

Analysis of Adolescents Consumer Interest In Purchasing Frozen Food Products For Vocational School X Students In East Jakarta

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ABSTRACT

Imbalanced nutritional intake in adolescents is one of the causes of overnutrition problems. Adolescents diet trends that like easy, practical and economical food such as Frozen Food. The aim of this research is to analyze adolescents consumers' interest in purchasing frozen food products in East Jakarta. This research uses a cross-sectional method design. Location The research was conducted at SMK X in East Jakarta. The sample taken by this researcher used a purposive non-probability sampling technique. The sample size in the study was 60 respondents. The data collected is a description of consumer interest in frozen food, and food consumption patterns using a Food Frequency Questionnaire (FFQ). The research results show that adolescents often consume Frozen Food in the categories of processed fish, processed poultry and processed bakery. Based on consumer interest analysis, 55.0% of respondents strongly agree that there is an expiration date in product information, 58% of respondents agree that price is a consideration for purchasing. Apart from that, respondents strongly agree to buy frozen food products because they are practical (31.7%), long shelf life (31.7%), appetizing (16.7%), and packaging (18.3%). The conclusion of this research is that adolescents are interested in frozen food due to many factors, such as price, shelf life, practicality and packaging. The type most widely consumed is Frozen Food in the animal protein category.

Keywords: Frozen food, consumers, consumption, adolescents

INTRODUCTION

Globally, nutritional problems such as overweight and obesity have a high prevalence, around 40% of the global population is overweight and obese. The incidence of overweight and obesity is a global problem caused by many countries which requires various efforts and many things to overcome this nutritional problem (1). Currently, Indonesia is still experiencing the problem of malnutrition, excess nutrition and also the problem of micronutrient deficiencies which we often know as Triple Burden Malnutrition in adolescents. Based on the results of basic health research (Riskesdas) in 2018 (2) shows that adolescents aged 13-15 years have an obesity prevalence of 11.2%, and adolescents aged 16-18 years have an obesity prevalence of 9.5% (3). In particular, as many as 28.98% of adolescents aged 13-15 years are overweight and obese, and as many as 23.44% of adolescents aged 16-18 years are overweight and obese in the East Jakarta area (2).

The high prevalence of overweight in adolescents is a nutritional problem that needs to be resolved because excess weight caused by an imbalance in nutritional intake and use of nutrients will lead to the risk of non-communicable diseases (NCDs) (4). Excessive consumption of sugar, salt and fat over a long period of time can contribute to high energy intake and excessive fat formation in the body, which can lead to excessive weight gain which can lead to non-communicable diseases (NCDs), such as obesity, hypertension, diabetes mellitus (DM), and stroke can increase. High intake of sugar, salt and fat can cause it to be obtained from various foods and drinks, both those processed and consumed at home and those purchased from outside. The still high intake of sugar, salt and fat in Indonesia needs to be a concern because high intake of sugar, salt and fat occurs in almost all age categories. Advocacy is needed to help

limit sugar, salt and fat intake in Indonesia through regulations and guidelines prepared by the government (5).

Body growth and development is greatly influenced by food intake. Nutritional problems that are often experienced by adolescents are being overweight and lacking macro and micro nutrients. Adolescence is a transition period or transition from childhood to adulthood, which has a great sense of curiosity, is easy to be influenced by other people and follows current trends, including trends in food choices. Over-nutrition problems can be related to frequent consumption of processed foods with less nutritional value and high content of sugar, salt, fat and calories which can trigger obesity in adolescents (6). Currently, adolescents prefer food that is easy to prepare, practical and also economical, such as ready to serve food types/products. One of the ready-to-eat food products that is popular with people today is frozen processed food products. This preference is supported because of its practicality in presentation, good taste, and also good packaging (7). The average growth of the packaged food and beverage market in 2013-2017 is predicted to be above 10%, while frozen food products are predicted to grow up to 16.6%(8). The prevalence of obesity may increase due to lifestyle changes and changes in food consumption patterns. Obesity is an imbalance between energy intake and energy expenditure. The habit of consuming Ready-Made Meals has an impact on high energy intake and also low fiber intake. This has an impact on increasing the risk of obesity, including central obesity (9). Other research (10) also shows that high consumption of ultra-processed food has a strong contribution to daily energy intake, the risk of increasing Body Mass Index (BMI), increasing body fat, increasing the risk of obesity and increasing the risk of central obesity in the adult population in the United Kingdom. The high habit of consuming Frozen Food is also associated with nutritional status, the incidence of obesity which occurs among Adolescent Girls in East Jakarta and Adolescents in Sidoarjo. The incidence of obesity is also caused by the high consumption of sweetened drinks. Consumption of high food and high energy drinks, including frozen food, which is not balanced with sufficient physical activity, can cause weight gain and obesity in adolescents (11). Consuming frozen food is a habit of overeating and lack of physical activity creates an imbalance that can result in weight gain and obesity (6). In previous research (12) shows that adolescents who have a fast food consumption pattern frequently are 61.8%, sometimes 27% and rarely 11.2%. The results of this study show that there is a relationship between diet and obesity. Other previous research (13) shows that adolescents who have a fast food consumption pattern frequently are 61.8%, sometimes 27% and rarely 11.2%. This research shows that the habit of eating fast food is one of the eating habits that is often carried out by adolescents. This has an impact on high energy and fat intake which contributes to an increased risk of obesity. The contribution of high energy eating habits is shown by the relationship between the habit of eating fast food and the increasing incidence of obesity. Based on the description above, this research was conducted with the aim to analyzing the interest of adolescents consumers in purchasing frozen food products for SMK X students in East Jakarta.

METHOD

This research is a type of analytical observational research which aims to determine the interest of adolescents consumers in purchasing frozen food products for SMK X students in East Jakarta. This research uses a cross-sectional study method design. Location and Time This research was conducted at SMK Sahid Jakarta, East Jakarta. The choice of research location in the East Jakarta area was due to the prevalence of 28.98% of adolescents aged 13-15 years experiencing fat and obesity, and as many as 23.44% of adolescents aged 16-18 years experiencing obesity and obesity in the East Jakarta area (2). This research was conducted from May 2023 to August 2023.

The population in this study were adolescents who had consumed frozen food at SMK Sahid Jakarta. The selection of research subjects was carried out using purposive sampling based on the inclusion and exclusion criteria set by the researcher. The inclusion criteria for research

subjects were adolescents, having consumed frozen food, and being willing to sign informed consent. Meanwhile, the exclusion criteria for research subjects were adolescents who did not participate in the entire series of research activities and were not willing to fill out the questionnaire completely. Subjects were selected using a purposive non-probability sampling technique, where sample selection was carried out based on inclusion and exclusion criteria that had been determined according to the problems in the research. The sample size in this study was 60 respondents.

Data collection was obtained through interviews using a questionnaire. The data collected is a description of consumer interest in frozen food using a consumer interest questionnaire, and data on food consumption patterns using a food frequency questionnaire (FFQ) which divides frozen food categories into: 1) Processed Fruit and Vegetables, 2) Processed Cereals, 3) Processed Bakery, 4) Processed Meat, 5) Processed Poultry, 6) Processed Fish and 7) Processed Eggs (14). This research has passed ethics No.013/KEPK/UNPRI/VI/2023. Respondents who meet the criteria will then be explained about the aims and objectives of the research using an informed consent sheet, then if the respondent agrees, the sheet will be signed. When the respondent agrees, data is collected by filling out a questionnaire regarding the respondent's characteristics including age and pocket money, as well as a questionnaire regarding the description of consumer interest in frozen food and a food frequency questionnaire which is needed to determine the type and frequency of consumers regarding frozen food products. After the data was collected, the researcher then carried out data processing and analysis. The frequency of Frozen Food consumption is divided into several categories, namely Never, 2x/month, 1-2x/week, 3-6x/week, 1x/day, and >3x/day. The description of consumer interests examined includes product information, price factors, consumer decisions, taste factors and packaging factors.

The data that has been collected is then input into Microsoft Excel, which is then processed using the IBM SPSS version 23 program which goes through several stages, namely editing, cleaning, coding and tabulating. Data analysis was carried out descriptively to see a picture of respondents' interests. Data analysis was carried out using the chi-square test, which is used to see the significant influence between the independent variable and the dependent variable. Before testing the relationship using the chi-square test, the researcher carried out a difference test using the Kruskal Wallis test to see whether there were differences in the variables being tested.

RESULTS AND DISCUSSION

Characteristics of respondents

The characteristics analyzed in this study include age, gender, and monthly pocket money. Based on table 1, there were 60 respondents with the majority being female, 36 respondents (59.9%) with an average age of 17 years (73.3%). The age of the respondents in this study is included in the adolescents age range according to the Indonesian Ministry of Health which categorizes adolescents in the age range of 10-18 years (3). Meanwhile, the majority of monthly pocket money is in the range > IDR 500,000 with the number of respondents being 15 men (25.0%) and 25 women (41.6%).

Table 1 Characteristics of respondents

Variable	Men		Women		Total	
	n	%	n	%	n	%
Age						
16 years	3	5,0	10	16,6	13	21,7
17 years	20	33,3	24	40,0	44	73,3
18 years	1	1,6	2	3,3	3	5,0
Total	24	39,9	36	59,9	60	100,0

Variable	Men		Women		Total	
	n	%	n	%	n	%
Pocket money						
> Rp 500.000	15	25,0	25	41,6	40	66,7
Rp 500.000 - Rp 950.000	8	13,3	9	15,0	17	28,3
Rp 1.000.000 - Rp 1.450.000	0	0,0	0	0,0	0	0,0
Rp 1.500.000 - Rp 1.950.000	1	1,6	2	3,3	3	5,0
> Rp 2.000.000	0	0,0	0	0,0	0	0,0
Total	24	39,9	36	59,9	60	100,0

Source: Primary Data 2023

Frequency of Types of Frozen Food Processing

Table 2. Frequency of Types of Frozen Food Processing

Types of Processed Frozen Food	Frequency of Consumption													
	Never		2x/ month		1-2x/ week		3-6x/ week		1x/ day		>3x/ day		TOTAL	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Processed Fruit and Vegetables	2	3,3	3	5,6	2	2,7	1	2,1	1	0,9	0	0,3	9	14,7
Processed Cereals	1	2,4	3	5,4	1	2,5	1	1,4	0	0,2	0	0,0	6	10,0
Bakery Processing	2	3,1	3	5,6	2	3,6	1	1,9	1	1,7	0	0,1	9	15,0
Processed Meat	1	2,5	3	4,3	1	2,4	1	1,7	0	0,0	1	1,7	7	10,9
Processed Poultry	4	7,4	4	6,3	2	4,0	1	2,3	1	1,2	0	0,5	12	20,0
Processed fish	8	13,3	4	6,5	2	3,9	1	2,2	0	0,7	0	0,1	15	25,0
Processed Eggs	0	0,0	0	0,2	0	0,2	1	1,7	1	1,7	0	0,1	2	4,1
Total	18	30,0	20	33,0	10	16,7	7	11,5	4	6,7	1	2,4	60	100

Source: Primary Data 2023

Based on table 2, the frequency of consumption is obtained in the categories never, 2x/month, 1-2x/week, 3-6x/week, 1x/day, and >3x/day. Based on the type of processed frozen food, it can be seen that frozen food processed fish has the highest frequency of 25.0%, which is then followed by the frequency of processed poultry (20.0%), processed bakery (15.0%) and processed vegetables and fruit (14.7%). The lowest frequency of consumption occurs in processed eggs which are consumed with a frequency of 4.1%. Based on the frequency of consumption, it can be seen that processed frozen foods made from animal protein in the form of processed fish and processed poultry are the favorite types of processed food for adolescents. Processed eggs are one of the lowest types of frozen food, possibly because what is currently included in the processed egg category is still limited to egg whites. Adolescence is a transition period from children to adults. During this period, adolescents have a great sense of curiosity, and are in a period of searching for their identity, so they are very easy to be influenced by other people and follow the flow of the times, such as fashion and trends that are developing in society. especially when it comes to food (6). Adolescents tend to choose foods that they like, are easy to get, are practical and also economical. One food that meets these criteria is frozen food types/products (7). Even though the consumption of frozen food is in great demand, this also needs to be a concern because excessive consumption of frozen food, especially processed foods that are high in sugar, salt and fat, will cause bad effects that can affect health, such as hypertension, diabetes, risk of heart disease and obesity (15).

Table 3. Frequency of various types of processed frozen food

Types of Processed Frozen Food	Frequency of Consumption												Total	
	Never		2x/ month		1-2x/ week		3-6x/ week		1x/ day		>3x/ day			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Processed Fruit and Vegetables														
French fries	0	0,0	16	26,7	17	28,3	14	23,3	8	13,3	5	8,3	60	100
Carrot	7	11,7	10	16,7	11	18,3	21	35,0	10	16,7	1	1,7	60	100
Risoles filled with vegetables	8	13,3	25	41,7	12	20,0	11	18,3	3	5,0	1	1,7	60	100
Banana Molen	11	18,3	38	63,3	7	11,7	4	6,7	0	0,0	0	0,0	60	100
Fruit Puree	12	20,0	12	20,0	12	20,0	12	20,0	8	13,3	4	6,7	60	100
Corn flakes	13	21,7	19	31,7	11	18,3	13	21,7	4	6,7	0	0,0	60	100
Cassava	14	23,3	31	51,7	12	20,0	2	3,3	1	1,7	0	0,0	60	100
Steamed dumplings stuffed with vegetables	22	36,7	19	31,7	15	25,0	4	6,7	0	0,0	0	0,0	60	100
Onion Ring	23	38,3	25	41,7	6	10,0	3	5,0	3	5,0	0	0,0	60	100
Bitterballen	24	40,0	29	48,3	6	10,0	1	1,7	0	0,0	0	0,0	60	100
Processed Cereals														
Pasta	3	5,0	29	48,3	17	28,3	9	15,0	2	3,3	0	0,0	60	100
Ramen noodle	7	11,7	26	43,3	15	25,0	8	13,3	4	6,7	0	0,0	60	100
Macaroni schotel	8	13,3	25	41,7	17	28,3	9	15,0	1	1,7	0	0,0	60	100
Kebab skin	9	15,0	24	40,0	12	20,0	13	21,7	2	3,3	0	0,0	60	100
Glass noodle	14	23,3	24	40,0	15	25,0	7	11,7	0	0,0	0	0,0	60	100
Udon noodles	17	28,3	33	55,0	6	10,0	4	6,7	0	0,0	0	0,0	60	100
Boiled rice cake	17	28,3	23	38,3	14	23,3	5	8,3	1	1,7	0	0,0	60	100
Mochi	20	33,3	33	55,0	4	6,7	3	5,0	0	0,0	0	0,0	60	100
Bakery Processing														
Bread	1	1,7	11	18,3	16	26,7	15	25,0	11	18,3	6	10,0	60	100
Pizza	6	10,0	28	46,7	19	31,7	6	10,0	1	1,7	0	0,0	60	100
Brownis	6	10,0	20	33,3	18	30,0	14	23,3	2	3,3	0	0,0	60	100
Cake	6	10,0	28	46,7	17	28,3	9	15,0	0	0,0	0	0,0	60	100
Donut	6	10,0	23	38,3	15	25,0	14	23,3	2	3,3	0	0,0	60	100
Cookies	9	15,0	21	35,0	16	26,7	13	21,7	1	1,7	0	0,0	60	100
Churros	14	23,3	28	46,7	15	25,0	2	3,3	1	1,7	0	0,0	60	100
Pie	15	25,0	23	38,3	18	30,0	3	5,0	1	1,7	0	0,0	60	100
Panada	29	48,3	24	40,0	6	10,0	1	1,7	0	0,0	0	0,0	60	100
Klapertart	34	56,7	21	35,0	5	8,3	0	0,0	0	0,0	0	0,0	60	100
Processed Meat														
Beef meatballs	3	5,0	15	25,0	18	30,0	15	25,0	7	11,7	2	3,3	60	100
Kebab	9	15,0	26	43,3	9	15,0	13	21,7	1	1,7	2	3,3	60	100
Corned beef	11	18,3	22	36,7	15	25,0	9	15,0	3	5,0	0	0,0	60	100
Meat filled rissoles	12	20,0	25	41,7	12	20,0	9	15,0	1	1,7	1	1,7	60	100
Meatball tofu	13	21,7	19	31,7	18	30,0	4	6,7	4	6,7	2	3,3	60	100
Beef burger	14	23,3	29	48,3	7	11,7	8	13,3	2	3,3	0	0,0	60	100
Sweet and spicy fried beef	27	45,0	20	33,3	8	13,3	3	5,0	2	3,3	0	0,0	60	100
Processed Poultry														
Chicken nuggets	1	1,7	21	35,0	13	21,7	8	13,3	12	20,0	5	8,3	60	100
Breaded fried chicken	2	3,3	17	28,3	22	36,7	9	15,0	8	13,3	2	3,3	60	100
Crispy fried chicken	6	10,0	16	26,7	18	30,0	11	18,3	5	8,3	4	6,7	60	100
Egg chicken roll	8	13,3	23	38,3	15	25,0	12	20,0	2	3,3	0	0,0	60	100
Karage chicken	9	15,0	24	40,0	14	23,3	7	11,7	5	8,3	1	1,7	60	100
Pop chicken	12	20,0	27	45,0	10	16,7	8	13,3	2	3,3	1	1,7	60	100
Chicken strips	14	23,3	23	38,3	12	20,0	7	11,7	3	5,0	1	1,7	60	100
Kalasan fried chicken	15	25,0	24	40,0	13	21,7	5	8,3	2	3,3	1	1,7	60	100
Sausage ala Solo	18	30,0	20	33,3	11	18,3	7	11,7	3	5,0	1	1,7	60	100
Taliwang chicken	33	55,0	18	30,0	7	11,7	2	3,3	0	0,0	0	0,0	60	100

Types of Processed Frozen Food	Frequency of Consumption													
	Never		2x/ month		1-2x/ week		3-6x/ week		1x/ day		>3x/ day		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Crispy duck ready to fry	33	55,0	14	23,3	6	10,0	5	8,3	1	1,7	1	1,7	60	100
The quail croaked	58	96,7	1	1,7	1	1,7	0	0,0	0	0,0	0	0,0	60	100
Grilled quail	59	98,3	0	0,0	1	1,7	0	0,0	0	0,0	0	0,0	60	100
Processed fish														
Dim sum	3	5,0	18	30,0	21	35,0	12	20,0	5	8,3	1	1,7	60	100
Pempek	6	10,0	20	33,3	17	28,3	15	25,0	1	1,7	1	1,7	60	100
Siomay	6	10,0	14	23,3	21	35,0	9	15,0	9	15,0	1	1,7	60	100
Breaded prawns	16	26,7	22	36,7	13	21,7	7	11,7	2	3,3	0	0,0	60	100
Cook peeled prawns	20	33,3	19	31,7	16	26,7	5	8,3	0	0,0	0	0,0	60	100
Surimi processed fish (crab stick)	22	36,7	17	28,3	12	20,0	8	13,3	1	1,7	0	0,0	60	100
Tofu fish balls	25	41,7	18	30,0	7	11,7	8	13,3	2	3,3	0	0,0	60	100
Cuttlefish meatballs	28	46,7	15	25,0	10	16,7	4	6,7	2	3,3	1	1,7	60	100
Octopus	31	51,7	23	38,3	4	6,7	2	3,3	0	0,0	0	0,0	60	100
Tekwan	32	53,3	15	25,0	7	11,7	6	10,0	0	0,0	0	0,0	60	100
Thornless milkfish	34	56,7	16	26,7	5	8,3	2	3,3	3	5,0	0	0,0	60	100
Fish katsu	35	58,3	13	21,7	8	13,3	3	5,0	1	1,7	0	0,0	60	100
Crab	36	60,0	19	31,7	3	5,0	2	3,3	0	0,0	0	0,0	60	100
Presto milkfish	37	61,7	14	23,3	3	5,0	4	6,7	1	1,7	1	1,7	60	100
Snapper seafood meatballs	43	71,7	9	15,0	6	10,0	2	3,3	0	0,0	0	0,0	60	100
Grilled catfish	44	73,3	9	15,0	5	8,3	0	0,0	1	1,7	1	1,7	60	100
Fish Cake Milkfish	58	96,7	2	3,3	0	0,0	0	0,0	0	0,0	0	0,0	60	100
Milkfish nuggets	60	100,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	60	100
Processed Eggs														
Egg whites	9	15,0	10	16,7	10	16,7	13	21,7	12	20,0	6	10,0	60	100

Source: Primary Data 2023

Table 3 shows the frequency distribution of types of processed frozen food which are divided into several types, namely processed fruit and vegetables, processed cereals, processed bakery products, processed meat, processed poultry, processed fish and processed eggs. Based on research that has been carried out using a food frequency questionnaire, the results showed that respondents consumed the highest amount of frozen food from processed fruit and vegetables, namely French fries, carrots and vegetable rissoles, while in processed cereals respondents tended to be interested in pasta, ramen noodles and schotel macaroni. Bread, pizza and brownies are the bakery products most consumed by respondents. In processed meat, meatballs, kebabs and corned beef are the highest processed foods consumed by respondents. In poultry preparations, chicken nuggets, flour fried chicken and crispy fried chicken are the most popular preparations. Dimsum, pempek, and siomay have a high frequency of consumption of processed fish.

The type of food with the highest frequency is the snack food group, this is in line with previous research (16) which stated that as many as (39.7%) of respondents bought processed snack products. Table 3 shows that the total frequency of processed frozen food is divided into high and low, namely that there are 28 respondents who have a low frequency of frozen food consumption (46.7%) and 32 respondents who have a high frequency of frozen food consumption (53.3%) . This is in line with research conducted by Kyntani, from this research the results showed that the number of purchases of frozen food products before the pandemic, consumers bought products under 1 kg in 1 month, whereas during the pandemic, there was an increase in purchases, reaching 1-3 kg. per month. This increase occurred due to new regulations issued by

the government to reduce the risk of spreading the virus by staying at home, so consumers buy food that can be stored for a long period of time (17). This is also in line with previous research (18) It was found that during the Covid-19 pandemic, respondents tended to buy various kinds of processed frozen food products every month. It was recorded that (50.4%) of respondents bought 1-2 kinds of processed frozen food products and as many as (42.0%) of respondents bought 3-4 kinds of processed frozen food (16).

There are several reasons that influence the frequency of Frozen Food consumption among adolescents, frozen food consumers from generations Y and Z during the COVID-19 pandemic, there are seven factors that determine adolescents choosing frozen food products, including product quality, product information, product hygiene, price, taste of the product, product packaging, and promotions carried out to promote the product. There are differences that determine the choice of frozen food in Generation Y and Generation Z, namely the product quality factor. Adolescents choose frozen food products that have good quality. Easy access to buy frozen food and minimal potential risk of damage are also reasons to increase frozen food consumption among adolescents (16). Previous research shows that there are several influences that influence consumers in buying frozen food products. Complete information about the product has an influence on product familiarity. So that consumers generally know and are familiar with frozen food product information. Packaging has a significant effect on product familiarity because packaging plays a strategic role both from a functional aspect and as a promotional medium for the product. Packaging has an important role in providing the first impression seen by consumers when making a purchase and to recognize the product further. The social environment also has a significant influence on product familiarity, because friends and family have their own influence on consumers buying a product (8). The research results obtained by researchers only cover the role of packaging in relation to product safety and attractive packaging, such as packaging that is attractively designed, the packaging is airtight so it is protected from dangerous contamination from the outside, and the packaging is not easily damaged.

Overview of Consumer Interest in Frozen Food

Data collection through questionnaires was carried out by researchers to find out what factors influence consumers in purchasing frozen food products. The results of the analysis carried out by researchers on 60 respondents who consumed frozen food products can be seen in Table 4 below.

Table 4. Consumer Interest in Frozen Food

Variable	Indicator										Total	
	STS		TS		N		S		SS			
	n	%	n	%	n	%	n	%	n	%	n	%
Product Information												
The raw material and nutritional information contained is listed in full	3	5,0	0	0,0	11	18,3	23	38,3	23	38,3	60	100
There is a Halal logo	4	6,7	1	1,7	3	5,0	21	35,0	31	51,7	60	100
There is a BPOM code	3	5,0	1	1,7	4	6,7	20	33,3	32	53,3	60	100
There is an expiration date	3	5,0	0	0,0	4	6,7	20	33,3	33	55,0	60	100
Does not contain ingredients that are harmful to the body	3	5,0	1	1,7	9	15,0	15	25,0	32	53,3	60	100
Price Factor												
The price of frozen food products is very affordable	2	3,3	0	0,0	23	38,3	26	43,3	9	15,0	60	100
The price of frozen food products offered is in accordance with the product provided	1	1,7	1	1,7	23	38,3	26	43,3	9	15,0	60	100

Variable	Indicator										Total	
	STS		TS		N		S		SS			
	n	%	n	%	n	%	n	%	n	%	n	%
The price of frozen food products is very competitive with other products	2	3,3	0	0,0	25	41,7	24	40,0	9	15,0	60	100
Consumer Decisions												
I buy frozen food products because they are practical	2	3,3	0	0,0	10	16,7	29	48,3	19	31,7	60	100
I buy frozen food products because they are easy to make	3	5,0	0	0,0	7	11,7	33	55,0	17	28,3	60	100
I buy frozen food products because they have a relatively long shelf life	1	1,7	1	1,7	11	18,3	28	46,7	19	31,7	60	100
I buy processed frozen food because it doesn't spoil easily	2	3,3	1	1,7	22	36,7	24	40,0	11	18,3	60	100
I buy processed frozen food because it is easy to get	1	1,7	2	3,3	10	16,7	34	56,7	13	21,7	60	100
The variety of processed frozen food always increases all the time	1	1,7	1	1,7	16	26,7	31	51,7	11	18,3	60	100
Frozen food preparations always attract consumers' attention	1	1,7	0	0,0	16	26,7	31	51,7	12	20,0	60	100
Taste Factor												
Frozen food has an appetizing taste	2	3,3	1	1,7	22	36,7	25	41,7	10	16,7	60	100
Processed frozen food has a taste that meets consumer expectations	1	1,7	1	1,7	31	51,7	17	28,3	10	16,7	60	100
Processed frozen food has a distinctive taste, namely the pervasive taste of spices	2	3,3	2	3,3	30	50,0	18	30,0	8	13,3	60	100
Packaging Factors												
The packaging is designed attractively	2	3,3	0	0,0	23	38,3	30	50,0	5	8,3	60	100
Airtight packaging so it is protected from harmful contamination from outside	1	1,7	2	3,3	14	23,3	32	53,3	11	18,3	60	100
The packaging is not easily damaged	1	1,7	3	5,0	20	33,3	29	48,3	7	11,7	60	100

Source: Primary Data 2023

Based on Table 4, it is known that there are several reasons and consumer interest in purchasing processed frozen food. This interest description is categorized into 5 groups, namely, strongly disagree (STS), disagree (TS), neutral (N), agree (S), and strongly agree (SS). Various reviews regarding product information, price factors, consumer purchasing decisions, taste factors and also packaging factors have been grouped. Based on the results in table 4, it was found that 33 respondents (55.0%) strongly agreed with the expiration date in product information. This makes the expiry date stated on the frozen food product packaging the information that is most paid attention to by respondents as consumers of frozen food products. In the price factor group, the majority of respondents agreed with all the statements. Because price is a very important factor that consumers consider when purchasing processed frozen food products. Based on previous research (19) stated that the price variable has a significance value (0.046), which means that the price variable has a good impact and has a big influence on purchasing decisions for frozen food products. This is also confirmed by the results of other research (20) which obtained the result that consumers made price a consideration factor because consumers made price a

benchmark for the quality of the products being sold (20). Consumer interest in buying frozen food is also influenced by the exposure factor from social media which provides complete information about the attributes contained in frozen food, such as the type of product purchased, frequency and method of purchasing, as well as the type of processing found in the frozen food product (21).

Apart from the price aspect, respondents strongly agree to buy frozen food products because they are practical (31.7%) and because they have a relatively long shelf life (31.7%). A total of 10 respondents (16.7%) were interested in frozen food because the processed food had an appetizing taste and met consumer expectations (16.7%). Taste is a factor that will be evaluated by consumers. Where consumers will evaluate all the products they consume to find out which products suit their taste preferences. The results of the taste evaluation will then determine the next purchasing decision (20). Previous research (22) shows that there are several factors that determine whether someone chooses to buy frozen food products. Factors that influence the purchase of frozen food include taste, price, packaging and brand of the product and are the most important factors that impact consumer preferences in deciding to buy frozen food products. The taste factor has the most dominant role in helping to determine consumer decisions in purchasing frozen food.

The packaging factor is also very important in determining purchasing decisions, especially regarding food. It turns out that airtight packaging so that it is protected from harmful contamination from outside (18.3%) has great interest in consumer purchases. Good product packaging has several uses such as facilitating use, as promotional media, can protect and also contains information about the product (20). Packaging itself is also divided into 2, namely ergonomic packaging and economical packaging. Ergonomic packaging itself is packaging that has a function in terms of ease of carrying, holding and ease of accessing the packaging, such as opening and closing. Meanwhile, economical packaging is packaging that has a function in terms of appearance, which can make the packaging itself a visual attraction, including shape, color, letter layout, logo and others. (16). Other research (23) also shows that packaging is an important factor in determining the decision to buy frozen food products. The packaging used for frozen food must have quality materials because it has the function of protecting the contents of the product and must be able to be placed at a certain temperature. Apart from that, the packaging also contains the expiry date, how to serve and store it, net weight and so on. Product packaging can be a determining factor in helping product selection if the packaging is designed to be attractive and easily recognized by consumers.

The implication of this research is that consumption of frozen food products is determined by several factors such as product information, price, taste and packaging. The frequency of consumption of frozen food in product categories that are high in energy and processing using the frying method needs to be limited because high energy intake can increase the risk of obesity (16). Choosing frozen food products has an important role in choosing products with a longer shelf life, but with a more diverse nutritional content. Processed fruit and vegetables are one option that consumers can choose to increase consumption of vegetables and fruit. In accordance with the recommendations of the Indonesian Ministry of Health (3) which recommends that Indonesians consume 300-400 grams of vegetables and fruit per person per day for toddlers and school-age children, and 400-600 grams per person per day for adolescents and adults. About two-thirds of the recommended amount of vegetable and fruit consumption is vegetable portions.

CONCLUSION

The average respondent is female, 17 years old and has pocket money of >Rp 500,000. The expiration date stated on the frozen food product packaging is the information that respondents pay the most attention to. Apart from that, consumer purchasing decisions regarding frozen food products are because frozen food products are practical and have a relatively long shelf life. Respondents are also interested in frozen food products because their taste is appetizing and in line with consumer expectations. Adolescents are interested in frozen food due to many

factors, such as price, shelf life, practicality and packaging. The type most widely consumed is Frozen Food in the animal protein category. Further research is needed regarding the relationship between frozen food consumption and nutritional status in various age groups, so that it can be used as a comparison to find out the factors that have the greatest impact on frozen food consumption.

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