

Factors that determine the purchase of tempe in supporting local halal food

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Abstract: *Tempe is a local Indonesian food made from soybeans by a fermentation process. Consumers have different criteria and conditions from one another. Therefore it is necessary to research the factors that determine the purchase of tempe in support of local halal food. This study uses a cluster analysis method with a hierarchical method based on demographic and psychographic variables. The clusters formed and based on demographic variables include cluster 1, consisting of 5 variables (gender, age, income, religion, and occupation), including the community group the affluent. Cluster 2 consists of 3 variables (gender, age, and income), including the anxious community. Cluster 3 consists of 2 variables (age and income), including the affluent community group, and cluster 4 consists of 2 variables (income and occupation), including the achievers community group. Based on psychographics, Cluster 1 consists of 3 variables (lifestyle, personality, and social class), including the community group the achievers. Cluster 2 consists of 1 variable (lifestyle), including the community group the socialite, and cluster 3 consists of 2 variables (lifestyle and personality), including the community group the anxious. Age, gender, income level, occupation, lifestyle, social class, and personality influence the consumption of tempe.*

Keywords: *Consumer, Halal Food, Local, Tempe*

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Introduction

Tempe is a type of food that is widely known by the public. Tempe is a traditional Indonesian food made from soybeans or other ingredients processed through fermentation (Romulo & Surya, 2021). Tempe is rich in dietary fiber, calcium, B vitamins, and iron (Astuti et al., 2000). Many tempe processing industries exist in Indonesia, especially in the Pamekasan Regency area. Competition between the tempe industry in marketing its products is unavoidable. In facing this competition, each industry creatively makes tempe to attract consumers. Companies are required to know what kind of product their customers want. By knowing the products that consumers want and the characteristics of their consumers, marketing can be effectively directed to consumer groups with the most profitable purchasing levels for the company.

Consumers as individuals, have different criteria and conditions from one another. This is what causes the complexity of consumer behavior (Sima et al., 2020). By knowing consumer behavior, it will be easier for producers to persuade them to want to buy the products offered. Several things affect consumers, including a lifestyle that makes consumer behavior different. Lifestyle is a pattern of life or behavior shown by what they consume (Swarbrooke, 2007). Lifestyle is currently an important thing and needs to be considered in marketing a product, be it goods or services. Lifestyle is a person's pattern of life that can be known from daily activities or attitudes, habits, or interests of the person concerned. Knowing the lifestyle of consumers will facilitate the development and innovation of products that suit consumers, communication, and promotion strategies that are more appropriate for reaching consumers. The existence of lifestyle similarities will make it easier to analyze consumer behavior.

In marketing, the lifestyle concept includes a physiographical element in which social class and personality are included, which is used as a new way of grouping or market segmentation (Faggiolani, 2012). This is done because demographic market segmentation, such as income, age, spending level, and gender, is very influential. Market segmentation is identifying and forming different groups of buyers who may request products or even self-promotion. Pamekasan Regency, especially the East Teja area, is known as a center for tempe production (Suparno & Muhlasin, 2016). Each company has different consumer segments. With this level of competition, an overview of tempe consumers is needed. This study aims to obtain a clear picture of tempe consumers in the Pamekasan area based on segmentation methods with demographic and psychographic aspects of consumers as the basis of the problem. The demographic and psychographic aspects were chosen because, with the changing times, consumers also automatically experience developments in terms of lifestyle, social class, income, and others. So far, the object of research related to the product purchase factor has not been discussed about tempe products. Therefore it is necessary to research the factors that determine the purchase of tempe in support of local halal food.

Methods

This study uses a cluster analysis method with a hierarchical method based on demographic and psychographic variables (Brenda et al., 2014; Frades & Matthiesen, 2010; Irianti & Sulistijanti, 2020; Janamarta, 2020; Martias, 2016; Punj & Stewart, 1983; Tohari, 2016). The procedure performed is Hierarchical Clustering using the agglomerative method. The agglomerative method uses a single linkage or nearest neighbor (Yim & Ramdeen, 2015). This is done to group objects (consumers) so that they are joined in one cluster. Similarity measurements can be made by calculating the distance between each respondent (Simamora, 2005) and presented by Equation (1).

$$D_{ij} = \sqrt{\left(\sum_{K=1}^P (X_{ik} - X_{jk})\right)^2} \quad (1)$$

- D_{ij} = The distance between groups i and j
 P = Number of variables
 X_{ij} dan X_{jk} = The scores of the I and J respondents on the variable k ($k= 1, 2, \dots, n$)

Results and Discussion

The process of forming clusters begins at stage (row) 1, which consists of members of social class variables and social class variables as sub-cluster A which is then continued in line 4. At stage 4, there are personality and social class variables as sub-cluster B, which is then continued at stage 6. At stage 6, there are income and personality variables as sub-cluster C, then proceed to stage 13. At stage 13, there are income and social class variables as sub-cluster D, then continue at stage 16. At stage 16, there are income and religion variables as sub-cluster E, then proceed to stage 24. At stage 24, there are income and lifestyle variables as sub-cluster F, then proceed to stage 25. At stage 25, there are income and social class variables as sub-cluster G, then proceed to stage 27. At stage 27, there are income variables and income variables as sub-cluster H, then continue at line 29. At stage 29, there are gender and income variables as sub-cluster I, then continue at stage 30. At stage 30, there are gender and religion variables as sub-cluster J, then continued to stage 31. At stage 31, there were variables of gender and age as sub-clusters K, then continued to stage 34. At stage 34, there were variables of gender and gender as sub-clusters L, then proceeded to stage 0. The process of forming cluster 1 applies to other clusters.

Cluster analysis is performed to group objects based on the similarity of characteristics between these objects. The objects will be grouped into one or more groups so that the objects in the group are similar. The similarity concerns the distance on each variable.

a. Clusters 1

It consists of 8 variables consisting of gender variables (people who consume tempe regardless of gender, this is because 43% of respondents chose to agree and 57% chose to strongly agree), age (the group that thinks tempe is very good for consumption by parents, this is because 60% of respondents chose to agree), income (people who assume that people who consume tempe do not have to be low-income, this is because 53% of respondents choose to agree), religion (people who assume that moslem or non moslem people will still consume tempe and are more concerned with nutritional value than price or other things this is because 50% agreed), occupation (people who assumed that there was no job limit for someone not to consume tempe, this was because 54% of respondents chose to agree), lifestyle (people who assumed that they continued to consume tempe even though they lived a simple life and never got tired of consuming tempe, this was because 54% of respondents chose to agree), personality (people who assumed that a person's personality could not be measured by how to consume tempe, tempe was a food that was readily available and who assumed that consuming tempe was due to nutrition and cheap prices and many benefits, this was because 54% of respondents chose to agree), and social class (people who assume that social class has no effect on the consumption and purchase of tempe, this is because 32% of respondents chose to agree). So it can be concluded that this group consumes tempe from all age groups, gender, income, religion, lifestyle, personality, and social class.

The factors that people consider in consumption are personality and lifestyle, and religion factors (Yuliati, 2011).

b. Clusters 2

Cluster 2 consists of 4 variables consisting of gender variables (the group that consumes tempe without thinking about the effect on men and women, this is because 48% of respondents chose to agree and 47% chose to agree strongly), age (the group assumed that tempe could be consumed by people of various ages, this is because 57% of respondents chose to agree and 40% of respondents chose to disagree), income (the group that chose more expensive food due to high incomes and considered tempe to be consumed by people with low incomes, this was because 49% of respondents chose to disagree with this statement), and lifestyle (the group that assumes that everyone likes to consume tempe, this is because 53% of respondents chose to agree). So it can be concluded that this group consumes tempe regardless of gender, age, or lifestyle but consumes tempe based on income. Income or family income becomes a factor for household consumption (Hanani et al., 2008).

c. Clusters 3

Cluster 3 consists of 4 variables consisting of age variables (the group that prohibits young children from consuming tempe and age level influences the purchase of tempe, this is because 53% of the respondents chose not to agree), income (the group which assumed that the target of marketing tempe was to meet the needs of people with less income, this was because 53% of respondents chose not to agree), lifestyle (the group that assumed that those with a luxurious lifestyle did not like to consume tempe and preferred other foods to tempe, this was because 53% of respondents chose not to agree). It can be concluded that this group is a group that consumes tempe based on age, income, lifestyle, and personality. The factors people consider in consumption are personality, lifestyle, and religion, but religion is not a factor in this cluster (Yuliati, 2011).

d. Clusters 4

Cluster 4 consists of 2 variables consisting of income variables (the group that assumes that tempe can be consumed by anyone, especially those with low incomes, this is because 48% agree to agree), occupation (the group that assumes that the type of work affects the purchase of a product, especially food, this is because 38% of respondents chose to agree). This group is a group that consumes tempe based on their income and work. The consumption factor is income and economic class, but work is not (Zakia et al., 2022).

1. Cluster Determination Based on Respondents' Demographic and Psychographic Characteristics.

a. Clusters 1

Judging from the demographics of this group consists of 5 variables; gender, age, income, religion, and occupation. So this group consumes tempe from all age groups, gender, income, religion, and occupation. This group is the Affluent Community group, which is a group of people who work hard, have strong self-confidence, like innovation, are proactive, dare to take risks, seek attention, and like a dynamic life (Yasaitis et al., 2016). Judging from the psychographics, this group consists of 3 variables: lifestyle, personality, and social class. So this group consumes tempe from various lifestyles, personalities, and social classes. This group is a community group called The Archives, namely a group

of people who like to consume goods functionally, make decisions based on rational things, and are more challenged to accept new ideas.

b. Clusters 2

The demographics consist of 3 variables, namely gender, age, and income. So this group consumes tempe regardless of gender or age but consumes tempe based on income. This group is the Anxious community group, an ambitious group with strong self-confidence in making decisions, likes to show off its achievements, and needs other people's suggestions (Acar & Polonsky, 2007). Rational things easily persuade it. Judging from the psychographics, this group consists of 1 variable: lifestyle. So this group assumes that everyone likes to consume tempe. This group is a community group. The socialite is a segment that likes to socialize, socialize with other people, is a risk taker who dares to act even though his rational basis is not fast enough, tends to want to dominate others and likes to stand out, is effective in dealing with changes and tends to be impulsive.

c. Clusters 3

Judging from the demographics of this group consists of 2 variables, namely age, and income. So this group is a group that consumes tempe based on age and income. This group is The Affluent Community group, which is a group of people who work hard, have strong self-confidence, like innovation, are proactive, dare to take risks, seek attention, and like a dynamic life (Yasaitis et al., 2016). Judging from the psychographics, it consists of 2 variables: lifestyle and personality. So this group is a group that consumes tempe based on their lifestyle and personality. This group is the anxious community group. This group has the attitude of a follower, but is ambitious, has a strong sense of confidence in making decisions, and likes to show his achievements, but does not have much courage, and needs suggestions and encouragement from others, is easily persuaded by rational things.

d. Clusters 4

This group can only be seen from its demographic, which consists of 2 variables: income and employment. So this group is a group that consumes tempe based on their income and work. This group is a community group called The Archives, which is a group of people who like to consume goods functionally and make decisions based on rational things that are challenging to accept new ideas (Sheffield, 2017).

2. *Cluster Member*

The number of cluster members who come from respondent members can be grouped into 4 cluster members and The number of cluster members can be seen in Figure 1.

1. Cluster 1, as many as 93% of respondents which is the largest group, this group is the group that consumes tempe regardless of age, gender, income, religion, lifestyle, personality, and social class.
2. Cluster 2, as many as 2% of respondents, this group is a group that consumes tempe regardless of gender, age, lifestyle but consumes tempe based on income.
3. Cluster 3, as many as 3% of respondents, this group is a group that consumes tempe based on age, income, lifestyle, and personality.
4. Cluster 4, as many as 2% of respondents, this group is a group that consumes tempe based on their income and work.

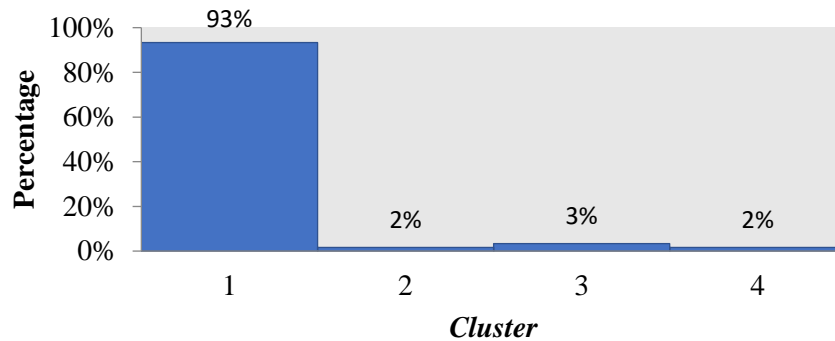


Figure 1 Graph Number of Cluster Members

Conclusion

The clusters formed and based on demographic variables include cluster 1, consisting of 5 variables (gender, age, income, religion, and occupation), including the community group the affluent. Cluster 2 consists of 3 variables (gender, age, and income), including the anxious community. Cluster 3 consists of 2 variables (age and income), including the affluent community group, and cluster 4 consists of 2 variables (income and occupation), including the achievers community group. Based on psychographics, Cluster 1 consists of 3 variables (lifestyle, personality, and social class), including the community group the achievers. Cluster 2 consists of 1 variable (lifestyle), including the community group the socialite, and cluster 3 consists of 2 variables (lifestyle and personality), including the community group the anxious. Age, gender, income level, occupation, lifestyle, social class, and personality influence the consumption of tempe.

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