

Purchase Behavior of Halal Hair Dyes: Knowledge, Religious Understanding Level, and Attitudes among Cosmetology Students

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ABSTRACT

Despite the increasing demand for halal products, consumers are still confused with regard to the halal status of hair dyes. This study aims to identify the relationship between knowledge, religious understanding level, and attitudes toward the purchase behavior of halal hair dyes among students with a background in cosmetology. This quantitative study was conducted using a survey method, questionnaires. The sample consisted of 365 students from the Faculty of Educational Studies, Universiti Putra Malaysia (UPM), selected through purposive sampling based on Krejcie and Morgan's table (1970). Preliminary screening was conducted to ensure that only respondents who met the study criteria were selected prior to distributing the questionnaire. The findings revealed a strong and significant relationship between knowledge and the purchase behavior of halal hair dyes among cosmetology students ($r = .654$, $p < .001$). Similarly, the level of religious understanding demonstrated a very strong and significant relationship with purchase behavior ($r = .720$, $p < .001$). The results also indicated a very strong and significant relationship between attitude and purchase behavior ($r = .722$, $p < .001$). Based on these findings, it is evident that the purchase behavior of halal hair dyes is influenced by students' knowledge, religious understanding, and attitudes.

Keywords: Knowledge, religious understanding, attitude, purchase behavior, Cosmetology students

INTRODUCTION

Halal cosmetics prohibit the use of forbidden ingredients such as alcohol, pork, blood, predatory animals, carrion, human body parts, reptiles, and insects. Ingredients from permissible animals must be sourced through humane slaughtering methods that avoid exploitation and comply with Islamic rulings [38]. Notably, halal cosmetics encompass a wide range of products, including baby care, bath items, makeup, fragrances, shaving products, personal hygiene, manicure, oral care, skincare, and hair products. These products must be produced using halal ingredients and adhere to halal certification standards. Designed for application on specific body areas or the mouth, these products aim to clean, protect, fragrance, neutralize body odor, enhance appearance, and promote overall well-being [15].

Among various cosmetic products, including talc, tattoos, skincare, and hair dyes, hair dye products have garnered the interest of both men and women across different income levels [2]. Hair dyeing refers to the practice of changing hair color [20]. Reference [13] stated that the hair dyeing process involves various cosmetic features that affect the final result, interactions between dye substances and hair, and impacts on the scalp. These features include color stability, tonal variety, resistance to washing and environmental exposure, effectiveness in covering gray hair, ease of application, potential side effects, and hair condition after dyeing [13].

Hair dyes are categorized as temporary, semi-permanent, and permanent. Accordingly, temporary and semi-permanent dyes use non-oxidative processes and only last for one or a few washes. In contrast, permanent dyes rely on oxidative reactions to penetrate and alter natural hair color [14]. Natural dyes derived from various parts of plants act as non-oxidative coloring agents that adhere to the cuticle and penetrate the cortex. They offer benefits such as being less allergenic, sustainable, environmentally friendly, and possessing antioxidant, anti-inflammatory, and antimicrobial properties [2].

Muslims have practiced hair dyeing since at least 100 Hijrah, possibly earlier. This practice served as an identity marker distinguishing Muslims from followers of other religions in their environment [36]. In the context of Shariah, Muslims are required to ensure that water reaches all parts of the skin and hair during ablution, without any barriers, to validate the ablution and, consequently, prayer [27].

However, certain modern cosmetic ingredients, such as dimethicone, a silicone oil used in waterproof cosmetics, pose challenges to this requirement. Notably, dimethicone forms a protective layer on the skin and hair surface, helping to retain skin softness; however, it may obstruct water absorption during ablution [27]. In medicine, this substance also serves as a barrier protecting pores from water penetration.

Therefore, hair dye is only considered halal if it is water-permeable, allowing water to penetrate the hair without obstruction. Halal hair dyes that meet this condition are usually of the oxidative type, containing a precursor, coupling agent, and oxidizer. This formulation does not involve waterproof coatings that could block water absorption, thereby complying with Shariah requirements for valid ablution and prayer.

Reference [22] stated that purchase behavior, attitude, and perceived control over halal food products, including international brands, are significantly influenced by halal involvement, encompassing awareness, knowledge, sensitivity, attention, and personal commitment. In particular, purchase behavior can also be shaped by one's level of religious understanding, generally defined as the extent to which an individual adheres to a specific set of religious beliefs [7]. Meanwhile, purchase intention plays a crucial role in determining buying decisions [30]. At the same time, a positive attitude significantly enhances the intention and motivation to purchase halal products by fostering trust, satisfaction, and alignment with personal values or beliefs [24].

According to reference [9], Perceived Ease of Use refers to the degree to which a person believes that a particular technology, including applicators and tools, is user-friendly and requires minimal effort for effective use. Perceived Usefulness refers to the long-term sustainable advantages of online purchasing, such as convenience, time-saving, accessibility, and product variety [3]. Conversely, Perceived Usefulness can significantly influence and alter user attitudes and perceptions during purchase decision-making [25]. Brand trust and reference groups also greatly influence buying behavior. In line with this, reference groups play a key role by shaping individuals' decisions through social perspectives and recommendations [42]. Brand trust is defined as the buyer's willingness to rely on a brand amid uncertainty, based on expectations that the brand will deliver positive outcomes.

The act of dyeing hair is considered haram for Muslim women if it involves imitating non-Muslims, promoting excessive display (*tabarruj*), or using ingredients with uncertain halal status [33]. Reference [22] emphasized that purchase behavior, attitude, and perceived control over halal products are highly influenced by halal involvement. Reference [16] asserted that in the context of consumer behavior, religious understanding plays a crucial role in the acceptance of halal cosmetic products. That is, individuals with more profound religious convictions tend to prioritize halal certification in purchasing decisions. Previous studies have proven a positive relationship between knowledge, religious understanding, and attitude with halal product purchase behavior. However, research focusing on these factors among cosmetology students remains limited, revealing a gap that this study aims to address. Thus, it is essential to examine how knowledge, religious understanding, and attitudes influence the purchase behavior of halal hair dyes among cosmetology students. This study is crucial in understanding how internal factors affect consumer decisions regarding Shariah-compliant cosmetic products. Moreover, the findings can serve as a reference for planning awareness programs promoting ethical and religiously aligned consumer behavior in the cosmetic industry.

This study aims to address the following research questions:

1. What is the level of knowledge about halal hair dyes among cosmetology students?
2. What is the level of religious understanding about halal hair dyes among cosmetology students?
3. What is the attitude toward halal hair dyes among cosmetology students?

4. Is there a relationship between knowledge, religious understanding, and attitude with the purchase behavior of halal hair dyes among cosmetology students?

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) serves as the primary framework for understanding consumer purchasing behavior. Notably, behavior is predicted by three main factors: attitude, subjective norms, and perceived behavioral control. Accordingly, TPB can be used to understand a wide range of behaviors, and these three components may vary depending on the specific behavior and context being studied. Therefore, this study extends the TPB framework by integrating the variables of knowledge, religious understanding, and attitude as factors influencing purchase behavior.

This study adopts TPB to explore the factors influencing consumer purchase behavior. As such, TPB has been widely applied in prior research, particularly within the halal industry, including halal tourism, food, cosmetics, and pharmaceuticals ([18]; [11]; [5]; [19]). Similarly, this study employs TPB as its theoretical foundation to understand factors that influence the intention and behavior of consumers in purchasing halal hair dyes. Considering the lack of existing research on halal hair dyes, particularly those utilizing TPB, this study aims to fill this gap by applying an extended version of the theory and contributing to the existing body of knowledge. This theory, alongside the constructs of knowledge, religious understanding, and attitude, offers a comprehensive view of the factors influencing cosmetology students' purchasing behavior for halal hair dyes.

Halal Hair Dyes

Halal cosmetics are viewed as an innovation within the industry, offering high-quality products that comply with halal standards. In essence, these products must be free from alcohol and animal-derived ingredients, which is in alignment with Islamic law. Furthermore, each halal cosmetic undergoes strict scientific testing to ensure purity, safety, and the use of the best natural ingredients, exceeding merely religious requirements [21]. Halal cosmetics are formulated carefully using selected ingredients to meet women's needs and preferences, ensuring that products comply with halal standards and are suitable for various skin types, sensitivities, and beauty requirements [12].

Halal hair dyes form a key segment within halal cosmetics and are gaining increased attention among Muslim consumers. These products are formulated without prohibited ingredients such as alcohol, non-halal animal pigments, or harmful chemicals that may obstruct water permeability during ablution. In the Islamic context, water permeability is a critical element that differentiates halal from non-halal hair dyes, as any waterproof layer could invalidate religious rituals [27]. Therefore, halal hair dyes must be water-permeable, typically achieved through oxidative formulations that do not create a waterproof barrier on the hair surface.

In addition to Shariah compliance, halal hair dyes also emphasize user safety, effectiveness, and overall well-being. These products often include natural ingredients like henna or plant extracts that serve as coloring agents while also providing additional benefits such as antioxidant, anti-inflammatory, and scalp protection [3]. Furthermore, innovations in halal hair dye formulations reflect manufacturers' awareness of modern consumer demands for products that are Shariah-compliant and eco-friendly, safe to use, and high in quality. Reference [6] confirmed that knowledge has a positive influence on the purchase of halal cosmetics.

Knowledge of Halal Hair Dyes

Product knowledge refers to the information a consumer has about a product, acquired through experience and various sources. It encompasses consumer understanding of product features, brands, prices, and the ability to evaluate product suitability to their needs. In the context of halal products, knowledge includes understanding product categories, ingredient content, halal status, and compliance with Shariah guidelines [34]. Consistent with this, strong knowledge of halal products enables consumers to make confident purchasing decisions

aligned with their religious values. Past studies have suggested that knowledge significantly affects the purchase behavior of halal cosmetics, as noted in studies by [5].

Regarding halal hair dyes, knowledge refers to user awareness and understanding of the ingredients, dyeing processes allowed under Islamic law, and issues related to water permeability for religious practices. This knowledge is crucial since the permissibility of using hair dye depends on ingredient status and its effect on the validity of ablution and prayer. Therefore, objective knowledge, the extent to which individuals understand and recall halal and haram principles sourced from the Qur'an and Hadith, serves as a primary indicator in assessing consumer knowledge of halal hair dyes [23].

Religious Understanding Level

An individual's level of religious understanding plays a significant role in shaping consumer attitudes and behavior, especially in decisions involving halal and haram products [35]. This understanding influences how individuals assess products based on their religious values and principles. Specifically, religion, encompassing belief, practice, and ritual, functions as a moral and ethical guide in daily life, including product and service selection [21].

Several past studies have indicated that high levels of religious understanding are positively associated with halal product purchasing behavior in sectors like cosmetics, food, and tourism ([10]; [12]; [4]; [43]) Similarly, reference [30] also reported a positive relationship between religious understanding and the purchase of halal cosmetics. However, this contradicts the findings of [41], which stated that emphasizing religious understanding does not significantly affect attitude and purchasing behavior toward halal cosmetics. In the context of halal hair dyes, a more profound religious understanding can influence consumer preferences toward products that fulfill aesthetic needs while also meeting Shariah requirements, such as water permeability and halal ingredients.

Attitudes Toward Halal Hair Dyes

Consumer attitudes toward halal products, including hair dyes, play a key role in determining their purchasing tendencies. Most consumers express positive views toward halal labeling in food and cosmetics, which has recently gained more legal attention and enforcement [21]. Other studies also revealed a significant relationship between positive consumer attitudes and purchase behavior, particularly for halal food, cleaning products, and cosmetics [21]. Similarly, research by [40], [12], and [44] noted that a positive attitude toward halal cosmetic products influences purchasing intentions.

In the context of halal hair dyes, attitudes encompass consumer perceptions of quality, safety, ingredient suitability, and Shariah compliance. Thus, positive attitudes can boost confidence and purchasing tendencies, especially among consumers concerned with religious values and health, encouraging them to choose hair dyes that are halal-certified.

Purchase Behavior Toward Halal Hair Dyes

Purchase behavior toward halal hair dyes can be understood through purchase intention, which refers to the willingness and tendency of consumers to buy a product based on their values, beliefs, and needs. Purchase intention is defined as consumers' subjective evaluation of their likelihood of buying a product or service. This results from various considerations such as individual preferences, perceived value, and product trust. Concurrently, purchase intention is a key predictor of actual buying behavior and reflects the cognitive process that precedes the purchase.

Perceived Ease of Use refers to the belief that a product is easy to use without requiring substantial effort. In the context of halal hair dyes, consumers are more likely to purchase if the product comes with clear instructions, is easy to use at home, and does not involve complex procedures. Reference [25] emphasized that ease of use directly influences user attitudes and enhances purchase intention, especially when combined with clear and immediate benefits.

Perceived Usefulness is the extent to which consumers believe that using a product will enhance their effectiveness or fulfill their needs. For halal products like hair dye, Perceived Usefulness is linked to benefits such as Shariah compliance, safety, and the absence of prohibited ingredients. Reference [2] mentioned that perceived product usefulness plays a significant role in shaping attitudes and purchase intentions, especially in online shopping environments. In essence, products perceived as useful are more readily accepted and preferred by Muslim consumers.

Brand trust refers to the consumer's willingness to rely on a brand with the expectation of positive and consistent outcomes. In the context of halal products, including hair dyes, brand trust is strongly tied to halal integrity, ingredient safety, and compliance with Islamic standards. Studies stated that brand trust significantly influences purchase intention [39]. In other words, trusted brands enhance consumer loyalty and reduce doubts about halal status, encouraging positive purchase behavior.

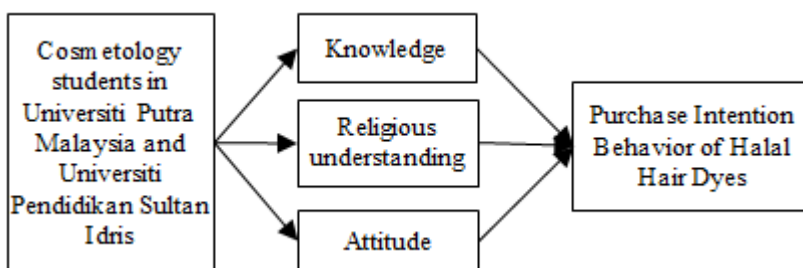


Fig. 1 Conceptual Framework

The conceptual framework above illustrates the variables that influence the purchase behavior of cosmetology students at Universiti Putra Malaysia (UPM) and Universiti Pendidikan Sultan Idris (UPSI) regarding halal hair dyes. The variables involved include knowledge, level of religious understanding, and attitude. At the end of this study, it is determined whether there is a relationship between knowledge, level of religious understanding, and attitude towards the purchase behavior of halal hair dyes among cosmetology students at UPM and UPSI.

RESEARCH METHODOLOGY

Research Design

This study is a descriptive study that uses a quantitative research design. The quantitative data collected aims to determine the relationship between knowledge, level of religious understanding, and attitude towards the purchasing behavior of halal hair dyes among cosmetology students at UPM and UPSI. Accordingly, quantitative data were obtained using a questionnaire as the research instrument. In particular, the researcher used Google Forms as the platform for data collection, which was distributed via email and online communication applications.

Population and Sample

The population of this study consisted of students from two educational institutions: the Faculty of Educational Studies at UPM and the Faculty of Technical and Vocational Education at UPSI. The total number of students from both faculties was 365, comprising 226 from UPM and 139 from UPSI. This study focuses on Muslim students pursuing a Bachelor of Education in Home Science and a Sarjana Muda Pendidikan (Ekonomi Rumah Tangga) degree. These students were selected based on their background and relevant knowledge in the field of cosmetology.

The sample size was estimated based on the total population of 365 students. The sampling method used in this study was based on the Krejcie and Morgan Table, which helps determine the minimum sample size required for a given population. Based on this table, a population of 139 students from UPM requires a sample size of 103, while for the UPSI population of 226 students, the required sample size is 136.

To account for a non-response rate of 10% to 15%, the sample size was adjusted to 113–119 for UPM and 150–156 for UPSI. This approach ensures that the selected sample is sufficient to yield reliable and representative findings for the entire study population. In addition, to ensure the representativeness of the sample, the sample size was calculated using a standard formula considering the rate of data loss or non-responses. The researcher estimated a non-response rate of 10% to 15%; therefore, oversampling was applied to ensure that the final number of respondents remains statistically significant and representative of the target population. This adjustment was also made to maintain a 95% confidence level with a 5% margin of error.

Research Instrument

The researcher distributed an online questionnaire consisting of 52 items designed to measure five main constructs. The items in the questionnaire were adapted from previously validated studies, ensuring the validity and reliability of both the content and the instrument. The construct of knowledge was measured using ten items adapted from studies by reference [31] and reference [1]. A five-point Likert scale was used to assess respondents' level of information, with the construct demonstrating a high reliability (Cronbach's Alpha = .840).

The construct of religious understanding was also measured using ten items, adapted from reference [31], and utilized the same five-point Likert scale to assess the respondents' religious comprehension. This construct also demonstrated good reliability (Cronbach's Alpha = .866).

Meanwhile, the attitude construct was adapted from four different studies (reference [1]). Similarly, a total of ten items were used to measure the consistency of respondents' attitudes, and the reliability coefficient was high (Cronbach's Alpha = .880).

For the endogenous construct, namely purchase behavior, 17 items were adapted from studies referenced in [31], and one additional item from [1]. This construct was also measured using a five-point Likert scale and presented excellent reliability (Cronbach's Alpha = .924).

To ensure the validity and reliability of the modified questionnaire, expert review was conducted by lecturers from Kolej Kemahiran Johor. All items were evaluated for content accuracy and relevance to the study objectives. The Likert scale used in this study was: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, and 5 – Strongly Agree. This scale was appropriate for measuring all constructs: knowledge, religious understanding, attitude, and purchase behavior toward halal hair dye.

A pilot survey was conducted before the main study to verify the reliability of the instrument. Upon receiving ethical approval from the Universiti Putra Malaysia Ethics Committee (JKEUPM), the questionnaire was distributed to 365 students identified as the study sample. Data was collected via Google Forms, and the questionnaire link was shared through WhatsApp to facilitate respondents' access. All responses were collected and analyzed using the Statistical Package for the Social Sciences (SPSS). Furthermore, to maintain confidentiality and privacy, all responses were securely stored and accessible only to the researcher. Additionally, participants were informed about the purpose of the study, assured of voluntary participation, and that all data would be used solely for academic purposes.

Data Analysis

Upon collecting the responses, the data were analyzed to answer all research questions. Data analysis is crucial, as it enables researchers to present findings based on the collected data. Subsequently, SPSS software was used for data analysis.

The data were first analyzed using descriptive statistics. Through descriptive analysis, data were presented using mean values in visual forms such as tables. Next, inferential statistical analysis was conducted. Specifically, correlation analysis was used to determine the relationships between knowledge, religious understanding, attitude, and purchasing behavior of halal hair dyes among cosmetology students at UPM and UPSI. Simultaneously, Pearson correlation analysis was used to explain and summarize the relationships between the studied variables.

FINDINGS

Respondents' Demographic Data

Data from 270 students were collected. The majority were aged between 21 and 25 (63.7%), followed by those under 20 (31.5%), and only 4.8% were aged 26 to 30. In terms of academic background, 156 students (57.8%) were enrolled in the Ijazah Sarjana Muda Pendidikan (Ekonomi Rumah Tangga), while 114 students (42.2%) were enrolled in the Bachelor of Education in Home Science. Regarding purchase frequency, most students rarely purchased halal hair dyes (58.9%), while 34.1% purchased them once a month. A small portion purchased more frequently, with 5.9% buying twice a week and 1.1% once a week. Most information on halal hair dyes was obtained from friends (33.7%), followed by social media (30.7%), family (16.7%), advertisements (15.9%), and others (3.0%).

Table I Respondent's Demographics

Criteria	n	%
Age		
<20	85	31.5
21-25	172	63.7
26-30	13	4.8
Educational Background		
Bachelor Pendidikan Sains Rumah Tangga	114	42.2
Ijazah Sarjana Muda Pendidikan (Ekonomi Rumah Tangga)	156	57.8
Purchase Frequency		
Once a week	3	1.1
Twice a week	16	5.9
Once a month	92	34.1
Rarely	159	58.9
Source of Purchase Information		
Advertisement	43	15.9
Family	45	16.7
Friends	91	33.7
Social Media	83	30.7
Others	8	3.0

Level of Knowledge on Halal Hair Dyes

Table II Level of Knowledge on Halal Hair Dyes

No	Item	SD	D	N	A	SA	μ	σ
1.	I have a good understanding of Islamic guidelines regarding halal hair dyes.	0	14	10	59	187	4.552	.797
2.	I understand the Islamic rulings that classify certain hair dyes as haram.	0	14	3	74	179	4.548	.764
3.	I am aware of the ingredients in hair dyes that are permitted under Islamic law.	0	15	20	68	167	4.433	.854
4.	I am aware of the ingredients in hair dyes that are prohibited under Islamic law.	1	16	14	68	171	4.452	.868
5.	I am knowledgeable enough to distinguish between halal and non-halal hair dyes.	0	17	10	77	166	4.452	.838
6.	I am aware of current concerns regarding harmful ingredients in hair dyes.	0	17	13	79	161	4.422	.849
7.	I know how to identify the halal certification on hair dye products.	0	16	19	68	167	4.430	.863

8.	I understand the implications of using non-halal ingredients in hair dyes from an Islamic perspective.	2	13	3	76	176	4.522	.807
9.	I know where to find reliable information about halal hair dye products.	1	16	19	60	174	4.444	.889
10.	I am familiar with the halal certification process for hair dye products.	3	33	19	62	153	4.219	1.087
μ = Mean= 4.447; σ = Standard Deviation= .862								

Table 2 summarizes the mean and standard deviation for students' knowledge. The item "I have a good understanding of Islamic guidelines regarding halal hair dyes" recorded the highest mean ($\mu = 4.552$, $\sigma = .797$). This is followed by "I understand the Islamic rulings that classify certain hair dyes as haram" ($\mu = 4.548$, $\sigma = .764$), and "I understand the implications of using non-halal ingredients in hair dyes from an Islamic perspective" ($\mu = 4.522$, $\sigma = .807$).

Level of Religious Understanding on Halal Hair Dyes

TABLE III Level of Religious Understanding on Halal Hair Dyes

No	Item	SD	D	N	A	SA	μ	σ
1.	I know that black hair dye is not permitted in Islam.	9	6	29	12	214	4.541	1.000
2.	I know that henna is a permitted ingredient in halal hair dyes according to Islamic law.	0	1	4	81	184	4.659	.527
3.	I know that katam is a permitted ingredient in halal hair dyes according to Islamic law.	3	8	129	42	88	3.756	.983
4.	I know that halal hair dyes must be water-permeable.	0	1	4	55	210	4.756	.487
5.	I know that hair dyes containing coating substances are not allowed in Islam.	19	15	13	13	210	4.407	1.233
6.	I know that halal hair dyes must not contain harmful substances.	26	0	11	43	190	4.374	1.215
7.	I know that imitating non-Muslims in dyeing hair is not permitted in Islam.	10	8	32	12	208	4.482	1.055
8.	I know that displaying <i>tabarruj</i> (excessive adornment) through hair coloring among Muslim women is not allowed according to Islamic teachings	9	6	17	27	211	4.574	.952
9.	I know that the use of hair dyes with questionable halal status is not allowed in Islam.	13	10	23	26	198	4.430	1.104
10.	I know that there are ingredients in hair dyes that do not comply with halal standards in Islam.	11	3	49	78	129	4.152	1.025
μ = Mean= 4.413; σ = Standard Deviation = .958								

Table 3 presents the mean and standard deviation for religious understanding. The item "I know that halal hair dyes must be water-permeable" had the highest mean ($\mu = 4.756$, $\sigma = .487$). This is followed by "I know that henna is a permitted ingredient in halal hair dyes according to Islamic law." ($\mu = 4.659$, $\sigma = .527$), and "I know that displaying *tabarruj* (excessive adornment) through hair coloring among Muslim women is not allowed according to Islamic teaching" ($\mu = 4.574$, $\sigma = .952$).

Attitudes Towards Halal Hair Dyes

Table IV Attitudes Towards Halal Hair Dyes

No	Item	SD	D	N	A	SA	μ	σ
1.	I prefer to choose halal hair dyes whenever making a purchase.	1	1	2	47	219	4.785	.501
2.	I prioritize checking for halal certification labels when selecting hair dyes.	0	0	2	42	226	4.830	.396
3.	I believe that purchasing halal hair dyes reflects my religious	0	1	4	43	222	4.800	.461

	commitment.							
4.	I believe that choosing halal hair dyes reflects my personal values.	0	1	3	49	219	4.785	.463
5.	I am influenced by the opinions of important individuals in my life who prefer the use of halal hair dyes.	0	19	9	23	219	4.637	.850
6.	I feel good about my choice when using halal hair dyes.	2	13	3	24	228	4.715	.779
7.	I believe that purchasing halal hair dyes supports the promotion of halal products in the market.	1	0	5	30	234	4.837	.468
8.	I am willing to recommend halal hair dyes to others.	1	2	21	15	231	4.752	.658
9.	I feel at ease when buying halal hair dyes.	0	14	8	18	230	4.719	.758
10.	I feel more confident when using halal hair dyes.	1	13	5	17	234	4.741	.751
μ = Mean= 4.76 ; σ = Standard Deviation= .609								

Table 4 outlines the mean and standard deviation for attitudes. The item “I believe that purchasing halal hair dyes supports the promotion of halal products in the market” had the highest mean ($\mu = 4.837$, $\sigma = .468$). This is followed by “I prioritize checking for halal certification labels when selecting hair dyes” ($\mu = 4.830$, $\sigma = .396$), and “I believe that purchasing halal hair dyes reflects my religious commitment” ($\mu = 4.800$, $\sigma = .461$).

Relationship Between Knowledge, Religious Understanding, and Attitudes With Purchasing Behavior

Table V Relationship Between Knowledge and the Purchase Behavior of Halal Hair Dye Among Cosmetology Students

Variable		Purchase Intention Behavior
Knowledge	Pearson Correlation	.654
	Sig (2-tailed)	<.001
N=270		

The findings revealed a strong relationship between knowledge and the purchasing behavior of halal hair dye among cosmetology students, with a correlation value of $r = .654$. As summarized in Table 5, there is a statistically significant relationship between knowledge and the purchasing behavior of halal hair dye among these students ($p < .001$). This suggests that students who are more knowledgeable about halal hair dye are more likely to exhibit favorable purchasing behavior toward such products.

Table VI Relationship Between Level of Religious Understanding and the Purchase Behavior of Halal Hair Dye Among Cosmetology Students

Variable		Purchase Intention Behavior
Level of Religious Understanding	Pearson Correlation	.720
	Sig (2-tailed)	<.001
N=270		

Similarly, there is a significant relationship between religious understanding and purchasing behavior, with a correlation value of $r = .720$. According to Table 6, the relationship is statistically significant ($p < .001$), indicating that a deeper religious understanding among students is associated with a higher tendency to purchase halal-certified hair dye. This reinforces the significance of religious literacy in shaping consumer decisions in the context of halal products.

Table VII Relationship Between Attitude and the Purchase Behavior of Halal Hair Dye Among Cosmetology Students

Variable		Purchase Intention Behavior
Attitude	Pearson Correlation	.722
	Sig (2-tailed)	<.001
N=270		

In addition, *attitude* toward halal hair dye also demonstrated a very strong relationship with purchasing behavior, as indicated by a correlation value of $r = .722$. Table 7 confirms this significant relationship ($p < .001$), implying that students who hold positive attitudes toward halal hair dye are more likely to translate these attitudes into actual purchasing behavior. This supports the idea that, beyond knowledge and understanding, internal motivation and values reflected through attitudes play a key role in influencing consumer behavior.

Overall, these findings highlight the significant and strong relationships between knowledge, religious understanding, and attitudes regarding the purchasing behavior of halal hair dye among cosmetology students. Each variable contributes meaningfully to explaining why and how students make purchasing decisions related to halal personal care products.

DISCUSSION

A total of 270 students participated in this study, with the majority aged between 21 and 25 years. This indicates that the respondents were at a mature age to make rational judgments regarding cosmetic product choices, including halal hair dyes. In terms of educational background, students with a cosmetology background demonstrated relevant knowledge concerning halal cosmetic issues.

The findings revealed that the students' level of knowledge regarding halal hair dyes was high. Items such as "I know that halal hair dyes must be water-permeable" recorded the highest mean score ($\mu = 4.756$, $\sigma = .487$), reflecting the students' deep understanding of critical features of halal hair dyes. This knowledge was proven to have a strong relationship with purchasing behavior ($r = .654$, $p < .001$), consistent with [5]. The study asserted that the knowledge construct significantly influenced consumer behavior regarding halal hair dye purchases. Furthermore, the similarity in findings can be attributed to the demographic similarity between respondents in both studies, particularly their age (in their 20s), which indicates a comparable level of maturity in knowledge about halal hair dyes.

In addition, this study supports the findings of [41], which suggest that consumers' knowledge of halal ingredients in cosmetics tends to be more influential than their religious understanding in shaping purchasing decisions. Cognitively, knowledgeable consumers are more likely to trust that a product labeled halal is safe for use.

Furthermore, religious understanding was also reported to have a very strong relationship with purchasing behavior ($r = .720$, $p < .001$). This finding aligns with the view of [30], who stated that individuals who internalize religious values tend to develop self-identity and self-concept that drive them to be more cautious in product selection. The similarity in findings can be linked to the shared social background of the respondents, as both studies involved participants from Muslim-majority countries. However, this finding contradicts the study by [41], in which the differing outcomes could be attributed to differences in the age groups of the majority of respondents. This suggests a lower religious understanding in the younger group, and also due to socioeconomic differences, which may have influenced the study's results. Therefore, the difference in context or study population may contribute to these contrasting findings.

Moreover, students' attitudes towards halal hair dyes also revealed a very strong relationship with purchasing behavior ($r = .722$, $p < .001$). This positive attitude reflects that students possess knowledge and religious understanding and are intrinsically inclined to support products that align with Islamic principles. These findings support prior studies emphasizing the role of attitude in influencing the intention and behavior to purchase halal products, such as those reported by [40], [12], and [44]. In those studies, it was acknowledged that the respondents upheld Shariah-compliant norms and values, similar to respondents in this study, who prioritized halal products in every purchase decision.

In conclusion, the results of this study assert that a combination of knowledge, religious understanding, and attitude plays a significant role in shaping the purchasing behavior of halal hair dyes among cosmetology students.

CONCLUSION AND RECOMMENDATIONS

This study demonstrates that knowledge, religious understanding, and attitude have a strong and significant relationship with the purchasing behavior of halal hair dyes among cosmetology students. The survey results indicate that students possess a high level of knowledge, a deep understanding of religion, and positive attitudes toward halal hair dyes. Consequently, these students tend to exhibit a higher purchasing behavior towards such products. Nonetheless, the positive relationships among these variables further support and validate the application of the TPB. This proves that knowledge, religious understanding, and attitude influence the purchasing decisions of halal hair dyes.

However, this study is not without limitations. First, the study only involved students from two educational institutions, which may not represent the broader consumer population, especially non-student groups. Second, this study used a fully quantitative approach, limiting the exploration of deeper psychological and social factors that may influence consumer purchasing decisions. Third, although significant relationships were discovered between the variables, the analysis could not prove direct causal relationships.

Therefore, several recommendations are proposed for future research. A follow-up qualitative study is recommended to gain a deeper understanding of consumer motivations and perceptions, particularly in terms of social and cultural factors. In addition, the scope of future studies could be expanded to include more diverse respondents, such as adult consumers and non-students, to obtain a more comprehensive picture. Moreover, the use of diverse research instruments, such as interviews and observations, could also contribute to more holistic data collection. Finally, further studies on the influence of social media and cultural factors are recommended to better understand the full range of elements that shape consumer purchasing behavior toward halal products, including halal hair dyes.

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