Analysis of The Determinants of Consumer Decisions in Purchasing Halal Beauty Products

Eritrina Rizki Chairani¹, Qurtubi², Imam Djati Widodo³, Rahma Fariza⁴

^{1,2,3,4}Department of Industrial Engineering, Faculty of Industrial Technology, Universitas Islam Indonesia Email: qurtubi@uii.ac.id

Abstract

Halal beauty products have now begun to attract the attention of the Muslim community in Indonesia, but it does not necessarily show that consumers of halal beauty products prioritize halal products, because there are other factors that can affect purchasing decisions. The purpose of this study is to determine the influence of product quality, halal label, and product price on the purchase decision of halal beauty products, which then based on these results, an evaluation of the level of awareness and concern of female students for halal is carried out. The data was collected by distributing questionnaires to students of University X. The respondents who filled out this research questionnaire were active students of University X who had bought halal beauty products of any brand. This research method is PLS-SEM analysis to predict the influence between independent variables on dependent variables, as well as descriptive analysis to determine the level of awareness and concern of female students for halal. The result of this study is that the three variables each have a positive and significant effect on purchasing decisions. Based on the results of the PLS-SEM pathway coefficient test, it is known that product quality has a greater influence than the halal factor (halal label) when female students decide to buy halal beauty products. Therefore, a further evaluation of the level of halal awareness and concern is carried out by conducting a descriptive analysis on each item of halal label indicators. Through this analysis, the results were obtained that 62.5% of the eight halal label indicator items were in the range of positive categories which showed that the level of halal awareness and concern of female students was high.

Keywords: Halal Awareness and Concern, Halal Beauty Products, Purchasing Decisions, PLS-SEM

INTRODUCTION

Beauty products (cosmetics) are highly processed products, where products with a variety of ingredients are a mixture of raw materials and auxiliary materials that can be sourced from animals or plants. The variety of mixed ingredients in beauty products, it is very possible that the product will contain ingredients that are unclean/ illegitimate/haram, it is necessary to pay attention to the critical point of its nutrition before deciding to buy. As Muslims, we need to pay attention to the halalness of a product before consuming it as a form of our concern and piety to the command of Allah that rules all people Muslims to always consume halal, not only in food, but also in other aspects, such as the use of beauty products.

One of the efforts that can be done is to pay attention to the availability of halal labels on products before buying them. The official halal label in Indonesia is a halal label issued by the Halal Product Assurance Management Agency (BPJPH). To be able to set halal standards for a product, BPJPH collaborates with various related parties such as the Halal Inspection Agency (LPH) and the fatwa commission of the Indonesian Ulema Council (MUI). The halal label from BPJPH indicates that all production activities (for example suppliers, materials, and production facilities) on a product have met halal criteria in accordance with Islamic law through halal certification tests. So that the halal label from BPJPH can be used as a reference for Muslim consumers when they want to buy products.

Halal beauty products are currently starting to attract the attention of the Muslim community in Indonesia. This can be seen through the State of The Global Islamic Economy Report 2019-2021 published by Dinar Standard, which shows that the amount of Indonesian Muslim consumer spending in the halal cosmetics sector has increased over the past three years compared to the halal food and halal pharmaceutical sectors. The amount of Muslim consumer spending in the halal cosmetics sector has increased, but this does not necessarily indicate that consumers of halal beauty products prioritize their halalness when deciding to buy, because there are other factors that can influence a consumer's purchasing decision. In a study (Hashim & Musa, 2014) of Muslim women in The Klang Valley, Malaysia,

it was found that the level of awareness of halal beauty products was still low. Halal factors are not the main factor that is considered before consuming beauty products, both halal certified and non-halal certified.

In purchasing halal beauty products, product quality and product prices can influence consumer decisions in purchasing. Product quality can be met when the products offered by the company are in accordance with consumer expectations or can even exceed consumer expectations (Anggraeni, Kumadji, & Sunarti, 2016). Quality is closely related to customer satisfaction. Good quality will cause customer satisfaction. Satisfied consumers will make a repurchase. It is possible that consumers will recommend the product to those closest to them. The same goes for the price of the product. Everyone has different incomes. The high and low prices level is always a concern for consumers when they are looking for a product (Sarjana, Meitriana, & Suwendra, 2018). This will make some consumers make price a special consideration in buying a product.

Students are individuals who are required to be critical and wise in making decisions, including when choosing the product they want to buy. As a Muslim student it is important to be critical of the halalness of the product before buying the product. University X is a university where all students are adherents of the Islamic religion. Based on the description of the problem above, the purpose of this study is to determine the influence of product quality, halal labels, and product prices on the decisions of Muslim students (University X students) in buying halal beauty products using the PLS-SEM analysis method on SmartPLS software, then based on these results an evaluation of the awareness and concern of Muslim students for halal is carried out.

LITERATURE REVIEW

Beauty Products

Beauty products are highly processed products that contain a variety of mixed ingredients. Highly processed products are processed with materials that can be sourced from animals and plants, which undergo various treatments both chemically and physically and are processed commercially (Hashim & Mat Hashim, 2013). The content in beauty products that needs to be observed is the critical point of nutrition according to the Indonesian Ulema Council (MUI), namely fats and derivatives, collagen and elastin, placenta and amnion extracts, vitamins, Alpha Hydroxy Acid (AHA), and hormones. Halal beauty products are beauty products that apply the principles of Islamic sharia during the production process from raw materials, auxiliary materials, equipment, and product facilities to the naming and packaging of products must be in accordance with Islamic law.

PLS-SEM

PLS-SEM is a statistical analysis method oriented to predict construct variables with the aim of developing theories (Zuhdi, Suharjo, & Sumarno, 2016). The advantages of PLS-SEM analysis can be used when the sample size of the study is limited or small in size, and also when the problem of distribution is the concern, such as data that is not normally distributed (Hair, Risher, Sarstedt, & Ringle, 2019). There are two stages of testing in the PLS-SEM analysis, namely the outer model test and the inner model test. Outer model defines how each indicator relates to its latent variables. This test is carried out to ensure that the measurement used is feasible (valid) and reliable in measuring the variables. Outer models have two types of indicator models, namely reflective indicators and formative indicators. Reflective indicator characterized by the direction of causality flowing from variable to indicator, which indicates that the variable affects the indicator. Formative indicator marked with the direction of causality flowing from indicator to variable, which indicates that the indicator is affects variables.

Outer model tests (measurement model) carried out on reflective indicators are validity and reliability tests. The validity test on reflective indicators is divided into two, namely convergent validity and discriminant validity. Convergent validity is assessed through the loading (above 0.7) and Average Variance Extracted (AVE) (above 0.5) of the reflective indicator. Discriminant validity is assessed through comparisons where the loading of reflective indicators (purchase decisions) must be greater than other variables. The reflective indicator test is also carried out to test the reliability of the indicator. The reliability of reflective indicators is assessed through composite reliability (above 0.7) and Cronbach's alpha (above 0.7). The outer test of the model on the formative indicator, the indicator is not a reflection of its variables so only the validity test is carried out on the formative indicator (VIF) (below 5) to assess the collinearity of indicators where the high level of collinearity between formative indicators is problematic. A high correlation between formative indicators is not expected because it will have an impact on the estimated weight and its statistical significance (Hair, et al., 2021). The validity test of formative indicators is also assessed through the significance of weight which can represent that formative indicators are relatively important in forming variables.

Inner model test (structural model) carried out to determine the relationship between exogenous variables and endogenous variables. This test is carried out by looking at the R-square for endogenous variables and path coefficient to test the significance of relationships between variables.

METHODS

Population and Sample

The population used in this study was students of University X who had purchased BPJPH halal-certified beauty products. The sampling technique used in this study is the purposive sampling technique, which is a sampling technique with certain requirements. The sample requirements for this study are active female students of the undergraduate program of University X who have purchased halal beauty products of any brand.

Primary and Secondary Data

Primary data was collected through the dissemination of online questionnaires to students. The type of questionnaire used was a 4-weight-likert scale questionnaire with answer choices from very negative to very positive. Secondary data is collected through various journals to better understand the theory to be used and the problems being studied.

Data Analysis Methods

The analysis method used in this study is PLS-SEM analysis using SmartPLS software version 3.3.9 to predict the influence between independent variables (product quality, halal label, product price) and dependent variables (purchasing decisions). Descriptive analysis is also used to evaluate further details regarding the level of realization and concern of female students for halalness.

RESULT AND DISCUSSION

PLS-SEM analysis phase 1 is an outer model test carried out based on the type of indicators, namely reflective indicators and formative indicators. Phase 2 PLS-SEM analysis is an inner model test. Here is the initial model of this study:



Figure 1. Initial Model

Outer Model

The first stage of the outer model test is a test on reflective indicators. Variables with the type of reflective indicators in this study are the purchase decision variable (BL) with a total of 5 indicators. The validity test of reflective indicators is divided into two types, namely convergent validity and discriminant validity. Reflective indicators are said to have good convergent validity, if the loading is more than 0.7 which indicates that the indicator contributes more than 50% to its variables, and the average variance extracted (AVE) is more than 0.5. The following Table 1 is a loadings obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Table 1. Kellecuve	e mulcator Loaungs
Indicators	Loadings
BL1	0.684
BL2	0.774
BL3	0.443
BL4	0.743
BL5	0.753

Table 1. Reflective	e Indicator Loadings
Indicators	Loadings
DI 1	0.694

Based on the Table 1, it can be seen that there is a loading that is less than 0.7, namely indicators with codes BL1 and BL3. According to (Hair, et al., 2021) reflective indicators less than 0.7, it should be excluded from the model gradually because it can affect the validity and reliability of its variables. So the reflective indicator that was removed in this study which had the smallest loading, namely BL3. Here's Table 2 is a loadings after BL3 is removed from the model:

Table 2	. Reflective	Indicator	Loadings	(New)
---------	--------------	-----------	----------	-------

Indicators	Loadings
BL1	0.720
BL2	0.784
BL4	0.731
BL5	0.758

Based on the Table 2, it can be seen that all reflective indicators have a loading of more than the minimum criteria, which is 0.7, so the next stage in the convergent validity test is by looking at the AVE. The following Table 3 is a AVE of variables that have the types of reflective indicators obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Table 3. Reflective Indi	cator AVE
	AVE
Purchase Decision	0.561

Based on the Table 3, it can be seen that the AVE is more than 0.5, then it can be concluded that the reflective indicators in this research model have good convergent validity. The next reflective indicator validity test is the discriminant validity test. Reflective indicators are said to have good discriminant validity, if the loading on its own variable (purchase decision) is greater than other variables or what is commonly called cross loading. The following Table 4 is a table of cross loadings obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Table 4. Cross Loadings								
Indicators -	Cross Loadings							
mulcators	Product quality	Product quality Halal label Product price Purchase Decision						
BL1	0.605	0.569	0.312	0.720				
BL2	0.499	0.509	0.455	0.784				
BL4	0.611	0.499	0.386	0.731				
BL5	0.452	0.463	0.426	0.758				

Based on the Table 4, it can be seen that each loading on its own parent variable (purchase decision) is greater than other variables, so it can be concluded that the reflective indicators in this research model have good discriminant validity. The next test is the reflective indicator reliability test by looking at composite reliability and Cronbach's alpha. The minimum criteria for both values is 0.7, so it can be said that reflective indicators have good reliability. The following Table 5 is a table of composite reliability and Cronbach's alpha obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Ta	able 5. Indicator Reliabilit	У
	Composite Reliability	Cronbach's Alpha
Purchase Decision	0.836	0.739

Based on the Table 5, it can be seen that the composite reliability and cronbach's alpha is more than 0.7, so it can be concluded that the reflective indicators in this research model have good reliability.

The second stage of the outer model test is a test on formative indicators. Variables with types of formative indicators in this study are product quality (KP), halal label (LH), and product price (HP) with 12, 8, and 8 indicators sequentially. The validity test on the formative indicator can be met if the VIF value is more than 5 which indicates that there is no collinierity problem between the formative indicators. The following Table 6 is a table of the VIF values of each formative indicator obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Table 6. Formative Indicator VIF					
Indicators	VIF	Indicators	VIF		
HP1	1.232	KP4	1.640		
HP2	1.784	KP5	1.708		
HP3	1.623	KP6	1.537		
HP4	1.849	KP7	1.496		
HP5	1.819	KP8	1.496		
HP6	2.386	KP9	1.271		
HP7	2.725	LH1	1.501		
HP8	3.088	LH2	3.149		
KP1	1.420	LH3	2.173		
KP10	1.464	LH4	1.980		
KP11	1.870	LH5	1.992		
KP12	2.132	LH6	2.248		
KP2	1.400	LH7	3.712		
KP3	1.455	LH8	2.478		

Based on the Table 6, it can be known that the VIF value of each formative indicator is less than 5, then it can be concluded that there is no problem of collinierity between formative indicators in this research model, so the test can proceed to the next stage. The next test is to look at the significance of weight. The p-value must be less than 0.05 which indicates that each formative indicator is relatively important in forming its variables. The following Table 7 is a table of significance of weight obtained through the calculation of the bootstrapping procedure on SmartPLS:

Table 7. Formative Indicator	Significance o	f Weights
------------------------------	----------------	-----------

Table 7. Formative indicator Dignificance of Weights				
Correlation	P Value	Correlation	P Value	
HP1 -> Product price	0.359	KP4 -> Product quality	0.141	
HP2 -> Product price	0.731	KP5 -> Product quality	0.976	
HP3 -> Product price	0.227	KP6 -> Product quality	0.620	
HP4 -> Product price	0.274	KP7 -> Product quality	0.315	
HP5 -> Product price	0.623	KP8 -> Product quality	0.144	
HP6 -> Product price	0.272	KP9 -> Product quality	0.514	
HP7 -> Product price	0.956	LH1 -> Halal label	0.350	
HP8 -> Product price	0.075	LH2 -> Halal label	0.825	
KP1 -> Product quality	0.001	LH3 -> Halal label	0.695	
KP10 -> Product quality	0.000	LH4 -> Halal label	0.728	
KP11 -> Product quality	0.649	LH5 -> Halal label	0.106	
KP12 -> Product quality	0.492	LH6 -> Halal label	0.429	
KP2 -> Product quality	0.178	LH7 -> Halal Label	0.007	
KP3 -> Product quality	0.845	LH8 -> Halal label	0.447	

Based on the Table 7, it can be known that most formative indicators have a p-value of more than 0.05 which means it is insignificant. However, this can happen, because the indicators used in this study are many. According to (Cenfetelli & Bassellier, 2009), the number of indicators can affect the significance of the weight which causes the value of each formative indicator to be relatively small and even insignificant. Before removing formative indicators, there are things to consider, namely by looking at the loading and significance of each formative indicator. The minimum loading criteria must be more than 0.5 and significant, which indicates that the formative indicator is absolutely important in forming its variables. The following Table 8 is a table of loading formative indicators and their significance obtained through the calculation of the bootstrapping procedure on SmartPLS:

Table 8. Formative Indicator Loadings					
Correlation	Loading	P Value	Correlation	Loading	P Value
HP1 -> Product price	0.427	0.003	KP4 -> Product quality	0.527	0.000
HP2 -> Product price	0.292	0.083	KP5 -> Product quality	0.442	0.001
HP3 -> Product price	0.611	0.000	KP6 -> Product quality	0.237	0.079
HP4 -> Product price	0.489	0.001	KP7 -> Product quality	0.324	0.012
HP5 -> Product price	0.630	0.000	KP8 -> Product quality	0.514	0.000
HP6 -> Product price	0.739	0.000	KP9 -> Product quality	0.335	0.004
HP7 -> Product price	0.668	0.000	LH1 -> Halal label	0.585	0.000
HP8 -> Product price	0.772	0.000	LH2 -> Halal label	0.785	0.000
KP1 -> Product quality	0.616	0.000	LH3 -> Halal label	0.652	0.000
KP10 -> Product quality	0.680	0.000	LH4 -> Halal label	0.695	0.000
KP11 -> Product quality	0.499	0.000	LH5 -> Halal label	0.749	0.000
KP12 -> Product quality	0.551	0.000	LH6 -> Halal label	0.762	0.000
KP2 -> Product quality	0.570	0.000	LH7 -> Halal Label	0.917	0.000
KP3 -> Product quality	0.376	0.001	LH8 -> Halal label	0.789	0.000

Table 8. Formative Indicator Loadings

Based on the Table 8, it can be seen that there are eight formative indicators that have a loading of less than 0.5 and two of them are insignificant. Therefore, indicators that do not meet the minimum criteria are excluded from the model, namely HP1, HP2, HP4, KP3, KP5, KP6, KP7, and KP9. The results of loading formative indicators on the new (final) model are obtained as follows on Table 9:

Table 9. Formative Indicator Loadings (Final)					
Correlation	Loadings	P Value	Correlation	Loadings	P Value
HP3 -> Product price	0.641	0.000	KP4 -> Product quality	0.536	0.000
HP5 -> Product price	0.663	0.000	KP8 -> Product quality	0.523	0.000
HP6 -> Product price	0.778	0.000	LH1 -> Halal label	0.585	0.000
HP7 -> Product price	0.704	0.000	LH2 -> Halal label	0.786	0.000
HP8 -> Product price	0.814	0.000	LH3 -> Halal label	0.652	0.000
KP1 -> Product quality	0.626	0.000	LH4 -> Halal label	0.695	0.000
KP10 -> Product quality	0.691	0.000	LH5 -> Halal label	0.748	0.000
KP11 -> Product quality	0.507	0.000	LH6 -> Halal label	0.762	0.000
KP12 -> Product quality	0.560	0.000	LH7 -> Halal Label	0.917	0.000
KP2 -> Product quality	0.580	0.000	LH8 -> Halal label	0.789	0.000

Based on the Table 9, it can be seen that the loading of each formative indicator is more than 0.5 and is significant, so it can be concluded that the formative indicators in this research model are absolutely important in forming their variables, although they are not relatively important. So that the testing can proceed to the next stage.

Inner Model

The inner model test is carried out by looking at the R-square and path coefficient. The following Table 10 is R-square that obtained through the calculation of the PLS Algorithm procedure on SmartPLS:

Table 10. R-square		
	R-square	
Purchase Decision	0.629	

Based on the Table 10, it can be seen that the R-square value in this study was 0.629, which indicates that the variables of product quality, halal label, and product price can simultaneously influence purchasing decisions by 62.9% or rounded to 63%. While the remaining 37% of purchasing decisions are influenced by other variables that were not used in this study. Then the following Table 11 is a table of the results of the coefisien path obtained through the calculation of the bootstrapping procedure on SmartPLS:

Table 11. Path Coefficient				
	Coefficient	T statistic	P Value	
Product Price -> Purchase Decision	0.214	2.981	0.003	
Product Quality -> Purchase Decision	0.426	4.806	0.000	
Halal Label -> Purchase Decision	0.314	3.495	0.001	

Based on the Table 11, it can be seen that the product quality variable has a significant effect on purchasing decisions with a positive coefficient value of 0.426. The halal label variable has a significant effect on purchasing decisions with a positive coefficient value of 0.314. The product price variable has a significant effect on purchasing decisions with a positive coefficient value of 0.214. Based on the value of the coefficient, it can be seen that the product quality variable has the largest coefficient value among the three variables used in this study. So it can be concluded that product quality has a greater influence than halal (halal label) and product prices in influencing the purchase decision of halal beauty products. This indicates that the halalness of the product has not been the main factor that female students pay attention to when buying halal beauty products. Therefore, a further evaluation of the level of awareness and concern of female students for halalness is carried out.

Evaluation of Students' Level of Awareness and Concern for Halal

The level of awareness and concern of female students for halalness was evaluated by conducting a descriptive analysis of the respondents' total answer scores on each halal label item obtained through the dissemination of research questionnaires. The first stage that is carried out to analyze the level of awareness and halal concern of female students is to determine the range of categories using using mean and standard deviation of the samples of this study. Based on this reference, further the total respondent's answer score grouping on halal label items based on the category is carried out. The following Table 12 is a table of the results of categorizing each halal label item:

Table 12. Category	Levels of Awareness and	Concern for Halal
--------------------	-------------------------	--------------------------

Code	Total	Category
LH1	349	Medium
LH2	329	Very Low
LH3	359	High
LH4	360	High
LH5	339	Low
LH6	366	High
LH7	336	Low
LH8	356	High

Based on the Table 12, in general, the level of awareness and concern for halal of University X's students is high, because five of the eight question items on the halal label variable are included in the positive range (medium and high) which is 62.5%. Halal labels on beauty products are considered important and provide a sense of security and halalness is also more maintained and also female students prefer beauty products labeled halal over not labeled halal. However, it can also be known in the Table 12, that items with codes LH2, LH5, and LH7 are in the negative range. LH2 stated that University X's students always pay attention to the availability of halal labels on beauty products first before buying them. LH5 stated that University X's students believe that halal labels can guarantee the quality of the product. LH7 states that the halal label is the main consideration for University X's students when buying beauty products has not been applied by some students of University X. This indicates that the purchase of halal beauty products has not determined that these consumers prioritize halal of related products. So in this study, a recommendation was given to be able to help maximize the awareness and concern of Muslim female students or Muslim consumers towards the halalness of the product.

One of the recommendations that can be given based on the results of this study is to design a multifunctional application/software that can be accessed via cellphones, where currently cellphones have begun to become the basic needs of most people. This application is specifically designed for women in Indonesia, which has the main function to make it easier for people to find beauty products that already have a halal certificate issued by BPJPH, by typing the product name manually, sorting products by product name or product brand, as well as by scanning the barcode of the beauty product you want to buy. By using the application, it indicates that users make halal as the main factor when they want to buy products, because the application only displays beauty products that have been certified halal BPJPH. The interface is user-friendly and designed with a beautiful and attractive appearance, so that users, especially female consumers in Indonesia, do not feel bored when using the application.

Based on the results of the distribution of this research questionnaire, it can also be seen that University X's students are very concerned about product quality, namely always paying attention to the content/composition of the product and paying attention to the dosage form of the product. So what can be implemented in this application design is to add detailed information about the content of the product and information about the dosage form of the product. As a forum to educate the public, in the content information section, highlights are also given on ingredients that need to be observed at the critical point of their purity, which when the user taps the writing of the material will be directed to an article containing detailed information about the material.

Based on the results of this study, it can be seen that the price of the product can also influence the purchase decision of halal beauty products. So what can be implemented in this application design is to attach the selling price that has been set by the related product company, in order to make it easier for users to find the price of the product they want to buy.

The design of this application will be even better if it is equipped with a feature that contains information about halal labels and the stages that a product goes through during the halal certification testing process, in order to increase user confidence in halal certification testing by BPJPH and stakeholders and add user insights regarding the importance of implementing "halal" in the entire supply chain process a product, in particular a beauty product.

CONCLUSION

Based on the results of the PLS-SEM path coefficient test, all independent variables in this study, namely product quality, halal label, and product price, each have a significant and positive effect on purchasing decisions. Based on these results, product quality has a greater influence than halal. This shows that the halal factor is not the main factor that female students pay attention to when buying halal beauty products. To find out more about the awareness and concern of female students towards halalness, a further evaluation was carried out by conducting a descriptive analysis on each halal label item to group the total respondent's answer score on each halal label item in this study based on the category.

Based on the results of the descriptive analysis, the level of awareness and concern of female students for halalness is high, which is 62.5% of the eight question items on the halal label variable are in the range of positive categories. However, the placement of halal factors as a priority when buying beauty products has not been applied by most students of University X. Even though it is important to apply it as a form of our concern and piety to God's command, by placing halal as the main thing before buying a product. Therefore, efforts need to be made to be able to maximize the awareness and concern of Muslim consumers or Muslim students towards halal.

REFERENCES

- Anggraeni, D. P., Kumadji, S., & Sunarti. (2016). Pengaruh Kualitas Produk Terhadap Kepuasan dan Loyalitas Pelanggan (Survei pada Pelanggan Nasi Rawon di Rumah Makan Sakinah Kota Pasuruan). Jurnal Administrasi Bisnis (JAB) 37(1), 171-177.
- Cenfetelli, R. T., & Bassellier, G. (2009). Interpretation of Formative Measurement in Information System Research. *MIS Quarterly 33(4)*, 689-707.
- Freeze, R. D., & Raschke, R. L. (2007). An Assessment of Formative and Reflective Constructs in IS Research. Proceedings of the Fifteenth European Conference on Information Systems (ECIS) 2007, 1481-1492.
- Hair, J. F., Hult, G. T., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial Least Square Structural Equation Modeling (PLS-SEM) Using R. Switzerland: Springer Cham.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report The Results of PLS-SEM. *European Business Review 31(1)*, 2-24.
- Hashim, A. J., & Musa, R. (2014). Factors Influencing Attitude Towards Halal Cosmetic Among Young Adults Urban Muslim Women: A Focus Group Analysis. *Procedia - Social and Behavioral Sciences*, 129-134.
- Hashim, P., & Mat Hashim, D. (2013). A Review of Cosmetic and Personal Care Products: Halal Perspective and Detection of Ingredient. *Pertanika J. Sci. & Technol.* 21(2), 281-292.
- Sarjana, B., Meitriana, M. A., & Suwendra, I. W. (2018). Analisis Faktor-faktor yang Mempengaruhi Tingkat Harga Perumahan di Kabupaten Buleleng. *Jurnal Pendidikan Ekonomi Undiksha 10*(2), 356-364.
- Zuhdi, Suharjo, B., & Sumarno. (2016). Perbandingan Pendugaan Parameter Koefisien Struktural Model Melalui SEM dan PLS-SEM. *JMA 15(2)*, 11-22.