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The Journal of ARSYM (JARSYM) is a refereed bi-annual journal committed to publish undergraduate research papers of the Faculty of Business Studies and Finance, Wayamba University of Sri Lanka. The JARSYM publishes theoretical and empirical papers spanning all the major research fields in business studies and finance. The aim of the JARSYM is to facilitate and encourage undergraduates by providing a platform to impart and share knowledge in the form of high quality and unique research papers.

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- Priority is given for novelty, originality, and to the extent of contribution that would make to the particular field.

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- E-commerce & business communication
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## What Prevent Purchasing Green Cosmetic Products: A Study in Sri Lanka

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#### **ABSTRACT**

In recent decades, customers have begun to alter their purchasing habits toward healthier products as they become more aware of the negative health impacts of synthetic chemicals. As a result, the way people look for more natural beauty products are changing. The global demand for green products is increasing year after year, including green cosmetics, which have become an unavoidable trend. However, the market for green cosmetics in some Asian countries like Sri Lanka appears to be trailing behind other Asian countries in terms of green cosmetics market recognition, profitability, and sales generation. Due to the perception that pale skin is the perfect approximation of beauty, skin whitening products are a prominent focus in the Asian skincare business. Expensiveness, less availability, risk, and resistance to adapting to new herbal cosmetic innovations create significant resistance among consumers to green cosmetic products.

Using the Innovation Resistance Theory (IRT), this study attempts to determine the effects of barriers to green cosmetics products purchases using 387 people in Western Province, Sri Lanka. Questionnaires were used in the study, which were then analyzed using Confirmatory Factor Analysis with Smart PLS 3.0 software. The findings showed that image, value, and tradition barriers all have a considerable impact on green cosmetic product purchases, except for risk and usage barriers, which have no significant impact. Among these barriers, the tradition barrier had the greatest impact on purchase intention. These findings could help green cosmetics SMEs in Sri Lanka to develop business strategies by focusing on the indicator elements. Also, scholars, cosmetic manufacturers, and retailers will be benefited from the study's conclusions. This study's industry was restricted to green cosmetics. Future researchers can widen the study beyond green cosmetics and will be able to explore additional characteristics besides barriers that influence green cosmetics purchasing intention.

**Keywords: Barriers, Green Cosmetics, Innovation Resistance Theory, Purchase Intention** 

#### 1. INTRODUCTION

#### 1.1 Background

Nowadays, the cosmetics market is vastly different from the industries; it became incredibly competitive and global, where quality, efficiency, and safety are all highly important (Amberg & Fogarassy, 2019). Consumers are more concerned about product effectiveness and ingredients than price as their

earnings rise. As a result, rather than undercutting prices, retailers are emphasizing product quality as superior to that of competitors. The use of three simple words in marketing can help to win in the battle for product superiority: natural, organic, or green (commonthreadco.com, 2021). The cosmetics industry attracts the greatest number of organic consumers. However, the terms "organic skincare" and "green cosmetics" are more than just buzz words. The word "green" has become synonymous with "clean" or "healthy" in modern marketing. When a customer sees the term "green cosmetics," they will make eco-friendly assumptions about the product or company immediately. Simply green cosmetics are natural cosmetics, basically made up of plant and fruit extracts and concentrates. According to Amberg & Fogarassy (2019) green or natural cosmetics are those that are made entirely of natural ingredients and do not contain any chemicals, coloring agents, or other non-natural ingredients; that also supported by the definition of (Lin et al., 2018). www.acmehardesty.com stated that green cosmetics, also known as bio cosmetics, sustainable cosmetics, or eco-friendly makeup which are made primarily of non-toxic, natural ingredients.

Natural cosmetics market size analysis report of 2019 said that more than ever, people are eating green, driving green cars, using green energy, wearing green clothing, and naturally changing to green cosmetics. Increasing knowledge of natural products and their characteristics has contributed to an upward trend in global demand for green cosmetics. In 2019, the global market size for natural cosmetics was estimated at USD 10.84 billion and is forecast to register a (CAGR) of 5.0% from 2020 to 2027 stated by the Natural Skin Care Products Market Size, Share & Trends Analysis report of 2020. Natural Cosmetics Market Size Analysis Report of 2019 showed that Asia Pacific has emerged as a rising industry for natural beauty products due to the rise in knowledge and population of working millennials and is projected to register a CAGR of 4.42% during the forecast period of 2019 to 2025. The Asia Pacific region's market value has risen to more than US\$ 70 billion.

#### 1.2 Research Problem

Today's focus on health isn't limited to what people put into their bodies but also what they apply to their skin. As a result, the way people look for more natural beauty products is changing. And what "natural" means to one buyer might not mean the same thing to another. In 2013, products featuring natural claims represented 2.1% of the U.S. personal care market (representing sales of \$230 million) and gained 3.1% share in 2017, showing that there is very low growth (1%) of sales in the natural cosmetics market in the US. Comparatively, beauty has been slower to go natural but currently makes up 1.4% of the natural products market (The future of beauty: Nielsen report, 2018). Thao-Mi Bui's (2018) report on economicstudents.com discussed the global natural and organic personal care market and it was accounted for 2.49% of global personal care in 2016 and expected to grow to 3.35% by 2024; that is 0.86% growth in eight years. Since there is a considerable lag in sales of the natural cosmetics industry, there must be some resistance among consumers that inhibit them from purchasing.

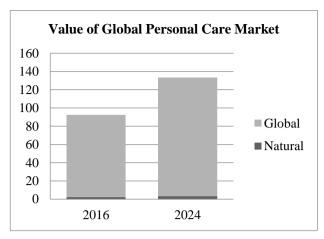


Figure 1: U.S. Sales Growth of National Beauty & Personal Care Products Source: The Future of Beauty: Nielsen Report (2018)

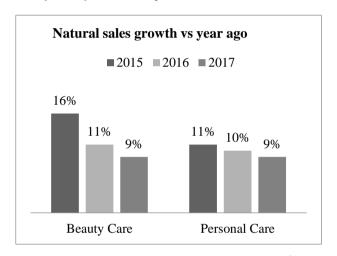


Figure 2: Value of Global Personal Care Market (US \$ billions)

Source: Euro Monitor, PR News, Persistence Market Research (2018)

Bhawna (2020) stated that Eco-friendly cosmetics contribute less than 15% to the total market value of the global cosmetic industry. Amberg & Fogarassy (2019) also stated that green cosmetics are often more expensive, which may result in fewer consumers being able to buy them. According to "The future of beauty" Nielsen report (2018) cosmetics sales in traditional retail outlets have decreased by just over 1% in the year 2017; and observe a similar trend with natural cosmetics, at least those that claim to be natural. Sales of those items have dropped 1.2 % year over year, lagging the category.

In comparison to other Asian countries Sri Lanka seems to be lagging concerning recognition, profitability, and sales generation of the cosmetics market. According to Pathmaperuma & Fernando (2018), due to the perception that pale skin is the perfect approximation of beauty, skin whitening products are a prominent focus in the Asian skincare business. A considerable part of consumers is also captivated by the anti-aging effects inherent in these products, as seen by their high purchase orientation and usage of skin whiteners.

As a result, Asian consumers choose to buy chemical-based skincare products over green skincare products.

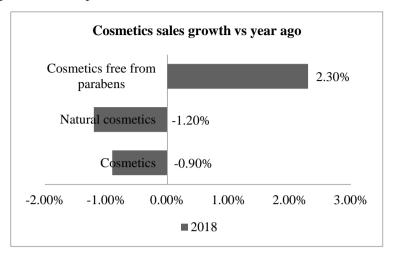


Figure 3: Consumers Flocking to Beauty Products with Simpler Ingredients Source: The Future of Beauty: Nielsen Report (2018)

## 1.3 Research Objectives

The main objective of this research is to analyze the consumers' barrier factors in purchasing green cosmetics products in Sri Lanka.

- 1. to investigate whether the value barrier significantly inhibits the consumers' green cosmetic purchase intention
- 2. to investigate whether the usage barrier significantly inhibits the consumers' green cosmetic purchase intention
- 3. to investigate whether the risk barrier significantly inhibits the consumers' green cosmetic purchase intention
- 4. to investigate whether the tradition barrier significantly inhibits the consumers' green cosmetic purchase intention
- 5. to investigate whether the image barrier significantly inhibits the consumers' green cosmetic purchase intention

#### 1.4 Significance of the Study

Green strategy has emerged as a vital component in ensuring the long-term sustainability of businesses. In modern manufacturing, green companies have become increasingly essential. However, few companies are capable of implementing green strategies in their organization. Overall, identifying customer resistance to buying green cosmetics products in terms of use, value, risk, tradition, and image barrier factors is a major necessity in order to predict various consumer needs so that companies can adjust their strategies accordingly by designing innovative approaches to meet those needs. It's also critical to recognize consumer doubts and misconceptions and to suggest key areas where information and understanding should be imparted to build an effective green consumer mindset that contributes to the country's long-term development. Hence this research would be more beneficial for local natural cosmetics SMEs as well

#### 2. LITERATURE REVIEW

#### 2.1 Theoretical Framework

A barrier is a postulated mechanism that prevents investments in technologies that are both energy efficient and cost-effective (Joshi, et al., 2019). Barriers or client reluctance to any new product, according to Ram & Sheth (1989), can be both functional and psychological. Innovation Resistance Theory is a popular theory that hypothesizes numerous barriers that constitute consumer resistance (Kaur, et al., 2020) (Shafira & Mayangsari, 2020) (Kushwah et al., 2019) (Tandon et al., 2020). There are three functional barriers: usage, risk, and value, as well as two psychological barriers: image and tradition according to Ram & Seth, (1989) that also latterly proved by several researchers in the areas of green products consumption.

## 2.1.1 Value as a barrier to purchasing intention

According to Ram and Sheth (1989), the value barrier relates to the performance of innovation as well as its monetary value; if the innovation does not reach expected performance-to-price relative to alternatives, consumers will not be motivated to change their purchasing habits. Yadav & Pathak (2016), on the other hand, exclusively defined value barriers in monetary terms. The researcher conducts the study by defining value barriers as monetary and nonmonetary costs (time and effort) that prevent buyers from purchasing. The increased cost of green products may prevent people from purchasing them (Niedermeier, et al., 2021); this is further confirmed by Basha & Lal (2019) and Tandon, et al., (2021). Given the prevalent financial constraints, customers in developing nations tend to see conventional items as more inexpensive than green ones, according to Phan, et al., (2017). Furthermore, due to limited product availability, individuals must visit specialized merchants to purchase ecologically friendly products. Even when such products are offered at specific outlets, poor and unappealing point-of-purchase presentation and display, force buyers to spend additional time finding them. As a result, customers think of green purchases as time-consuming and demanding extra effort (Phan, et al., 2017).

**H1:** Value barrier significantly inhibits the consumers' green cosmetic purchase intention

### 2.1.2 Risk as a barrier of purchasing intention

The risk barrier is described as the consumer's perception of innovation having risk as compared to the alternative (Kaur, et al., 2020). Ram and Sheth have identified four types of risks: physical, economic, functional, and social (1989). Furthermore, according to Kushwah et al., (2019), eco-friendly items such as organic food have a poor acceptance rate due to the financial risk and the trust issue that comes with it. As a result, it's possible that the greater the level of uncertainty about a new green product, the greater the perceived risk, which acts as a barrier. Consumers' skepticism of the certification system and the validity of available organic content can affect consumers' buying behavior, according to Tandon et al., (2021).

**H2:** Risk barrier significantly inhibits the consumers' green cosmetic purchase intention

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#### 2.1.3 Usage as a barrier to purchasing intention

The perception of changes required to adapt to an invention is referred to as the usage barrier (Mani & Chouk, 2018). It is one of the most significant barriers to consumer adoption of innovation, and it arises when consumers believe that adopting an innovation will change their status quo (when a product is incompatible with the consumer's previous experiences, workflow, and habits, as well as acceptance requirements) (Ram &Sheth, 1989).Limited variety, availability, low visibility in the store, insufficient information, and convenience are all factors that influence purchase intentions (Kushwah et al., 2019) (Shafira & Mayangsari, 2020). Consumers are sometimes hesitant to buy a green product or, even worse, because they are unaware that alternative green products exist. A lack of relevant information might lead to a lack of desire to engage in sustainable consumption (Niedermeier, et al., 2021).

**H3:** usage barrier significantly inhibits the consumers' green cosmetic purchase intention

#### 2.1.4 Image as a barrier to purchasing intention

The image barrier is described as a consumer's perception of how difficult or easy it is to adapt to new technology (Mani & Chouk, 2018). When customers compare a new product with an existing line of items, image barriers will appear (Ram &Sheth, 1989). Consumers may acquire skepticism towards eco-friendly items as a result of a lack of trust in green products, creating image barriers (Kushwah et al., 2019). According to Torres-Ruiz et al., (2018), some consumers are unable to distinguish between non-organic and organic personal care products. According to Misra & Singh (2016), people may be skeptical or even suspicious of the quality of organic personal care products in the market.

**H4:** image barrier significantly inhibits the consumers' green cosmetic purchase intention

### 2.1.5 Tradition as a barrier to purchasing intention

The tradition barrier refers to a consumer's belief that adopting an innovation will disrupt their habits and lifestyle when compared to using existing alternatives (Mani & Chouk, 2018). It has evolved as a result of changes related to the adoption of new products, which have an impact on current and established social standards as well as consumer values (Ram &Sheth, 1989). Since the tradition barrier is a subset of a psychological barrier, consumers' existing thinking systems would collide with the acceptance of any new product (Sadiq, et al., 2021). Consumers exhibit tradition barriers due to shorter shelf life, sensory cues (consumers may be used to buying products based on sensory experiences; smell, taste, appearance, and odor as part of their ritual), habit, satisfaction with the conventional product, and lack of knowledge, according to Kushwah et al. (2019) and Shafira & Mayangsari, (2020).

**H5:** tradition barrier significantly inhibits the consumers' green cosmetic purchase intention

#### 2.3 Conceptualization of the research model

As shown in Figure 4, the framework model for this study is the innovation resistance theory, which was further extended by Kushwah et al., (2019). The

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following are the relationships between the variables: usage barriers, value barriers, risk barriers, tradition barriers, and image barriers can all influence green product purchase intentions.

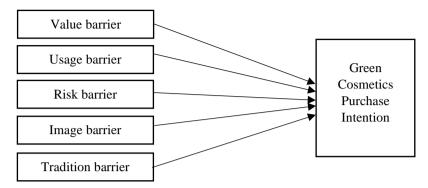


Figure 4: Conceptual framework

#### 3. METHODOLOGY

With the most recent available data, this study investigates the barriers that prevent customers in Sri Lanka from purchasing green cosmetics. It's a descriptive study using a quantitative methodology. The information was gathered using an online survey from 387 individuals covering whole three districts of Colombo, Gampaha, and Kaluthara in Western province, Sri Lanka. The proportionate stratified sample approach was primarily used in the relevant investigation. The data from the online questionnaire was analyzed using a confirmatory factor analysis model. Smart PLS version 3.0 has been chosen and the factor analysis outputs were utilized to construct the test of the data and hypotheses, as well as the analysis of the results. The findings are reported descriptively.

#### 4. RESULTS AND DISCUSION

## 4.1 Description of the Actual Sample

Respondents in the survey ranged in age from 21 to 34 years old, and that they all lived in western province, Sri Lanka. The distribution of major sociodemographic factors in the whole sample of 387 respondents is shown in Table Age, gender, district, education level, and income level are the five demographic characteristics used to explain the sample.

#### 4.2 Construct Validity

The construct validity of specific indicators can be determined by looking at the corresponding cross-loadings, with the loading of more than 0.50 on two or more elements being considered significant (Hair et al., 2011). However, previous studies have recommended that the factor loading cut-off value should be greater than 0.60. (Hair et al., 2011) (Chin et al., 1997). Table 2 shows that all indicators assessing a particular construct are greater than 0.60 on those constructions and less than 0.708 on the others, indicating construct validity. When the factor loadings for each item of the six unobserved variables were examined, it was discovered that the 30 observed variables had factor loadings

ranging from 0.612 to 0.858, with all values being positive and more than the recommended value.

**Table 1: Distribution of Respondent Demographics** 

Variable	Category	Frequency	Percent
Gender	Male	148	38.20
	Female	239	61.80
District	Colombo district	124	32.00
	Gampaha district	199	51.40
	Kaluthara district	64	16.50
Age group	Below 20	6	1.60
	21-34	375	96.90
	35 or above	6	1.60
Level of education	Ordinary level (O/L)	8	2.10
	Advanced Level (A/L)	60	15.50
	Diploma	48	12.40
	Degree	262	67.70
	Other	9	2.30
Income group	Below 25,000	170	43.90
	25,000 - 50,000	162	41.90
	Above 50,000	55	14.20

Source: Sample Survey (2021)

## 4.3 Convergent Validity

The degree to which multiple items measuring the same concept is known as convergent validity. Convergent validity can be assessed using factor loadings, composite reliability (CR), and average variance explained (AVE) (Hair et al., 2014). One indicator (UB 01) from the usage barrier, two indicators (VB 05, VB 06) from the value barrier, two indicators (RB 01, RB 08) from the risk barrier, one indicator (TB 01) from the tradition barrier, and one indicator (PI 02) from the purchase intention constructs were initially deleted in order to increase the value of composite reliability. This approach was carried out as recommended by Hair et al. (2011), who stated that items with loadings between 0.40 and 0.70 should be deleted from the measure if eliminating the observed variable will improve the reflection scales' composite reliability. As a result of the elimination, all factor loadings, CR, and AVE values are greater than the recommended cutoff values, indicating that the measurement model is convergent valid.

The importance of each construct's Composite Reliability and Cronbach's Alpha are examined to determine the reliability of each construct in the analysis. The composite reliability value must be greater than 0.70, the Cronbach Alpha value must be greater than 0.60, and the AVE value must be greater than 0.50 to achieve desired reliability efficacy (Wong, 2013). CR is determined from the factor loadings of the observed variable that are accounted for by each of the individual latent constructs, as given in table 4.3.2, all the composite reliability values obtained from the table are in the range of 0.811 to 0.904, exceeding the required value of 0.70, and these data are reliable (Hair et al., 2011).

Table 2: Loadings and Cross Loadings

Items	Image	Purchase	Risk	Tradition	Usage	Value
	J	intention			O	
IB_01	0.733	0.386	0.558	0.621	0.410	0.399
IB_02	0.791	0.490	0.489	0.634	0.450	0.415
IB_03	0.749	0.415	0.504	0.504	0.349	0.352
IB_04	0.826	0.508	0.613	0.588	0.517	0.559
IB_05	0.858	0.569	0.642	0.616	0.393	0.469
PI_01	0.688	0.695	0.502	0.663	0.339	0.349
PI_03	0.169	0.653	0.232	0.245	0.274	0.308
PI_04	0.253	0.749	0.352	0.291	0.292	0.411
PI_05	0.310	0.762	0.347	0.291	0.295	0.319
RB_02	0.535	0.412	0.779	0.568	0.438	0.542
RB_03	0.559	0.315	0.671	0.534	0.363	0.232
RB_04	0.694	0.498	0.823	0.671	0.411	0.490
RB_05	0.479	0.286	0.722	0.508	0.338	0.368
RB_06	0.591	0.513	0.854	0.629	0.519	0.587
RB_07	0.284	0.374	0.612	0.363	0.365	0.507
TB_02	0.640	0.434	0.542	0.808	0.502	0.381
TB_03	0.548	0.342	0.559	0.739	0.409	0.263
TB_04	0.613	0.548	0.627	0.831	0.456	0.492
TB_05	0.456	0.449	0.474	0.720	0.365	0.391
TB_06	0.553	0.491	0.588	0.812	0.459	0.431
TB_07	0.667	0.553	0.647	0.773	0.478	0.500
UB_02	0.416	0.402	0.366	0.427	0.791	0.426
UB_03	0.218	0.198	0.282	0.258	0.629	0.341
UB_04	0.469	0.322	0.479	0.450	0.815	0.510
UB_05	0.433	0.350	0.514	0.513	0.771	0.617
UB_06	0.394	0.279	0.375	0.424	0.681	0.321
VB_01	0.577	0.398	0.629	0.565	0.695	0.717
VB_02	0.460	0.307	0.485	0.421	0.417	0.733
VB_03	0.231	0.255	0.246	0.174	0.190	0.630
VB_04_R	0.309	0.414	0.394	0.338	0.373	0.793

Loadings that are above the recommended value of 0.50 are highlighted.

Source: Sample Survey (2021)

Table 3 shows that all the constructs' composite reliability values, Cronbach Alpha value, and the AVE value are greater than the desired measurement to achieve desired reliability efficacy.

Table 3: Construct Reliability and Validity

Construct	Cronbach's	rho_A	Composite	Average	
	Alpha		Reliability	Variance Extracted	
				(AVE)	
Image barrier	0.852	0.866	0.894	0.628	
Purchase intention	0.731	0.742	0.807	0.513	
Risk barrier	0.840	0.865	0.883	0.560	
Tradition barrier	0.873	0.882	0.904	0.611	
Usage barrier	0.795	0.819	0.858	0.549	
Value barrier	0.693	0.711	0.811	0.519	

Source: Sample Survey (2021)

## 4.4 Discriminant Validity

Discriminant validity is defined as "the degree to which items differentiate across constructs or measure distinct concepts," and it is measured and investigated by calculating and examining the associations among measures of potentially overlapping variables (Ramayah et al., 2011). As a result, discriminant validity can be determined by looking at the correlations between potential overlapping construct measurements. Each construct's AVE should be higher than the squares of the correlation between the constructs and all other constructs (Christmas, 2005). On the other hand, when the correlation between the constructs is less than the square root of the AVE, the hypothesized model is considered to have high discriminant validity (Fornell & Larcker, 1981).

Table 4 shows that all the square roots of AVE (off-diagonal values highlighted) are greater than the correlations in the relevant columns and rows, indicating that the measurement model has appropriate discriminant validity.

**Table 4: Discriminant Validity** 

Tubic 4: Disciminant vanuity						
Constructs	Image	Purchase intention	Risk	Tradition	Usage	Value
Image barrier	0.793					
Purchase intention	0.605	0.716				
Risk barrier	0.710	0.552	0.748			
Tradition barrier	0.746	0.613	0.738	0.781		
Usage barrier	0.535	0.433	0.551	0.571	0.741	
Value barrier	0.558	0.489	0.626	0.539	0.608	0.721

Source: sample survey (2021)

#### 4.5 Assessment of Inner Model

The structural model (inner model) is then evaluated to examine the hypothesized relationships between constructs in the barriers to green cosmetics purchasing intention model. To commence, the weights or path coefficients of the associations are examined, and their significance is determined using the t-value from the bootstrapping method. In order to determine the amount of variation in each construct given by the model, the coefficient of determination, R2, for the dependent variable is also evaluated. Furthermore, the effect size (F2) and predictive relevance (Q2) are investigated. Running 5000 bootstrapped samples from the original 387 cases allows the researcher to test the significance of the regression weights. In table 4.3.2, the R2 value is shown.

**Table 5: Coefficient of Determination** 

Endogenous variable	R Square	R Square Adjusted		
purchase intention	0.444	0.436		

Source: sample survey (2021)

As indicated in table 5, the R<sup>2</sup> value for an endogenous variable, affect, is 0.444, implying that independent variables (usage barrier, value barrier, risk barrier, tradition barrier, and image barrier) predict 44.4 % of the dependent variable (purchase intention). The postulated model, in general, accurately captures the amount of variance explained for the endogenous construct.

#### 4.6 Testing of the Hypotheses and Discussion

The path coefficients ( $\beta$ ) and their significance values are shown in Table 6. Some correlations (path coefficients) were determined to be statistically significant, while others were not. The graphical depiction of the measurement model with outer loadings and AVE values is shown in Figure 5. Those hypotheses appeared to be supported by the major pathways.

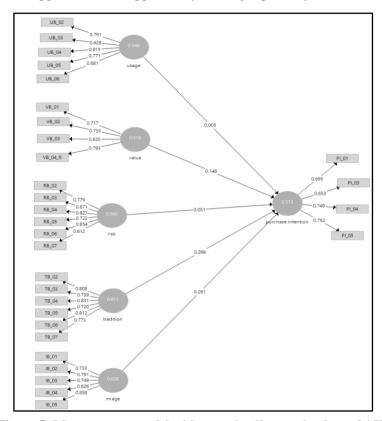


Figure 5: Measurement model with outer loadings and values of AVE

The researcher intends to measure how usage barriers, value barriers, risk barriers, tradition barriers, and image barriers influence people's decisions to buy green cosmetics who lived western province of Sri Lanka. Three hypothesized associations are supported (image barrier, tradition barrier, value barrier) by this research at p<0.05, whereas the risk and usage barriers on purchase intention are not statistically significant at p<0.05.

**Table 6: Hypotheses testing** 

	able of LLJ	Potzes				
hypotheses	OS/Beta	SM	SD	T	P	decision
image -> purchase intention	0.261	0.259	0.097	2.706	0.008	significant
risk -> purchase intention	0.051	0.057	0.075	0.677	0.497	not significant
tradition -> purchase intention	0.299	0.290	0.078	3.829	0.000	significant
usage -> purchase intention	0.005	0.012	0.075	0.069	0.947	not significant
value -> purchase intention	0.148	0.149	0.073	2.016	0.046	significant

\*\*p<0.01, \*p<0.05

Source: Sample Survey (2021)

**H1:** Value barrier significantly inhibits the consumers' green cosmetic purchase intention

H1 shows that the consumer's desire to buy green cosmetics is greatly hindered by the value barrier. According to Kotler (2009), pricing is the overall value of items and services. The value barrier has a favorable and considerable impact on consumption, according to Shafira & Mayangsari (2020). Similarly, Joshi et al. (2019); Niedermeier et al., (2021); identified cost perceptions as an important barrier. Price is the sum of all the values offered by customers to benefit from using the goods. The respondents believe that green products are more expensive and that the price gap between green and non-green cosmetics is one of the barriers to purchasing green cosmetics. Furthermore, when discounts or special offers are available, respondents are more likely to purchase. With a 2.016 t-value and 0.046 p-values, the H1 hypothesis is accepted. It suggests that the respondents believe that one of the greatest barriers to purchasing green cosmetics is the high price of green cosmetics.

**H2:** usage barrier significantly inhibits the consumers' green cosmetic purchase intention

The usage barrier has been recognized as a significant element that positively affects green cosmetics consumption by Shafira & Mayangsari (2020); Kaur et al., (2020). According to Nandi et al. (2016), the lack of variety or range of products, as well as their unavailability in the market, can be reasons why customers do not purchase green cosmetics. Furthermore, consumers' purchasing intentions were found to be negatively influenced by perceived personal difficulty (Niedermeier et al., 2021). With a 0.069 t-value and a 0.947 p-value, the H2 usage barrier hypothesis is rejected. It means that the consumer's desire to buy green cosmetics is not greatly inhibited by the usage barrier.

**H3:** tradition barrier significantly inhibits the consumers' green cosmetic purchase intention

Sadiq et al., (2021) study's findings revealed that the tradition barrier has the greatest inhibitory effect on consumers' buying inclinations. Shafira & Mayangsari (2020), as well as Niedermeier et al (2021) also supported to this statement. However, Kaur et al. (2020) discovered that the tradition barrier was unrelated to the user intentions. According to H3, the traditional barrier considerably reduces the desire to acquire green cosmetics. Satisfaction with traditional products is one of the signs of the tradition barrier (Torres-Ruiz et al., 2018). It signifies that the respondents agree to avoid using green cosmetics since they find that non-green cosmetics are sufficient. Similarly, tradition barriers include a lack of awareness about green cosmetics (Shafira & Mayangsari, 2020). This is in line with the findings of the study, which revealed that respondents have limited knowledge about green cosmetics. The statement was supported by H3 and accepted with a t-value of 3.829 and a p-value of 0.000. It means that tradition barriers are greatly inhibiting the purchase of green cosmetics.

**H4:** risk barrier significantly inhibits the consumers' green cosmetic purchase intention

According to the research, the H4 risk barrier does not affect customers' desire to purchase green cosmetics. Lack of trust among stakeholders, as well as doubts about the product's certification, might create a risk barrier (Khrisna & Balasubramanian, 2018). Perceived risk can serve as a barrier to buying green products (Niedermeier et al., 2021). However, Joshi et al. (2019) discovered that risk has a positive rather than a negative impact on purchase intention. Also, Shafira & Mayangsari (2020) found that perceived risk has a minimal impact on purchasing intention. Respondents in this study needed to be well-versed in the brand's reputation before purchasing a green product, as well as having sufficient knowledge of green cosmetics. However, the hypothesis is rejected by the study because it has a 0.677 t-value and a 0.497 p-value. It signifies that the respondents have trust in the stakeholders and have no concerns about the product's certification. The risk barriers, on the other hand, do not appear to be a significant deterrent to purchasing green cosmetics.

**H5:** image barrier significantly inhibits the consumers' green cosmetic purchase intention

Meanwhile, in the case of H5, the image barrier dramatically reduces consumers' desire to purchase green cosmetics. Customers may have image barriers as a result of their skepticism of green cosmetics (Misra, 2016). They have doubts about using green cosmetics and believe that there is no difference between green and non-green goods. Image barriers have the biggest inhibitory effect on consumers' purchasing intentions, according to Sadiq et al., (2021). While Kaur et al. (2020) discovered that the image barrier had no link to the user's intentions. However, the hypothesis is accepted in this study with a 2.706 t-value and a 0.008 p-value. The respondents had no idea what the differences and benefits are between green and non-green cosmetics. As a result, image barriers significantly reduce the desire to purchase green cosmetics.

#### 4.7 Implication of the Study

Green cosmetics marketers, retailers, and policymakers will benefit from the current study in three ways. The research findings show that the tradition barrier is the strongest in the current context, suggesting that consumers' perceived adoption of green cosmetics violates norms and beliefs when compared to conventional products. Furthermore, the tradition barrier arises as a result of a conflict between existing consumers' values and beliefs; as a result, it is recommended that marketers should design their promotional campaigns so that they emphasize the benefits of green cosmetic products over conventional alternatives or a change in habits that will benefit the environment and humanity.

Second, in the examined context, the image barrier has emerged as the second most significant barrier, indicating that consumers have associated green cosmetic items with previous green washing instances, leading to mistrust. As a result, marketers, policymakers, and merchants should develop marketing efforts that demonstrate the advantages of using green cosmetics. By enlisting the help of social influencers or opinion leaders, marketers can encourage

consumers to use green cosmetics instead of conventional cosmetics, as well as reduce skepticism about the use of green cosmetics in place of conventional cosmetics, potentially lowering consumer mistrust and image barriers. Third, the value barrier was identified as the research study's third most significant barrier. Although the price per unit of green cosmetics is not expensive, consumers' perceptions of the cost of green products are sometimes misled. Manufacturers may employ temporarily discounted prices (Hi-Low promotions) to stimulate trial uses of green cosmetics, in addition to the interventions outlined above, to lessen consumers' perceptions of green products as being excessively expensive. Consumers' lack of skepticism promotes in-store marketing tactics that encourage green alternative trial purchases.

#### 5 CONCLUSION

The findings of this study reveal that, according to the innovation resistance theory (IRT), not all the barriers have a major impact on purchasing green cosmetics. Usage barriers, value barriers, risk barriers, tradition barriers, and image barriers are the five barriers identified by IRT. Using the Confirmatory Factor Analysis technique, it was discovered that only three of the five barriers have a substantial impact on the purchase intention of green cosmetics. Green cosmetics buying intention is found to be influenced by the tradition barrier, value barrier, and image barrier. Meanwhile, the risk and usage barriers aren't having a major impact on purchase intention, which is preventing purchases. According to the findings, green cosmetics SMEs should pay close attention to indicators of inhibiting variables that have the greatest impact on consumers' willingness to buy green cosmetics. Similarly, overcoming the barriers that consumers see as barriers to purchasing their products results in a successful marketing strategy for the company to improve sales. The population size of this study has several limitations because it only looks at barriers and purchases intention characteristics. This study's industry was also restricted to green cosmetics. The researcher can widen the study beyond green cosmetics brands for future research. There's also a significant likelihood that researchers will be able to explore additional characteristics besides barriers that influence green cosmetics purchasing intention.

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