

PURCHASE DECISIONS OF INDONESIAN STUDENTS IN GERMANY ON MILK PRODUCTS AND ITS DERIVATIVES (MUSLIM FRIENDLY) BASED ON THE COMPOSITION ON THE PACKAGING

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Abstract: This study aims to analyze the purchasing decisions of Indonesian students in Germany towards *Muslim-friendly dairy products and their derivatives*, based on the composition on the packaging. This study used a survey method and descriptive analysis which is the questionnaire is the main instrument. Respondents for this study were Indonesian students who had lived in Germany for at least 3 months and had experience purchasing dairy products in the country. The results showed that 61.8% of respondents always looked for halal products, but only 42.7% believed in the information on product labels without the halal logo. As many as 72% of respondents had limited knowledge about critical halal points, such as the use of rennet enzymes in cheese, gelatin in yogurt, and fat sources in butter. However, 39.1% of respondents were willing to pay more for halal-labeled products, while 29.1% still bought products without a halal label because of urgent needs. Based on the results of the study, it is known that most respondents pay attention to the halal label on the packaging to buy dairy products and their derivatives. However, respondents have limited knowledge in understanding the composition of the packaging, so reading the composition is not one of the main factors in purchasing decisions.

Keywords : Purchasing Decision, Dairy Products, *Muslim-Friendly*, Product Composition, Halal Label

Introduction

Germany is a developed country in Europe with a population of 84 million in 2022. The country has 16 states and plays an important role in the European Union as a transportation hub for goods and services and is the country with the third largest number of immigrants in the world based on statistical data from the Statistische Ämter des Bundes und der Länder (DSTATIS, 2023). Muslim population in Germany is currently the second largest in Western Europe after France and will continue to grow along with the presence of immigrants from various parts of the world, in mid-2016, there were 5.7 million Muslims in France (8.8% of the country's population) and 5 million Muslims in Germany (6.1% of the population) (Hackett, 2017).

One of the problems that arise, especially for Muslim immigrants, is about the guarantee of halal products in the country. One of the biggest challenges is that general stores like Lidl and Aldi do not give halal labels for the products they sell. This condition often causes Muslim consumers to feel doubtful about the halal status of products, especially dairy products and their derivatives such as cheese, yogurt, and butter. Based on a preliminary survey conducted by researchers, it shows that products with halal labels are generally only found in shops owned by the Muslim community, such as Al Rafadain. However, the halalness of a product does not only depend on the halal label, but also on the composition of the ingredients used, including the main ingredients and additional ingredients (Amen, 2020).

Dairy products and their derivatives have several critical points of halalness. In milk, the critical points are related to the production process and the addition of ingredients such as lactose. In cheese, the coagulation process using the rennet enzyme determines halalness, depending on the source of the enzyme. In yoghurt, the critical points appear in additional ingredients such as skim milk powder, bacterial starter, and additives used (Apriyantono, 2012). Likewise, in butter, halalness depends on the source of fat and mixed ingredients such as flavors (Jumino, 2023).

The lack of availability of halal labels on packaging and low consumer understanding of critical halal points are obstacles in ensuring the halalness of products. Based on interviews with ten Indonesian students in Germany, most of them are not aware of the importance of reading product composition to ensure its halalness. Therefore, further research is needed to analyze whether reading product composition influences purchasing decisions for milk products and their derivatives, especially among Indonesian students in Germany.

Literature review

1. Milk Products and Derivatives

Milk

is a white liquid secreted by the mammary glands (udders) of female mammals such as cows, goats, or even buffaloes obtained by milking as food and a source of nutrition (Riadi, 2020). According to (Wardana, 2012) there are several types of milk available on the market based on the type and processing techniques used, namely:

a. Pure milk

Pure milk or raw milk is milk that has not been processed. Pure milk is very easily damaged and does not last long in storage unless it has received special treatment. Bacterial contamination in the air, milking equipment, and cleanliness of the barn greatly affect the effects of microbial contamination.

b. Pasteurized milk

Pasteurized milk is milk with a processing process that is heated at a temperature of 63 degrees *Celsius* for 30 minutes, the aim is to kill pathogenic bacteria, the weakness of pasteurized milk has a short shelf life, a shelf life of 12 - 16 days from the date of

processing. Pasteurization contamination occurs through the processing equipment and packaging used. The packaging that is often used for pasteurization is glass, bottles, plastic and flexible packaging in the form of *pouches*.

c. UHT (*Ultra High Temperature*) Milk

UHT milk is one of the milk processing processes that is considered the safest because it uses modern equipment that is more aseptic with strict supervision in the processing process. UHT milk processing uses high temperatures with a temperature of 135 - 145 degrees *Celsius* within 2-3 seconds.

d. Milk powder

The principle of making powdered milk is to evaporate as much of the milk's water content as possible by heating (drying). There are four types of powdered milk based on how they are processed, namely:

1. Whole milk, namely powdered milk made from fresh milk that has not undergone separation or separation.
2. Skim milk powder, which is powdered milk made from skim milk. This milk contains a lot of protein, its water content is 5%.
3. Cream powder or buttermilk powder. Made from cream that contains a lot of fat.
4. Whey powder, chocolate milk powder, instant milk powder and others.

e. Condensed milk

Condensed milk is obtained by reducing (evaporating) the water content of milk until the water content is high, around 40%. Some examples of types of condensed milk are; unsweetened condensed milk, sweetened condensed milk, thick skim milk and thick cream. The difference between sweetened condensed milk and unsweetened condensed milk is the addition of sugar so that it tastes sweet.

Cheese

Cheese is a fermented milk product that undergoes a thickening process and separation between milk protein and fat. The cheese-making process involves bacteria, yeast, enzymes, and salt that give cheese its distinctive taste, aroma, and texture (Murti & Hidayat, 2009). Cheese is a processed milk product produced through a coagulation process with rennet or acid enzymes, which are then further processed through drying and ripening to obtain its distinctive texture and taste. (Wulan, 2010).

Yogurt

Yogurt is a fermented milk product produced through the activity of lactic acid bacteria, especially *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. This fermentation produces lactic acid which gives the yogurt a sour taste and thick texture (Tamime & Robinson, 2007). *Yogurt* is a fermented milk product in the form of a thick to semi-solid liquid with a specific sour taste. (Kusnandar, Rahayu, Marpaung, & Santoso, Perspektif Global Ilmu dan Teknologi Pangan Perhimpunan Ahli Teknologi Pangan Indonesia (PATPI), 2020)

Butter

Butter is a food product derived from milk fat separated from cream through a churning process. Butter has a solid texture at cold temperatures and is semi-solid at room temperature, with a color that varies from white to pale yellow, depending on the cow's feed and the

manufacturing process (Tamime & Robinson, 2007). Butter can generally be consumed directly without having to be cooked (*edible fat consumed uncooked*). In research (Kusnandar, Rahayu, Marpaung, & Santoso, 2020)

2. Critical Point of Halalness

In the processing of dairy products and their derivatives there are critical points that need to be considered, The critical point of halal food products is a stage of food production where there is the potential for a product to become haram. In addition to the production process, identification of the critical point of halal dairy products can also be identified from the raw materials, additional materials and process aids used. (Amen, 2020).

In dairy products such as skim milk and *full* cream milk, the halal status is seen from the process, if it is processed without the addition of ingredients and only through a physical process, then the status is halal. However, if in the process it has received additional ingredients such as the standardization process of dissolved solids in milk with the addition of lactose, then the halal status is determined by the halal status of the added lactose.(Amen, 2020)

In cheese products, the critical point is at the coagulation stage where there is a stage of adding ingredients for the coagulation process. The enzymatic method is carried out with the enzyme rennin (rennet). The halal status of the rennet used is very dependent on the source of the rennet used because rennet can be obtained from non-halal animals or from animals that are halal but may not be halal if the slaughter of the rennet-producing animals is not carried out according to Islamic law.(Apriyantono, 2012)

In yoghurt products, there are three critical points identified in the manufacturing process stages (Apriyantono, 2012):

- a. skim powder, casein or *whey* can be added.
The risk of non-halal is caused because the animals producing skim milk powder, casein or *whey* can come from animals that are categorized as non-halal.
- b. The second critical point in the *yoghurt making process* is when the bacterial starter is added. Bacterial starters are usually propagated in a medium whose halal status is determined by the composition of the medium. If the medium used contains haram ingredients, then the starter used is categorized as haram.
- c. The third critical point in yoghurt products is from the addition of food additives added. Additives that may be added in yoghurt-making products include emulsifiers, gelatin, stabilizers, or *flavors* . Additives in yoghurt can come from materials whose halal status is unclear.

In *butter* and margarine products, the critical point of the product's prohibition can come from the source of fat used as an emulsifier which can come from animal or vegetable fat. If it comes from animal fat, it must be ensured that it comes from a type of halal animal that is slaughtered according to Islamic law. In addition, the addition of *flavor* is also a critical point because it is a mixed ingredient whose halal status needs to be clarified.(Jumino, 2023)

3. Packaging Labels

Packaging labels are part of a product that conveys information about the product and the seller. (Stanton, 2005) divides labels into three classifications:

- a. *Brand Label* is a brand given to a product or listed on the packaging.
- b. *Descriptive Label* is a label that provides objective information regarding the use, construction/manufacture, care/attention, and performance of the product.
- c. *Grade Label* is a label that identifies the product's *judge quality* with a letter, number, or word. For example, canned fruits are labeled with quality A, B, and C.

Referring to the label classification provided by (Stanton, 2005), the halal label falls into the *Descriptive Label classification*, namely a label that provides information about:

- a. The process of making products that comply with halal standards.
- b. *Ingredients* or raw materials for products that comply with halal standards.
- c. The effects (*Other Characteristics*) of products that comply with halal standards.

Halal labels are basically labels that inform users of products that have the label that the product is truly halal and the nutrients it contains do not contain elements that are forbidden by sharia so that the product can be consumed. Halal labeling is the inclusion of writing or a halal statement on product packaging to indicate that the product in question has the status of a halal product (Rangkuti, 2010).

4. Characteristics of Indonesian Muslim Students in Germany

In the DW Indonesia article (Andika, 2024) with resource person Dr. Guido Schnieders, as *Director of the Deutscher Akademischer Austauschdienst (DAAD)*, it was explained that the number of Indonesian students in Germany is currently 5,600 students studying at various universities in Germany. Dr. Schnieders (Andika, 2024) said that the cities with the largest student populations today are relatively small but beautiful cities. The cities with the largest Indonesian student populations are Göttingen and Aachen. More than 100 to 200 students are students registered with German scholarships, while more than 95% of Indonesian students in Germany study without using scholarships so that the majority of Indonesian students in Germany study using personal funds. In general, the economy of students from Indonesia is classified as capable so that they can live their lives while in Germany. With sufficient financial ability, students can choose food products with many choices, one of which is the need for dairy products and their derivatives. However, behind sufficient financial ability, do students have sufficient knowledge regarding the principles of halalness of a product, especially the critical point of halalness in dairy products and their derivatives.

Based on the results of interviews in a study entitled *The Life of Muslim Indonesian Students in Germany* by (Majid, 2017) showing that Indonesian students living in big cities such as Frankfurt, Berlin, and Hamburg tend to find halal shops or places to eat easily. On the other hand, in small cities, access to halal products is often limited, so students need to prepare themselves with information related to the availability of halal products. One effective strategy is to establish relationships with the local Muslim community to obtain important information related to food needs.

A preliminary survey by researchers in the city of Heilbad Heiligenstadt in December 2023 of 10 students showed that the majority did not understand the critical point of halalness in dairy products and their derivatives. This ignorance causes them to continue to buy products even though they are potentially non-halal. The contributing factors include the difficulty of accessing halal-labeled products, the lack of halal shops around their homes, and the lack of knowledge regarding product composition. Thus, education and information regarding halal products are important for Indonesian students in Germany.

5. Buying decision

Purchasing decision is a decision-making process for purchasing that includes determining what to buy or not to buy (Kotler & Armstrong, 2012). According to (Engel, Blackwell, & Winiard, 1994) the purchasing decision process, there are five stages, namely:

- a. Problem Recognition , analyzing consumer wants and needs.
- b. Search , searching for sources used to satisfy desires.
- c. Alternative Evaluation , assessment of alternatives by looking for criteria that will be used by consumers to determine alternatives.
- d. Choice , the product selection made by consumers proves that an actual purchase has occurred.
- e. Out Comes , the product chosen has satisfied the consumer or made him hesitate about the decision taken, here the assessment process occurs after purchasing.

The purchasing decision process according to (Kotler & Armstrong, 2012) the five stage model is:

1. Problem introduction

The buying process begins when the buyer recognizes a problem or need triggered by internal or external stimuli. With internal stimulation, one of a person's normal needs rises to a maximum level and becomes a drive, or a need may arise as a result of external stimuli. Marketers must identify the circumstances that trigger a particular need by gathering information from a number of consumers. Then they can develop marketing strategies that trigger consumer interest.

2. Information Search

Consumers can obtain information from various sources, namely:

- a. Personal: Family, friends, neighbors, colleagues.
- b. Commercial: Advertising, websites , distributors, packaging.
- c. Public: Mass media, consumer rating organizations.
- d. Experimental: Handling, inspection, use of the product.

3. Alternative evaluation

At this stage, there is no single process used by all consumers, or by a single consumer in all purchasing situations.

4. Buying decision

In the evaluation stage, consumers form preferences among brands in the choice set. Consumers also form an intention to purchase the most preferred brand.

5. Post-purchase behavior

After the purchase, the consumer may experience conflict from noticing disquieting features or hearing favorable things about other brands and is alert to information that supports his or her decision. The consumer will also experience a degree of satisfaction or dissatisfaction. If performance falls short of expectations, the consumer is disappointed; if it meets expectations, the consumer is satisfied; if it exceeds expectations, the consumer is highly satisfied. The greater the gap between expectations and performance, the greater the dissatisfaction.

According to Yosi Ayu Aulia, who works as a *Technical Halal Auditor* at *Total Quality Halal Correct Certification BV* Netherlands, in a special *online webinar* discussing the halalness of products in the European market held by the Muhammadiyah Special Branch of Greater Germany (Muhammadiyah, 2020), it was explained that in selecting and sorting products that are not labeled halal, Muslim consumers are emphasized to take the following three important steps:

1. Can recognize food ingredient codes.
2. If unsure about the information on the content of substances contained in a product, Muslim consumers are advised to contact *the customer service* of the relevant manufacturer to ask about the content of the substance. This method is a form of *izzah* or the spirit of Muslims as consumers to ask about the halalness or source of substances contained in the product.
3. Disseminate the information obtained to the Muslim community or other people who need it.

Method

This type of research is survey research with descriptive statistical analysis. Survey research method is a procedure where researchers conduct surveys or provide questionnaires or scales to a sample to describe the attitudes, opinions, behaviors, or characteristics of respondents (Alsa, 2004). Descriptive analysis is a statistic used to analyze data by describing or depicting the data that has been collected as it is without intending to make conclusions that apply to the public or generalizations (Sugiyono, 2014).

The variable in the study is a single variable, namely the purchasing decision variable. The sample was selected using the *purposive sampling method*, which is a sampling technique that has certain criteria for the sample to be studied (Sugiyono, 2014). The sample criteria in this study were Indonesian students who were or had an internship for at least 3 months in Germany and were Muslim, namely 110 respondents.

Preliminary research was conducted in several cities in Germany, namely in the cities of Göttingen, Heilbad Heiligenstadt, Cologne, Erfurt, Hannover, Berlin, and Munich. The main research was conducted in the Culinary Arts and Food Service Management study program, building H, 3rd floor, campus A, Jakarta State University. Data collection techniques were in the form of questionnaires and surveys to shops selling dairy products and their derivatives. The

questionnaire was distributed to respondents using *Google Forms* and the data was processed using *Microsoft Excel* and *SPSS* version 23.

Results and Discussion

Results

This chapter will discuss the results of research on Purchasing Decisions of Indonesian Students in Germany on Milk Products and Derivatives (*Muslim Friendly*) Based on Composition on Packaging. The data used are primary data, namely data from the results of a questionnaire to 110 respondents. The questionnaire was filled out using two methods, namely direct filling during a *zoom meeting* and indirect filling via a *google form link* and respondents sent proof of filling out the questionnaire. Respondents who met the criteria were respondents who were Muslim and had an internship/study in Germany for at least 3 months.

Respondent Characteristics

1. Gender

The distribution of respondents by gender can be seen in the table below.

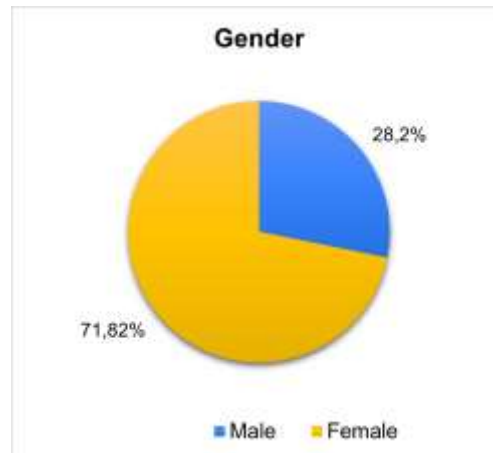


Figure 1Distribution of Respondents by Gender

Source: Research Data (Processed)

In Figure 1 above, there are respondent data based on gender, that female respondents are 79 respondents or 71.84% of the total respondents. While for male respondents, there are 31 respondents or 28.18% of the total respondents.

2. Education currently being pursued

The distribution of respondents based on education level consists of *Studienkolleg* (a preparatory school for foreigners that must be attended before studying in Germany), Diploma III, Diploma IV, Strata 1, and Strata 2.

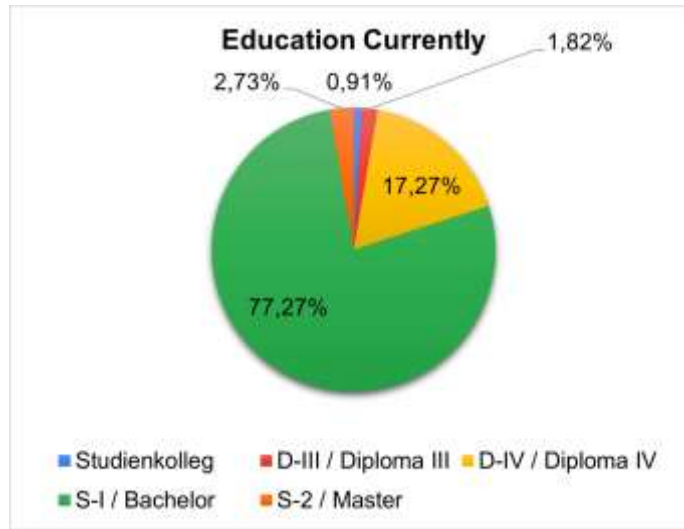


Figure 2Distribution of Respondents Based on Current Education

Source: Research Data (Processed)

Based on Figure 2, the characteristics of respondents based on their education are explained, namely Studienkolleg students with 1 respondent or 0.91%, Diploma III students with 2 respondents or 1.82%, Diploma IV students with 19 respondents or 17.27%, Bachelor's degree students with 85 respondents or 77.27%, Master's degree students with 3 respondents or 2.73%. It can be concluded that the largest number of respondents in filling out this questionnaire were students who were currently studying for their Bachelor's degree with a total of 85 respondents or 77.27%. Consumers with a high level of education tend to have greater access to information and are more critical in evaluating product alternatives. (Kotler & Keller, 2016)

3. City of residence in Germany

The distribution of respondents based on their city of residence in Germany is divided into two regions, namely western Germany spread across Baden-Württemberg, Bayern, Berlin, Bremen, Hamburg, Hessen, Niedersachsen, Nordrhein-Westfalen, Schleswig-Holstein and eastern Germany spread across Saxony, Thuringia, Saxony-Anhalt, Brandenburg. In 1990, the Reunification or unification of West Germany and East Germany occurred. Religious life in West Germany and East Germany has significant differences due to political and social history. In West Germany, people enjoy high religious freedom, with a majority of the population being Christian and active religious communities, including a larger Muslim community. In contrast, in East Germany, the communist government encouraged atheism, resulting in much lower levels of religiosity and smaller and less influential religious communities. As a result, in West Germany, awareness and availability of halal products are higher than in East Germany, where halal products are less available and less well-known.



Figure 3 Distribution of Respondents Based on Area of Residence in Germany

Source: Research Data (Processed)

Based on Figure 3, the majority of respondents came from western Germany, which was 88 people or 80% of the total respondents. Meanwhile, only 22 people or 20% of the total respondents came from eastern Germany. The cultural and religious characteristics in Germany differ between the western and eastern regions, which directly affects the consumption of halal products. Western Germany, which includes regions such as Nordrhein-Westfalen and Hessen has a larger and more diverse Muslim population because it is the main destination for immigrants. This creates a higher demand for halal products, increasing awareness and availability of halal products in this region. In addition, the trade infrastructure in the western part is more advanced, with many shops providing a variety of halal product choices to meet the needs of the local community. On the other hand, eastern Germany, which includes regions such as Brandenburg and Saxony, has a smaller Muslim population. This is due to the different migration history, with the eastern part being slower to accept immigrants from Muslim countries. (Mudzakkir, Mulyasari, & Gusnelly, 2020).

4. Dairy products and their derivatives that are often purchased while in Germany

The distribution of respondents based on dairy products and their derivatives frequently purchased in Germany aims to find out what products respondents frequently purchase while living in Germany.

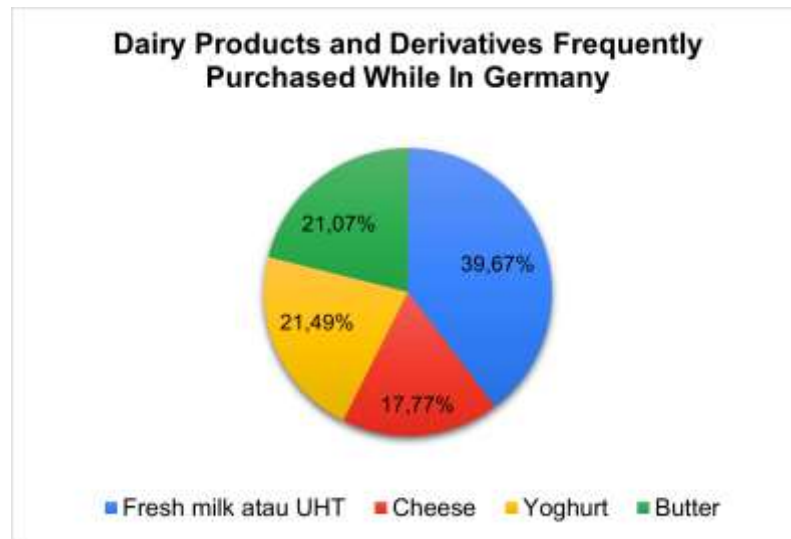


Figure 4 Distribution of Respondents Based on Products Frequently Purchased While in Germany

Source: Research Data (Processed)

Based on Figure 4, it explains the characteristics of respondents based on milk products and their derivatives that are often purchased while in Germany. In liquid milk products or UHT there are 96 respondents or 39.67%, in cheese products there are 43 respondents or 17.77%, in Yogurt products there are 52 respondents, in butter products there are 51 respondents or 21.07%.

It can be concluded that Liquid Milk or UHT products are the most frequently purchased products by respondents with the number of respondents choosing Liquid Milk or UHT as many as 96 respondents or 39.67%. UHT (*Ultra High Temperature*) milk is milk that is heated to a very high temperature in a short time to kill bacteria and microorganisms, so that it can be stored at room temperature without the need to be refrigerated before being opened (Wardana, 2012). Some of the main reasons for choosing UHT milk by students are the availability of many products in the German market, prices that tend to be cheaper than other beverage products, the habit of consuming dairy products in Indonesia, and products that are practical to consume.

5. Shops or supermarkets that are frequently visited to buy milk products and their derivatives

The distribution of respondents based on supermarkets frequently visited to purchase dairy products and their derivatives is presented in the table of supermarkets in Germany, including general stores and stores selling halal products. The frequency of respondents' visits to various stores or supermarkets in Germany can be seen in the table below.

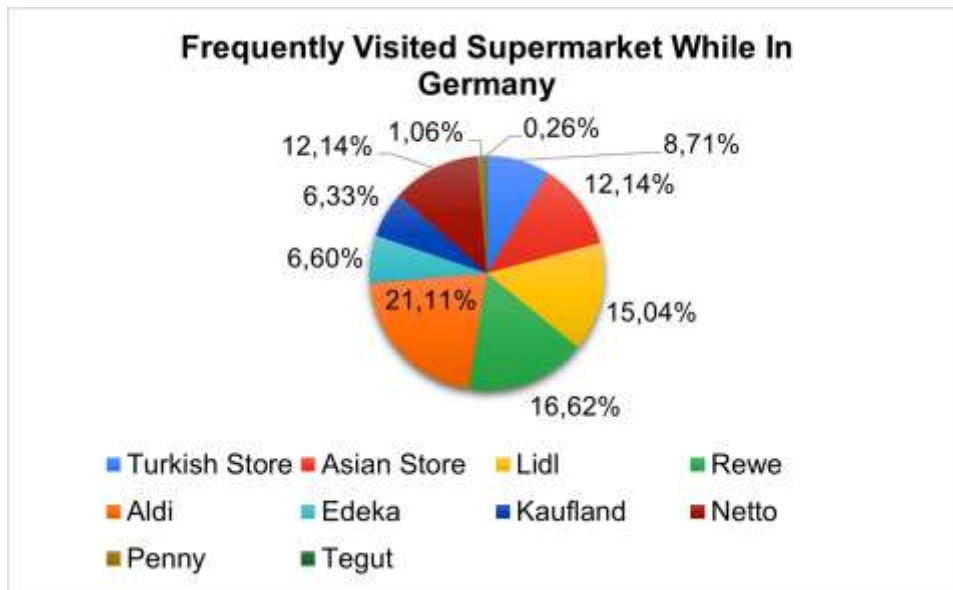


Figure 5 Distribution of Respondents Based on Stores Frequently Visited While in Germany

Source: Research Data (Processed)

Based on Figure 5, it explains the characteristics of respondents based on the shops or supermarkets they frequently visited while in Germany. At the Turkish Store there were 33 respondents or 8.71%, at the Asian Store there were 46 respondents or 12.14%, at Lidl there were 57 respondents or 15.04%, at Rewe there were 63 respondents or 16.62%, at Aldi there were 80 respondents or 21.11%, in Edeka there were 25 respondents or 6.60%, in Kaufland there were 24 respondents or 6.33 %, in Netto there were 46 respondents or 12.14%, in Penny there were 4 respondents or 1.06% and in Tegut there was 1 respondent or 0.26%.

It can be concluded that Aldi stores are the most visited stores by students to buy milk products and their derivatives with a total of 80 respondents or 21.11%. Aldi's popularity among students and other consumers is due to several factors. First, Aldi offers competitive prices with an attractive discount concept. Second, Aldi stores provide a variety of products, including milk products and their derivatives, which are important needs for students. Third, based on the article, (European Supermarket Magazine, 2024) Aldi has around 4,215 outlets spread throughout Germany from big cities to villages in Germany so that they are easily accessible by students. On the other hand, specialty stores such as Turkish or Arabic stores have a lower percentage of visitors, only 8.71% and 12.14% respectively. This is due to the reach and number of these stores being more limited compared to Aldi. In addition , although these stores offer specialty products that have a halal label, more limited accessibility and possibly higher prices compared to discount supermarkets such as Aldi make them less popular among students looking for more economical prices.

Data Analysis Results

Problem recognition indicators

This instrument will show the level of need to consume dairy products and their derivatives, the limited availability of halal products and factors that make it difficult to obtain halal or Muslim- friendly products .

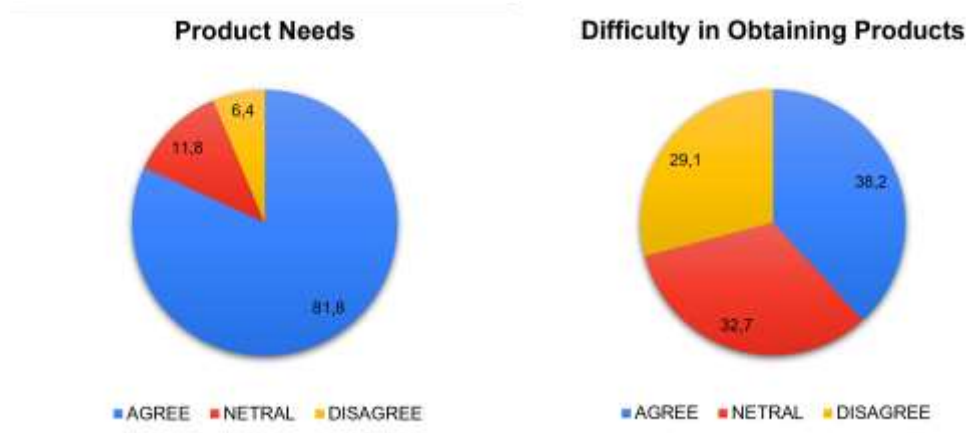


Figure 6 Problem Recognition Indicator Graph

Source: Research Data (Processed)

As many as 81.8% of respondents agreed that they need dairy products and derivatives, especially those with a halal label. This is in line with research (Sahin, Pekkirbizli, Kayser, & Theuvsen, 2014) stating that the halal label is very important, especially for animal products. However, 38.2% of respondents stated that the difficulty in obtaining information on halal products and the lack of halal-labeled products sold in *supermarkets* caused respondents not to prioritize the halalness of products. This has been proven by researchers by conducting a preliminary survey in the cities of Göttingen, Heilbad Heiligenstadt, Cologne, Erfurt, Hannover, Berlin, and Munich that dairy products, cheese, yogurt, and butter that have a halal label can only be found in Turkish/Arab shops and Asian shops. The existence of Turkish and Asian shops is very limited, not all regions in Germany have Turkish or Asian shops so that respondents who do not have Turkish or Asian shops in their cities cannot get dairy products and derivatives with a halal label. Aldi stores are stores that are frequently visited by respondents because they are available in almost every region and city, but milk products and their derivatives in Aldi stores do not have a halal label, so most respondents in this case buy milk products and their derivatives that have a vegetarian logo on the packaging.

Community Knowledge Indicators

This instrument will show respondents' knowledge regarding the principles of halal products, the ability to analyze halal or Muslim-*friendly products*, halal certification institutions in Germany, applications/ *websites* to check halal status, and critical halal points in dairy products and their derivatives.

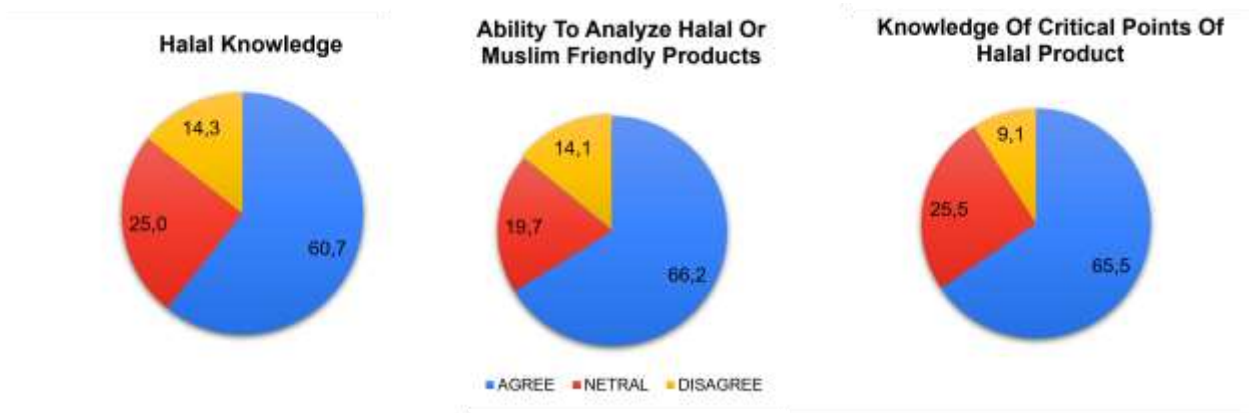


Figure 7Community Knowledge Indicator Graph

Source: Research Data (Processed)

As many as 60.7% of respondents have knowledge about the principles of halal products, identification of halal logos, and the relationship between *vegetarian logos* and halalness, indicating a good level of understanding. As many as 66.2% of respondents have a good understanding of the principles of halalness, are able to identify halal logos, and understand the relationship between *vegetarian logos* and halalness. However, 66.5% of respondents admitted to understanding the critical points of halalness in dairy products and their derivatives, this is contrary to the results of a direct survey via *e-mail* to several respondents in Germany and several preliminary surveys conducted previously. In this questionnaire survey, there were still a large number of respondents who understood or understood these aspects, but in reality almost all respondents did not understand the existence of critical points of halalness in dairy products and their derivatives. It can be concluded that the level of knowledge of respondents regarding various aspects of halalness of dairy products and their derivatives still varies. Although there is a fairly high awareness of the principles of halal products and the recognition of halal logos, there are still weaknesses in the ability to critically analyze product halalness, especially in distinguishing between halal and non-halal products. Knowledge about halal certification institutions and the use of applications or *websites* to check the halal status of products is also still limited.

Purchase Decision Indicator

This instrument will show how respondents' preferences are in making purchasing decisions based on halal, quality, price, and brand interests and show the level of respondents' trust in halal certification institutions in Germany, how often they check the halal status of products, and trust in the information on the packaging label.

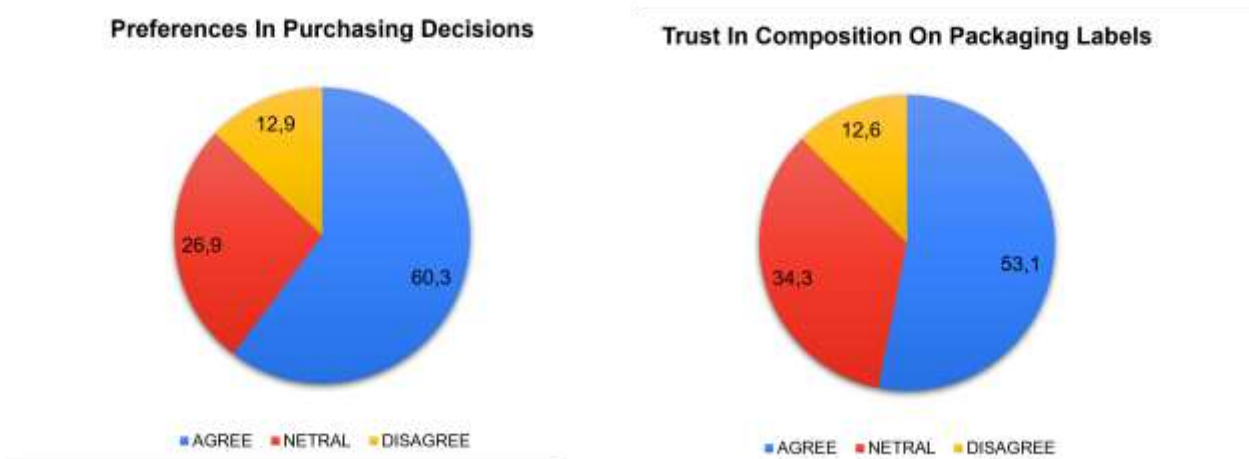


Figure 8 Purchasing Decision Indicator Chart

Source: Research Data (Processed)

As many as 60.3% of respondents agreed that the presence of a halal label influences the decision to purchase dairy products and their derivatives, in addition, product quality and clarity of information on the packaging are highly considered by most respondents, respondents are willing to pay a higher price for dairy products and their derivatives that have a halal label on their packaging. This is also in line with research (Sahin, Albayrak, Kayser, & Theuvsen, 2014) that found that the Halal label is very important to respondents, especially those related to products derived from animals. Furthermore, respondents stated that they are willing to pay more for Halal food and tend to choose stores depending on the availability of Halal food.

As many as 53.1% of respondents have full confidence in halal certification institutions in Germany, there is doubt in considering products without a halal label as non-halal products. Although there are efforts from some respondents to check the halal status of the product before purchasing, there are still those who are inconsistent in checking or seeking information about the halal status of the product. In addition, although there is quite high confidence in the information on the product label, concerns about the halal status of products whose halal status is unclear are still significant.

This instrument will show the intensity of purchasing dairy products and their derivatives as well as the influence of others in product purchasing decisions and respondents' understanding of the culture or customs in Germany and the suitability of the product to the respondents' culture.

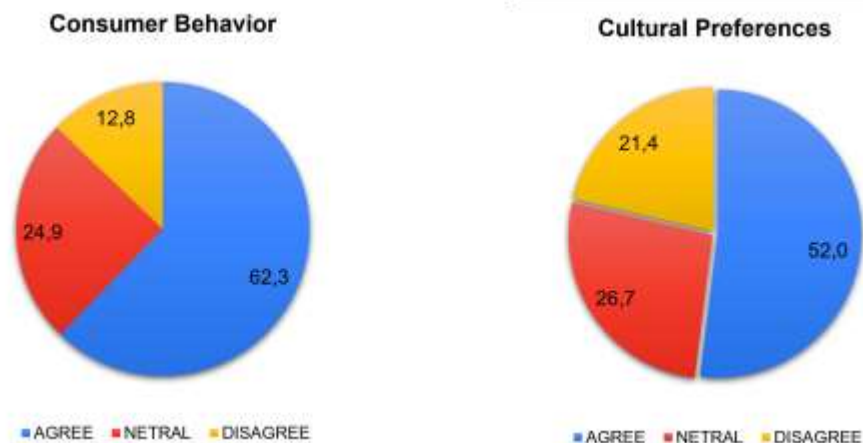


Figure 9 Purchasing Decision Indicator Graph

Source: Research Data (Processed)

As many as 62% of respondents routinely buy dairy products and their derivatives, indicating the importance of these products in everyday life. It can be concluded that most respondents routinely buy dairy products, but do not always pay attention to their halal status, especially when there are attractive discounts. In addition, advice and experience from friends or family play an important role in purchasing decisions, and there is a tendency to recommend halal or Muslim- friendly products to others. Regret arises when the product purchased turns out to be non-halal, indicating the importance of clear and reliable information regarding the halal status of dairy products and their derivatives.

As many as 52% of respondents agreed that cultural differences between Indonesia and Germany do not affect respondents' beliefs in consuming halal products, which shows that the majority remain steadfast in the principle of halal even though they are in different cultural environments. In line with the research (Sihotang, 2022) The results obtained in this study are that consuming halal goods is a good and positive culture for consumers in Indonesia. This study is in line with (Fauziyah & Pradesyah, 2023), This study shows that culture has a positive and significant influence on purchasing decisions for halal products, both individually and collectively emphasizing the importance of culture in influencing consumer preferences, especially in the context of purchasing halal products, and shows the need for a deep understanding of cultural dynamics in purchasing decisions.

Conclusion

The results of this study indicate that the purchasing decisions of dairy products and their derivatives by Indonesian students in Germany are influenced by various factors, including demographic characteristics, area of residence, product preferences, and level of knowledge about the halalness of the product. Most respondents were female (71.82%) and undergraduate students (77.27%). The majority of respondents live in western Germany (80%), where access to halal products is easier than in the eastern part. Liquid milk or UHT milk products are the most frequently purchased products (39.67%), while Aldi stores are the most popular shopping place with 21.11% of respondents choosing it.

As many as 81.8% of respondents felt the need for halal-labeled dairy products, but 38.2% of them had difficulty in obtaining halal product information. In addition, 60.7% of respondents had a basic understanding of the principles of halal, but there were still shortcomings in understanding the critical points of product halalness. The presence of a halal label influenced purchasing decisions for 60.3% of respondents, although there was significant trust (53.1%) in halal certification institutions in Germany. The majority of respondents (62%) routinely purchased dairy products and their derivatives, but sometimes ignored the halal status, especially when the product was on sale. Most respondents paid attention to the halal label on the packaging when purchasing dairy products and their derivatives. However, respondents had limited knowledge in understanding the composition of the packaging, so reading the composition was not one of the main factors in purchasing decisions.

Reference

- Alsa, A. (2004). *Quantitative and Qualitative Approaches and Their Combinations in Psychological Research*. Yogyakarta: Pustaka Pelajar.
- Amen, O. (2020). Quality Assurance and Halalness of Processed Milk Products. *Halal Food Journal Volume 2* .
- Andika, C. (2024). *DDAD: A Small, Far-Away City in Germany is Popular with Students* . Retrieved from <https://www.dw.com/id/daad-kota-kecil-nan-indah-di-jerman-diminati-pelajar/a-68126472>
- Apriyantono, A. (2012). *Critical Point of Halal Food and Beverages*. Jakarta: Bakrie University Lecture Materials.
- DSTATIS. (2023). *Current population of Germany* . Retrieved from https://www.destatis.de/EN/Themes/Society-Environment/Population/Current-Population/_node.html
- Engel, J., Blackwell, R., & Winiard, P. (1994). *Consumer Behavior* (6 ed.). Jakarta: Binarupa Aksara.

- European Supermarket Magazine. (2024). *Top 10 Supermarket Retail Chains In Germany* . Retrieved August 13, 2024, from <https://www.esmmagazine.com/retail/top-10-supermarket-retail-chains-in-germany-236817>
- Fauziyah, NI, & Pradesyah, R. (2023). The Influence of Literacy and Culture on the Decision to Purchase Halal Products in Cambodia.
- Hackett, C. (2017, January). *5 facts about the Muslim population in Europe* . Retrieved from Paw Research Center: <https://www.pewresearch.org/short-reads/2017/11/29/5-facts-about-the-muslim-population-in-europe/>
- Jumino, A. (2023). Identification of Critical Points of Halalness of Plant-Based Materials and Plant-Based Derivative Products. *Halal Food Scientific Journal Volume 5 Number 1* .
- Kotler, P., & Armstrong, G. (2012). *Principles of Marketing* (13th ed.). Jakarta: Erlangga.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15 ed.). Pearson.
- Kusnandar, F., Rahayu, WP, Marpaung, AM, & Santoso, U. (2020). *Global Perspective of Food Science and Technology of the Indonesian Food Technologist Association (PATPI)* (1 ed.). Bogor: PT Penerbit IPB Pers.
- Kusnandar, F., Rahayu, WP, Marpaung, AM, & Santoso, U. (2020). *Global Perspective of Food Science and Technology of the Indonesian Food Technologist Association (PATPI)* (1 ed.). Bogor: PT Penerbit IPB Pers.
- Majid, GM (2017). The Life Of Muslim Indonesian Students In Germany : Challenges And Opportunities. *Jurnal Kajian Daerah* .
- Mudzakkir, A., Mulyasari, PN, & Gusnelly. (2020). Summary of Research Results Towards a Post-Secular Society: Multiculturalism and Muslim Minorities in Germany. *Journal of Regional Studies* (1).
- Muhammadiyah, S. (2020). *PCIM Greater Germany Invites Muslim Diaspora to Understand Halal Products* . Retrieved from <https://web.suaramuhammadiyah.id/2020/11/19/pcim-german-raya-ajak-muslim-diaspora-pahami-produk-halal/>
- Murti, TW, & Hidayat, T. (2009). Effect of Using Three Types of Lactic Acid Bacteria Culture and Fermentation on Chemical Composition and Flavor of Cheese. *Journal of The Indonesian Tropical Animal Agriculture* .
- Rangkuti, F. (2010). *Promotion and Creative Strategy*. Jakarta: Gramedia Pustaka Umum.
- Riadi, M. (2020). *Milk (Definition, Composition, Nutritional Content, Types and Benefits)* . Retrieved from <https://www.kajianpustaka.com/2020/09/susu.html>
- Sahin, A., Albayrak, T., Kayser, M., & Theuvsen, L. (2014). Muslim consumers in Germany: Awareness and significance of halal labeling. *BERICHTE UBER LANDWIRTSCHAFT* .

- Sahin, A., Pekkirbizli, T., Kayser, M., & Theuvsen, L. (2014). Muslim consumers in Germany: Awareness and significance of halal labeling. *BERICHTE UBER LANDWIRTSCHAFT* (2).
- Sihotang. (2022). Consumption of Halal Products as Islamic Economic Culture in Indonesia. *In Proceedings International Conference on Language, Literature and Culture* (1).
- Stanton, WJ (2005). *Principles of Marketing*. Jakarta: Erlangga.
- Sugiyono. (2014). *Quantitative, Qualitative, and R&D Educational Research Methods*. Bandung: Alfabeta.
- Sugiyono. (2015). *Educational Research Methods (Quantitative, Qualitative and R&D Approaches)*. Alfabeta.
- Tamime, A.Y., & Robinson, R.K. (2007). *Tamime and Robinson's Yoghurt Science and Technology* (3 ed.). Elsevier.
- Wardana, AS (2012). *Milk Processing Technology*. Surakarta: Faculty of Agricultural Technology, Slamet Riyadi University, Surakarta.
- Wulan, R. (2010). Cheese Processing in Indonesia. *Journal of Food Technology* (1), 45-53.