

BARRIER FACTORS THAT AFFECT CONSUMER PURCHASE INTENTION ON GREEN COSMETICS PRODUCT: APPLYING INNOVATION RESISTANCE THEORY

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Abstract: Currently, green cosmetics are increasingly favored by consumers because of numerous benefits. In fact, there are a number of factors that hinder consumers intention to buy green cosmetics such as skepticism about green cosmetics, and greenwashing of brands. Therefore, this study aims to examine the factors that might hinder Indonesian consumers' intention to buy green cosmetic products. This study are using the role of personal and social norms as moderating variables to measure the significant impact that can reduce barriers to green cosmetic consumption. A total of 300 responses were collected as part of the quantitative study by distributing online questionnaires, followed by data processing using PLS-SEM. The research results show that usage barriers, value barriers and image barriers have a significant effect on restraining consumers' intention to buy green cosmetic products. However, the traditional barrier is influential as a determinant of the intention to buy green cosmetics. Furthermore, personal and social norms have a significant influence in weakening the relationship between risk barrier and intention to purchase green cosmetics. The results of this study may provide useful information to companies or brands that produce eco-friendly cosmetics on consumer occurring barrier factors that may hinder the purchase of cosmetics. green in Indonesia, so that the company can determine the right strategy to target its consumers.

Keywords: green cosmetics product, purchase intention, personal norms, social norms, innovation resistance theory

Abstrak: Saat ini, konsumen cenderung memilih green cosmetics karena segudang manfaat yang ditawarkannya. Namun kenyataannya, saat ini terdapat faktor-faktor yang dapat menghambat niat konsumen untuk membeli produk green cosmetics, seperti sikap skeptis terhadap produk green cosmetics ataupun greenwashing. Oleh karena itu, tujuan dari penelitian ini adalah untuk mendeskripsikan faktor-faktor yang dapat menghambat niat konsumen untuk membeli green cosmetics di Indonesia. Penelitian ini menggunakan peran personal norms dan social norms sebagai variabel moderasi untuk mengukur pengaruh signifikan yang dapat mengurangi hambatan konsumsi green cosmetics. Pada studi kuantitatif, sebanyak 300 responden didapatkan melalui penyebaran kuesioner secara online dan selanjutnya dilakukan pengolahan data dengan metode PLS-SEM. Hasil penelitian menunjukkan bahwa usage, value dan image barriers berpengaruh signifikan terhadap niat beli konsumen terhadap produk green cosmetics. Selain itu, personal norms dan social norms berpengaruh signifikan dalam melemahkan hubungan antara risk barrier dan niat beli produk green cosmetics. Hasil penelitian ini dapat memberikan informasi yang berguna bagi perusahaan atau brand yang memproduksi green cosmetics tentang hambatan-hambatan yang dapat menghambat konsumen untuk melakukan pembelian green cosmetics di Indonesia, memungkinkan perusahaan untuk menetapkan strategi yang tepat untuk menjawab kebutuhan konsumen dan menarik perhatian masyarakat agar beralih ke kosmetik yang lebih ramah lingkungan.

Kata kunci: produk green cosmetics, niat beli, norma pribadi, norma sosial, innovation resistance theory

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INTRODUCTION

The cosmetic industry is a unit within the chemical, pharmaceutical and traditional medicine industry in Indonesia. In 2020, the growth of this industries experienced a resounding growth of 9.39 percent, even in the midst of conditions and pressure from the impact of the COVID-19 pandemic (Kemenperin Republik Indonesia, 2021). The issue of sustainability is a concern and interest of business people in the cosmetic industry and is more interesting to be discussed in a study of green consumer behavior. Along with development of innovation and technology, many companies are innovating and creating eco-friendly cosmetic products or green cosmetic products. The term “green” is now used interchangeably with the terms “organic” and “healthy” in modern marketing. Consumers naturally assume that a product or firm is environmentally beneficial when they see the term of “green cosmetics”, “green” and “sustainable” cosmetics. These terms are used in the cosmetics business that apply natural ingredients made from renewable resources. In addition, these products are often packaged in eco-conscious and recyclable packaging also prioritize environmental sustainability (Acme-Hardesty Company, 2021; Amberg and Fogarassy, 2019; Sadiq, Adil, and Paul, 2021).

The growth of consumer’s awareness towards environmental impacts, health trends towards a healthy lifestyle and supported by the current post-pandemic conditions, encouraging consumers tend to adopt natural and organic products as a safer alternatives, due to the possible side effects that will result from the use of conventional cosmetic products (Amit, 2021). Consumers are gladly buying organic cosmetics, even if those products are pricier than conventional cosmetics because they believe that their own well-being and the environment is a crucial aspect. Additionally, the purchase intention of consumers who are pro-environmental is usually influenced by personal responsibility, concern for the environment, knowledge possessed and other factors. Consequently, in the future it will influence consumer’s decision and behavior to buy environmentally friendly products (Amberg and Fogarassy, 2019; Pratiwi, 2020; Rausch and Kopplin, 2021).

However, there are several studies that shows there are some resistance among consumers towards green cosmetic products, including some consumers think

that green products have a higher price when compared to conventional products, consumers have a perception that currently green cosmetic products that available in the market are not having a good quality and consumers also have a lack of trust in products or brands that claim that their products are made from natural and natural ingredients (Cleancult, 2018; The Nielsen Company, 2018). At this time, there are several cosmetic brands claim that their products are environmentally friendly products or carry the concept of “green” and misleading the information of their products by providing an information that using deceptive and manipulative “sustainable” claims by companies to portray a product as environmentally friendly without really paying attention to the criteria for what a product is considered to be as environmentally friendly. This phenomenon can cause consumers to be confused about buying a product. So that this can be an obstacle for consumers to have the intention to buy green cosmetic products (Aggarwal and Kadyan, 2011; Chang and Chen, 2008). Based on several studies that have been conducted, it reflects that there are significant barrier factors among consumers, which causes them to be reluctant to have an interest and buy green cosmetic products. These barrier factors can be described and explained in an Innovation Resistance Theory (IRT) framework, that modified by Ram and Sheth (1989). This framework offers an insight into why consumers may be resistant to any new innovation. The researchers in the present study chose the innovation resistance theory because of its thoroughness, to give a better comprehend explanation about customers’ resistance towards innovation, especially towards green cosmetic products.

In reality, consumers encounter several barriers that will paralyze their willingness to adopt innovations, and these barriers may be categorized into two categories: functional barriers and psychological barriers. The functional barriers divided into three factors which are product usage patterns, product value and risks that associated with product usage. These barriers are more likely to arise if consumers perceive a significant changes from adopting the innovations. The psychological barriers arise from two factors which are tradition and image barrier. These barriers are more often created through conflict with consumer’s prior belief. From the explanation of Innovation Resistance Theory, the primary cause for consumer opposition towards a new idea is its lack of compatibility with their current workflows, practices, or habits. Innovations that necessitate alterations in the customer’s daily

routine will require a significant amount of time and effort before gaining consumers acceptance (Ram and Sheth, 1989).

Furthermore, the application of innovation resistance theory has been implemented in favor of the hospitality sector, organic food, mobile payment, and eco-friendly cosmetics (Talwar et al. 2020; Kushwah, Dhir and Sagar. 2019b; Kaur et al. 2020; Sadiq, Adil and Paul, 2021). But unfortunately, in the previous study of Sadiq, Adil and Paul (2021), it is still found that environmental concerns and health concerns only moderate several variables, so it is advisable to conduct similar research using social norms and personal norms to measure the extent to which these two variables can play a role in weakening the existing barriers that causing consumer resistance in green cosmetic product's purchase intention.

This study seek to contribute to the existing body of literature on environmental marketing in the following ways: 1) This research is expected to be able to provide a comprehensive information on consumer resistance and its impact on the green cosmetic products. 2) it also examines the varying levels of influence on different barriers in relation to green cosmetic's purchase intention among consumers in terms of personal norms and social norms, which is a differentiation of this study. 3) it offers a valuable implications for marketers and other stakeholders and assists them in understanding the factors that predict consumer resistance towards green cosmetic products in Indonesia. Additionally, they can utilize this research's findings to develop an effective strategies to alleviate consumers doubt in green cosmetic products.

METHODS

This study used non-probability sampling with the primary data obtained using online-based survey approach. Respondents were contacted via social media platforms such as Instagram and Twitter through Google Forms questionnaires, which were conducted in September 2022. Meanwhile, the secondary data utilized in this study consisted of literature from previous research on the same subject. The respondents must be (i) 18 years of age or older, as the idea of green consumerism is difficult for adolescents to comprehend (Sadiq and Adil, 2020), (ii) the respondents must be of Indonesian origin, also (iii) the respondents must possess knowledge regarding green cosmetic products but have

never made a purchase or used such products before. This is intended to observe the consumers' reluctance towards purchasing green cosmetic products.

Since this study was a quantitative study, thus Partial Least Square - Structural Equation Modeling (PLS-SEM) was utilized using SmartPLS4.0 Software to examine the hypotheses. The PLS-SEM analysis comprises of a structural model and a measurement model. Regarding the measurement model, the stages that need to be executed were starting with validity analysis, reliability analysis, model fit criteria and conducting a moderating effects on PLS-SEM.

The independent variables in this study were functional barriers, including usage barrier, value barrier and risk barrier. Moreover, psychological barriers including tradition barrier and image barrier were using as another independent variables in this study (Nandi et al. 2017; Torres-Ruiz, Vega-Zamora and Parras-Rosa, 2018; Kushwah, Dhir and Sagar, 2019a; Sadiq, Adil and Paul, 2021). Meanwhile this research also examines the influence of personal norms and social norms that play a role as moderating variables in assessing the notable impact that can alleviate barriers to the purchase of green cosmetic products (Hui-Wen et al. 2022; Munerah, Koay, and Thambiah, 2021). The dependent variable in this current study was purchase intention (Hsu, Chang and Yansritakul, 2017; Kaur et al. 2020; Sadiq, Adil and Paul, 2021). The research model is shown on Figure 1.

Innovation Resistance Theory is a theoretical framework that can give a better explanation about consumers resistance towards new innovations. This framework will examine the barriers that causing customer resistance to any new innovations. An innovation may create some changes and break up their day-to-day existence routines. Besides that, it may oppose their prior belief system. Consumer resistance may occurs, if a new innovation can leads to create a potential changes especially on their lifestyle and status (Ram and Sheth, 1989). Ram and Sheth classified barriers into two categories such as functional barriers and psychological barriers. The functional barriers are further categorized into value, risk and usage barrier. If consumers believe that embracing the innovation will result in big changes, then these barriers are more likely to appear. Meanwhile, the psychological barriers are categorized into tradition and image barrier. These obstacles are more frequently made by conflicts with customers' pre-existing views.

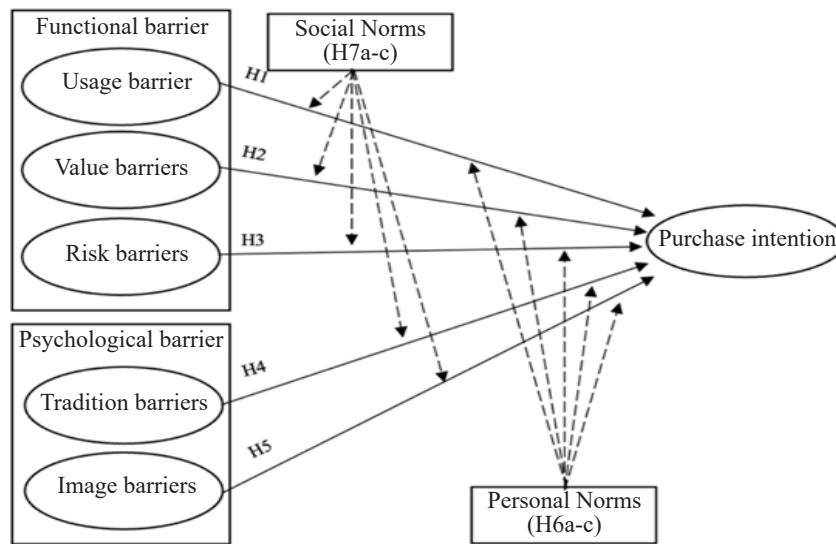


Figure 1. Research model

Usage barrier are defined as consumer perceptions of the changes required to adapting on a new innovations (Mani and Chouk, 2018). Therefore, Ram and Sheth (1989) states that this is the main obstacle that prevent consumers from adopting new innovations, and it will arise when consumers perceive that adopting new innovations can disrupt their current state. Prior research related to green cosmetics, highlighted that consumers have limited access to environmentally friendly cosmetic products. Besides that the purchase of eco-friendly products such as organic food, tends to lead to unsustainable, because consumers are more familiar with conventional products, thus causing resistance in adopting environmentally friendly products (Ghazali et al. 2017; Hsu, Chang and Yansritakul, 2017; Kushwah, Dhir, and Sagar, 2019a). Thus, the first hypothesis is derived as follows: **H1**: Usage barrier has a significant negative effect on consumers' green cosmetic purchase intention

Value barrier are characterized as consumer perceptions towards the effectiveness of an innovation in relation the price that they should pay when compared to other options (Mani and Chouk, 2018). These barriers are related to product performance as well as monetary value in relation to its successor (Ram and Sheth, 1989). Prior research has indicated that value barrier is among the most significant barriers, as it fails to motivate consumers to adopt new products or innovations (Kushwah, Dhir and Sagar, 2019a; Seth et al. 2020). Therefore, the authors argue that the value barrier on green cosmetic products will result in a low level of purchase. Thus, the second hypothesis is derived as follows: **H2**: Value barrier has a significant negative effect on consumers' green cosmetic purchase intention.

Risk barriers are defined as consumer perceptions of innovations that have risks when compared to alternatives (Mani and Chouk, 2018). In Chen and Kuo (2017) research, stated that the higher the level of unpredictability associated with a new innovation, the higher the perceived risk, which play a role as an obstacle. Furthermore, the adoption of a new product or innovation will be postponed until the level of risk or uncertainty associated with the product or innovation is diminished (Kaur et al. 2020). On the other hand, the existing literature shows that the risks associated with environmentally friendly products occur due to the use of false claims by producers, marketers and retailers on green products (Lin, Lobo, and Leckie, 2017; Zhang et al. 2018). Therefore, the authors argue that the risk barrier on the product. Green cosmetics will result in a low purchase rate. Thus, the third hypothesis is derived as follows: **H3**: Risk barrier has a significant negative effect on consumers' green cosmetic purchase intention.

Tradition barriers are defined as consumer perceptions that adopting a new innovation will change their habits and way of living compared to the use of existing alternative products (Mani & Chouk, 2018). This arises because of the changes that come with the adoption of new products, which will affect the existing social norms and consumer values (Ram and Sheth, 1989). Since the traditional barrier is part of the psychological barrier, the prevailing consumer belief system will contradict with the adoption of new product innovations (Laukkanen, 2016). Therefore, the author argues that the tradition barrier on green cosmetic products will result in a low level of purchase. Thus, the fourth

hypothesis is derived as follows: **H4**: Tradition barrier has a significant negative effect on consumers' green cosmetic purchase intention

Image barriers are defined as consumer perceptions of new innovations regarding the level of complexity or simplicity in adopting an innovation or product (Mani and Chouk, 2018). This occurs when consumers evaluate a new product with a product range (Ram and Sheth, 1989). In Misra and Singh (2016) research, it is believed that green cosmetic products encounter image barriers due to skepticism among consumers, such as uncertainties about claims regarding the quality of green products and their authenticity. Consumers who do not buy green cosmetic products are having a trust issues with these products, which leading to a negative image about the claims of green products (Kushwah, Dhir and Sagar, 2019a). Therefore, the authors argue that the image barrier on green cosmetic products will result in a low level of purchase. Thus, the fifth hypothesis is derived as follows: **H5**: Image barrier has a significant negative effect on consumers' green cosmetic purchase intention

The term personal norms are originates from the norm activation model developed by Schwartz (1977) to gain a deeper comprehension of individuals' pro-social behavior. In this study, the authors developed the personal norms to the research model in the context of consumer behavior, specifically in relation to the use of green cosmetic products. Personal norms are driven by internal motivation and personal principles, rather than being dictated by external regulations. As a result, they create a moral duty or accountability to either engage in or refrain from specific behaviors (Bouman, Steg and Dietz, 2021; Doran and Larsen, 2016). When individuals behave in accordance with their own moral standards, they will experience a sense of satisfaction in staying true to themselves. Conversely, failing to comply with these standards can result in feelings of remorse and a decrease in self-worth (Balaji et al. 2019). Roos and Hahn (2019) discovered that consumers' intentions to consume collaboratively are affected by their personal moral standards, which are influenced by both altruistic and biosphere value orientations (normative), as well as the potential for cost savings (economic motives). So in this study, the authors consider the moderating role of personal norms on the relationship between consumption barriers (usage, value, risk, tradition, and

image barriers) on consumers' purchase intentions of green cosmetic products in Indonesia. Thus, the five hypotheses of points a to e are derived as follows:

- H6a**: Personal norms can weaken the negative effect of usage barriers on purchase intentions of green cosmetic products.
- H6b**: Personal norms can weaken the negative effect of value barriers on the purchase intention of green cosmetic products.
- H6c**: Personal norms can weaken the negative effect of risk barriers on the purchase intention of green cosmetic products.
- H6d**: Personal norms can weaken the negative influence of tradition barriers on the purchase intention of green cosmetic products.
- H6e**: Personal norms can weaken the negative effect of the image barrier on the purchase intention of green cosmetic products.

Social norms are another form of norms that are discovered to elucidate a behavior that departs from self-interest (Doran and Larsen, 2016). Social norms are conceptually similar to subjective norms as suggested by the theory of planned behavior (Ajzen, 1991). Both theories propose that perceived social pressure to behave in a specific manner that has a significant impact in shaping intentions as well as actual behavior (Doran and Larsen, 2016). Furthermore, the authors consider the moderating role of social norms on the relationship between consumer barriers (usage, value, risk, tradition, and image barriers) on consumers' purchase intentions of green cosmetic products in Indonesia. Thus, the five hypotheses of points a to e are derived as follows:

- H7a**: Social norms can weaken the negative effect of usage barriers on purchase intentions of green cosmetic products.
- H7b**: Social norms can weaken the negative influence of value barriers on the purchase intention of green cosmetic products.
- H7c**: Social norms can weaken the negative effect of risk barriers on the purchase intention of green cosmetic products.
- H7d**: Social norms can weaken the negative influence of tradition barriers on the purchase intention of green cosmetic products.
- H7e**: Social norms can weaken the negative effect of the image barrier on the purchase intention of green cosmetic products.

RESULTS

Respondents Profile

The data reveals that 271 (90.3%) were female and 29 (9%) were male. Around 43.7% of the respondents hold a bachelor degree, 55.7% dominated by respondents that age between 18 to 25 years old, 58% of the respondents belong to a working class, 53.7% of the respondents dominated by Jabodetabek domicile. Furthermore, 34.3% were dominated by respondents that has an average monthly expenditure range between Rp1,000,000 – Rp2,500,000 and 50.7% dominated by respondents that has an average monthly expenditure for buying cosmetics between Rp250,000–Rp1,000,000.

Measurement Model Results

The results of the validity test using Factor Loading and Average Variance Extracted (AVE) shows that all items are valid. Based on the results of Cronbach's Alpha measurements also the Composite Reliability (CR) value in the reliability analysis, it was found that all indicators for each variable met the criteria. So it can be concluded that all the indicators that exist in each latent variable can be declared reliable. The results of the instrument test are summarized in Table 1.

Table 1. Results of the measurement model

Constructs & Indicators	Factor Loading	AVE	Cronbach's Alpha	Composite Reliability
Usage Barrier				
UB1: Generally, it is difficult to choose green cosmetic products to use	0.846	0.745	0.76	0.86
UB2: I feel that there is little variation or variety of green cosmetic products on the market	0.884			
UB3: I don't buy green cosmetic products because they are not available in cosmetic stores	0.858			
Value Barrier				
VB1: From my perspective, green cosmetics are more beneficial for health than conventional cosmetics (R*)	0.998	0.612	0.86	0.92
VB2: From my perspective, green cosmetics are devoid of pesticides or other chemicals (R*)	0.616			
VB3: I believe green cosmetics are made from natural ingredients (R*)	0.680			
Risk Barrier				
RB1: I'm worried that all green cosmetics that claim to be environmentally friendly are in fact not environmentally friendly cosmetics	0.893	0.776	0.79	0.87
RB2: I'm worried, that I will pay more to buy green cosmetic	0.890			
RB3: I am worried that the effectiveness of green cosmetic products is not as good as conventional cosmetic products	0.859			
Tradition Barrier				
TB1: I feel that conventional cosmetic products are enough for me	0.849	0.803	0.81	0.88
TB2: I find it difficult to distinguish the quality of one green cosmetic from another	0.920			
TB3: I feel that I am not used to using green cosmetic products at this time	0.917			
Image Barrier				
IB1: I have doubts about the green label on green cosmetics	0.930	0.873	0.87	0.92
IB2: I believe that the green cosmetics currently available in the market are not truly environmentally conscious.	0.933			
IB3: I have doubts about the content of green cosmetic products that are considered natural	0.941			
Personal Norms				
PN1: I get support from my friends and colleagues to buy green cosmetic products	0.918	0.849	0.78	0.86

Table 1. Results of the measurement model (continue)

Constructs & Indicators	Factor Loading	AVE	Cronbach's Alpha	Composite Reliability
PN2: My family members suggested that I buy green cosmetic products	0.932			
PN3: Family members prefer me to try green cosmetic products	0.915			
PN4: The positive opinion of my friends influenced me to intend to buy green cosmetic products	0.923			
Social Norms				
SN1: I care about what other people think of me, so it makes me want to try using green cosmetic products	0.914	0.795	0.87	0.90
SN2: I will feel guilty if I don't reduce the environmental damage	0.904			
SN3: It is important for cosmetic users in general to make environmentally friendly decisions when buying cosmetic products	0.915			
SN4: I feel I have an obligation to buy green cosmetic products instead of conventional cosmetic products	0.892			
SN5: My values or life principles, inspire me to buy green cosmetic products	0.829			
Purchase Intention				
PI1: I will consider buying green cosmetic products	0.893	0.844	0.82	0.88
PI2: I intend to buy green cosmetic products	0.937			
PI3: I will buy green cosmetic products as soon as I run out of cosmetic products that I am currently using	0.904			
PI4: I will recommend green cosmetic products to my friends	0.940			

Structural Model Results

In this study, there are five primary and ten secondary hypotheses, which all hypotheses are tested using the bootstrapping algorithm in SmartPLS 4.0. The hypotheses can be accepted if it meets the following criteria, which is the p value should smaller than 0.05 and the t-statistics value are greater than 1.645. The results of structural model analysis on this study are summarized in Table 2. Meanwhile, Figure 2 below describes show the results of testing the structural model, that are presented with the path coefficient of each hypotheses. This study also using moderating effects on SmartPLS 4.0 to test the moderating effect of personal norms and social norms on association between consumers barrier on green cosmetic's purchase intention. The results of moderation analysis on this study are summarized in Table 3.

The results of this study indicate that usage barrier, value barrier, and image barrier strongly have a significant negative effect on consumer's purchase intention of green cosmetic products. These results are consistent with Hwang and Chung (2019); Misra and Singh (2016); Kaur et al. (2020); Sadiq, Adil and Paul (2021); Sivathanu (2018); Torres-Ruiz, Vega-Zamora and Parras-Rosa (2018). The primary reason

for this result may be: (1) the challenges encountered by consumers in obtaining a trustworthy and high-quality information regarding green cosmetic products; (2) consumers are more acquainted with conventional products that already available in the market; (3) consumers assessing the value of green cosmetic products based on its ingredients and price, and notice some discrepancies when compared to other existing cosmetic products; and (4) the high level of consumer scepticism towards green products, as well as the deceptive practices by brands known as greenwashing, that leads to causing the low of consumer trust in green cosmetic products.

Meanwhile, risk barrier has a positive effect with green cosmetic purchase intention. This findings is consistent with Laukkanen (2016). The possible justification for such findings may be consumers in Indonesia have a high level of concern for health and the environment, thus making consumers have the perception that using green cosmetic products can provide positive benefits and not pose a risk to the body and also the surrounding environment also they are aware of the environmental impact generated by the use of conventional cosmetic products (Rana and Paul, 2019; Sadiq, Adil and Paul, 2021).

Moreover, the tradition barrier has a significant positive influence on the intention to buy green cosmetic products. This findings aligns with Kaur et al. (2020). The possible main reason of this findings are the tradition barrier will emerge when the consumers is already mature in their understanding of a product innovation and the behavior of consumers who are often using a conventional cosmetic product, then in

the future these consumers will switch to using green cosmetic products (Firmansyah, 2018; Kaur et al. 2020). Chen, Chang, and Hsiao (2022) revealed that low technology anxiety can make people more aware of existing technological developments and innovations, thus these people will have less possibility of rejecting an innovation that exists in a product.

Table 2. Results of structural model

Hypotheses	Path	β	t-statistics	p value	Result
H1	Usage Barrier \rightarrow Purchase Intention	-0.100	1.870	0.031	Accepted
H2	Value Barrier \rightarrow Purchase Intention	-0.106	1.800	0.036	Accepted
H3	Risk Barrier \rightarrow Purchase Intention	0.102	1.377	0.084	Not accepted
H4	Tradition Barrier \rightarrow Purchase Intention	0.100	1.797	0.036	Not accepted
H5	Image Barrier \rightarrow Purchase Intention	-0.168	2.120	0.017	Accepted

Table 3. Results of moderation analysis

Hypotheses	Path	β	t-statistics	p value	Moderation
Personal Norms					
H6a	Usage Barrier \rightarrow Purchase Intention	-0.048	0.564	0.286	No
H6b	Value Barrier \rightarrow Purchase Intention	0.038	0.411	0.341	No
H6c	Risk Barrier \rightarrow Purchase Intention	0.284	2.408	0.008	Yes
H6d	Tradition Barrier \rightarrow Purchase Intention	0.072	0.788	0.215	No
H6e	Image Barrier \rightarrow Purchase Intention	0.149	1.260	0.104	No
Social Norms					
H7a	Usage Barrier \rightarrow Purchase Intention	0.021	0.267	0.395	No
H7b	Value Barrier \rightarrow Purchase Intention	0.017	0.402	0.344	No
H7c	Risk Barrier \rightarrow Purchase Intention	0.163	1.701	0.045	Yes
H7d	Tradition Barrier \rightarrow Purchase Intention	-0.167	1.774	0.038	Yes
H7e	Image Barrier \rightarrow Purchase Intention	0.003	0.030	0.488	No

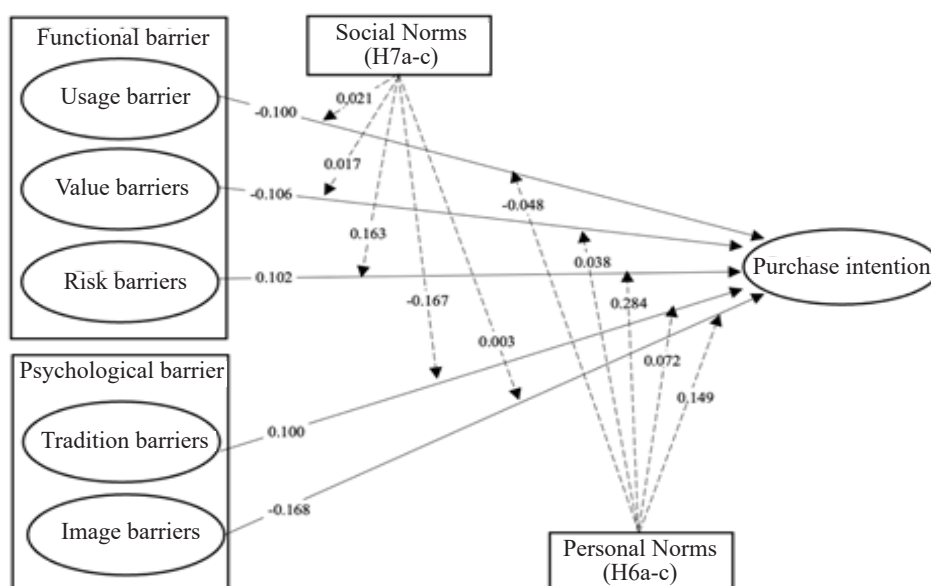


Figure 2. Structural model analysis results

Starting with the personal norms as a moderating role in reducing consumer resistance towards the adoption of green cosmetic, this research discovered that personal norms solely moderate the correlation between risk barrier and intention to purchase green cosmetic products. This discovery aligns with the findings of Abraham et al. (2022) which shows that personal norms have a significant influence in influencing individual intentions to buy environmentally friendly products. The higher of consumer's personal norms for pro-environmental behavior, the higher chance of their intention or behavior related to buying a green cosmetic products (Joanes 2019). Thus consumers who have a high levels of personal norms can make these consumers have a low level of resistance to the adoption of innovations in green cosmetic products.

Likewise, this research indicates that social norms greatly influence the connection between intention to buy green cosmetic products and risk barrier. The possible explanation for the result is by exploiting the power of social norms, it can involve how other people act so that they will look more prominent when compared to others. The existence of social norms allows consumers to have a pro-environmental attitude, so that this can make consumers more aware of the risks posed by the use of conventional cosmetic products. So that it will reduce the possibility of consumers to reject an innovation in green cosmetic products (Anderson et al. 2017).

This study finding also reveals that social norms play a crucial role in magnifying the adverse influence in strengthening the negative influence of tradition barriers on consumers' green cosmetic purchase intentions. The possibly strong reason that can support this hypothesis is that communication of social norms is found to be the most effective for directing one's decisions. In addition, the role of reference groups is often assumed to have an effective role in influencing a person's behavior (Stok et al. 2012; Nolan et al. 2008; Cialdini et al. 2006). The existence of perceived social disapproval can be a potential barrier for consumers to adopt pro-environmental behavior (Gifford, 2011). So that if there is disapproval of a group of individuals towards the concept of green cosmetic products that are claimed by a brand, it can be a potential barrier for consumers to have the intention to purchase green cosmetic products

and prefer to use conventional cosmetic products that are commonly used. This disapproval can be caused by consumers' lack of trust in green cosmetic products, especially in the context of greenwashing.

Greenwashing itself has the capacity to not just undermine consumer trust on a brand reputation of a product but also has the possibility to diminish consumer purchase intentions (Fernandes, Segev and Leopold, 2020; Utami et al. 2022). To overcome this situation, beauty companies could use the green action communication to enhance their brand image and stimulate consumers' desire to make a purchase. This can offer a valuable guidance for the company to initiate the development and implementation of an effective strategy, ultimately increasing consumers' interest to switch from conventional cosmetic to green cosmetic products (Kurnia et al. 2022).

Managerial Implication

Based on the study results, the things that can be done to overcome consumer resistance that occurs in green cosmetics' purchase intention are (1) Educate and provide an information to the public by creating informative and attractive marketing messages by providing an understanding of the advantages of cosmetic products environmentally friendly, spreading environmental and health sustainability issues, create a program that can invite the public to carry out activities that can support environmental sustainability; (2) creating value for green cosmetic products according to the price offered, so that consumers will be willingly to pay a higher price to experience the effectiveness of these green cosmetic products; (3) creating a products using an ingredients that have been used by Indonesian people in making cosmetic products, it aims to highlight the characteristics of Indonesian culture in the creation of green cosmetic products; (4) establish relationships with consumers through the brand community to get direct feedback from consumers and the community, and to increase brand awareness also brand loyalty of green cosmetics brands. Besides that, companies can use the green action communication to enhance their brand image and stimulate consumers' purchase desire. So in the future, it might be the right strategy for company to overcome the resistance that occurs on consumers towards green cosmetics product.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The current research explored the cause of consumer resistance to buying green cosmetic products by applying the theoretical framework of innovation resistance theory. This framework was further expanded by examining it with the two moderators: personal norms and social norms. To our knowledge, this is one of the few studies that focuses on studying consumer resistance to green cosmetic products in Indonesia using the theory of resistance to innovation. Similarly, personal norms and social norms, which are the key moderators, are being used for the first time in the theoretical framework of resistance to innovation. The findings show that usage, value, and image barriers are significantly contribute to consumer resistance towards purchasing of green cosmetic products. On the other hand, the tradition barrier plays a significant role in encouraging consumers to purchase green beauty products. Additionally, this study suggests that consumers who strongly adhere to personal norms and social norms are more likely to adopt green cosmetic products regardless of the barriers they may face.

Recommendations

Future researchers have the potential to surpass these constraints in the following manners: first, conduct a research with similar models and variables on different research objects. This is done bearing in mind that the Innovation Resistance Theory Framework can be applied to various latest innovations to see what factors can hinder consumers from adopting a new innovation. Second, conduct a research that can show comparisons between generations in Indonesian society. So that the research results are more detailed and can provide an overview and suggestions that are right on target for marketing management. Lastly, future researchers can use probability-based sampling techniques in collecting respondents, in order to minimize bias of data.

REFERENCES

- Abraham TC, Nasa F, Mursid HPP, Hotmaduma AB and Fajar H. 2022. Peran Green trust dan theory planned behavior pada konsumerisme produk hijau. *Indonesian Business Review* 5(1):42–57. <https://doi.org/10.21632/ibr.5.1.42-57>
- Acme-Hardesty Company. 2021. Green cosmetics: the push for sustainable beauty. <https://www.acme-hardesty.com/green-cosmetics-sustainable-beauty/>. [26 December 2021].
- Aggarwal P, Kadyan A. 2011. Greenwashing: the darker side of CSR. *Indian Journal of Applied Research* 4(3):61–66. <https://doi.org/10.15373/2249555X/MAR2014/20>
- Ajzen I. 1991. The Theory of planned behavior. in: organizational behavior and human decision processes. *Organizational Behavior and Human Decision Processes* 50(2): 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Amberg N, Fogarassy C. 2019. Green consumer behavior in the cosmetics market. *Resources* 8(3)1–19. <https://doi.org/10.3390/resources8030137>
- Amit Kumar G. 2021. Framing a model for green buying behavior of indian consumers: from the lenses of the theory of planned behavior. *Journal of Cleaner Production* 295. <https://doi.org/10.1016/j.jclepro.2021.126487>
- Anderson K, Song K, Lee SH, Krupka E, Lee H. and Park M. 2017. Longitudinal analysis of normative energy use feedback on dormitory occupants. *Applied Energy* 189:623–639. <https://doi.org/10.1016/j.apenergy.2016.12.086>
- Balaji MS, Jiang Y, Jha S. 2019. Green hotel adoption: a personal choice or social pressure? *International Journal of Contemporary Hospitality Management* 31(8):3287–3305. <https://doi.org/10.1108/IJCHM-09-2018-0742>
- Bouman T, Steg L, Dietz T. 2021. Insights from early COVID-19 Responses about Promoting Sustainable Action. *Nature Sustainability* 4(3):194–200. <https://doi.org/10.1038/s41893-020-00626-x>
- Chang HH, Chen SW. 2008. The impact of online store environment cues on purchase intention: trust and perceived risk as a mediator. *Online Information Review* 32(6):818–841. <https://doi.org/10.1108/14684520810923953>
- Chen CC, Chang CH, Hsiao KL. 2022. Exploring the factors of using mobile ticketing applications: perspectives from innovation resistance theory. *Journal of Retailing and Consumer Services* 67. <https://doi.org/10.1016/j.jretconser.2022.102974>
- Chen PT, Kuo SC. 2017. Innovation resistance and strategic implications of enterprise social media websites in taiwan through knowledge sharing perspective. *Technological Forecasting and Social Change* 118:55–69.

- Cialdini RB, Demaine LJ, Sagarin BJ, Barrett DW, Rhoads K and Winter PL. 2006. Managing social norms for persuasive impact. *Social Influence* 1(1):3–15. <https://doi.org/10.1080/15534510500181459>
- Cleancult. 2018. Five reasons why millennials are done with “green” brands. <https://www.cleancult.com/blog/five-reasons-why-millennials-are-actually-done-with-green-brands> [27 December 2021].
- Doran R, Larsen S. 2016. The relative importance of social and personal norms in explaining intentions to choose eco-friendly travel options. *International Journal of Tourism Research* 18(2):159–166. <https://doi.org/10.1002/jtr.2042>
- Fernandes J, Segev S, Leopold JK. 2020. When consumers learn to spot deception in advertising: testing a literacy intervention to combat greenwashing. *International Journal of Advertising* 39(7):1115–1149.
- Firmansyah A. 2018. *Perilaku Konsumen (Sikap dan Pemasaran)*. Cetakan Pertama. Ngaglik, Sleman: Deepublish Publisher .
- Ghazali E, Soon PC, Mutum, DS and Nguyen, B. 2017. Health and cosmetics: investigating consumers’ values for buying organic personal care products. *Journal of Retailing and Consumer Services* 39:154–163. <https://doi.org/10.1016/j.jretconser.2017.08.002>
- Gifford R. 2011. The dragons of inaction: psychological barriers that limit climate change mitigation and adaptation. *American Psychologist* 66(4):290–302. <https://doi.org/10.1037/a0023566>
- Hsu CL, Chang CY, Yansritakul C. 2017. Exploring purchase intention of green skincare products using the theory of planned behavior: testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services* 34:145–152. <https://doi.org/10.1016/j.jretconser.2016.10.006>
- Hui-Wen Chuah S, Sujanto RY, Sulistiawan J and Cheng-Xi Aw E. 2022. What is holding customers back? assessing the moderating roles of personal and social norms on csr’s routes to airbnb repurchase intention in the COVID-19 era. *Journal of Hospitality and Tourism Management* 50:67–82. <https://doi.org/10.1016/j.jhtm.2021.12.007>
- Hwang J, Chung JE. 2019. What drives consumers to certain retailers for organic food purchase: the role of fit for consumers’ retail store preference. *Journal of Retailing and Consumer Services* 47:293–306. <https://doi.org/10.1016/j.jretconser.2018.12.005>
- Joanes T. 2019. Personal norms in a globalized world: norm-activation processes and reduced clothing consumption. *Journal of Cleaner Production* 212:941–949. <https://doi.org/10.1016/j.jclepro.2018.11.191>
- Kaur P, Dhir A, Singh N, Sahu G, Almotairi M. 2020. An innovation resistance theory perspective on mobile payment solutions. *Journal of Retailing and Consumer Services* 55. <https://doi.org/10.1016/j.jretconser.2020.102059>
- Kemenperin Republik Indonesia. 2021. Membangun Kemandirian Industri Farmasi Nasional Buku Analisis Pembangunan Industri-Edisi II 2021. <https://www.kemenperin.go.id/analisis>. [20 October 2022].
- Kurnia PR, Narda L, Sitio RP. 2022. Does green marketing communication affect brand image and customer’s purchase desire?. *Jurnal Aplikasi Bisnis dan Manajemen* 8(3): 697–710. <https://doi.org/10.17358/jabm.8.3.697>
- Kushwah S, Dhir A, Sagar M. 2019a. Ethical consumption intentions and choice behavior towards organic food. moderation role of buying and environmental concerns. *Journal of Cleaner Production* 236. <https://doi.org/10.1016/j.jclepro.2019.06.350>
- Kushwah S, Dhir A, Sagar M. 2019b. Understanding consumer resistance to the consumption of organic food. a study of ethical consumption, purchasing, and choice behaviour. *Food Quality and Preference* 77:1–14. <https://doi.org/10.1016/j.foodqual.2019.04.003>
- Laukkanen T. 2016. Consumer adoption versus rejection decisions in seemingly similar service innovations: the case of the internet and mobile banking. *Journal of Business Research* 69(7): 2432–2439. <https://doi.org/10.1016/j.jbusres.2016.01.013>
- Lin J, Lobo A, Leckie C. 2017. The role of benefits and transparency in shaping consumers’ green perceived value, self-brand connection and brand loyalty. *Journal of Retailing and Consumer Services* 35:133–141. <https://doi.org/10.1016/j.jretconser.2016.12.011>
- Mani Z, Chouk I. 2018. Consumer resistance to innovation in services: challenges and barriers in the internet of things era. *Journal of Product Innovation Management* 35(5): 780-807. <https://doi.org/10.1111/jpim.12463>
- Misra R, Singh D. 2016. An analysis of factors affecting

- growth of organic food: perception of consumers in Delhi-NCR (India). *British Food Journal* 118(9):2308–2325. <https://doi.org/10.1108/BFJ-02-2016-0080>
- Munera S, Koay KY, Thambiah S. 2021. Factors influencing non-green consumers' purchase intention: a partial least squares structural equation modelling (pls-sem) approach. *Journal of Cleaner Production* 280. <https://doi.org/10.1016/j.jclepro.2020.124192>
- Nandi R, Bokelmann W, Gowdru NV and Dias G. 2017. Factors influencing consumers' willingness to pay for organic fruits and vegetables: empirical evidence from a consumer survey in India. *Journal of Food Products Marketing* 23(4):430–451. <https://doi.org/10.1080/10454446.2015.1048018>
- Nolan JM, Schultz PW, Cialdini RB, Goldstein NJ and Griskevicius V. 2008. Normative Social Influence is underdetected. *Personality and Social Psychology Bulletin* 34(7): 913–923. <https://doi.org/10.1177/0146167208316691>
- Pratiwi DD. 2020. Factors affecting green purchase behavior of cosmetic products among millennial consumers in Indonesia. *Relevance: Journal of Management and Business* 3(2):126–135. <https://doi.org/10.22515/relevance.v3i2.2946>
- Ram S, Sheth, JN. 1989. Consumer resistance to innovations: the marketing problem and its solutions. *Journal of Consumer Marketing* 6(2): 5-14. <https://doi.org/10.1108/EUM0000000002542>
- Rana J, Paul J. 2019. Health motive and the purchase of organic food: a meta-analytic review. *International Journal of Consumer Studies* 44:162–171. <https://doi.org/10.1111/ijcs.12556>
- Rausch TM, Kopplin CS. 2021. Bridge the gap: consumers' purchase intention and behavior regarding sustainable clothing. *Journal of Cleaner Production* 278. <https://doi.org/10.1016/j.jclepro.2020.123882>
- Roos D, Hahn R. 2019. Understanding collaborative consumption: an extension of the theory of planned behavior with value-based personal norms. *Journal of Business Ethics* 158(3):679–697. <https://doi.org/10.1007/s10551-017-3675-3>
- Sadiq M, Adil M, Paul J. 2021. An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services* 59. <https://doi.org/10.1016/j.jretconser.2020.102369>
- Schwartz SH. 1977. Normative Influences on Altruism. In: *Advance in Experimental Social Psychology*. In L. Berkowitz (Ed). New York, NY: Academic Press.
- Seth H, Talwar S, Bhatia A, Saxena A. and Dhir A. 2020. Consumer resistance and inertia of retail investors: development of the resistance adoption inertia continuance (raic) framework. *Journal of Retailing and Consumer Services* 55. <https://doi.org/10.1016/j.jretconser.2020.102071>
- Sivathanu B. 2018. Adoption of internet of things (iot) based wearables for healthcare of older adults – a behavioural reasoning theory (brt) approach. *Journal of Enabling Technologies* 12(4):169–185. <https://doi.org/10.1108/JET-12-2017-0048>
- Stok FM, de Ridder DTD, de Vet E, and de Wit JBF. 2012. Minority talks: the influence of descriptive social norms on fruit intake. *Psychology and Health* 27(8):956–970. <https://doi.org/10.1080/08870446.2011.635303>
- Talwan S, Talwar M, Kaur P, Dhir A. 2020. Consumers' resistance to digital innovations: a systematic review and framework development. *Australasian Marketing Journal* 28(4):286–299. <https://doi.org/10.1016/j.ausmj.2020.06.014>
- The Nielsen Company. 2018. *The Future of Beauty*. United States.
- Torres-Ruiz FJ, Vega-Zamora M, Parras-Rosa M. 2018. False barriers in the purchase of organic foods. the case of extra virgin olive oil in Spain. *Sustainability (Switzerland)* 10(2):1–14. <https://doi.org/10.3390/su10020461>
- Utami CW, Teofilus, Somawiharja Y, Tanan A, Salsabila A, Emantyo YE and Han Tsai C. 2022. Negative marketing in the cosmetics industry: the effect of greenwashing perceptions on purchase intention through brand image. *Journal of Applied Management (JAM)* 20(3):721–737. <https://doi.org/10.21776/ub.jam.2022.020.03.19>
- Zhang L, Li D, Cao C. and Huang S. 2018. The influence of greenwashing perception on green purchasing intentions: the mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production* 187:740–750. <https://doi.org/10.1016/j.jclepro.2018.03.201>