The Purchase Intention towards Green Cosmetics among Female Consumers in Sri Lanka: Role of Health Value as a Mediator

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Abstract

Increased community awareness on various environmental problems and growing consumer trend of healthy lifestyles have changed consumer behavior and induced purchasing decisions on green products. In the global market, there is a growth in demand for organic and natural care cosmetics. Organic cosmetics are preferred by consumers than conventional cosmetics because organic cosmetics use botanically sourced ingredients that do not contain synthetic chemicals and are manufactured in such way to preserve the integrity of the ingredients thus not harmful in the long run. As a result of the growing number of organic consumers, marketers are targeting the organic market segment thus the cosmetic industry is an important segment that cannot be ignored. Most of the cosmetics companies are introducing new products with organic attributes to capture these environment and health conscious consumers. However, there is a dearth of research been conducted regarding this product category within Sri Lanka. Therefore, the purpose of this study is to investigate the determinants of purchase intentions of organic cosmetics using the Theory of Planned Behaviour. Furthermore, this study extends on the application of the Theory of Planned Behaviour by examining the mediating effect of health value on the attitude-purchase intention relationship. A deductive approach was incorporated to construct the conceptual framework and to form the hypothesis. A survey was conducted with 300 respondents from the Western Province, Sri Lanka and data was analyzed using correlation and multiple regression analysis. The results indicate that attitude, subjective norm, and perceived behavioral control have a significant positive impact

on purchase intention of organic cosmetics and that health value had an indirect effect or mediating effect on attitude and purchase intention of organic cosmetics. The findings of this study present important theoretical and practical implications for organic cosmetics consumer purchasing behavior.

Keywords: Female consumers, Health value, Green Cosmetics, Purchase intention, Sri Lanka

Introduction

Awareness of the destruction of natural resources has raised the issue of environmental protection, which in turn has created eco-friendly consumption called green consumerism. As the issue of environmental protection has gained attention, many firms and consumers are beginning to realize that they are members of the wider community and, therefore, must behave in an environmentally responsible manner (Wanninayake & Randiwela, 2008). According to Wanninayake & Randiwela (2008), Sri Lankan customers are substantially aware of green products and they are willing to pay something more for green products. Specifically, consumer demand has led to the increased diversity of green product categories such as fast moving consumer goods (FMCG), personal care products and organic food. As green products have gained popularity in the market, more consumers have looked for greener products (Nimse, et al., 2007).

The market for green and organic cosmetics is expanding globally (Onel, 2016). The rising health and go-green consciousness and the growing consumer awareness of the hazards of synthetic chemicals have fueled the demand for a healthier lifestyle and for organic cosmetics. Organic cosmetics are formulated from agricultural ingredients which are grown without the use of pesticides, synthetic fertilizers, sewage sludge, genetically modified organisms or ionizing radiation, making them more desirable among these green consumers (Organic.org, 2016). Global organic beauty market has increased considerably in recent years and considered as one of the growth markets in the cosmetic industry. Increasing use of cosmetic products

among consumers in India, China and Brazil along with rising awareness towards harmful effects associated with chemical substances is likely to fuel demand for organic personal care products over the period considered for the study purpose. Ability of natural ingredients to provide anti-oxidation properties and improve skin immunity is expected to be an advantageous factor for the market growth. Therefore, it is evident that organic cosmetics have gained popularity in a global scale and it is a growing market with much potential.

Considering the Sri Lankan context, it is evident that the organic food culture is becoming popular in Sri Lanka. Abundant research has been carried out regarding organic food and FMCG product purchase intentions in Sri Lanka (Samarasinghe & Ahsan, 2014). The current market value of the cosmetics and toiletries market is estimated to be US$ 150 million and has an average growth rate of 11 percent (Pathmaperuma & Fernando, 2018). There are 120 local cosmetics and beauty care product manufacturers and more than 100 importers of such products. Also, there are currently 1800 skin care products and 1200 hair care products available in the Sri Lankan market. The Beauty & Personal Care market is defined here as consumer goods for cosmetics and body care. Included are beauty cosmetics for the face, lips, skin care products, fragrances and personal care products such as hair care, deodorants and shaving products. Revenue in the Beauty & Personal Care market amounts to US$1.17bn in 2022. The market is expected to grow annually by 5.46%.. The market's largest segment is the segment Personal Care with a market volume of US$0.55bn in 2022.

Sri Lankan manufacturers and importers provide almost equal numbers of personal care products to consumers. Most of the local producers focus on adding organic personal care products to their portfolio and many brands are developed to cater to unique niche segments. For an example, according to an article published in the Daily Financial times in 2012, local manufacturers launched organic bath and body products to the Sri Lankan market, positioning in luxurious setting.

However, even though there are organic cosmetic producers, there is less research been conducted on organic cosmetics in Sri Lanka. According to Randiwela & Mihirani (2015), unlike the organic food market, manufactures and marketers of cosmetics and personal care products, being a major segment within the FMCG sector, will find difficulty in developing strategies specifically related to green cosmetics since the consumer behaviour towards such products are unknown. Therefore, since there is a dearth of research on consumer purchase intentions of organic cosmetics in Sri Lanka, it can be concluded that the determinants of purchase intentions of organic cosmetics are not explained appropriately.

Furthermore, in this context an article published on the Sunday Times newspaper in 2018 stated the Sri Lankan market is flooded with skin care products that contain dangerous levels of heavy metals such as mercury and that a rising number of women seek medical help. It further elaborates the views of few consultant dermatologists stating the damage that can be caused to organs due to long term exposure to such products and that cosmetics should be given priority like medicine. Thus, due to consumers' concern about the synthetic chemicals in beauty products has led the search for organic cosmetics by the consumers (Kim & Seock, 2009). Considering organic cosmetics, attention was paid to health consciousness because organic cosmetics can be equated to organic food product category (Kim & Chung, 2011). Thus, considering the ingredients is one of the most important product attributes in choosing food and personal care products, which are directly related with human health thus health consciousness, should be a main direct motivator when buying these products hence health value can be a mediator (Liobikiene & Bernatoniene, 2017). According to Sekaran & Bougie (2013) the mediating variable surfaces as a function of the independent variable operating in any situation and helps to conceptualize and explain the influence of the independent variable on the dependent variable. However, all previous research done in the organic cosmetics have tested how the health value has impacted on the attitudes towards organic cosmetics using the theory of planned behaviour (Kim & Seock, 2009; Kim & Chung, 2011) but it is not tested as a mediator in the attitude - purchase intention relationship.

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Therefore, the proposed study sets forth to examine Sri Lankan consumers' purchasing behavior of organic cosmetics base on the Theory of Planned Behaviour by Ajzen (1991) with the mediating influence of health value on the attitude - purchase intention relationship. Therefore, it mainly focuses on achieving the following research objectives; 1) to investigate whether the purchase intention of organic cosmetics is influenced by attitudes towards organic cosmetics, subjective norm and perceived behaviour control; and 2) to investigate whether the relationship between attitudes and purchase intention of organic cosmetics is mediated by the health value.

In the following sections, the paper presents key literature on purchasing behaviour of organic cosmetics and theoretical model of consumer behaviour. Then develops the main hypotheses and the conceptual model of the study. Next, it presents the methods adopted for the study, discussion of the findings and the conclusion and implications.

Literature Review

Emergence of green cosmetics

The demand for cosmetics will keep growing, fueled mostly by the emerging markets of Asia and Latin America and what will contribute to the creation of new products, shape new spending patterns and perhaps even establish new beauty canons. What is becoming more and more visible in the global market are organic beauty products, those natural cosmetics, manufactured in accordance to the fair-trade philosophy. They emerged from a niche that was previously occupied by a small number of companies and got incorporated into the mainstream market. Those products are now distributed through standard channels such as supermarkets and department stores (Lopaciuk & Laboda, 2013). Modern cosmetics industry uses a wide range of chemicals such as parabens, petrochemicals, sodium lauryl sulfate, artificial colors and preservatives. There is no doubt that long-term exposure to such chemicals may cause many health-related problems, such as cancer, dermatitis and allergies

(Nijkamp et al., 2015). Therefore, a new trend that researchers identified is incorporating sustainability aspects to cosmetic manufacturing. When introducing new products, cosmetics manufacturers are increasingly starting emphasizing that they were produced in a way that was not harmful to the environment whilst their effectiveness remained comparable to their previous versions and in some countries changes in legislation have been put in place to make consumers more informed and to help them distinguish organic and non-organic cosmetics, letting people appreciate their value more (Lopaciuk & Laboda, 2013). The findings of this study (Ahmed et al. 2021) indicated that attitude, subjective norms and perceived behavioral control have positive effects on the purchase intention of young consumers for *organic food.* Furthermore, consumers avoiding unwanted exposure to preservatives, synthetic ingredients, hormones and pesticide residues are more likely to use organic cosmetics. Consequently, the demand of organic cosmetics has increased exceptionally (Ferrer et al., 2012). The organic cosmetics are those where the ingredients should be environmentally-friendly, grown without pesticides, synthetic fertilizers, toxic materials, genetically modified organisms or ionizing radiation. Thus, green (organic) cosmetics guarantee environmental conservation all along the production line, a respect for consumers and utilization of natural materials of superior ecological quality for better health (Organic Monitor, 2011). Such products use botanically sourced ingredients and do not contain synthetic chemicals; moreover, they are manufactured in such a way to preserve the integrity of the ingredients. In the global market, Ecocert, the United States Department of Agriculture, the Ethical and Environmental Certification Institute, the Soil Association, CosmeBio, and the Control Union are the leading organic certification bodies (Hsu et al., 2017).

Organic cosmetics are one of the product groups which are comprised of two different categories. One would be colour make up and styling cosmetics which are attributed to luxury products which reflects the status of consumers. The second category would be the personal care products which are attributed to necessity products (Liobikiene & Bernatoniene, 2017). Organic personal care products comprise of skin care, hair

care, oral care, colour cosmetics, deodorants, toiletries and feminine hygiene products. They are formulated from agricultural ingredients which are grown without the use of pesticides, synthetic fertilizers, sewage sludge, genetically modified organisms or ionizing radiation, making them more desirable among these green consumers (Organic.org, 2016).

Theory of planned behaviour

As in the original Theory of Reasoned Action, a central factor in the Theory of Planned Behaviour is the individual's intention to perform a given behaviour. Intentions are assumed to capture the motivational factors that influence behaviour. They are indications of how hard people are willing to try, and of how much of an effort they are planning to exert in order to perform the behaviour.

The theory postulates three conceptually independent determinants of intention. Ajzen (1991) argued that the attitude, subjective norm and perceived behavioural control affect intention, which in turn affect real behaviour. Attitude refers to the degree which the person has a favourable or unfavorable evaluations of the behaviour in question. Subjective norm refers to the perceived social pressure to perform or not to perform the behaviour. If a person believes that his or her referents think that behaviour should be performed, then the subjective norm will influence his or her intention to perform that behaviour.

The novel antecedent of intention, which was not part of the theory of reasoned action, is the degree of perceived behaviour control. Perceived behaviour control refers to the perceived ease or difficulty performing the behaviour and it is assumed to reflect experience as well as anticipated impediments and obstacles. This construct is affected by perceptions of access to necessary skills, resources and opportunities to perform the behaviour. If an individual feel that he or she has control over the situational factors, he or she may develop the intention to perform the behaviour. Therefore, perceived behaviour control influences intention to perform behaviour. Generally, the more favourable the attitude and subjective norm with respect to a behaviour, and the greater the perceived behavioural control will lead to a stronger

individual's intention to perform the behaviour under consideration (Ajzen & Driver, 1992).

Theory of planned behaviour and determinants of purchase behaviour of green cosmetics

Consumers with different value systems will show different behaviors toward organic cosmetics because one's values, such as important life goals or standards, are guiding principles in one's life (Rokeach, 1973). Also, Schwartz & Blisky (1987) proposed that values are trans-situational goals that serve the interest of individuals or groups and that they act as guiding principles in consumers' lives. Furthermore, values help to shape the judgments people make about the world around them and act as filters or amplifiers with regard to information about threats to objects of value (Liobikiene & Juknys, 2016). Accordingly, values may influence formation of an individual's attitude by guiding him or her to look for objects that will satisfy his or her values (Poortinga, Stec, & Vlek, 2004). Health consciousness guides people to engage in healthy behaviours (Becker et al., 1977). Health conscious consumers care about the desired state of well-being and put forth an effort to maintain a healthy life (Newsom et al., 2005). In the context of organic cosmetics purchases, consumers with high health consciousness may consider whether a product is safe to the skin and body. Therefore, they may be more seriously concerned with the types of ingredients used to make the product than consumers with low health consciousness because health conscious consumer try avoiding conventional cosmetics with chemicals as it can create harmful effects (Johri & Sahasakmontri, 1998; Kim & Seock, 2009). Considering ingredients to be one of the most important product attributes in choosing food and personal care products, which is directly related with human health, thus health value should be the main motivator in purchasing these organic cosmetic products. Therefore, health value should have a mediating impact on purchase intention of organic cosmetics.

Kim and Chung (2011) found a relationship between consumer values and attitudes of buying organic cosmetics. Consumer values such as environmental consciousness, appearance consciousness and health consciousness were tested, and it was found that

environmental consciousness and appearance consciousness were significant in attitudes toward organic personal care products than health consciousness. Moreover, the results showed that all predictors of Theory of Planned Behaviour are significantly correlated with purchase intention for organic personal care products. Further, the findings revealed that an individual's experience with other organic products have a significant impact on the purchase intention of organic personal care products which provide evidence that organic lifestyle is reflected in an individual's consumption pattern.

While Kim & Chung (2011) explain that health consciousness was not a significant predictor in determining attitudes towards organic cosmetics, Kim & Seock (2009) found health and environmental consciousness were both significantly related to a respondent's perceived level of knowledge of beauty products and ability to distinguish organic from conventional beauty products. Individuals who are concerned about health and environmental issues are aware that their consumption behaviors have a major impact on health and the environment and thus may actively seek information regarding product attributes that could potentially be harmful to health and the environment. However, some researchers explain that consumers believe that green cosmetics are better for their body and safer than traditional cosmetics and organic cosmetics promote a healthy lifestyle by containing ingredients which are beneficial for body and skin (Rezai et al., 2012; Ghazali et al., 2017). Therefore, the research findings are contradictory as some highlight that health consciousness is not significant, but some explained health consciousness as a significant factor.

Attitude toward behavior refers to personal evaluations being favorable or unfavorable to perform the behavior. According to Ajzen (1985), an individual is more likely to undertake a certain behavior if he or she has a positive attitude toward undertaking the behavior. Numerous studies support the positive relationship between consumers' attitudes and behavioral intentions for green purchasing in different cultures, such as Asian, US, and European, and in different product categories, such as organic foods and timber-based products (Tarkiainen &

Sundqvist, 2005). Other scholars found the types of consumers' perceived value on organic personal care products based on past experience, such as hedonic value, health value, safety value and environmental value have a significant positive effect on consumer attitude toward re-purchasing organic personal care products. Hedonic value was found to have the strongest influence on attitude compared to health, safety and environmental values (Ghazali et al., 2017).

Hypotheses of the Study

Attitude toward behavior refers to personal evaluations being favorable or unfavorable to perform the behavior. According to Ajzen (1985), an individual is more likely to undertake a certain behavior if he or she has a positive attitude toward undertaking the behavior. Numerous studies support the positive relationship between consumers' attitudes and behavioral intentions for green purchasing in different cultures, such as Asian, US, and European, and in different product categories, such as organic foods and timber-based products (Chan & Lau, 2001; Tarkiainen & Sundqvist, 2005). Therefore, Hypothesis 1 is proposed as follows:

H1: Consumers' attitude toward buying organic cosmetic products will have a positive influence on their purchase intentions to buy organic cosmetics.

Subjective norm reflects one's perceived social pressure to perform a certain behavior. If consumers believe that (significant number of others?) think organic skin care products are good, consumers will have more intention to buy these products. Subjective norm has a significant effect on behavioral intention in the context of behavior related to skin management (Hillhouse, Turrisi, & Kastner, 2000). Further, a strong relationship between subjective norm and intention has been shown in research on green consumer behavior (Hsu et al.,2017). Therefore, a hypothesis 2 is proposed as follows:

H2: Consumers' subjective norms will have a positive influence on their purchase intentions to buy organic cosmetics.

Perceived behavioral control refers to the degree of control that an individual perceives over performing the behavior (Chen, 2007). Thus, those who perceive a higher degree of personal control tend to have stronger behavioral intention to engage in a certain behavior (Ajzen, 1991). When people believe they have more resources such as time, money, and skills their perceptions of control are high and hence their behavioral intentions increase. Therefore, it is assumed that intention to buy organic cosmetics products is higher when consumers perceive more control over buying these products thus hypothesis 3 is proposed as follows:

H3: Consumers' perceived behavioral control over buying organic cosmetics products will have a positive influence on their purchase intention to buy organic cosmetics.

A study of men's use of grooming products in France revealed that, reducing the ageing process and the maintenance of health were among the factors driving the consumption of these products (Sturrock & Pioch, 1998). Past research has also shown that health benefits such as health preservation and improvement of health are among the predominant motives driving organic consumption (Xie et al., 2015; Yin et al., 2010). The health aspect of organic consumption is often associated with the absence of chemicals, such as pesticides and chemical-based fertilizers, used in agriculture (Xie et al., 2015). Magnusson et al. (2003) also showed that concerns about their own personal and their family health, were the most important factors influencing consumers' attitude towards organic food. Thus, it is highly likely that the perceived health value will have similar relationship with purchase intention of organic cosmetics and in addition health value could be a mediator because it is the main direct motivator to purchase organic personal care products and organic food and it will have an indirect effect in the attitude - purchase intention relationship (Liobikiene & Bernatoniene, 2017) as well and thus the hypothesis is proposed as follows:

H4: Health value mediates the relationship between attitude towards organic cosmetics and purchase intention of organic cosmetics.

Figure 1: *Conceptual model*
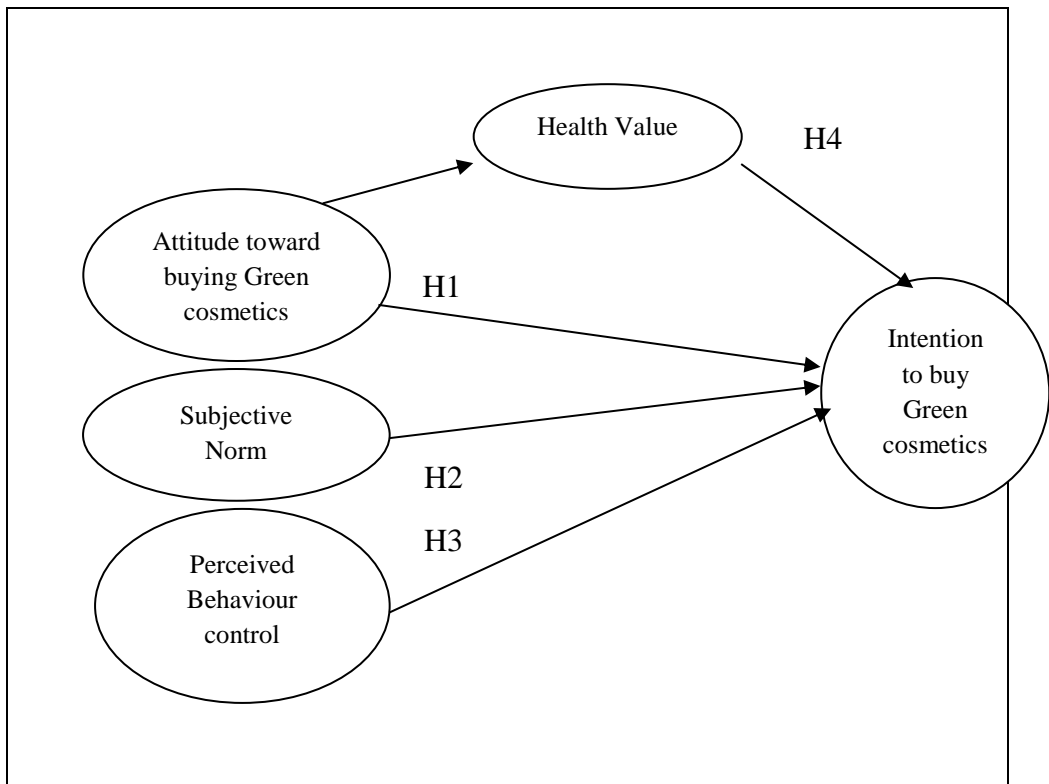
Methodology

The proposed study is based on the positivistic paradigm as positivists consider 'facts' as essential building blocks of the scientific knowledge of society. Only facts can be considered as objective representations of actual events in society. Positivists work with observable social reality and the end product of such research can be law-like generalization similar to those produced by natural scientists (Uyangoda, 2015). The purpose of this study is to use the Theory of Planned Behaviour to examine the effect of determinants of purchase intention of organic cosmetics of Sri Lankan consumers. This study aims to consider further the mediating impact of health value on the attitude and intention relationship. Thus, the research approach is suitable would be the positivist paradigm. Due to the main purpose of this study, survey was applied as the most suitable research strategy.

Operationalization

For the purpose of testing the hypotheses, the study uses the following five major constructs: attitude towards buying organic cosmetics, subjective norm, perceived behavioral control, health value and purchase intention of organic cosmetics. Attitude towards buying organic cosmetics was evaluated using scale items adopted from Ghazali et al. (2017), namely "good idea to buy organic cosmetics than conventional cosmetics", "organic cosmetics are beneficial", " wise move to use organic cosmetics than conventional cosmetics" , " it is pleasant to use organic cosmetics" and " it is desirable to use organic cosmetics". Following the attitudes, all other variables were evaluated using scale items adopted from Ghazali et al. (2017), subjective norm was measured using three scale items namely, "my family members think it is a good idea for me to buy organic cosmetics", "my friends think I should buy organic cosmetics and "people whom I listen to could influence me to buy organic cosmetics. Perceived behavior control was evaluated using three scale items namely, "if organic cosmetics were available, nothing would prevent me from buying them", I completely have control over the purchase of organic cosmetics" and "I believe that I have resources to buy organic cosmetics". Health value was measured using scale items namely, "I believe that organic cosmetics enable me to live healthy", "I am of the view that use of organic cosmetics has a high health promoting effect" and "I believe that organic cosmetics and health conscious life style match well". Purchase intention was measured in terms of respondent's intention engage in organic cosmetics purchase using three scale items.

Sample and sampling procedure

Unit of analysis of this study is at the individual level as the objective of the study is to investigate the impact of attitudes towards organic cosmetics, subjective norms and perceived behaviour control on purchase intention of Sri Lankan consumers towards organic cosmetics. Cosmetics have been traditionally used by women to control their physical appearance and, presumably, their physical attractiveness. Women are still the salient consumers of cosmetics (Pervin & Ranchhod, 2014). Therefore, the unit

of analysis would be females who are between age of 20 to 50, who live in the Western Province of Sri Lanka and sample size is 300 respondents. Sampling technique occupied for the study was purposive sampling which is confined to specific types of people who can provide the desired information, because they are the only ones who have it (Bryman, 2012). As it is necessary to obtain information from organic cosmetic consumers the most accessible way for the researcher to conduct the questionnaire was adopting purposive sampling. Purposive sampling is suitable in this case as there is no factual data on females using organic cosmetics and it was necessary to collect information only from females who are using organic cosmetics.

Data collection and analysis

Data was collected using an online questionnaire and from the outlets of the well-known organic cosmetic brands which were located in major shopping malls where most of the organic cosmetic consumers buy their products. The structured questionnaire comprised of 18 questions to measure the five constructs basically four constructs based on Theory of Planned Behavior and health value. In addition to these questions, four questions were incorporated to gain a general understanding of the participants in the form of age, income, educational qualification and frequency of purchase of organic products. All questions have been borrowed from international and reputed journals and first 18 questions are measured in a seven-point Likert scale where 1 represented strongly disagree and 7 represent strongly agree (Ghazali et al., 2017). In performing the statistical analysis of the gathered data, the statistical package for Social Science (SPSS version 22) was applied. The statistical analysis for this study comprises correlation analysis in addition to the reliability test. In this study, four linear regressions were conducted respectively.

First, multiple regression was conducted to test the relationship between the three factors mainly attitudes towards organic cosmetics, subjective norm, perceived behaviour control and the purchase intention towards organic cosmetics. Second, two

simple regression analysis and one multiple regression analysis along with Sobel Test was conducted for testing mediation.

Data Analysis and Presentation

Respondents demographic profile

Table 1: *Age and education of the respondents*

Age of the respondents	Percentage of sample	Education	Percentage of sample
20 to 25 years	17%	Secondary	10%
26 to 41 years	58%	Education	35%
42 to 51 years	25%	Diploma	40%
		Bachelor's degree	15%
		Postgraduate	

According to table 1, most of the respondents were highly educated. Moreover, the survey also collected the frequency of purchase of organic products from the respondents, the majority (n=215) purchased organic products less than once in a month. A total of 47 respondents were regular purchasers of organic products 1-2 times in a month and 38 respondents bought organic products more frequently which was more than 2-5 times a week.

Reliability and validity of measures

Before conducting the large-scale questionnaire survey, a pilot study was carried out with 30 organic cosmetics female consumers to confirm the reliability of the constructs. Cronbach's alpha was calculated to measure the reliability and internal consistency of the measurement scales. The attitude construct (5 items) had a Cronbach's alpha of 0.792; the construct, subjective norm (3 items) had a Cronbach's alpha of 0.748; perceived behaviour control construct (3 items) had a Cronbach's alpha of 0.522; purchase intention construct (3 items) had a Cronbach's alpha of 0.682 and health value (3 items) construct had a Cronbach' alpha of 0.844. Moreover,

before running the Multiple Regression analysis, factor analysis was done in order to test the internal consistency of latent variables. According to Hair et al. (2016), outer loading reflecting indicator reliability should be higher than 0.708. Table 2 presents all the outer loadings, ranging from 0.760 to 0.932, confirming the reliability of all measurement indicators. In addition, all the Average Variance Extracted (AVE) values exceeded 0.50. An AVE value of at least 0.50 indicates that a latent variable is on average able to explain more than half of the variance of its indicators (Hair et al., 2016). Thus, the measurement model achieved an adequate and satisfactory convergent validity. Furthermore, the square root of AVE is consistently greater than the corresponding correlations, thus suggesting the evidence for good discriminant validity for all constructs (Fornell & Larcker, 1981).

Table 2: *Construct and indicators*

Construct	Item	Outer Loadings	AVE	Square root of AVE
Attitudes	AT 1	0.841	0.676	0.822
	AT 2	0.879		
	AT 3	0.818		
	AT 4	0.809		
	AT 5	0.760		
	SN 1	0.868		
Subjective Norm	SN 2	0.882	0.757	0.870
	SN 3	0.860		
	PBC 1	0.835		
Perceived Behaviour Control	PBC 2	0.891	0.751	0.866
	PBC 3	0.873		
	PI 1	0.794		
Purchase Intention	PI 2	0.895	0.747	0.864

	PI 3	0.900		
	HV 1	0.883		
Health Value	HV 2	0.932	0.828	0.910
	HV 3	0.915		

Association between key constructs

Table 3: *Descriptive Statistics and Pearson correlation coefficients*

Variable	Min	Max	Mean	SD	1	2	3	4	5
1.AT	11.46	23.70	21.34	2.613	-				
2.SN	2.27	15.90	12.36	2.597	.587				
3.PBC	5.17	15.77	13.11	2.236	.713	.618			
4.PI	4.65	15.68	13.22	1.983	.680	.655	.781		
5.HV	5.46	19.11	16.95	2.486	.720	.566	.661	.660	

Notes: N=300 p<0.01

Correlation analysis aims at ensuring the construct validity by measuring how well two sets of data were related. It can be presented by the value of Pearson's correlation coefficient. In general, if the correlation value is under 0.8 or 0.9, validity is ensured. In this study, all the values were under 0.8 which indicated that the two sets of concepts are not highly related. In other words, these concepts measured differently. Furthermore, all the variables accounted have a significant linear relationship and the direction of the relationship is positive, meaning these variables tend to increase together.

Test of hypotheses

In testing the two hypothesized relationships in the conceptual model, the multiple regression analysis revealed the following results as shown in the Table 4.

Table 4: *Multiple regression analysis predicting purchase intention of buying organic cosmetics*

Model	R	R square	Adjusted R square	F change	df 1	df 2	Sig	Durbin Watson
1	0.820	0.673	0.669	202.7	3	296	.000	1.636

Table 5: *Statistical output of the multiple regression analysis*

Model	Unstandardized Coefficients		Standardized Coefficient	T	Sig	Collinearity statistics	Tolerance VIF
	B	Std error	Beta				
Constant	2.171	.543		4.000	.000		
AT	.138	.037	.181	3.682	.000	.457	2.189
SN	.181	.034	.237	5.398	.000	.574	1.742
PBC	.448	.045	.505	9.963	.000	.430	2.323

To test the relationship between purchase intention of organic cosmetics and the predictors such as attitude towards buying organic cosmetics, subjective norm and perceived behavior control (H1-H3), standard multiple regressions analysis was performed. All the independent variables of the Theory of Planned Behavior were entered into equation simultaneously. The multicollinearity measured by Variance Inflation Factor (VIF) was between 1 and 2.323 and indicated that no multicollinearity existed among the independent variables. The normal probability (P-P) plot of the regression standardized residual data points are on the diagonal line with minimum deviations suggesting that there are no major deviations from

normality. Further, case wise diagnostics are less than 1 percent outside the normal range. Therefore, all the assumptions are met to conduct the standard multiple regression analysis.

According to the results presented in table 4, the model explains 67.3 % of the variance in purchase intention of organic cosmetics. The regression model predicated purchase intention from attitude towards buying organic cosmetics, subjective norm and perceived behaviour control was statistically significant, $F (3,296) = 202.7$, $p <$ .001, $R^2 = 0.673$. According to the results presented in Table 5, attitude towards organic cosmetics positively influenced the purchase intentions ($\beta = .181$, $p < .001$) and the result is significant, meaning attitude towards organic cosmetics made a statistically significant contribution to the equation, thus H1 is fully supported. Subjective norms also positively influence the purchase intentions ($\beta = .237$, $p < .001$) and the result is significant thus H2 also can be fully supported. Furthermore, perceived behaviour control positively influenced the purchase intentions of organic cosmetics ($\beta = .505$, $p < .001$) and the result is significant, therefore, H3 is also fully supported. Perceived behaviour control had the largest standardized coefficient means perceived behaviour control makes the strongest unique contribution in explaining the purchase intention of organic cosmetics in the Sri Lankan context.

Data analysis of the mediating hypothesis testing will investigate the impact of the mediator on the relationship between independent variable and dependent variable. Data is analyzed based on Baron & Kenny's (1986) three step mediation analysis and further confirmed by Sobel's Test (1982). Therefore, for data analysis purpose the results are demonstrated based on the three steps given by Baron & Kenny (1986) to arrive at the outcome for the mediation analysis.

Condition 1: The independent variable should significantly affect mediator.

Table 6: *Model summary of the independent variable (attitude) predicting the mediating variable (health value)*

Model	R	R square	Adjusted R square	F change	df 1	df 2	Sig
1	0.748	0.560	0.559	374.5	1	294	.000

Table 7: *The coefficients of the independent variable (attitude) predicting the mediating variable (health value)*

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig
	B	**Std error**	**Beta**		
1. AT	0.693	0.036	.748	19.35	.000

Results in the first step according to Table 6 which is the path 'a' of the mediation, the regression of attitude towards buying organic cosmetics and the health value was significant, b = 0.693, t (1,294) = 19.35 and p < .001. Furthermore, overall model was significant and attitude towards buying organic cosmetics explained 56% of the variance in health value. Therefore, attitudes regress significantly on health value thus the first condition set by Baron & Kenny's (1986) mediating analysis is satisfied.

Condition 2: The independent variable significantly affects the dependent variable in the absence of the mediator.

Table 8: *Model summary of the independent variable (attitude) predicting dependent variable (purchase intention)*

Model	R	R square	Adjusted R square	F change	df 1	df 2	Sig
1	0.698	0.487	0.485	278.79	1	294	.000

Table 9: *Coefficients of the independent variable (attitude) predicting dependent variable (purchase intention)*

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig	Collinearity statistics	Tolerance VIF
	B	**Std error**	**Beta**				
1. AT	0.543	0.033	.698	16.69	.000	1.000	1.000

Results of the second step according to Table 8, which is also known as the path 'c' of the mediation analysis was found to be significant, $p < 0.001$, $F (1,294) = 278.79$. Overall, the attitude towards buying organic cosmetics explained 48.7% of variance in purchase intention. The regression of the attitude and purchase intention was also significant $b = 0.543$, $t (1,294) = 16.69$ and $p = <0.001$. Therefore, the second condition of the mediation analysis was also satisfied.

Condition 3: The mediator has a significant unique effect on the dependent variable and the effect of the independent variable shrinks upon the addition of the mediator variable

Table 10: *Model summary of the independent variable (attitude) and mediating variable (health value) predicting the dependent variable (purchase intention)*

Model	R	R square	Adjusted R square	F change	df 1	df 2	Sig
1	0.723	0.523	0.520	160.52	2	293	.000

Table 11: *Coefficients of the independent variable (attitude) and mediating variable (health value) predicting the dependent variable (purchase intention)*

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig	Collinearity statistics	Tolerance VIF
	B	**Std error**	**Beta**				
1. AT	0.376	0.047	.483	7.94	.000	.444	2.274
HV	0.241	0.051	.287	4.70	.000	.444	2.274

Table 12: *Output from Preacher's online Sobel Test*

Input		Test Statistics	Standard error	p-value
a 0.693	Sobel test	4.5892	0.0363	0.0000
b 0.241				
sa 0.036				
sb 0.051				

Results of the third step according to Table 10 indicate that the overall model which is attitude towards buying organic cosmetics and health value together predicts purchase intention of organic cosmetics was significant, $F_{(2.293)} = 160.52$, $p < .001$ and both attitude towards organic cosmetics and health value explained 52% variance in purchase intention of organic cosmetics. The mediator (HV) predicting independent variable (PI) which is known as path 'b' in the mediation analysis, controlling for the attitude towards buying organic cosmetics was significant b = 0.241, $t_{(2,293)} = 4.70$, $p < .001$. The path 'c' of mediation analysis revealed that controlling for the mediator (HV), attitudes towards buying organic cosmetics were still a significant predictor of purchase intention of organic cosmetics but it has lessened, b = 0.376, $t_{(2,293)} = 7.9$, $p < .001$ which is demonstrated in Table 11. It was noticed that health value is a significant predictor of purchase intention of organic cosmetics and attitudes towards buying organic cosmetics. Attitudes towards buying

organic cosmetics which was previously a significant predictor by itself, is now reduced in its strength as a predictor. According to the definition of Baron & Kenny (1986), mediation occurs when a variable has mediated the relationship between two other variables when the basic relationship is reduced when the mediating variable is included in the regression equation. According to the Sobel Test (1982) which is shown in Table 12, the results obtained a p value of less than 0.05 meaning that the study has obtained a statistically significant mediation. This can be explained as a partial mediation because attitudes towards buying organic cosmetics as the independent variable exerts some of its influence on the purchase intentions of organic cosmetics as the dependent variable and not through the mediating variable which is the health value. Therefore, H4 is accepted.

However, the researchers should not only consider the statistical significance of the mediation but also the size of a given effect. The size of the indirect effect would be 0.167 (path a x path b). The strength of the indirect effect can be assessed using ratio and proportion measure which is a measure suggested by MacKinnon (2008). The indirect / total ratio computed based on unstandardized coefficients refers to $0.167/0.543 = 0.307$ which explains 31% of the original relationship among attitudes and purchase intention is explained by the indirect effect.

Discussion of the Findings

Turning first to the findings of the relationship between attitudes, subjective norm, perceived behaviour control and purchase intention of organic cosmetics, the results showed that all Theory of Planned Behaviour predictors are significantly correlated with purchase intention of organic cosmetics. Attitude towards the behaviour refers to the level at which a person has a positive or negative evaluation or assessing of the behaviour. The more positive the attitude is in regard to behaviour, the stronger is the individual's intention to perform the behaviour under consideration (Tarkiainen & Sundqvist, 2005). This result is in line with classical attitude-behaviour theory (Azjen, 1991) and previous studies, such as Kim & Chung (2011) who stated that the attitude toward organic cosmetics had a direct, positive and relatively strong

relationship with organic cosmetic consumption. In this study, attitudes towards buying organic cosmetics were found to be making a statistically significant contribution in explaining the purchase intention of organic cosmetics. Thus, Sri Lankan consumers have a positive attitude towards buying organic cosmetics.

Considering the next predictor of purchase intention of organic cosmetics according to the Theory of Planned Behaviour is the subjective norm which can be explained as the perceived social pressure to perform or not to perform the behaviour (Hsu et al., 2017). In this study, subjective norm was found to be making a statistically significant contribution in explaining the purchase intention of organic cosmetics. This is consistent with the findings of previous research based on the Theory of Planned Behaviour. This is consistent with the findings that subjective norms are positively related to purchase intention of organic food (Chen, 2007; Teng & Wang, 2015) and organic cosmetics (Kim & Chung 2011; Hsu et al., 2017). In a collectivist society such as Sri Lanka, peers, family and reference groups play an important role in purchase behaviour of organic cosmetics. Therefore, the level of influence imposed by reference groups such as family, friends and colleagues for instance usually occurring during the initial purchase choice and decision-making stages would be high (Hsu et al.,2017). In the Sri Lankan context, they will be the opinion leaders who provide reference on organic cosmetic brands as opposed to conventional cosmetics.

Perceived behaviour control as a predictor of the purchase intention of organic cosmetics has a significantly positive relationship between consumer attitudes and purchase intentions of organic cosmetics. These findings are in line with previous research (Kim & Chung 2011; Hsu et al.,2017; Ghazali et al.,2017). Perceived behaviour control refers to the possession of resources, abilities and opportunities that a person believes he or she has in order to perform a particular behaviour. This factor, compared to a person's attitude toward performing a specific behaviour and subjective norm, not only affects the behavioural intentions but also the actual behaviour (Ajzen & Fishbein, 1980). Madden, Ellen, and Ajzen (1992) affirmed that perceived behaviour control motivates an individual's behavioural intentions, as well as actual behaviour. The study results showed that perceived behaviour control had the highest

standardized beta coefficient in the model thus it makes a unique and the strongest contribution in explaining the purchase intention of organic cosmetics. This is a positive indication because unlike attitudes towards buying organic cosmetics and subjective norm, perceived behaviour control affects not only a the purchase intention of organic cosmetics but also the actual behaviour as explained in previous literature. It is important that consumers have more time to purchase organic cosmetics because they should spend some time searching information about the product ingredients, manufacturers sourcing policy, animal testing and evaluating it on their skin types. Thus, a higher degree of perceived behaviour control means consumers will have higher intention to purchase organic cosmetics.

Health conscious consumers care about the desired state of well-being and put forth an effort to maintain a healthy life (Newsom et al., 2005). They are mostly interested in organic or natural ingredients without the presence of chemicals. The findings of this study affirmed the suggestion made by Liobikiene & Bernatoniene (2017) that future research should focus testing health value as a mediator as health value will have an indirect effect on the attitude and purchase intention relationship. The results showed that if a consumer experiences a positive attitude towards organic cosmetics, it is likely to result in a greater purchase intention of organic cosmetics. This relationship can be partially explained by detailing the involvement of health value. In essence, consumers who reported positive attitudes towards organic cosmetics reported more health consciousness and in turn health conscious consumers reported higher levels of purchase intention of organic cosmetics.

Conclusion and Contributions

Key findings of the study

Key findings of the study include that attitudes towards organic cosmetics, subjective norm and perceived behaviour control have a positive and significant relationship with the purchase intentions of organic cosmetics. All three predictors of the Theory of Planned Behaviour made statistical contribution in explaining the purchase

intention of organic cosmetics. The model explained 67.3% of variance in explaining the purchase intentions of organic cosmetics. Moreover, health value partially mediates the relationship between attitudes towards buying organic cosmetics and purchase intentions of the organic cosmetics. 31% of the original relationship among attitudes towards buying organic cosmetics and purchase intention of organic cosmetics is explained by the indirect effect.

Theoretical implications

This research adds to the literature by proving that consumers who are concerned about the environment, and who prioritize quality display a positive intention to purchase green cosmetics. This research has several significant implications. Theory-wise, the study was capable of proving all the variables considered in the study highly influence on the purchasing intention of consumers related to green cosmetics in Sri Lanka similar to other parts of the world. This study provides a theoretical framework for understanding consumer purchase intention of organic cosmetic products in Sri Lanka especially, this study contributes to our understanding for the first time and interestingly found that the relationship between attitudes and purchase intention of organic cosmetics is partially intervened by health value. This study extended the Theory of Planned Behaviour model by including constructs that are important in organic context, such as health value and contributing to the present knowledge that health value could be a mediator and thus have an indirect effect explaining purchase intention of organic cosmetics. This finding is also consistent with the suggestion made by Liobikiene & Bernatoniene (2017) that future research should test health value as a mediator in attitude purchase intention relationship. Adding these constructs to the model has improved the ability to predict intention and understanding of the decisions of organic cosmetic consumers thus contributing new knowledge to the literature of organic cosmetics purchase behaviour, where the purchase intentions are explained using the Theory of Planned Behaviour.

Managerial implications

The present study provides several suggestions for Marketing Managers and Brand Managers of organic cosmetics companies. Firstly, this study found that attitude toward organic personal care products, subjective norm, and perceived behavioral control have a significant and positive impact on purchase intention of organic cosmetics. Thus, to increase consumers' purchase intention toward organic cosmetics, marketers can use marketing communication via various channels, such as television, social media, magazines, or the internet to transmit product messages and further evoke their positive attitude toward organic cosmetics. In numerous past studies, researchers have confirmed that consumers' attitude significantly and positively affected their purchase intention.

Furthermore, subjective norm also had a significant and positive impact on purchase intentions of organic cosmetics. It is vital to evoke positive word of mouth or viral marketing campaigns among the consumers to spread the information about organic cosmetics and its benefits through consumer testimonials. This would attract more consumers who are using cosmetics but unaware about the benefits of organic cosmetics to purchase organic cosmetics and to ultimately improve sales of organic cosmetics. Moreover, as discussed earlier perceived behaviour control made the unique and strongest contribution in explaining the purchase intention of organic cosmetics. Therefore, Sri Lankan consumers will buy organic cosmetics if it is more available. Therefore, marketers should make effort to cover all the consumer touch points so that they can make available their products for them to buy.

Additionally, the study found that health value partially mediates the relationship between attitudes towards organic cosmetics and the purchase intentions. This suggests that Sri Lankan consumers are considering the ingredients as an important attribute in choosing organic cosmetics, which is directly related with human health. Health value was important when purchasing organic food, according to previous researches, and this study confirms that not only consumers purchase organic food because its healthier than conventional food due to less chemicals residue also they are concerned about what they apply for their skin thus health conscious consumers

will have more strong and positive intention to purchase organic cosmetics than conventional cosmetics. Therefore, this study provides an important guidance to brand managers when deciding their brand plans regarding organic cosmetics. Their integrated marketing communication plan should speak in one voice, communicating the health benefit of their organic cosmetics, educating the consumers about the natural ingredients they use in their products and its health benefits. Therefore, positioning on "health and wellness" will give organic cosmetics manufactures a positive response from the consumers and also a competitive edge over its conventional cosmetics sellers. The empirical findings of the study prove that perceived quality has a positive influence over the attitude towards green cosmetics, and the same results were found in the case of environmental concern. Thus, when consumers build a positive attitude towards green cosmetics, their purchasing intention of such products is also influenced in a significant manner. Furthermore, the subjective norm was also found to display a positive influence over the purchasing intention of green cosmetics. Hence, consumers who want to comply with socialnorms opt for such products. The results can also help marketers tailor their strategy to the stream of consumers who give great importance to perceived quality and are concerned about the environment, by focusing their efforts, by highlighting the superior quality of green cosmetics, in addition to their contribution to the protection of the environment, by emphasizing their green qualities.

Conclusion

This study is one of the first to examine the purchase intention toward organic cosmetics of Sri Lankan consumers. The proposed study addressed the research problem of what are the determinants of purchase intention of organic cosmetics of Sri Lankan consumers. The present study provides useful insights into various important antecedents of purchase intentions toward organic cosmetics. Today's consumers engage in healthier and more sustainable lifestyles. They make greener and organic choices in their purchases. This study provides an integration of the research findings and suggestions for future study on consumer purchase behaviour of organic cosmetics.

It provides valuable insights by confirming that attitude, subjective norm and perceived behaviour control are the important factor in predicting intention to purchase of organic cosmetics. Furthermore, it suggests that health value mediates the relationship between attitudes and purchase intentions and also explains the moderating role of brand trust between attitude and purchase intention relationship.

This study enables industry practitioners to have a better understanding of consumer purchase behaviour in order to capitalize on the growing interest in organic consumerism. Based on the findings, firms can develop more effective marketing activities focusing on the key influences. It is important for the industry to provide clear and genuine information about the health benefits of their organic cosmetic products and to assure the authenticity of their organic cosmetic product claims regarding health and safety while satisfying consumer demands and needs. In order to enhance the competence and credibility of the organic cosmetics products building brand trust is essential.

Limitations of the study

This study has some limitations. This study looked at responses collected from two major cities in the Western province as most consumers of organic products reside mainly in the urban areas. However, it is recommended that future research should collect responses from a wider area of the country. While the focus of this study was only on female consumers but there is a tendency in males also using organic cosmetics due to the increase trend in male grooming, thus future studies could examine whether the approach used in this inquiry may be applied to potential both male and female customers.

The hypotheses were assessed within the context of organic personal care products, which represent only one portion of the entire range of organic cosmetics products. Replicated and expanded studies applied to other organic cosmetics products may further contribute to increasing our understanding of key determinants of purchase intention.

Finally, as this study was conducted during a specific time frame, it cannot identify how factors impact individual purchase intention, and whether purchase intention changes over time. This study is based on a cross-sectional rather than on a longitudinal perspective, which limits the information on the long-term effect of the factors in the model. This means that much emphasis has been put on observing consumers' behaviour rather than observing changes in consumers' behaviour. It could be more interesting to study changes in consumers' behaviour over a long-term horizon.

Directions for future research

The future studies should focus on other variables could be integrated into Theory of Planned Behaviour model to examine the predictive power of purchase intention of organic cosmetics such as country of origin. Country of origin is related to the image, stereotype, and reputation that manufacturers and consumers attach to products of a specific country according to these variables as national traits, political circumstances and economic, history, and traditions. Consumers' perceptions on stereotype images about countries are referred as the country of origin effect (Lotz & Hu, 2001). Bilkey & Nes (1982) argued that such images act as an extrinsic marketing cue in influencing the evaluation of products from different origins. Therefore, it would be interesting to find about how country of origin affects the purchase intention as Sri Lankan consumers use both local and international brands of organic cosmetics.

Moreover, there is also scope to conduct comparative studies between consumers who use local brands of organic cosmetics and international brands of organic cosmetics. Finding the difference in the brand trust levels among local and international brands would provide further insights regarding purchase intentions of organic cosmetics. It is also important study the role of trust in the process of buying organic cosmetics. This would include a greater scope as trust includes organic certification, clear labelling, manufactures sourcing and production policy and brand. Also future research can focus on exploring further dimensions to test brand trust not specifically to organic cosmetics as there is less research on this area more determinants of brand

trust such as brand symbol, price, emotional branding can be examined. In an emerging market like Sri Lanka, marketers have started to take note of the significance of brand trust so that the marketing objectives can be achieved. Researchers should embark on the challenge posed by this area and further explore how a valuable model can be designed for brand trust of specific products.

References

Ahmed, N., Li, C., Khan, A., Qalati, S.A., Naz, S. & Rana, F., 2021. Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness. Journal of Environmental Planning and Management, 64(5), pp.796-822. https://doi.org/10.1080/09640568. 2020.1785404

Ajzen, I. (1991). "The theory of planned behavior", Organization Behavior and Human Decision Processes, Vol. 50 No. 2, pp. 179-211.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action-control: From cognition to behavior (pp. 11–39). Heidelberg: Springer.

Ajzen,I., & Drive, B.L. (1992). Application of the Theory of Planned Behaviour to Leisure choice. Journal of Leisure Research ,24(3),207-223.

Bryman, A. (2012). Social Research Methods. New York: Oxford University Press.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173–1182.

Becker, M., Maiman, L., Kirscht, J., Haefner, D. & Drachman, R. (1977), "The health belief model and prediction of dietary compliance: a field experiment", Journal of Health and Social Behavior, Vol. 18 No. 4, pp. 348-66.

Chan, R.,& Lau, L. (2001). Explaining green purchasing behaviour: a cross-cultural study on American and Chinese consumers. Journal of International Consumer Marketing,14 (2/3),9-40.

Chen, M. (2007).Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: moderating effects of food related personality traits. Journal of Food Quality and Preference,18(7),1008-21.

Ferrer, A., Hidalgo, C., Kaps, R., Kougoulis, J.S. (2012). Revision of European Ecolabel criteria for soaps, shampoos and hair conditioner: Market Analysis. Retrieved 25th of April 2019 from http://susproc.jrc.ec.europea.eu/soaps_and_shampoos/docs/techn ical%20 background%20 draft%report.pdf.

Fornell, C.D., Larcker, F.M. (1981). Evaluating structural equation models with unobservable variables and measurement errors. Journal of Marketing Research, 18, 39-50.

Ghazali, E., Soon, P. C., Mutum, D., & Nguyend, B. (2017). Health and cosmetics: Investigating consumers' values for buying organic personal care products. Journal of Retailing and Consumer Services, 39, 154-163.doi: 10.1016/j.jretconser.2017. 08.002

Global Beauty and Personal Care Trend. (2018). Mintel. Retrieved 25th April 2019, from https://www.mintel.com

Hair, J.F., Hult, G.T., Ringle, C., Sarstedt., M. (2016).A primer on partial least squares structural equation modeling. Sage Publication.

Hsu, C.L., Chang, C.Y., & 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.doi.org/10.10.16/j.jretconser.2016.10.06

Hillhouse, J., Turrisi, R. and Kastner, M. (2000), "Modeling tanning salon behavioral tendencies using appearance motivation, self-monitoring and the theory of planned behavior", Health Education Research, Vol. 15 No. 4, pp. 405-14.

Johri, L.M. & Sahasakmontri, K. (1998), "Green marketing of cosmetics and toiletries in Thailand", Journal of Consumer Marketing, 15 (3), 265-281.

Kapuge, K.D.L.R. (2016). Determinants of organic food buying behavior: special reference to organic food purchase intention of Sri Lankan customers. Procedia Food Science ,6,303-308.

Kim, H., & Chung, J. (2011). Consumer Purchase Intention for Organic Personal Care Products. Journal of Consumer Marketing, 28, 40-47.doi.org/10.1108/0736376 1111101930

Kim, S., & Seock, Y. (2009). Impacts of health and environmental consciousness on young female consumers attitude towards and purchase of natural beauty products. International Journal of Consumer Studies,33(1), 627-638.doi: 10.1111/j.1470-6431. 2009.00817.x

Kumar, B., Manrai, A., & Manrai,L. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. Journal of Retailing and consumer service,34,1-9.doi: 10.1016/j.jretconser.2016.09.004

Kumar, S., Massie, C. & Dumonceaux, M. (2006). Comparative innovative business strategies of major players in cosmetic industry. Industrial Management & Datasystems, 106(3), 285-306.

Lopaciuk, A., & Laboda, M. (2013). Global Beauty Industry trends in the 21st century. Knowledge and Management Innovation, 1079-1087.

Liobikiene, G., & Bernatoniene, J. (2017). Why determinants of green purchase cannot be treated equally ? The case of green cosmetics. Journal of Cleaner Production, 162,109-120. doi.org/10.1016/j.jclepro.2017.05.204.

Liobikiene, G., & Juknys, R. (2016). The role of values , environmental risk perception , awareness of consequences and willingness to assume responsibility for environmentally friendly behaviour : the Lithuanian case. Journal of Cleaner Production,1-10. doi: http://dx.doi.org/10.1016/j.jclepro.2015.10.049.

MacKinnon, D., Cheong,J., & Pirlott, A. (2008). Statistical Mediation Analysis. American Psychologica Association,2,313-330.

Madden,T., Ellen, P., &Ajzen, I. (1992). A comparison of the Theory of Planned Behaviour and the Theory of Reasoned Action. Society for Personality and Social Psychology,18(1),5-9.

Magnusson, M. K., Arvola, A., Hursti, U.,Aberg, L., Sjoden, P. (2003). Choice of organic food is related to perceived consequences for human health and to environmentally friendly behaviour.Appetite, 40,109-117.doi:10.1016/S0195-6663(03)00002-3.

Natural cosmetics market worth $48.04 billion by 2025. (2015). Grandveiw research. Retrieved 25th April 2019 , from www.grandviewresearch.com

Newsom, J., McFarland, B., Kaplan, M., Huguet, N. & Zani, B. (2005), "The health consciousness myth: implications of the near independence of major health behaviors in the North American population", Social Science & Medicine, 60(2), 433-437.

Nimse, P., Vijayan, A., Kumar, A. and Varadarajan, C. (2007), "A review of green product databases", American Institute of Chemical Engineers, Vol. 26 No. 2, pp. 131-7.

Nijkamp, M. M, Bokkers, B.G.H., Bakker, M., Ezendam, J., & Delmarr, J. E. (2015). Quantitative risk assessment of the aggregate dermal exposure to the sensitizing fragrance geraniol in personal care products and house hold agents. Pharmacol,73,9-18.

Onel, N. (2016). Pro-environmental purchasing behaviour of consumers. Social marketing Quartely, 23(2) ,103-121. doi: 10.1177/1524500416672440

Organic Monitor, 2009. Asian Companies turning to Natural and Organic cosmetic standards. Retrieved March 28th, 2019, from http://www.organicmonitor.com/r0910.htm.

Organic Monitor (2011). Global Market for Natural and Organic Personal care products. Retrieved March 28th 2019, from www.natural.cosmeticsnews.com.

Oraganic Market Report (2016). Retrived March 28th 2019, from https://www.soilassociation.org. Accessed 28th March 2019.

Organic.org, 2016. What is organic?. Retrieved June 3rd 2018, from http://www.organic.org/education/faqs.

Pathmaperuma, C., & Fernando, P. (2018). Factors affecting on consumer purchasing behaviour of Ayurvedic skin care products: A study of female consumers in Colombo District of Sri Lanka.Journal of Management Matters, 5 (1),13-19.

Poortinga, W., Stec, L. & Vlek, C. (2004). Values, environmental concern and environmental behaviour.Journal of Environment and Behaviour,36(1),70-93.

Pervin, S., & Ranchhod, A. (2014). Trends in cosmetics purchase: Ethical perceptions of consumers in different cultures. A cross country comparative study between South Asian and Western consumers 1. Journal of Customer Behaviour, 13 (1), 57-72.doi: 10.1362/147539214X14024779343758

Randiwela, P., & Mihirani, P. M. (2015). Consumer Buying Behaviour and Attitude towards Eco-Freindly fast moving consumer goods-Cosmetics and Personal care products. In Proceedings of Cambridge Business and Economics Conference, Cambridge:UK.

Rezai,A., Borchardt, M.,Mohamed, Z., Shamsudin, M. (2012). Consumers awareness and consumption intention towards green foods. Journal of Business Management,61(2), 4496-4503.

Rokeach, M. (1973), The Nature of Human Values, Free Press, New York, NY.

Samarasinghe, G., & Ahsan, F. J. (2014). Impact of Consumer Moral Self Identity on Green purchase decisions of FMCG. Colombo Business Journal, 5 (1), 1-15.

Sekaran, U., & Bougie, R. (2013). Research Methods for Business: A skill building approach. New Delhi : Willey India .

Schwartz, S. & Blisky, W. (1987). Toward universal psychological structure of human values. Journal of Personality and Social Psychology, 53(3), 550-62.

Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhart (Ed.), Sociological methodology 1982 (pp.290-312). San Francisco: Jossey-Bass.

Sturrock, F., Pioch, E. (1998). Making himself attractive: the growing consumption of grooming products.Mark Intell. Plan, 16(5),337-343.

Teng, C. C., & Wang, Y. M. (2015). Decisional factors driving organic food consumption ; generation of consumer purchase intentions. British Food Journal, 117 (3), 1066-1081.

Tarkiainen, A. & Sundqvist, S., (2005), "Subjective norms, attitudes and intentions of Finnish consumers in buying organic food", British Food Journal, 107 (11), 808-822.

Uyangoda, J. (2015). Writing Research Proposals in the Social Sciences and Humanities: a theoretical and practical guide. Colombo: Social Scientists Association.

Velnampy, T., & Achchuthan, S. (2016). Green Consumerism in Sri Lankan Perspective: An Application and Extension of Theory of Planned Behaviour. Journal of Advances in Management and Applied Economics. 6(5) , 39-66.

Wanninayake, W. M. C. B., & Randiwela, P. (2008). Consumer attractiveness towards green products of FMCG Sector: An empirical study. In Proceedings of the Oxford Business and Economics Conference, Oxford: UK.

Xia, B., Wang, L., Yang, H., Wang, Y., Zahang, M. (2015). Consumer perceptions and attitudes of organic food products in Eastern China. British Food Journal, 117(3),1105-1121.

Yin, S., Wu, L., Du, L.,Chen, M. (2010). Consumers' purchase intention of organic food in China. Journal of Science, Food and Agriculture, 90(8), 1361-1367.