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THE MOST IMPORTANT FACTORS USING GREEN PACKAGING

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ABSTRACT

Green packaging can be a solution to the problem of environmental pollution caused by the generation of plastic waste as a result of bakery business packaging. The research problem is that producers and consumers are still low in using green packaging, This study aims to determine the most important factors underlying consumer interest in the use of green packaging. The research was conducted in Indramayu regency from February to May 2023. This research design was carried out through a quantitative method approach and sample was 100 respondents taken by simple random sampling. Hygiene is the most and the lowest factor that influence consumers to use green packaging such as make storage easy, because green plastic was limited in shape, size variation and material compared to plastic packaging. This research could be a consideration for producers and government policies to increase the use of green packaging

Keywords: Interest, Consumers, Green Packaging and Factor analysis

1. INTRODUCTION

The issue of environmental damage raises the awareness of the world community on the importance of preserving the environment. This awareness is also cause by concern about environmental disasters that threaten the survival of humans and the next generation. This phenomenon has influenced people's behavior to become people who care about the environment (Rahayu, 2017). One of the important things in carrying out environmentally friendly behavior is to pay attention to packaging that must be environmentally friendly (Priambudi &; Deliana, 2021).

Packaging is important as an effort to preserve, protect, and market products during storage, transportation, and use of processed agricultural products. However, the food industry is the industry that causes the most environmental pollution caused by packaging (Nursyaeerah, 2016). Used packaging of products that have been consumed will eventually turn into plastic waste which will have a significant impact on the environment. The environmental impact

caused by waste generation raises serious concerns (Isa &; Yao, 2013). As a result of the environmental problems identified today, sustainable development has become one of the most important subjects of academic and business discussions (Zhang et al., 2020).

If you look at the environmental problems that occur due to the use of plastic packaging in food, it is important to consider improving the use of packaging to be environmentally friendly in food businesses, such as businesses in the agricultural product processing business (Deliana et al., 2020). One of the processed product businesses is bakery. Bakery is part of the ready-made food industry that utilizes wheat flour derived from wheat seeds (*Triticum aestivum L*.) as the main raw material in the production process (Perdana, 2019). According to Widyawati (2015) stated that bakery products are one of the explorations of types of processed-based foods made from finely ground whole wheat seeds.

Most food industries choose bakery products as one of the opportunities in running a food business. The high diet of the community towards bread and the many food industries that produce bread will certainly affect the use of wheat as the main basic ingredient in making bakery products (Eightiani Devi, 2021). Consumption of bakery products reaches an increase in percentage almost 100% every year, followed by other bakery products such as pastries, various kinds of breads and cakes. If referring to this data, of course, the bakery business has a potential market that is very attractive to the community and companies. This shows that the demand for bakery products continues to increase (Rahma &; Airlangga, 2020). The increasing demand can be one of the drivers of the development of the bakery industry (Rahmawati et al., 2022). According to Lestari (2021), the production of bakery products produces waste in the form of plastic left over from packaging raw materials and damaged packaging plastic. Damaged packaging plastic is disposed of directly into the Landfill (TPA) without processing. The increasing demand for bakery products will make plastic waste increase as well.

There are two types of plastic used by bakery businesses. The first type of plastic is OPP (Oriented Polypropylene) plastic, OPP plastic is used to wrap the resulting product. Plastic with this type of OPP is a plastic that is safe to use as a wrapper for food products or often known as food grade plastic. The second type of plastic commonly used is HD (High Density Polyethylene), this HD plastic is used as a grocery plastic bag. Both types of plastic are

environmentally unfriendly plastics, which take hundreds of years to decompose. The average use of plastic in one bakery business reaches ±250 kg per month (Djohan, 2017).

Indramayu Regency is one of the Central Areas of Industrial Growth in West Java Province based on RIPIN 2015–2035 which has the potential for Small and Medium Enterprises (SMEs) that can grow and develop rapidly, including processed food businesses (Kholis, 2010). Bakery products are products that have stable consumption and have increased consumption over the past two years, the business growth is concentrated in Indramayu District and its surroundings. This is supported by the research result by Yudianto &; Anik (2021) and Haya (2022) which states that bakery businesses in Indramayu have growing consumer interest and demand.

The bakery business in Indramayu still uses plastic as packaging for the products they produce. According to Djohan's research (2017), 250 kg of plastic is needed to make 30,000 pieces of bakery products. This means that one piece of bakery product consumed will result in 0.0083 kg of plastic being discharged into the environment. With a population of 1,834,434 people in Indramayu Regency in 2021 (Central Statistics Agency, 2023), the waste generation due to plastic packaging of bakery products is estimated to reach ±2.27 tons per year.

The increase in human population and the consistent demand for plastic make the amount of plastic on earth continue to increase. Although plastic was initially considered harmless, over the years plastic dumping into the environment has caused various problems so that plastic waste has become an environmental threat (Okunola A et al., 2019). The use of green packaging can be a solution to the problem of environmental pollution caused by plastic waste due to packaging (Wandosell et al., 2021). Green packaging is part of Green Marketing Strategies. Because the originality of green marketing on sustainability is to consider the entire series of activities holistically (Setiaji, 2014).

The benefits of Green packaging based on the perspective of producers according to Wandosell et al., (2021) the use of green packaging can be a solution to the problem of environmental pollution caused by plastic waste due to packaging. Through the application of green packaging, it is expected to be sustainable for the economy, social, and environment. Sambu (2016) in his research noted that "green packaging is a competitive resource". This is supported by Bhatti (2016) who states that recyclable and biodegradable packaging,

ecologically safe goods are part of green marketing, which also encourages sustainable competitive advantage. In addition, environmentally friendly packaging is one of the obvious environmentally friendly distribution practices and basically has an impact on the competitiveness of companies that produce food (Maziriri, 2020)

The business world needs to consider green packaging as one of the company's competitive strategies (Auliandri et al., 2018). In addition, Jesse van den Elzen (2016) is also of the view that using green packaging is increasingly becoming a requirement for companies to compete and companies that do so report a more positive brand image and reputation, cost savings and a better environmental footprint among other benefits. Zailani et al., (2015) mentioned that green packaging or sustainable can bring benefits to company operations, as well as economic, social, and environmental benefits. Green packaging can help companies in optimizing resources, materials, and waste to achieve the triple bottom line (economic, social, and environmental) of corporate sustainability goals (Maziriri, 2018). Therefore, businesses operating in food and beverages sector are advised to use environmentally friendly ingredients to package their products.

The research problem is that producers and consumers are still low in using green packaging. The consumer perspective, according to the results of research by Santoso & Fitriani (2016), there is not yet sufficient evidence that green packaging influences buying interest. This is in line with the results of research by Deliana et al., (2020) which shows that consumers tend to prefer to use plastic bags rather than green packaging. Thus, public awareness of the importance of a clean environment is still low. This behavior will change when there is public awareness of the importance of protecting the environment.

According to Deliana et al., (2020) consumers currently prefer plastic packaging over green packaging. The things that have been described indicate a lack of interest from consumers and producers in the use of green packaging. Therefore, this research will examine how much interest producers and consumers have, the most important factors in the interest of producers and consumers of bakery businesses in using green packaging so that this information can be a reference so that bakery consumers in Indramayu Regency can have an interest in using green packaging. Based on the statement phenomenon and research problem above what is the most important factors based on consumer interest in the use of packaging.

2. RESEARCH METHODS

The research was conducted in Indramayu District. The location was chosen with consideration that Indramayu Regency is one of the Industrial Growth Center Areas in West Java Province based on RIPIN 2015–2035. Apart from that, the development of bakery business in Indramayu District is the center of bakery business growth. The object of research is the interest of bakery business consumers towards green packaging. The bakery business studied is an IKM (Small and Medium Industry) scale bakery business registered with the Cooperatives and MSMEs, Industry and Trade Office of the Indramayu Regency Government.

This research design was carried out through a quantitative method approach. Quantitative research method has a meaning as a method based on the philosophy of positivism, where this method is used to examine a population or a sample, research instruments are used to be able to collect quantitative analysis data with the aim of estimating the specified hypothesis (Sugiyono, 2019). The operational definition component of the variables in this research are interest, non-hazardous packaging materials, cleanliness, extending shelf life, affordability, ease of product storage, visual appeal, uniqueness and benefits to the environment.

Respondent from consumers in this study is 100 consumers, taken through probability sampling techniques used when sample representativeness is important for broader generalization purposes. Data analysis design using factor analysis. Factor analysis is a method of reducing data to find new variables called factors that are fewer in number than the original number, which are not correlated with each other, the new variables contain as much information as possible contained in the original variable (Kuncoro, 2009).

According to Sarwono (2006), the factor analysis model is expressed by the following formula:

$$X\,i = A_{ij} + A\,i\,2F2 + A\,i\,3F3 \ldots. + A\,i\ \ mFm + V\,i\,U_i$$

where:

X i = i-th standard variable
A_{ij} = Standard Multiple Regression Coefficient of the i-th variable on common factor j
F = Common Factor
V i = Standard multiple regression coefficient of the i-variable on the i-unique factor
U_i = Unique variable i-factor
m = Number of common factors Unique factors correlate with each other and with common factors.

A common factor can be expressed as a linear combination of variables under study, with the equation:

Fi = Wi1X1 + Wi2X2 + Wi3X3 + ... + WikXk

where:
Fi = Estimated i-th factor
Wi = Weight or score factor coefficient
Xk = Number of variables X on the k factor

3. RESULTS AND DISCUSSION

3.1 General Conditions of MSMEs in Indramayu Regency

The development of Micro, Small and Medium Enterprises (MSMEs) is one of the developments focuses of the Indramayu Regency government. The government agreed that MSMEs must be facilitated, accompanied and prioritized, because MSMEs are one of the cores in economic resilience. Currently, coaching, assistance programs, and facilities are continuously carried out by the District Government to MSMEs, with the aim that the role of MSMEs in the regional economy will increase. The development of the number of MSMEs in Indramayu Regency can be seen in Figure 1.

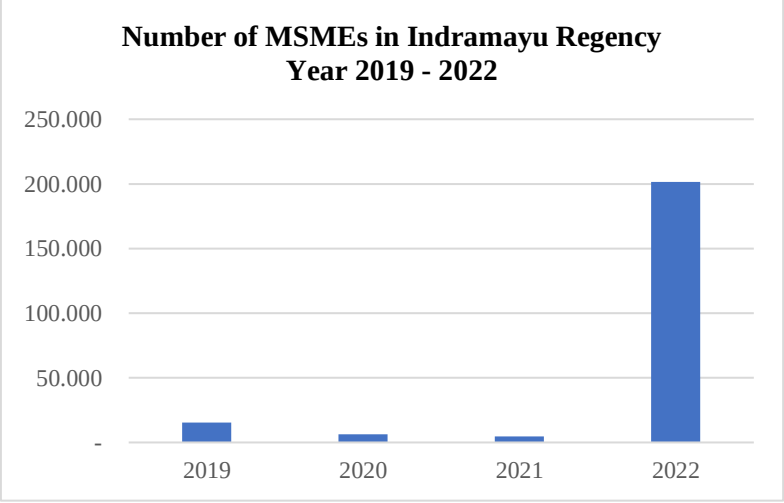

Figure 1. Number of MSMEs in Indramayu Regency in 2019 - 2022
Source: (Central Statistics Agency, 2023)

Figure 1 shows that the number of MSMEs in Indramayu Regency has decreased in 2019 – 2021 influenced by the COVID-19 Pandemic which has had a negative impact on many

sectors, one of which is MSMEs. Pandemic conditions greatly affect the performance of MSMEs, such as a decrease in turnover, resulting in difficulties in meeting operational costs (paying electricity, gas, and employee salary bills, and so on) and paying capital loan obligations from financial institutions. This situation has an impact on workers, including having to face layoffs. Other obstacles experienced by MSMEs include difficulty in obtaining raw materials, capital, decreased customers, hampered distribution and production.

In the context of post-pandemic economic recovery through programs launched by the government, such as the Productive Banpres for Micro Enterprises (BPUM) program, which is assistance provided by the government sourced from the State Budget (APBN) in the form of cash to MSME players. This assistance is provided in the form of business capital of 1.2 million Rupiah for MSME business actors. Then there is also the National Economic Recovery Program (PEN), which is an assistance program provided by the government through the Ministry of Finance of the Republic of Indonesia to MSMEs in the form of interest subsidies/margin subsidies. These programs were created by the government with the aim of being able to survive the impact of the COVID-19 pandemic. These programs made by the government are able to make the number of MSMEs in Indramayu Regency experience a rapid increase in 2022.

The most MSME players are in Indramayu District. This area is a strategic area in the development of business actors, the center of the regional economy, located in the central government area, and an area frequented by tourists and administrative centers. So that Indramayu Regency sets Indramayu District as the center area for MSMEs. When viewed from the type of MSMEs, the processing of fishery products and bakery businesses is the most widely cultivated type of business. The bakery business is one of the most common businesses found along the road of Indramayu District, or 48.00% of the bakery businesses are located in Indramayu District. As stated in Yudianto & Anik's (2021) research, Indramayu is one of the MSME areas in the bakery sector that continues to grow. The distribution of bakery business in Indramayu Regency based on condemnation can be seen in Figure 2.

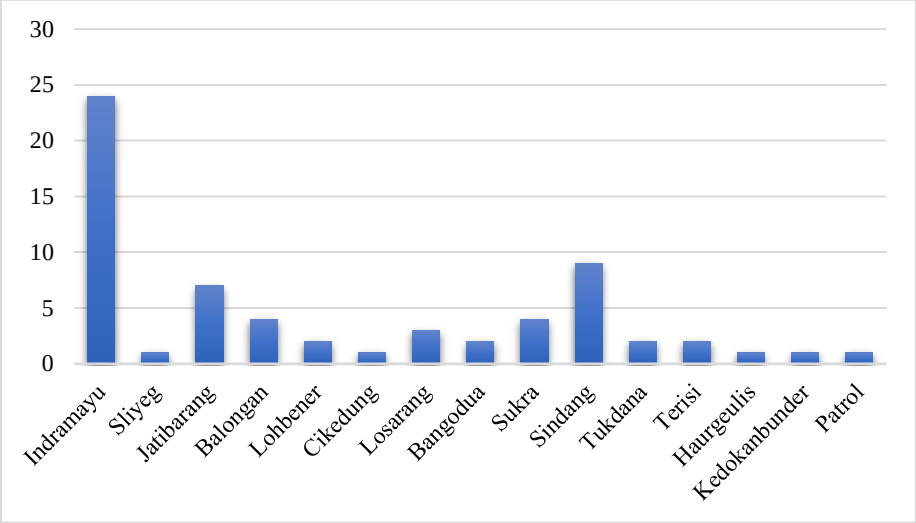

Figure 2. Distribution of Bakery Business in Indramayu Regency by District

The bakery industry is part of the ready-made food industry that utilizes wheat flour derived from wheat seeds as the main raw material in the production process. Overview in food science, bread is grouped under bakery products, along with cake (Prime, 2019). According to Widyawati (2015), bakery products are one of the explorations of types of processed-based foods made from agricultural products in the form of finely ground whole wheat seeds. Bakery is a loanword of bakery listed in the Big Dictionary of Indonesian. The word bakery itself comes from the word "bake" in English which means baking. Bakery handles making types of cakes that are made through the baking process (Wulandari et al., 2022).

There are various types of bakery business in Indramayu District, but the most cultivated are bread and sponge cakes. This type is much favored by the public because it is practical, has a delicious taste, ease to serve, has a varied shape and flavors and is easy to obtain. Bakery products can be consumed as snacks or some make them staple foods such as breakfast menus (Qian et al., 2021).

Most of these businesses still use plastic as packaging for bakery products. The type of plastic used is OPP (Oriented Polypropylene) plastic, OPP plastic is used to wrap the resulting product. Plastic with this type of OPP is a plastic that is safe to use as a wrapper for food products or often known as food grade plastic, but this type of plastic is not environmentally friendly (Djohan, 2017). The remaining packaging of bakery product packaging is included in the type of household waste. In accordance with PP No.81 of 2012, household waste is waste

that comes from daily activities in the household. The form of household waste can be food scraps, food wrappers, plastic bags, paper, used bottles, water from washing activities, and much more. The composition of waste by source can be seen in Figure 3.

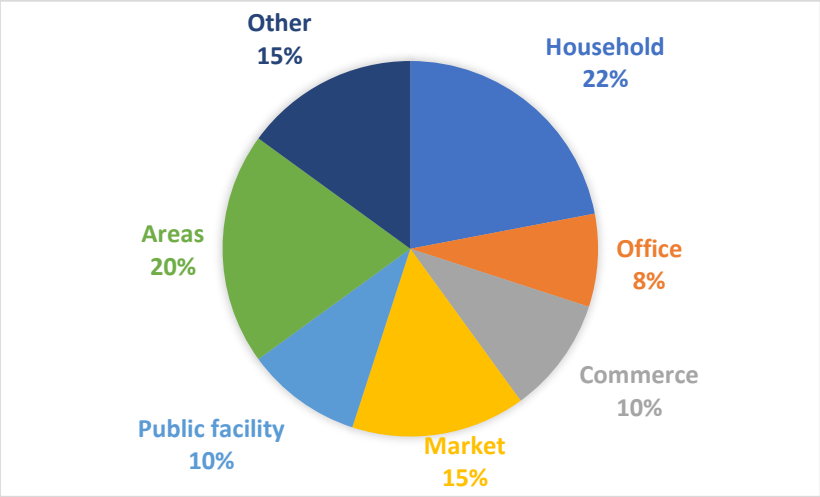

Figure 3. Waste Composition in Indramayu Regency Based on Waste Source
Source: (Ministry of Environment and Forestry, 2022)

The largest source of waste in Indramayu Regency is 22% from household waste. The impact of household waste can affect environmental pollution such as decreasing water quality, it will affect public health so that the economy will also be hampered (Rahmah et al., 2021). If you look at the environmental problems that occur due to the use of plastic packaging in food, it is important to consider making improvements to the use of packaging to be environmentally friendly. Packaging made of paper can be a solution to environmental problems due to plastic waste today because paper packaging is easy to obtain and the price is still affordable for businesses (Nanda Nini Anggalih, 2022).

3.2 Factors Underlying Consumer Interest in Using of Green Packaging

The following is an explanation and steps regarding the results of data processing using factor analysis. Before that, the existing data has been carried out MSI Transformation (method of successive interval) to avoid wrong interpretation of the results obtained and to correlate the scores of each item with the total score of the entire instrument. The following is an explanation and steps regarding the results of data processing using factor analysis. Before that, the existing

data was carried out MSI Transformation (method of successive interval) to avoid wrong interpretation of the results obtained.

1. Determine the variables to be analyzed

The variables analyzed in this research were as many as 8 variables. Which in the previous stage has gone through validity and reliability tests. For this reason, these 8 variables will be tested by factor analysis.

2. Test the variables that have been determined

The 8 variables tested, entered into factor analysis to test KMO and Bartlett Test values and MSA (Measures of Sampling Adequancy), MSA values must be above 0.5. The following is a table of KMO and Bartlet Test values.

Table 1. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778
Bartlett's Test of Sphericity	Approx. Chi-Square	386.577
	Df	28
	Sig.	.000

Source: SPSS output result

Based on the results of KMO and Barlett Test using SPSS 26 for windows, it can be seen that the KMO value is 0.778 and Barlett Test with a significance level of 0.000. Based on S. Santoso (2014) the KMO and Bartlett Test numbers must be above 0.50, and significant must be below 0.05 in order to be analyzed further. Therefore, the existing variables and samples are considered feasible and can be analyzed further.

The MSA number in the anti-image matrix table, contained in the anti-image correlation, shows that the value of Non-Hazardous Packaging Material (C1) is 0.720, Extending Product Expiry Period (C2) is 0.802, Cleanliness (C3) is 0.750, Affordability (C4) is 0.741, Product Storage Ease (C5) is 0.859, Attractive (C6) is 0.788, Unique (C7) is 0.823, Providing Environmental Benefits (C8) is 0.735,

From the 8 variables that exist, then the MSA value can be seen. If there is an MSA value below 0.5, the variable cannot be analyzed further. All 8 variables tested have MSA values of >0.50 so that all 8 variables are worthy of factor analysis.

3. Factoring from rotation

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After all variables have sufficient values, the next step is to carry out the core process of factor analysis, which is to extract a set of variables that already exist, so that one or several factors are formed. This extraction process method used is Principal Component Analysis, after eight factors are formed to find out which of the 8 variables that will be included in which factor, the rotation process is carried out using the varimax method (part of orthogonal).

Table 2. Communalities

Communalities		
	Initial	Extraction
C1	1.000	.486
C2	1.000	.688
C3	1.000	.832
C4	1.000	.701
C5	1.000	.482
C6	1.000	.661
C7	1.000	.748
C8	1.000	.825

Extraction Method: Principal Component Analysis.

Source: SPSS output result

In Table 2 that the variable Non-Hazardous Packaging Material (C1) number is 0.486, this shows that about 48.6% of the variance of the variable of harmless packaging material can be explained by the factors formed. Extending Product Shelf Life (C2) is 0.688, indicating that about 68.8% of the variance of the hygiene variable can be explained by the factors formed. Cleanliness (C3) is 0.832, indicating that about 83.2% of the variance of the variable extending the shelf life of the product can be explained by the factors formed,

Price affordability (C4) is 0.701, indicating that about 70.1% of the variance of the price affordability variable can be explained by the factors formed. Product Storage Ease (C5) is 0.482, indicating that approximately 48.2% of the variance of the Product Storage Ease variable can be explained by the factors formed,

Attractiveness (C6) is 0.661, this shows that about 66.1% of the variance of the Attractiveness variable can be explained by the factor formed, Unique (C7) is 0.748, this shows that about 74.8% of the variance of the Unique variable can be explained by the factor formed. Providing Benefits to the Environment (C8) is 0.825, this shows that about 82.5% of the variance of the variable Providing Benefits to the Environment can be explained by the factors formed.

Santoso (2014) explain that the communalities table is basically the number of variants (can be in percentage), an initial variable that can be explained by existing factors. Based on the values in the Communalities table, it can be concluded that the variables can be explained in the factors formed, the greater the value of Communalities, the more closely related to the factors formed.

According to Santoso (2024) the Total Variance Explained , describes the number of factors formed. In looking at the factors formed, it must be seen at the Eigen value. To determine the factor formed, it must be seen that the eigenvalue must be above one (1), if it is below one then it is not right. The eigenvalue indicates the importance of each factor in calculating the variance of the total variable. The number of *eigenvalue* numbers, the arrangement is always sorted in the largest value to the smallest.

Table 3. Total Variance Explained

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.809	47.614	47.614	3.809	47.614	47.614	2.821	35.266	35.266
2	1.616	20.194	67.808	1.616	20.194	67.808	2.603	32.542	67.808
3	.918	11.476	79.284						
4	.479	5.982	85.267						
5	.440	5.499	90.765						
6	.283	3.537	94.302						
7	.236	2.955	97.257						
8	.219	2.743	100.000						

Extraction Method: Principal Component Analysis.

Source: SPSS Output Results

In Table 3 it can be seen that there are eight variables (components) that are included in the factor analysis, namely Non-Hazardous Packaging Materials, Extending Product Shelf Life, Cleanliness, Price Affordability, Ease of Product Storage, Visual Appeal, Uniqueness, and Providing Benefits to the Environment. Factors formed based on eigenvalue must be >1. So, based on the test results in Table 3 above, it can be seen that there are 2 factors formed, because with one factor the number of eigenvalues is still above 1, with 2 eigenvalue factors still above 1, and three factors are below 1, therefore only 2 factors are formed.

Table 4. Component Matrix*(a)*

Component Matrix[a]		
	Component	
	1	2
C1	.535	.446
C2	.733	-.389
C3	.713	-.569
C4	.694	-.468
C5	.662	-.209
C6	.775	.246
C7	.760	.413
C8	.615	.669

Extraction Method: Principal Component Analysis.
a. 2 components extracted.
Source: SPSS output result

Once it is known that two factors are the most optimal amount. So, the component matrix table shows the distribution of the 8 variables on the two factors formed. While the numbers in the table are loading factors that show the magnitude of the correlation of a variable with factor 1 with factor 2. The process of determining which variables will go into which factor, is done by making a large comparison of correlations on each line.

Santoso (2014) explained that the Component Matrix shows the distribution of existing variables with the factors formed. While the numbers in the Component Matrix table are Loading Factors, which show the magnitude of the correlation between a variable and existing factor.

Table 5. Rotated Component Matrix

Rotated Component Matrix[a]		
	Component	
	1	2
C1	.098	.690
C2	.804	.203
C3	.911	.057
C4	.829	.119
C5	.631	.289
C6	.410	.703
C7	.286	.816
C8	.007	.908

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization. [a]
a. Rotation converged in 3 iterations.

The rotated component matrix shows a clearer and more realistic distribution of variables. It can be seen that now the loading factor that was previously small is getting smaller, and the large loading factor is getting bigger. Below will be explained will go into which factors a variable exists, namely:

1) Non-Hazardous Packaging Material (C1) the largest loading factor is at factor 2 with a value of 0.690, it means Non-Hazardous Packaging Material is at factor 2.
2) Extending Product Shelf Life (C2) the largest loading factor is at factor 1 with a value of 0.804, it means Packaging Cleanliness is at factor 1
3) Cleanliness (C3), the largest loading factor is at factor 1 with a value of 0.911, it means Extending Product Shelf Life is at factor 1.
4) The Affordability (C4), the loading factor is at factor 1 with a value of 0.829, it means that Affordability is at factor 1.
5) Product Storage Ease (C5) the largest loading factor is at factor 1 with a value of 0.631, it means Ease of Storage is at factor 1.
6) Visual Appeal (C6) the largest loading factor is at factor 2 with a value of 0.703, it means Visual Appeal is at factor 2.
7) Uniqueness (C7), the largest loading factor is at factor 2 with a value of 0.816, that means Unique is at factor 2.
8) Providing Benefits to the Environment (C8) the largest loading factor is at factor 2 with a value of 0.908, it means Providing Benefits to the Environment is at factor 2. Thus, the eight variables reduced to consist of two factors namely :

a. Factor 1 consists of: Cleanliness, Extending Product Shelf Life, Affordability, and Ease of Product Storage.
b. Factor 2 consists of: Non-Hazardous Packaging Material, Attractiveness, Uniqueness, and Provide Benefits to the Environment.

Santoso (2024) explained that the rotation process (Rotated Component Matrix) shows a clearer and more realistic distribution of variables. With the rotational process, the once small loading factor is getting smaller, and the large loading factor is getting bigger. *A* loading factor is a numerical index that reflects the degree of linkage between observed variables created in factor analysis. In general, the higher the loading factor the better, and values below 0.30 are

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not interpreted. Indicators with low loading values indicate that the indicator does not work in the measurement model (Tabachnick &; Fidell, 2013). Based on the value of the loading factor, all eight items tested were above the required value. Here's the order of variables with the largest to smallest loading factor.

Table 6. Loading Factors Based on the Order of Largest

No	Code	Items	Loading Factor	(Loading Factor) ^{2}
1	C3	Hygiene	0,911	0,830
2	C8	Benefits to the environment	0,908	0,824
3	C4	Affordability	0,829	0,687
4	C7	Uniqueness	0,816	0,666
5	C2	Extending Product Shelf Life	0,804	0,646
6	C6	Visual Appeal	0,703	0,494
7	C1	Non-Hazardous Packaging Material	0,690	0,476
8	C5	Ease of Product Storage	0,631	0,398

Based on the loading factor extending the shelf life of the product has the greatest value, then benefits for the environment, affordability, uniqueness, cleanliness, visual appeal, non-hazardous packaging materials and ease of storage of products. The square value of the loading factor produces the proportion of variance that can be explained. Therefore, here is the square result of the loading factor. Cleanliness has the largest loading factor value of 0.911 (squared value is 0.830) so the proportion of explainable variance is 83.0%. Most consumers consider paper-based green packaging cleaner because it is closed and healthier, because of the nature of paper packaging that can absorb oil from the product and does not cause health problems.

In line with the statement of bakery business consumers, Rhein & Schmid (2020); Xu et al., (2020); and Shah et al., (2021) stated that consumer concern for cleanliness and health has increased than before so that when consumers buy a product, consumers will think about the health consequences that will be received. In addition, according to Koenig-Lewis et al., (2022) consumers consider food in green packaging to be healthier than plastic packaging

which affects interest in use for consumers and can be an important evaluative criterion when choosing foods with various types of packaging. Badyal &; Mackey (2021) also stated that people value properties such as function and value above sustainability in the products they buy so that for consumers packaging must be protective, cheap, and clean so as to increase interest in using it.

Benefits for the environment are the next most important thing in the interest in using green packaging for consumers. The environmental benefit has the largest loading factor value of 0.908 (squared value is 0.824) hence the proportion of explainable variance is 82.4%. M. Kumar et al., (2017) found that there is a direct relationship between knowledge of environmental benefits and the formation of interest. In line with this statement, Tirdasari et al., (2021) stated that the level of public and industry awareness of the environment is a determinant of success in developing sustainable packaging. According to Trivedi et al., (2018) a person's concern for the environment has an impact on their attitude towards environmentally friendly packaging.

Attitude taking requires awareness of the benefits and consequences of such behavior. If a person believes that the consequences of performing a certain behavior are positive, he will show a positive attitude towards the behavior (Khan et al., 2019). In addition, according to Sun et al., (2018), someone can choose products that are biodegradable or made from recycled materials because of their concern for environmental benefits and awareness of environmental issues. Price affordability has the largest loading factor value of 0.829 (squared value is 0.687), meaning 68.7% proportion of explainable variance. Pires et al., (2015) stated that consumers show that price is an important predictor of consumer purchases of products contained/wrapped in green packaging. Thirty percent of consumers are unwilling to pay more for products in green packaging, and seventy percent of consumers are willing to pay only 1–5% more.

In addition, a global consumer survey by McKinsey revealed that 53% of consumers care about environmental issues, but are unwilling to take action in purchasing decisions, while another 13% are willing to pay more (Burek et al., 2018). Consumers want manufacturers to be responsible for providing sustainable packaging without charging additional costs (Hao et al., 2019). In addition, in line with the results of the study, Trivedi et al., (2018) stated that four factors can affect consumers' willingness to use green packaging, namely the environment, the quality of environmentally friendly packaging, commodities, and packaging prices. Next,

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the step is to see the correlation of each diagonal factor (component) to see whether the factors formed, stable, and not correlated with each other as the final step of factor analysis. The Component Transformation Matrix can be seen in Table 7.

Table 7. Component Transformation Matrix

Component Transformation Matrix		
Component	1	2
1	.741	.671
2	-.671	.741

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Source: SPSS output result

Table 7. explains that diagonal factors (components) 1 and 2 (0.741 and 0.741). The two existing components both have values above 0.5, namely: factor 1 (component 1), and factor 2 (component 2), each number: 0.741; 0.741. Based on the formation, since all components whose diagonal value is above 0.5, it is sufficiently representative of the factors formed, stable, and not correlated with each other.

CONCLUSION

Most of these businesses still use plastic as packaging for bakery products. The type of plastic used is OPP (Oriented Polypropylene) plastic, OPP plastic is used to wrap the resulting product. Factors that influence consumers in green packaging are hygiene (the most influence factor) , benefits to the environment, affordability, uniqueness, extending product shelf life, visual appeal, non-hazardous packaging material and make storage easy (the lowest factor).

Hygiene is the most important because consumers consider paper-based green packaging cleaner because it is closed and healthier, because of the nature of paper packaging that can absorb oil from the product and does not cause health problems. The lowest factor that influence consumers to use green packaging such as make storage easy, because green plastic was limited in shape, size variation and material compared to plastic packaging. This research could be a consideration for producers and government policies to increase the use of green packaging.

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