The Impact of Switching Barriers on Consumer Intention to Purchase Ecofriendly Products within Sri Lanka

Hewage, K.G.I¹ and Ranaweera, H.R.A.T²
¹ University of Moratuwa (ish2hewage@gmail.com)
² University of Moratuwa (achinir@uom.lk)

The modern consumer is keener on eco lifestyle. Using the theoretical lens of the theory of planned behavior, this current research seeks to examine the impact of switching barriers on consumers' intention to purchase eco-friendly products. The research adopts an explanatory quantitative approach followed by a survey conducted by a structured questionnaire with 200 consumers. Accordingly, we identified a positive relationship between the high price, poor quality, high cost of purchase, lack of green advertising, low quality of information, and negative social norms on consumers' purchase intention of eco-friendly products. However, no significant relationship was identified between negative attitudes and purchase intention. Further consumers' environmental knowledge was found to be affected as a moderator with poor quality, high cost of purchase, low quality of information, negative social norms but not with the high price, and lack of green advertising. The findings of the study will support future businesses, governments, and individuals to take action to identify the strategies by examining the purchase intention. As this current research was limited to a quantitative study with a limited number of variables future research, particularly with a large sample size can provide further insights.

Keywords: Ecofriendly, Purchase intention, quantitative research, Sri Lankan consumers, Switching barriers

Introduction

Eco-friendly products have become a trend within the last few decades. These are also termed environmentally friendly or green products. The changes in lifestyles of the younger generation have affected their intentions toward purchasing eco-friendly products (Yadav & Pathak, 2016). Therefore, the new generation is more concerned with eco-friendly products (Sun, Li &, 2021). The concept of green has been widened with the actions of environmentally conscious consumers (Johnstone & Tan, 2015). With the broadened concepts of sustainability, corporates pay more attention to green products with corporate social responsibility activities (Maignan & Ferrell, 2004). Modern firms have committed management with strategies to develop eco-friendly products in recent years concerning the antecedents which are identified as barriers to switching to green products later, including the beliefs and values (Banerjee, Iyer, & Kashyap, 2003). Therefore, it is an emerging and important sector of the economy. Within the Sri Lankan context, the usage of eco-friendly products is unpredictable as no prior research investigations were carried out around this concept. However, several government interventions have motivated consumers to switch to eco-friendly products. For example, a gazette was issued on the 21st of January 2021 banning four types of polythene usage. Yet, several barriers are identified which affect the intention to purchase eco-friendly products (Barbarossa & Pastore, 2015). To improve green usage, it's important to identify consumers' purchase intentions on green products. Within the Sri Lankan context, consumer awareness of eco-friendly products is found to be low, influencing consumers' intention to purchase eco-friendly products (Munasinghe & Shantha, 2021). According to studies on Sri Lankan market segments, creating consumers' purchase green products was found willingness to be complex (Samarasinghe, 2012). Green businesses face several barriers when converting a potential customer to an actual one due to the switching barriers (Karunarathna et

al., 2017). Therefore, it is important to examine the impact of the factors preventing local consumers to switch to eco-friendly products from traditional consumption patterns within Sri Lanka.

The concept of green consumption is strongly influenced by consumer values and norms and is context-dependent (Peattie, 2010). Therefore, it is important to study the concept in Sri Lankan context. There were few studies conducted on green products within Sri Lanka which involved investigating the marketing traits needed to improve the purchase intention of the consumers. A study conducted by Karunarathna et al (2017) revealed that there are several factors which influence purchase intention and are inter-related. A clear investigation of the impact of switching barriers on consumers' purchase intention of eco-friendly products becomes crucial as prior literature found to be lesser within Sri Lankan context. Therefore, a gap is identified among the prior studies which were carried out on the Sri Lankan market focusing on the factors which affect the lower intention to purchase green products. Therefore, by identifying consumers' intentions on purchasing eco-friendly products, decision makers including organizational managers and policymakers will be able to develop strategies to face the purchase behaviors induced by purchase intention. This will improve the purchase of ecofriendly products by local consumers. Therefore, this study aims to shed some light on the existing body of knowledge on eco-friendly product purchase behaviors of consumers in the context of Sri Lanka.

Accordingly, the research aims to answer the below questions.

RQ 01: What is the impact of switching barriers on consumers' intention to purchase eco-friendly products?

RQ 02: What is the moderator impact of environmental knowledge on consumers' intention to purchase eco-friendly products?

Accordingly, the objectives of the research are:

RO 01: To examine the impact of switching barriers on consumers' intention to purchase eco-friendly products.

RO 02: To examine the moderator impact of switching barriers on consumers' intention to purchase eco-friendly products.

Literature review

Eco-friendly Products

Criminology on eco-friendly products identified several alternatives such as green products and environmentally friendly products (Lynch & Stretsky, 2003). A green product is a product whose design and/or attributes (and/or production and/or strategy) use recycling (renewable/toxic-free/biodegradable) resources and which improves environmental impact or reduces environmental toxic damage throughout its entire life cycle (Durif, Boivin & Julien, 2010). The concept of eco-friendly products is aligned with the sustainability factors which is identified as an area with ubiquity and drive towards the paradigm of economic growth and development (Vos, 2007). Eco-friendly products emerged as a measure of reducing the impact on environmental degradation (Srivastava, 2007). The use of eco-friendly products found to be a recent trend. The replaceable and recycling behaviors have improved as household measurements towards the environment (Barr et al., 2005). When considering eco-friendly products, the term green consumption is important. the willingness of the consumer affects them to engage in green consumption. Green means conservating environmental resources, while consumption means destruction. Green consumption is a highly context-dependent idea (Peattie, 2010). Environmental marketing, more popularly known as green marketing or sustainable marketing can be defined as the effort by a company to design, promote, price, and distribute products in a manner that promotes environmental protection (Polonsky, 2011). With the improvement in consumer attitudes on green consumption,

businesses have paid more attention to gaining an edge in the green market industry by converting their products into a more environmentally friendly manner.

Switching Barriers to Eco-friendly Products

There are factors which stops the customer switching to an eco-friendly product. According to prior literature, the high cost, low credibility of products, and lack of information are identified as major barriers for consumers to switch to eco-friendly products in developing countries (Nguyen, Phan, Cao & Nguyen, 2017)). Higher prices and scarce availability of eco-friendly products also prevent environmentally conscious consumers to purchase eco-friendly products. (Barbarossa & Pastore, 2015). Another barrier is the lower level of eco-literacy which is a major factor in environmental knowledge (Cheah & Phau, 2011). The lack of environmental advertisements was found to be an obstacle to purchasing eco-friendly products (Rahbar & Abdul Wahid, 2011). Additionally, Gleim and Lawson (2014) found that high prices, lower quality, and lack of availability influence the purchase decisions of environmentally conscious consumers. According to Biswas and Roy (2015), high prices and knowledge are the major barriers for consumers to switch their consumption to eco-friendly products. Further, negative attitudes and social norms of green stigma directly influence consumers to purchase eco-friendly products (Tan et al., 2016). Another negative social norm is a social dilemma that influences consumers to purchase eco-friendly products (Gupta & Ogden, 2009). Sun and Wang (2019) found attitudes and price are the key barriers to an eco-friendly product purchase. According to their study, the knowledge factor has an impact on attitudes toward eco-friendly products. The lower level of advertising and lower level of knowledge are identified as the most significant barriers according to the study carried out by Jaiswal, Singh, Kant, and Biswas (2021). Sun et al. (2021) confirms the prior literature on the price and cost of purchase of eco-friendly products as the barriers to eco-friendly product purchase.

According to Zameer and Yasmeen (2022), the environmental knowledge of consumers is low and is identified as a direct barrier to switching to eco-friendly

products. Further studies on eco-friendly products confirm that the unavailability of the product and the higher price which affects budgetary limitations, influence the purchase decisions of environmentally conscious consumers (Mishal et al., 2017). With the identified gap in purchasing eco-friendly products by locals, it is important to identify the above switching barriers which stop a consumer from switching from a product to an eco-friendly product. The switching barriers which were identified in prior literature affect purchase intention with contextual differences. Therefore, it's important to identify the behaviors of the consumers within the Sri Lankan context. By identifying the switching barriers individually and by identifying the individual impacts on the purchase intention, will be able to achieve the goal of the study.

High price

Barbarossa & Pastore (2015) show that high price is a major barrier that influences the purchase of eco-friendly products. Particularly, the existence of monetary and non-monetary costs influences the purchase intention of green consumers. Price reduction techniques and consumer product types are influential in terms of purchase intention (Gleim & J. Lawson, 2014). The price consciousness is negatively related to consumers' intention to purchase eco-friendly products (Sun et al., 2021).

Poor quality

Quality perception intervenes in consumer purchase intentions and behavior (Bray, Johns & Kilburn, 2010). With the existing green gap due to price, it is more broadened with poor perceptions of quality (Gleim & J. Lawson, 2014).

Cost of purchase

The cost of green purchasing which is non-monetary aspect is a major barrier and includes the time and effort required on purchasing an eco-friendly product (Sun et al., 2021). Due to the non-availability of eco-friendly products, additional effort and time are needed to find the product to purchase the product (Barbarossa & Pastore,

2015). Accordingly, the cost of purchase influences the purchase intention of ecofriendly products.

Lack of green advertising

Barbarossa & Pastore (2015) show that improper communication is a switching barrier that prevents consumers from purchasing eco-friendly products. The perception of green marketing tools, including advertising has a direct influence on green purchasing behavior (Jaiswal et al., 2021). The lower credibility of green advertisements and lack of green advertising causes unawareness of the green alternatives (Rahbar & Abdul Wahid, 2011).

Low-quality information

Qualitative information has a direct effect on green credibility and low-quality information on eco-friendly products has created a green gap (Kumar, Polonsky, Dwivedi & Kar,2021). Eco-labeling which is a way of providing information has a positive relationship with consumer purchase intention (Rahbar & Abdul Wahid, 2011). The ineffective nature of educational and communication programs is the major barrier to low-quality information (Nguyen et al., 2017). Thus, the lower credibility of eco-labels influences purchase intentions of eco-friendly products in developing countries.

Negative social norm

There is an influence of environmental consciousness on green purchase behaviors (Kautish, Paul & Sharma, 2019). Eeco-friendly products are defined with the social dilemma, another social norm and consumers believe they will maximize collective gain rather than individual gain (Gupta & Ogden, 2009). The above study found that the ones who do not expect others' contribution will not purchase the product. Further, the existence of negative social norms like green stigma creates an additional barrier to green purchasing practices where consumers think eco-friendly is not a normal thing (Tan et al., 2016).

Negative attitudes

The stronger environmental attitudes encourage searching for new products with green features and discourage weaker attitudes (Biswas & Roy, 2015). With positive attitudes of consumers, they tend to purchase eco-friendly products (Paul, Modi & Patel, 2016). By having literacy, it doesn't imply consumers will purchase eco-friendly products. However, they need to have positive attitudes (Gupta & Ogden, 2009). Therefore, the existence of the "too hard to be green" attitude, prevents consumers from purchasing eco-friendly products (Johnstone & Tan, 2015).

Knowledge

Consumers who are having considerable knowledge are found to be more conscious of the environment (Gupta & Ogden, 2009). Environmental knowledge is an important factor influencing environmental attitudes (Lin & Niu, 2018). Environmental knowledge is not directly influential on the purchase intentions of consumers. Yet have an indirect impact on consumers' intentions (Jaiswal et al., 2021). Environmental knowledge has a strong correlation with attitudes toward ecofriendly products (Cheah & Phau, 2011). Environmental knowledge is an important factor influencing the purchase decision of consumers (Paul et., al,2016). Environmental knowledge is one's understanding and perception of a concept (Lin & Niu, 2018). Additionally, the above study found that the purchase decisions of eco-friendly products are induced by both consumers' levels of knowledge. Therefore, the study implies that the impact of the switching barriers influences the knowledge factor.

Purchase Intension of Consumers on Eco-friendly Products

The purchase intention of green consumers is influenced by both intrinsic and extrinsic concerns about the environment including the willingness to support environmental protection and the realization of environmental responsibility (Kumar & Ghodeswar, 2015). While identifying the barriers which affect green purchase

intentions, it's important to pay attention to the cost and benefits and the sensitivity of consumers to them (Sun et al., 2021). Purchase intention toward an ecofriendly concept is one of the subdivisions of being environmentally conscious (Peattie, 2010). Consumer green perceptions influence the consumer purchase of eco-friendly products (Tan, Johnstone & Yang, 2016). Environmental consciousness affects the purchase intention of eco-friendly products (Mishal, Dubey, Gupta & Luo, 2017). In the process of purchase decision, the purchase intention is a step (Lin & Niu, 2018).

As the research aims to answer the problem of consumers' lower interest in switching to eco-friendly products it's important to identify a quantifiable unit of measurement for the study. Therefore, purchase intention is identified as the dependent variable for the study.

Theory of Planned Behaviour

The theory of planned behavior (TPB) was used by many researchers in studies related to the purchase intention of green products. TPB (stemming from the Theory of Reasoned Action) (Ajzen, 1991) has been applied in explaining environmental behaviors based on the factors such as attitudes and subjective norms, and with the mediation of behavioral intentions along with perceived behavioral control. Prior researchers: Biswas and Roy (2015), Peattie (2010), Tan, Johnstone & Yang (2016), Johnstone, M., & Tan, L. (2015), Gleim and Lawson (2014) and Barbarossa & Pastore (2015) have used the theory as a basis. According to the TPB (Dishaw & Strong, 1999, the intentions of purchasing are subjective. Hence, this current research used TPB has a theoretical lens to predict the impact of switching barriers on the purchase intention which affects the behaviors of individuals. Therefore, the TPB which explains the induced impact on the behavior of a consumer by his intention which is induced as a result of attitude, subjective norm, and perceived behavior control supports the examination of the contextual impact of each considered switching barrier within Sri Lanka.

Conceptual Development

With the summarized prior literature and findings high price, poor quality, high cost of purchase, lack of green advertising, low quality of information, and negative social norms are identified as the major switching barriers that affect the purchase intention of ecofriendly products. Additionally, consumers' environmental knowledge was added as a moderator factor in the study to examine. The study proposed seven hypotheses to examine the direct relationship between purchase intention and one hypothesis to examine the moderator impact. The formulated conceptual framework is presented in Figure 1 below.

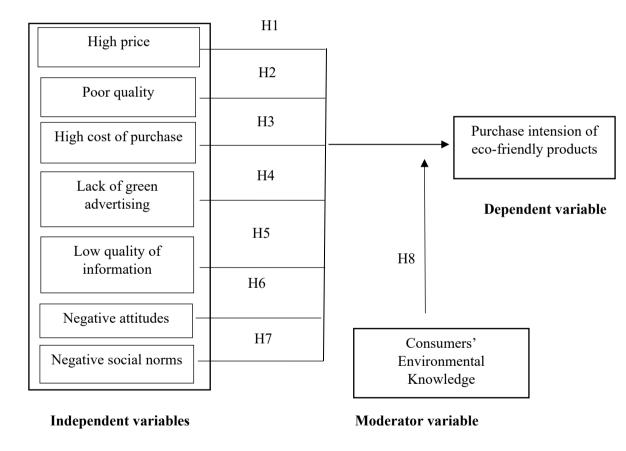


Fig 1: Conceptual framework

Note: Developed by the researcher (2023

H1: The high price has a significant impact on consumers' purchase intention of ecofriendly products.

H2: Poor quality of products has a significant impact on consumers' purchase intention of eco-friendly products.

H3: The high cost of purchase has a significant impact on consumers' purchase intention of eco-friendly products.

H4: The lack of green advertising has a significant impact on consumers' purchase intention of eco-friendly products.

H5: The low quality of information has a significant impact on consumers' purchase intention of eco-friendly products.

H6: Negative social norms have a significant impact on consumers' purchase intention of eco-friendly products.

H7: Negative attitudes have a significant impact on consumers' purchase intention of eco-friendly products.

H8: Consumers' environmental knowledge has a moderate impact on the relationship between other switching barriers and consumers' purchase intentions.

Research method

This research has adopted an explanatory quantitative approach to understanding the relationship between the switching barriers and purchase intention. A survey conducted using a questionnaire developed in a structured format consisted of two sections one examining the demographic variables and the other covering the switching barriers, knowledge, and purchase intention. The key indicators on each considered variable were included in the second section to measure the impact and to identify the relationship. The key indicators were identified based on the prior research conducted.

The questionnaire was prepared on a Google Form was distributed using social media platforms among a targeted sample of 200 respondents due to the limitations faced by the researchers reaching the respondents physically. A respondent who

answered the questionnaire was treated as a unit in the study based upon his thoughts on eco-friendly product intention as the questions were developed as a selfadministered response.

Collected data was analyzed by using the SPSS (Statistical Package for Social Science) 21 version. Univariate, bivariate, and multiple regression analysis techniques were used to analyze the data. To analyze the moderator impact, multiple regression analyses on individual switching barriers were performed. Finally, for the supported variables, simple slope analysis was used to analyze the moderator effect of consumers, and environmental knowledge on the purchase intention of ecofriendly products.

Findings and Discussion

Normality

As per the analysis, the independent, dependent, and moderator variables are within the skewness range (See table 1). Therefore, the data of the sample are distributed normally.

Table 1: Normality Tests Results

Variable	Skewness
High Price	.051
Poor Quality	028
High Cost of Purchase	638
Lack of Green Advertising	067
Low Quality of Information	017
Negative Social Norms	.087
Negative Attitudes	.145
Knowledge	153
Purchase Intension	.817

Note: Survey Data

Reliability

According to Table 2, the reliability of each variable was in the acceptable range which was greater than 0.7 in which the minimum Cronbach's Alpha value was

0.753 for the independent variable lack of green advertising. Therefore, the independent, dependent, and moderator variables were internally consistent at a significance value of p > 0.005.

Table 2: Results of Reliability Analysis

	Cronbach's Alpha	N of Items
High Price	.911	4
Poor Quality	.837	3
High Cost of Purchase	.901	4
Lack of Green Advertising	.753	3
Low Quality of Information	.946	3
Negative Social Norms	.788	3
Negative Attitudes	.956	5
Knowledge	.818	5
Purchase Intension	.901	4

Note: Survey Data

Demographic Profile of the Respondents

The study has been carried out by collecting data from a sample of 200 individuals who were economically active population within Sri Lanka. The response rate of the questionnaire is 100% (see Table 3).

Distribution of Gender

Out of the 200 respondents to the questionnaire 60% were identified as female respondents whereas 0nly 40% is marked as male representation. As the questionnaire was distributed among respondents fairly it indicates that there is a high interest of the female majority on ecofriendly product concept than male.

Distribution of Age Group

With the analysis of the distribution of age group, it can be identified that the majority lies in between 15–30-year group, which proves that they are more (57%) focused on ecofriendly products, and it's found that the age group 48-60 years shows

the lowest rate of responding with 8%. The age group 31-45 years shows a 36% response rate. This shows that the younger generation who is capable of spending is more interested in the eco-friendly concept and is actively engaged in purchase activities.

Distribution of Education level

Among the respondents of the questionnaire, 64% which is the majority are degree holders who show more interest in the green concepts. Respondents Above their Degree show 21% and this shows the general distribution of educational levels in Sri Lanka. 16% are from the community having an education up to an Advanced level. This shows there is a high interest in the community who hold an education level with a degree than the fairly educated community.

Distribution of Occupation

When analyzing the distribution of occupation, 71% are from the private sector, 15% are from the government sector, 12% are unemployed or students and 3% are self-employed. This shows the general distribution of occupation within Sri Lanka, and this shows private sector employees who are in high earning rates are more interested in eco-friendly products.

Table 3: Demographic Profile of the Respondents

Base for Classification		Percentage
classification		_
Gender	Male	40%
	Female	60%
Age Group	15-30	57%
	31-45	36%
	46-60	8%
Education Level	Above degree	21%
	Degree holder	61%
	Passed GCE Advanced level	16%
Occupation	Government sector employee	15%
	Private sector employee	71%
	Self-employee	3%
	Student / Not an employee	12%

Note: Survey Data

Descriptive Statistics

Descriptive analysis is used to analyze the factors of 200 respondents to the questionnaire. Here both graphical and numerical methods are used to demonstrate the demographic factors.

Table 4: Descriptive Statistic

	Mean	Std. Deviation
High Price	3.023	.9551
Poor Quality	3.023	.9978
High Cost of Purchase	2.895	.8519
Lack of Green Advertising	2.966	.9087
Low Quality of Information	3.110	1.1767
Negative Social Norms	3.021	.9512
Negative Attitudes	3.041	1.1099
Knowledge	2.963	1.0624
Purchase Intension	3.183	.6781

Note: Survey Data

With the descriptive analysis of the above independent variables, it identified that the independent variables of high price, poor quality, high cost of purchase, lack of green advertising, low-quality information, negative social norms negative attitudes, knowledge, and purchase intention are in moderate level which lies in between 2.5<X<3.5. The highest standard deviation occurred with low-quality of information, negative attitudes, and knowledge. The lowest standard deviation occurred with the purchase intention of 0.6781.

Table 5: Result of Correlation Analysis

	Pearson	Sig. (2-	Relationship
	Correlation	tailed)	
High Price	837**	.000	Strong Negative
Poor Quality	935**	.000	Strong Negative
High Cost of Purchase	659**	.000	Strong Negative
Lack of Green Advertising	796 ^{**}	.000	Strong Negative

Low Quality of Information	809**	.000	Strong Negative
Negative Social Norms	743**	.000	Strong Negative
Negative Attitudes	888**	.000	Strong Negative

^{**} Correlation is significant at the 0.01 level (2-tailed).

Note: Survey Data

The above table shows that the individual variables which are treated as switching barriers are having a strong negative impact on the purchase intention of eco-friendly products. Furthermore, with the analysis, all the independent variables have a negative relationship over the purchase intention of eco-friendly products with bivariate analysis in which the relationship is measured within two variables. However, the switching barrier of poor quality of the eco-friendly products at the market shows the highest relationship which is negative with the purchase intention on eco-friendly products. Negative social norms show the lowest relationship among the switching barriers which impact purchase intention.

Multiple Regression Analysis

To examine the impact of independent variables on the dependent variable of the study the multiple regression analysis was used. High prices, poor quality, high cost of purchase, lack of green advertising, low quality of information, negative social norms, and negative attitudes are taken as independent variables. Purchase intention was taken as the dependent variable. Following tables present the results of the multiple regression analysis of the study.

Table 6: Results of Multiple Regression Analysis

 $R = .991^a$ $R^2 = .983$ Adjusted $R^2 = .982$ Sig = $.000^b$

Model		Unstandardized Coefficients		Standardize d	Sig
				Coefficients	
		В	Std. Error	Beta	
	(Constant)	5.711	.037		.000
	High Price	1.128	.042	1.589	.000
	Poor Quality	-2.047	.057	-3.012	.000
	High Cost of Purchase	-1.318	.055	-1.656	.000
1	Lack of Green Advertising	129	.020	173	.000
	Low Quality of Information	.573	.030	994	.000
	Negative Social Norms	.860	.037	1.207	.000
	Negative Attitudes	.022	.017	.037	.200

Note: Survey Data

The model is fitted with 0.983 of R Square and 0.982 of Adjusted R Square which is lesser than 0.983. Therefore, the model covers 98% of the considered switching barriers on the purchase intention of green products.

The significant value was 0.000 (P<0.005) which proves the model fit for a regression model. Therefore, a significant relationship between the independent variables of switching barriers and the dependent variable of purchase intention was identified through the study.

According to the analysis, the highest standardized beta coefficient 1.589 with a high price factor is identified as the highest determinant factor among the switching barriers impacting purchase intention and is identified with a positive impact on purchase intention of eco-friendly products. The lowest determinant factor for purchase intention of green products is negative attitudes with a standardized beta value of 0.037.

With the multiple regression analysis, the high price, low quality of information, negative social norms, and negative attitudes affect purchase intention with a

positive impact while the other switching barriers of poor quality, high cost of purchase, and lack of green advertising have negative impact.

Analysis of moderator effect

Table 7: Results of Multiple Regression analysis with and without moderator

R	R ²	Adjusted R ²	Std. Error	F	Sig.	Sig. of interaction	
Model Without n	noderat	or					
.991ª	.983	.982	0.090	1576.6	.000	-	
A model with a m	oderato	or on High I	Price				
.841ª	.707	.704	0.369	157.7	.000	.582	
Model with mode	rator or	n Poor Qual	ity				
.949ª	.901	.889	0.215	593.9	.000	.000	
Model with mode	rator or	High Cost	of Purchase	:			
.828ª	.685	.680	0.383	142.0	.000	.000	
Model with mode	rator or	Lack of G	reen Adverti	sing			
.799ª	.638	.633	0.410	115.3	.000	.295	
Model with mode	rator or	Low Qual	ity of Inform	nation			
.831ª	.690	.686	0.380	145.6	.000	.000	
Model with moderator on Negative Social Norms							
.808ª	.654	.648	0.402	123.2	.000	.000	
Model with mode	Model with moderator on Negative Attitudes						
.953ª	.908	.906	0.207	642.6	.000	.000	

Note: Survey Data

A model with the moderator factor of Knowledge on each factor is analyzed and accordingly, the model is fitted with R Square which deviated from the R square value of 0.983 without the moderating variable and Adjusted R Square has been reduced on each model in which the model with knowledge as a moderating variable on High Price covers 70.7%, Poor Quality covers 90.1%, High Cost of purchase covers 68.5%, Lack of Green Advertising covers 63.8%, Low Quality of Information covers 68.6%, Negative Social Norms covers 65.4% and Negative Attitudes covers 90.6% which are lesser than the coverage without the moderating variable.

With comparison of the F- ratio, the values are lesser than 1576.6 where the accuracy of the models has decreased. Further, the models with the knowledge variable as a moderator on the impact of considered switching barriers on the purchase intention of green products have a significance value of 0.000 which is lesser than 0.05.

To identify the interaction effect of the moderator variable Knowledge on each switching barrier, the significance of the interaction is analyzed. According to the analysis, the concept of knowledge as a moderator on High Prices and Lack of Green Advertising was not supported. As per the analysis, Poor Quality, High Cost of Purchase, Low Quality of Information, Negative Social Norms, and Negative Attitudes related to the purchase intention of green products with a moderator effect on Consumers' environmental knowledge.

Simple slope Analysis

To understand the moderator effect on each supported variable above, a simple slope analysis is carried out on each switching barrier.

Table 8: Simple slope analysis of regression with a High level of Consumers' environmental knowledge

	Coefficients					
M	odel			Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	Poor Quality	638	.036	941	-17.86	.000
2	High Cost of Purchase	117	.088	172	-1.328	.186
3	Low Quality of Infor.	476	.072	702	-6.641	.000
4	Negative Social Norms	223	.063	329	-3.572	.000
5	Negative Attitudes	276	.031	406	-8.869	.000

Note: Survey Data

Table 9: Simple slope analysis of regression with a Low level of Consumers' environmental knowledge

M	odel	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	Poor Quality	875	.039	-1.290	-22.22	.000
2	High Cost of Purchase	161	.029	244	-5.486	.000
3	Low Quality of Infor.	268	.070	396	-3.848	.000
4	Negative Social Norms	.012	.075	.017	0.154	.877
5	Negative Attitudes	111	.027	164	-4.139	.000

Note: Survey Data

According to the simple slope analysis above, there is a significant relationship between Poor Quality and Purchase intention with a significance level of 0.0000 when environmental knowledge is high and low which act as a moderator. There is no significant relationship between the high Cost of purchase and purchase intention when consumers' environmental knowledge is high as the significance is above 0.05 value with 0.186. But there is a significant impact on the relationship when environmental knowledge is lower. The moderation of knowledge on Low quality of information and Negative attitudes were found to be significant when knowledge is lower and higher. When the consumers' environmental knowledge is low there is not any significance on the relationship between negative social norms and purchase intention, but vice versa with a high level of knowledge which shows the moderation effect of knowledge on the relationship.

Table 10: Summary of Hypothesis Testing

Hypotheses	Multiple regression analysis
H1: The high price has a significant impact on consumers' purchase intention of eco-friendly products.	Accepted
H2: Poor quality of products has a significant impact on consumers' purchase intention of eco-friendly products.	Accepted

H3: The high cost of purchase has a significant impact	Accepted
on consumers' purchase intention of eco-friendly	
products.	
H4: The lack of green advertising has a significant	Accepted
impact on consumers' purchase intention of eco-	
friendly products.	
, .	
H5: The low quality of information has a significant	Accepted

H5: The low quality of information has a significant impact on consumers' purchase intention of eco-friendly products.

H6: Negative social norms have a negative impact on Accepted consumers' purchase intention of eco-friendly

H6: Negative social norms have a negative impact on consumers' purchase intention of eco-friendly products H7: Negative attitudes have a significant impact on consumers' purchase intention of eco-friendly

H7: Negative attitudes have a significant impact on Rejected consumers' purchase intention of eco-friendly products.

H8: Consumers' environmental knowledge has a moderate impact on the relationship between other switching barriers and consumers' purchase intentions.

Partially Accepted

Accepted

Conclusion

products.

The general objective of this research was to examine the impact of switching barriers on consumers' intention to purchase eco-friendly products within the Sri Lankan context. According to the analysis of the data collected through the survey, the study can conclude that there is an impact of the switching barriers on the purchase intention of eco-friendly products within the Sri Lankan context. All hypotheses were accepted according to the correlation analysis. However, multiple regression analysis rejects the H7 hypothesis. This may have occurred as the factors considered on negative attitudes are again impacted by cultural factors which were not considered within the research.

This study revealed that there is a positive relationship between high price and purchase intention. This contradicts Barbarossa & Pastore, (2015), and Gleim and Lawson (2014) where a high price is treated as a switching barrier that discourages purchase intention. But according to Biswas and Roy (2015), the price factor has an

impact on the level of income which can vary the effect. Therefore, with a high perceived value for money about green products, people were willing to pay the green price premium (Tsay, 2010).

According to the study, there is a negative relationship between the poor quality of eco-friendly products. Poor quality is identified as a specific characteristic of eco-friendly products and is negatively influenced by the purchase intention by Gleim & J. Lawson, (2014) and Bray, Johns & Kilburn, (2010). Therefore, the relationship behaviour of poor quality and the purchase intention of eco-friendly products within the Sri Lankan context can be accepted with the study outcome.

According to Sun et al., (2021), there was a significant negative impact on the cost of purchase with the intention. This was confirmed with the analysis where the indicators included time and effort factors which are non-monetary. This confirms the idea of Barbarossa & Pastore, (2015) who argued that the non-availability of green products at the market influences the customers to incur more time in finding the products in the stores.

We showed a negative relationship between low levels of green advertising and purchase intention of eco-friendly products. This confirms the idea of Jaiswal et al., (2021) and Rahbar & Abdul Wahid, (2011).

The results showed that there is a positive relationship between the low quality of information and purchase intention. According to Nguyen et al., (2017), there is a negative relationship. But according to Kumar, Polonsky, Dwivedi & Kar, (2021), there must be the factor of green credibility. This concept of green credibility cannot be heavily seen within Sri Lanka. Therefore, the reason behind the above deviation might include the impact of other unrevealed factors along with the above.

According to Biswas & Roy, (2015) and Paul, Modi & Patel, (2016), there is a negative relationship between negative social norms and the purchase intention of

eco-friendly products. But with the study, was found with a positive relationship. This was anyhow confirming with the idea of Gupta & Ogden, (2009) who discussed that the norms are deviated on cultural aspects and there can be positive relationship.

According to Lin & Niu, (2018), the purchase decisions of eco-friendly products are induced by consumers' level of knowledge on environmentally friendly products. This concept was supported through the study on the switching barriers of poor quality, high cost of purchase, low quality of information, negative social norms, and negative attitudes which explains there is a moderator impact on the relationship between the switching barriers and the purchase intention of eco-friendly products and the study concludes there is no moderator impact on the relationship between the switching barriers of high price and low level of green advertising with purchase intension.

Recommendations

This research suggests that the decision-makers and marketers can focus on the factors such as poor quality, cost of purchase, and low level of green advertising when introducing new products and taking steps to strengthen these factors by strategic involvement. The study suggests that it's important to address the ways and means of eliminating or minimizing the negative factors to improve consumer behavior in purchasing eco-friendly products. We stress the importance of paying attention to the positive factors such as low-quality information and negative social norms which are not impacting negatively but have a significant impact. The high price which is termed a premium price can be identified as a positive characteristic and when introducing the products to the market will be beneficial to adhere to the maintainable prices. Further marketers, business owners, and managers can pay more attention to consumers' environmental knowledge to understand the suitable policies to be implemented considering the above relationships in managing the organizations.

Limitations and future research directions

This research is with few identified limitations. The research was conducted with quantitative research which excludes the individuals' qualitative factors which limits with subjective ideas. Therefore, future researchers can include a qualitative approach to identify the impact of switching barriers. Further in the study, only a few variables were taken into consideration due to the time and complexity. New research insights can be developed accordingly by understanding the unexplored variables. The sample size limits as the size was 200 and with the convenience factor the survey was conducted through social media platforms. Therefore, the context can be improved in future research. This research opens future research areas on different categories of eco-friendly products and the impact of cultural factors on switching barriers as its contextual which can be further added to the existing body of knowledge on consumer behaviour on eco-friendly products.

References

- Banerjee, S., Iyer, E., & Kashyap, R. (2003). Corporate Environmentalism: Antecedents and Influence of Industry Type. *Journal Of Marketing*, 67(2), 106-122.
- Barr, S., Gilg, A., & Ford, N. (2005). Defining the multi-dimensional aspects of household waste management: A study of reported behavior in Devon. *Resources, Conservation And Recycling*, 45(2), 172-192.
- Biswas, A., & Roy, M. (2015). Leveraging factors for sustained green consumption behavior based on consumption value perceptions: testing the structural model. *Journal Of Cleaner Production*, 95, 332-340.
- Bonini, S., & Oppenheim, J. (2008). Cultivating the green consumer. *Stanford Social Innovation Review*, 6(4), 56-61.
- Bray, J., Johns, N., & Kilburn, D. (2010). An Exploratory Study into the Factors Impeding Ethical Consumption. *Journal Of Business Ethics*, 98(4), 597-608.
- Cheah, I., & Phau, I. (2011). Attitudes towards environmentally friendly products. *Marketing Intelligence & Amp; Planning*, 29(5), 452-472.
- Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. *Management science and engineering*, 4(2), 27-39.

- Dishaw, M., & Strong, D. (1999). Extending the technology acceptance model with task-technology fit constructs. *Information & Amp; Management*, 36(1), 9-21.
- Dörtyol, İ. T., Coşkun, A., & Kitapci, O. (2018). A Review of Factors Affecting Turkish Consumer Behaviour. *Marketing Management in Turkey*.
- Durif, F., Boivin, C., & Julien, C. (2010). In search of a green product definition. *Innovative Marketing*, 6(1).
- Gupta, S., & Ogden, D. (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal Of Consumer Marketing*, 26(6), 376-391.
- Higgins, G. E. (2019). Quantitative versus qualitative methods: Understanding why quantitative methods are predominant in criminology and criminal justice. *Journal of Theoretical and Philosophical Criminology*, 23-37.
- Jabareen, Y. (2009). Building a Conceptual Framework: Philosophy, Definitions, and Procedure. *International Journal of Qualitative Methods*, 49-62.
- Jaiswal, D., Singh, B., Kant, R., & Biswas, A. (2021). Towards green product consumption: Effect of green marketing stimuli and perceived environmental knowledge in Indian consumer market. *Society And Business Review*, 17(1), 45-65.
- Johnstone, M., & Tan, L. (2015). An exploration of environmentally-conscious consumers and the reasons why they do not buy green products. *Marketing Intelligence &Amp; Planning*, 33(5), 804-825.
- Karunarathna, W., Naotunna, S., & Sachitra, K. (2017). Factors Affect to Green Products Purchase Behavior of Young Educated Consumers in Sri Lanka. *Journal of Scientific Research and Reports*, 13(2), 1–12. https://doi.org/10.9734/jsrr/2017/32204
- Kautish, P., Paul, J., & Sharma, R. (2019). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal Of Cleaner Production*, 228, 1425-1436.
- Kumar, P., & Ghodeswar, B. (2015). Factors affecting consumers' green product purchase decisions. *Marketing Intelligence &Amp; Planning*, 33(3), 330-347.
- Kumar, P., Polonsky, M., Dwivedi, Y., & Kar, A. (2021). Green information quality and green brand evaluation: the moderating effects of eco-label credibility and consumer knowledge. *European Journal Of Marketing*, 55(7), 2037-2071.
- Leal Filho, W. (2020). Encyclopedia of Sustainability in Higher Education. *Springer International Publishing*.
- Lin, S., & Niu, H. (2018). Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behavior. *Business Strategy And The Environment*, 27(8), 1679-1688.

- Maignan, I., & Ferrell, O. (2004). Corporate Social Responsibility and Marketing: An Integrative Framework. *Journal Of The Academy Of Marketing Science*, 32(1), 3-19.
- Mishal, A., Dubey, R., Gupta, O., & Luo, Z. (2017). Dynamics of environmental consciousness and green purchase behaviour: an empirical study. *International Journal Of Climate Change Strategies And Management*, 9(5), 682-706.
- Mont, O., & Plepys, A. (2008). Sustainable consumption progress: should we be proud or alarmed?. *Journal Of Cleaner Production*, 16(4), 531-537.
- Moon, J., Chadee, D., & Tikoo, S. (2008). Culture, product type, and price influences on consumer purchase intention to buy personalized products online. *Journal Of Business Research*, 61(1), 31-39.
- Munasinghe, P., & Shantha, A. (2021). Factors influencing the Purchase Intention of Green Packaging among Millennials in Gampaha District of Sri Lanka. *Sri Lanka Journal Of Marketing*, 7(1), 117.
- Nguyen, T., Phan, T., Cao, T., & Nguyen, H. (2017). Green purchase behavior: mitigating barriers in developing countries. *Strategic Direction*, 33(8), 4-6.
- Paparoidamis, N., & Tran, H. (2019). Making the world a better place by making better products. *European Journal Of Marketing*, 53(8), 1546-1584.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal Of Retailing And Consumer Services*, 29, 123-134.
- Peattie, K. (2010). Green Consumption: Behavior and Norms. *Annual Review Of Environment And Resources*, 35(1), 195-228.
- Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, 12(2), 73-83.
- Samarasinghe, D. S. (2012). A green segmentation: Identifying the green consumer demographic profiles in Sri Lanka. *International Journals of Marketing and Technology*, 2(4), 318-331.
- Sekaran, u., & Bougi, R. (2016). research methods for business. (s. edition, Ed.) John Wiley & Sons Ltd.
- Srivastava, S. (2007). Green supply-chain management: A state-of-the-art literature review. *International Journal Of Management Reviews*, 9(1), 53-80.
- Sun, Y., Li, T., & Wang, S. (2021). "I buy green products for my benefits or yours": understanding consumers' intention to purchase green products. *Asia Pacific Journal Of Marketing And Logistics*.
- Sun, Y., & Wang, S. (2019). Understanding consumers' intentions to purchase green products in the social media marketing context. *Asia Pacific Journal Of Marketing And Logistics*, 32(4), 860-878.
- Tan, L., Johnstone, M., & Yang, L. (2016). Barriers to Green Consumption Behaviours: The Roles of Consumers' Green Perceptions. *Australasian Marketing Journal*, 24(4), 288-299.

- Tavakol, M., & Dennick, R. (2001). Making sense of Cronbach's alpha International Journal of Medical Education . 53-55.
- Vos, R. (2007). Defining sustainability: a conceptual orientation. *Journal Of Chemical Technology & Amp; Biotechnology*, 82(4), 334-339.
- Wanninayake, W. M. C. B., & Randiwela, P. (2008, June). Consumer attractiveness towards green products of FMCG sector: an empirical study. In *Proceedings of the Oxford Business and Economics Conference, Oxford: UK*.
- Yadav, R., & Pathak, G. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal Of Cleaner Production*, 135, 732-739.
- Zameer, H., & Yasmeen, H. (2022). Green innovation and environmental awareness driven green purchase intentions. *Marketing Intelligence & Amp; Planning*, 40(5), 624-638.