation's effect on repurchase intention by looking at consumer satisfaction as a mediating effect on the frozen food industry. The population in this study was 147 people who were frozen food consumers. This research used a purposive sampling approach and determined that the number of samples in this study was 108 respondents. The results of this study indicate that product innovation has a positive and significant effect on customer satisfaction. Product innovation and customer satisfaction have a significant effect on repurchase intention. Consumer satisfaction can mediate the effect of product innovation on consumer repurchase intention.

Keywords: product innovation, consumer satisfaction, repurchase intention

1. INTRODUCTION

The food and beverage industry has the best growth compared to other industries in the fourth quarter of 2017. This is because the business innovation is food and beverage starting to develop rapidly. This growth continued to increase in the following years. Based on data from the ministry of industry, the food industry is one of five industries with a growth of more than 5% in 2018.

*Corresponding Author.
e-mail: auditia.setiobudi@ciputra.ac.id

Of Indonesia's five leading industrial sectors in 2018, the food and beverage industry sector have an export value of up to the US $ 29.91 billion. This far outperforms other industrial sectors such as chemicals, textiles, automotive, and electronics. This is supported by the estimated growth in the food and beverage industry in Indonesia which will develop rapidly in the future. Innovations from various aspects continue to be carried out in the food and beverage industry, one of which is the form of frozen food. The frozen food industry has good prospects in the future to compete in the international market (Hidayat, 2018). In addition, Lukman in Paditya (2018) said that today, frozen food is the main choice.

New frozen food innovations typical of the region have not been widely available in the market. The regional specialty frozen food innovated in this study is Sei meat from East Nusa Tenggara which is marketed in Surabaya under the name Mr. Sei. Sei smoked meat. It is sold packed in thick plastic bags specifically for vacuum. The meat that is vacuumed has been cooked and processed. The reddish color of the meat that appears is the process of cooking the meat by smoking it slowly for 2-3 hours. Mr. Sei is exploring new innovations such as sei meat sold in frozen form. Mr. Sei offers products through social media, personal selling, as well as offered for sale by third parties such as supermarkets selling local frozen food products. This is done so that the Product can be bought directly by people who have the desire to taste sei meat with local special flavors.

According to Ajzen and Madden (1986), theory of reasoned action (TRA) states that attitudes influence behavior through a thorough and reasoned decision-making process, and its impact is limited to only three things. First, behavior is not much determined by general attitudes but by specific attitudes towards something. Second, behavior is not only influenced by attitudes but also by subjective norms, namely our beliefs about what other people want us to do. Third, attitudes towards a behavior together with subjective norms form an intention to behave in a certain way. It is important for Mr. Sei to know the accuracy of the innovation steps that have been made and the level of customer satisfaction in selecting products. Product innovation is one of the factors most relied on by a marketer in marketing a product (Putra and Ekawati, 2017). Through innovation, a product can have a strategic position in the market, have a longer life cycle, able to withstand attacks from competitors, and able to meet

market and consumer desires (Sukarmen, et al., 2013). Consumer satisfaction is a situation shown by consumers when they realize that their needs and wants are as expected and are well fulfilled (Apriyani & Sunarti, 2017). Based on the background of the problems that have been described previously, the authors want to examine deeper into the relationship between product innovation on satisfaction and consumer repurchase intention.

2. LITERATURE REVIEW

2.1 Product Innovation

Innovation is a product or service that is perceived by consumers as new. In simple terms, innovation can be defined as breakthroughs related to new products. Lu et al. (2019) stated that product innovation is the key for companies to get sustainable profits, how to get consumer attention, and the recognition of innovative products is a faster and better way of making strategic decisions for a company. Apart from that, Maulana & Alisha (2020) said that product innovation is a part of adding added value compared to similar competitors. Innovation also includes new business thinking and new processes. Innovation is also seen as a mechanism for companies to adapt to dynamic environments. Therefore, the company is expected to create new thoughts and new ideas that offer innovative products and provide satisfying services to customers. Innovation has an increasingly important meaning not only as a means to maintain the company's survival but also to excel in competition. According to Fontana (2011), innovation is social and economic success thanks to the introduction or discovery of new ways or new combinations of old ways of transforming inputs into outputs in such a way as to create major changes or drastic changes in the relationship between use value or the value of benefits (as perceived by consumers and users) and the monetary value of prices.

2.2 Customer satisfaction

Consumer repurchase intention is a person's planned decision to repurchase certain products and services by considering the experience after using the service (Silaen & Prabawani, 2019). Meanwhile, customer satisfaction according

to Zeithaml, Parasuraman, & Malhotra (2017) is a customer assessment of a product or service in terms of assessing whether the product or service has met customer needs and expectations. According to Kant (2017), most of the time when making a purchase can be seen from the expression of consumers like or dislike the services provided. The company makes all its best efforts to create a memorable experience for customers on a product being offered so as to generate psychological reactions and positive customer perceptions (Yosephine and Purba, 2020). According to Kotler and Armstrong (2018) the determinants of customer satisfaction are divided into five parts. Consumers will feel satisfied after buying or using the product they have bought, it turns out that the product quality is very good. For sensitive consumers, usually low prices are an important source of satisfaction because they will get a high value for money. This price component is relatively insignificant for those who are price insensitive.

2.3 Repurchase intention

Repurchase intention is consumer behavior that appears in response to objects that indicate a customer's desire to make a purchase (Kotler & Keller, 2016). According to Peter & Olson (2015), consumers make repeat purchases because of encouragement and repeated buyer behavior that can foster loyalty to what is felt to be appropriate for them. So, repurchase intention can be concluded as a tendency to make repeat purchases, and get a positive response to past actions. According to Putra & Kusumadewi (2019), product innovation was found to have a positive and significant effect on consumer satisfaction at Bakery Patisserie & Café Sanur. According to Aditi & Hemansyur (2017), product innovation was found to have a positive and significant effect on MSME consumer satisfaction in Medan. Based on the explanation above, the following hypothesis can be made:

H1: Product innovation has an effect on consumer satisfaction

According to Putra and Kusumadewi (2019), product innovation has a positive and significant effect on consumer repurchase intention in Bakery Patisserie & Café Sanur. According to Batyar & Esmailpour (2017), product

innovation was found to have a positive and significant effect on consumer repurchase intention in Tehran. Sukarmen, Sularso, & Wulandari (2013) have research results regarding the effect of product innovation on consumer satisfaction. Their study shows that there is an effect of product innovation on customer satisfaction. Based on the explanation above, the following hypothesis can be made:

H2: Product innovation has an effect on repurchase intention

According to Imran (2018) consumer satisfaction is found to have a positive and significant effect on consumer repurchase intention in Ayam Bakar Wong Solo Alauddin Makassar City. According to Widiandita & Ketut (2020), consumer satisfaction was found to have a positive and significant effect on Tokopedia's consumer repurchase intention in Bali. Based on the explanation above, the following hypothesis can be made:

H3: Consumer satisfaction affects repurchase intention

According to Putra and Kusumadewi (2019) consumer satisfaction can mediate the positive effect of product innovation on consumer repurchase intention at Bakery Patisserie & Café Sanur. Based on the explanation above, the following hypothesis can be made:

H4: Customer satisfaction can mediate the effect of product innovation on consumer repurchase intention
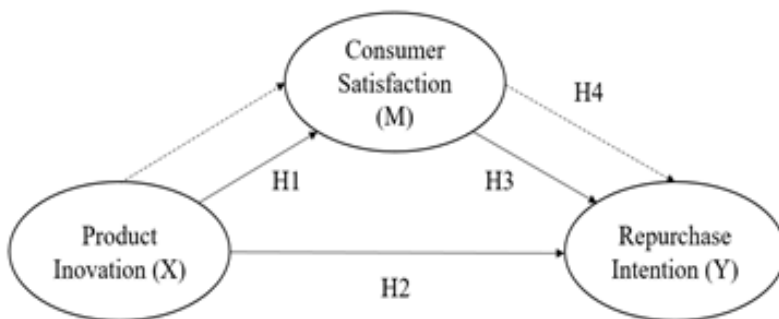

Figure 1 Research Model

3. RESEARCH METHODS

3.1 Methods

This research is a quantitative study. Quantitative research is a method used to examine a specific population or sample, data collection using research instruments, quantitative or statistical data analysis, with the aim of testing predetermined hypotheses (Almira & Sutanto, 2018). The researchers used a hypothesis to answer the problem of repurchase intention in frozen food products. This study wants to see the effect of innovation on repurchase intention with customer satisfaction as a mediation. The purpose of this data is to analyze the relationship between innovation on customer satisfaction and consumer satisfaction with the intention to repurchase frozen food.

In this study, the population used was 147 Mr. Sei consumers. The sample is part of the number of characteristics possessed by the population. The sample in this study was conducted using purposive sampling. The sample in this study has the following characteristics: (1) residing in Surabaya; (2) has bought Mr. Sei product from August 2019 until December 2019. Thus, the number of samples needed for this study was 108 respondents. The data used in this study are primary data. Primary data conducted in this study were obtained directly from respondents through distributing questionnaires. In this study, 5-Likert scale used to measure the variable.

3.2 Results

Respondents in this study were Mr. Sei customer who have bought Mr. Sei before. Questionnaires were distributed online via Google form. Researchers distributed questionnaires to 108 respondents, according to the Mr. Sei customer list. The number of respondents who have filled out the questionnaire is proportional to the distribution of the questionnaire, which are 108 people. From the descriptive results of the respondent's data it can be said that Mr. Sei customers are dominated by women with a percentage of 53% or as many as 63 people. Based on work status, 82% percent or as many as 88 people are students. Respondents were dominated by the age range 17–27 years as many as 96% or 104 people. The majority of respondents are residing in the West Surabaya area

with an expenditure level of 3–4 million rupiah. The benefit of this conclusion is that the company can target specifically 58 people or 52%.

Table 1 Validity and Reliability Test

Variable	Item Operational	Pearson Correlation	Sig. (2-tailed)	Cronbach's Alpha
Innovation Products (X)	X1	0.601	0.000	
	X2	0.750	0.000	
	X3	0.755	0.000	0.692
	X4	0.623	0.000	
	X5	0,645	0,000	
	X6	0.426	0.000	
Customer Satisfaction (M)	M1	0.835	0.000	
	M2	0.606	0.000	
	M3	0.623	0.000	0.927
	M4	0.749	0.000	
	M5	0.580	0.000	
	M6	0.597	0.000	
Repurchase Intention (Y)	Y1	0.660	0.000	
	Y2	0.577	0.000	
	Y3	0.664	0.000	0.873
	Y4	0.620	0.000	
	Y5	0.787	0.000	

A validity test is done to ensure that the questionnaires are used to meet the requirements of measurement and reliability. All instruments which include product innovation (X1), customer satisfaction (M), and repurchase intention (Y) have sig <0.05, so the instruments are considered *valid*. The entire research questionnaire instrument was declared reliable because the test value has *cronbach's*

Table 2 Path Analysis X against M, X and M against Y

Model	Unstd. B	t	Sig.
(Constant)	2,196	1,601	.112
X	.707	12 744	.000
(Constant)	3,896	2,536	.013
X	.333	3,405	.001
M	.606	5635	.000

alpha > 0.6. So, it can be concluded that product innovation instruments, customer satisfaction, and repurchase intention can be used in this study.

First hypothesis, the relationship between innovation product (X) to the satisfaction of the consumer (M) has a value of t-statistic of 12.74, which is greater than the value of t-table. This means that H1 is significant. For the second hypothesis, the relationship between product innovation (X) and repurchase intention (Y) has a t value$_{\text{statistical}}$ of 3.4 which is greater than the t value$_{\text{table}}$. This means that H2 is significant. In the third hypothesis, the relationship between customer satisfaction (M) and repurchase intention (Y) has a t value$_{\text{statistical}}$ of 5.63 which is greater than the tvalue$_{\text{table}}$ which means that H3 is significant. The fourth hypothesis, the relationship between innovation (X) and repurchase intention (Y) which is mediated by customer satisfaction (M) has at value$_{\text{statistical}}$ of 5.22 which is also greater than the tvalue$_{\text{table}}$ which means that H4 is also significant.

The sobel test is conducted to explain that the relationship between the independent variables, namely product innovation (X) and repurchase intention (Y), on the mediating variable, namely customer satisfaction (M) is as follows:

$$S_{y1} = \sqrt{y2^2 S(x)^2 + x^2 S(y2)^2 + S(y2)^2 S(x)^2}$$
$$S_{y1} = \sqrt{0{,}606^2\,0{,}055^2 + 0{,}707^2\,0{,}107^2 + 0{,}107^2\,0{,}055^2}$$
$$S_{y1} = 0{,}082$$

Where:

SM = standard error of indirect influence / mediation of consumer satisfaction

SX = standard error of product innovation coefficient

SY = standard error of repurchase intention coefficient

x = variable path of product innovation (X) with consumer satisfaction variables (M)

y2 = consumer satisfaction variable path (M) with the repurchase intention variable (Y)

This test is carried out by means of the t test or t-test, which is comparing between t$_{\text{counts}}$ with t$_{\text{absolute}}$. Then from the results of the calculations, the t-count value will be compared with the absolute value of 1.96. If the value of T-count > absolute, it can be concluded that there is an effect of mediation and if t count < absolute, there is no effect of mediation. The t value of 5.22 is greater than

value of $t_{absolute}$ 1,96 and thus can be concluded that variable customer satisfaction (M) may mediate the relationship between product innovation independent variables (X) to the repurchase intention (Y).

4. DISCUSSION

The results of the path coefficient value on the product innovation variable (X_1) show a value of 0.707 which states that product innovation (X_+) has a positive effect on customer satisfaction (M). Then, the results of the relationship between product innovation (X_1) on customer satisfaction (M) have at value$_{statistical}$ of 12.74 which is greater than the t value$_{table}$ which means H1 is significant so that the first hypothesis (H_1) that stated that the product innovation variable ($X_1)$ has a significant effect on customer satisfaction (M) is accepted. The conclusion is that consumers pay attention to aspects of product innovation which consist of 'design change', 'technical innovation', and 'product development'. Consumers are more satisfied if Mr. Sei can make changes to the logo shape design with a newer one. The results of the research are in accordance with and support previous research conducted by Aditi & Hemansyur (2017), Doyduk & Aykac (2018), and Rahman (2019) with the results of research stating that product innovation has a positive and significant effect on consumer satisfaction.

The result of the path coefficient value on the product innovation variable (X_1) shows a value of 0.333 which states that product innovation (X_1) has a positive effect on repurchase intention (Y). Then, the results of the relationship between product innovation (X_1) and repurchase intention (Y) have a t value$_{statistical}$ of 3.4 which is greater than the t value$_{table}$ which means that $H_{2\ is}$ significant so that the second hypothesis (H_2) stating that the innovation variable product (X_1) has a significant and significant effect on repurchase intention (Y) is accepted. It can be concluded from the previous explanation that consumers pay attention to aspects of customer satisfaction which consist of 'performance', 'pleasant experience, and' the right choice'. Consumers will be interested in repurchasing if Mr. Sei can offer a soft meat texture. The results of the research are appropriate and support previous research conducted by Batyar and Esmailpour (2017) and Widiandita and Ketut (2020) with the results of the research stating that product innovation has a significant effect on repurchase intention.

The result of the path coefficient value on the consumer satisfaction variable (M) shows a value of 0.606 which states that consumer satisfaction (M) has a positive effect on repurchase intention (Y). Then, the results of the relationship between customer satisfaction (M) and repurchase intention (Y) have a t value$_{statistical}$ of 5.63 which is greater than the t value$_{table}$ which means that H$_3$ is significant so that the third hypothesis (H$_3$) stating that the customer satisfaction variable (M) has a positive and significant effect on repurchase intention (Y) is accepted. From the previous explanation, it can be concluded that consumers pay attention to aspects of repurchase intention which consist of 'opportunity', 'possibility', and 'intention'. Consumers tend to be interested in repurchasing and are satisfied with the new menu, namely sei sambal matah. The results of the research are appropriate and support previous research conducted by Batyar & Esmailpour (2017) and Widiandita & Ketut (2020) with the results of the study stating that consumer satisfaction has a significant effect on repurchase intention.

The results of the single test value carried out to test the value of the product innovation variable (X$_1$) on the repurchase intention variable (Y) through the mediation variable consumer satisfaction (M) shows a value of 0.082 and the relationship between innovation (X$_1$) and repurchase intention (Y) which is mediated by customer satisfaction (M) has a t value$_{statistical}$ of 5.22 which is also greater than the t value$_{table}$ which means that H$_4$ is significant so that the fourth hypothesis (H$_4$) stating that the product innovation variable (X$_1$) affects the repurchase intention variable (Y) through the mediating variable customer satisfaction (M) is accepted. The conclusion from the results of this study is in accordance with and supports previous research conducted by Putra & Kusumadewi (2019) with the results of the research stating that consumer satisfaction mediates the effect of product innovation on consumer repurchase intention.

5. CONCLUSION

After this research, based on the respondent's highest answer in terms of product innovation, the researcher will update it by using a more attractive and unique design according to the characteristics of Mr. Sei consumers so that they are interested in repurchasing products in the future. Packaging is the lowest respondent's answer to the product innovation indicator, there needs to be an

increase in the quality of the ingredients on the packaging that can maintain the quality of food ordered via Gojek or grab so that it stays fresh when it arrives. This will make consumers more likely to buy again in the future. Then in terms of customer satisfaction, Mr. Sei will check the quality of the meat and aroma sent from the supplier, so that consumers are satisfied when buying the products the next time. The lowest answer is the speed of service time when responding to purchases or transactions need to be improved in order to save time and make it easier for consumers so that there is satisfaction after obtaining Mr.Sei's product. In terms of repurchase intention, for the future Mr. Sei will make a breakthrough by presenting other menu variants that are still in accordance with the characteristics of current consumers in order to be satisfied and repurchase Mr. Sei's products with the new variant.

Based on the research results, the following conclusions can be drawn: (1) product innovation has a significant effect on consumer satisfaction. Based on the *path analysis* and the results of the t test conducted, product innovation has a value of 0.707 and a significance value of 0.000. It can be concluded that product innovation has a significant positive effect on customer satisfaction. (2) Product innovation has a significant effect on repurchase intention. Based on path analysis and the results of the t test performed, product innovation has a value of 0.333 and a significance value of 0.001. It can be concluded that product innovation has a significant positive effect on repurchase intention. (3) Consumer satisfaction has a significant effect on repurchase intention. Based on the *path analysis* and the results of the t test conducted, customer satisfaction has a value of 0.606 and a significance value of 0.000. It is concluded that customer satisfaction has a significant positive effect on repurchase intention. (4) Consumer satisfaction can significantly mediate the influence of product innovation on repurchase intention.

Mr. Sei needs to pay attention to the two variables, namely product innovation and customer satisfaction because these variables have a significant effect on Mr. Sei. Mr. Sei can design and develop a more varied menu of products but still ensure that consumers are satisfied and interested in buying the products again in the future. For researchers who want to do research with similar topics, they can add other research variables such as *brand quality* or *packaging* that can affect purchase intention. This is done to find out further

about the variables not studied in this research can also increase consumer buying interest. The development of innovation in the field of food, especially typical foods, is very broad and it is still possible to do or be applied in other areas with other types of special foods. In this study, there are obstacles to face-to-face communication with respondents. Researchers distributed questionnaires online and followed up with respondents to fill in the questionnaires through the links that were distributed in the midst of the on-going coronavirus outbreak.

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