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Research Paper

The Influence of Risks Perception on the Purchase of Ecological Personal Care Products

A Influência da Percepção dos Riscos na Compra de Produtos Ecológicos de Higiene e Cuidado Pessoal

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ABSTRACT

The aim of this paper is to explore and better understand purchase behaviour of ecological personal care products (shampoos, deodorants, soaps, cleansing gels), taking into account the influence of perceived risks. This study is quantitative and used an online structured questionnaire. In total there were 702 valid respondents, potentially environmentally conscious and residents in Portugal and Spain. Several correlations were made to test the hypothesized relations.

Results have show that consumers perceive financial and convenience risks while buying these products. On the other hand, physical, performance, social and psycological factors are perceived as motivators and not as risks.

This research presents a number of limitations due to a limited and non representative sample. Results have to be replicated on wider and more representative sample.

Results of the present study have demonstrated that price and convenience are observed as perceived risks by consumers. Financial perceived risks and convenience perceived risks had a positive correlation with green purchase behaviour, which means that are perceived as risks. In turn, physical, performance, social and psychological had a negative correlation with green purchase behaviour, which means that are not perceived as risks, but as facilitators or motivators.

This study contributes to an understanding of green purchase behaviour towards ecological personal care products. The results of framework proposed enable managers and marketers to better understand the perceived risks and motivations associated to these products.

Keywords: Green Purchase Behaviour, Perceived Risks, Ecological Personal Care Products.

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RESUMO

O objetivo deste artigo é explorar e compreender o comportamento de compra de produtos ecológicos de higiene e cuidados pessoais (champôs, desodorizantes, sabonetes, etc.), tendo em consideração a influência dos riscos percebidos.

O estudo é quantitativo e com recurso a um questionário estruturado distribuído online. No total, a amostra é composta por 702 respondentes, residentes em Portugal e Espanha e clientes de supermercados biológicos. Foram realizadas diversas correlações para testar as hipóteses de pesquisa.

Os resultados demonstraram que os consumidores percepcionam riscos financeiros e de conveniência quando compram estes produtos. Por outro lado, os factores físicos, de desempenho, sociais e psicológicos são percebidos, não como riscos, mas como motivadores da compra.

Esta pesquisa apresenta algumas limitações devido ao facto de utilizar uma amostra não probabilística de conveniência e como tal os resultados não podem ser generalizados à população.

Os resultados do presente estudo demonstraram que o preço e a conveniência são os principais riscos percebidos pelos consumidores de produtos ecológicos de higiene e cuidados pessoais. Por seu turno, os factores físicos, de desempenho, sociais e psicológicos apresentam uma correlação negativa com a compra destes produtos, o que significa que não são percebidos como riscos mas sim como motivações de compra. Para os gestores de marketing, este estudo identifica factores positivos (motivações) e negativos (riscos) que devem ser tidos em consideração no desenvolvimento de estratégias e campanhas de forma a aumentar a compra deste tipo de produtos

Este estudo contribui para um maior conhecimento na área do comportamento de compra de produtos ecológicos, em particular de produtos na categoria de higiene e cuidado pessoal. Os resultados propõem um modelo que permite aos gestores e profissionais de marketing conhecer melhor o comportamento de compra destes produtos, sobretudo os riscos e motivações percebidos pelos consumidores.

Palavras-Chave: Comportamento de Compra Verde, Riscos Percebidos, Produtos Ecológicos de Higiene e Cuidado Pessoal.

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1. INTRODUCTION

The green products market is increasing all over the world in several industries, from food to fashion to cosmetics (Ottman, 1995, Grail Research, 2011). Yet, very little research has addressed consumer behavior regarding green products, especially for ecological personal care products.

The literature review has shown that there is a gap between intention and purchase of these products (Akehurst et al., 2012). In other words, consumers consider themselves environmentally concerned but they are reluctant into translating it into purchases. According to literature, consumers don't purchase these products because they perceive

risks (financial, temporal, performance, physical and social psychological risks).

The objective is to explore and understand better purchase behaviour of ecological personal care products (shampoos, deodorants, soaps, cleansing gels), taking into account the influence of perceived risks.

2. LITERATURE REVIEW

2.1 Definition of "environmentally friendly" products

The term "green product" and the promise of "environmentally friendly" tend to generalize. Churchill and Peter (2000) state that organizations need to develop new products if they want to survive. Due to the intense competition, the companies that do not innovate lose market for innovative organizations. Although, there is a lack of agreement about what is a green product (Ottman, 1993).

According to Ottman (1995), defining a green product is not an easy task because there are still no proven methods that can effectively measure the environmental impact of one product over another. In consonance with Ottman (1993), "green products are the ones that cause less environmental impact than its alternative". That is, a green product is one in which environmental and social performance is significantly better than the corresponding conventional or competitive offerings. The green products are usually associated with products that don't harm the environment and human health. They are generally considered more durable, non-toxic, made from recycled materials and with the least packaging possible.

As stated by this author, a green product should be designed to meet the needs of environmental protection of consumers concerned about this issue, taking into account, however, that this is a secondary need of consumers. That is, consumers buy products to meet the functional needs for which they were created and the features of non-aggression to the environment can act as an "add-on" to the product, exceeding customer expectations.

However, Ottman (1993) argues that there are no totally environmentally compliant products, since the development and production of any product generate waste during its manufacture, distribution, consumption and at the stage where the consumer discards it. Thus, the autor states the dimensions that should be considered for the appropriate process and development of environmentally products are: acquisition and processing of

raw materials, production and distribution, product usage and packaging and re-use and discard.

A study conducted by Grail Research (2011) called "The Green Revolution Study", with the aim to understand how the green consumer product market was growing indicated that the key attributes that shape consumers' perceptions of a green product are centered on natural ingredients, the recyclability of the product or packaging and green certifications.

2.2 The emergence of ecological personal care products

Ecological personal care products, called also organic or bio, are prepared of natural substances mostly galenic but also without of animal or mineral origin and mixtures. Some of the ecological personal care products include hair colors, toothpaste, shampoos, foundations, and deodorants. Organic personal care products do not contain chemicals such as phthalates, parabens, aluminum salts, and petrochemicals (Ottman, 1995).

The European standards for ecological personal care products were defined in Standard COSMOS (Cosmetics Organic and Natura Standard, 2010). According to this standard, these products can be treated as ecological when 20% of its ingredients are proved to have ecological origin. The ingredients used in production of ecological cosmetics must be obtained in process without changing of its structure. The production process must be maintained in accordance with the principles of ecology, as well. It concerns also eco product packing which should be done of biodegradable materials, economic and suitable for recycling. Ecological personal care products should have appropriate certificates and symbols. BDIH, Ecocert, Cosmebio, Soil Association, and NPA are some of the standards existing in North America, Europe, and Asia Pacific that regulate and certify organic products.

As stated in Transparency Market Research (2015), global ecological personal care products market is expected to progress from US$8.4 billions in 2015 to US$15.7 billions by 2020.

Euromonitor (2015) reports that, the market for ecological personal care products in Europe is extremely dynamic, with a growth of 20 per cent per year.

Factors such as the rising concerns about health, the increasing environmental awareness and consumer awareness are predicted to boost the ecological personal care

products market in the years to come (Organic Monitor, 2009).

By geography, the global organic personal care products market is divided into North America, Europe, Asia Pacific, and Rest of the World. In 2013, according to Transparency Marketing Research (2015), in terms of demand, Europe is expected to be the second largest market after North America.

Although healthy growth rates are continuing, ecological personal care market faces many obstacles to future growth. In consonance with Organic Monitor (2009), the major obstacles include high risks perception regarding these products, namely low consumer understanding of natural and organic products, and also its higher prices, compared with conventional products.

2.3 Perceived Risks Definition

According to the theory of consumers' perceived risk, consumers perceive risk because they face uncertainty and potentially undesirable consequences as a result of purchases (Taylor, 1974; Dowling and Staelin, 1994). Therefore, the more risk they perceive, the less likely they will purchase. Consumers often adopt risk reduction strategies such as information acquisition before they purchase (Roselius, 1971; Taylor, 1974). According to Mitchell (1999), perceived risk is powerful at explaining consumer's behaviour because ''consumers are more often motivated to avoid mistakes than to maximize utility in purchasing''. Consumers also perceive risk because time may be lost or frustration may result where the purchases are unsuccessful (Cox, 1964).

In the consumer behaviour and marketing literature, perceived risk was introduced in the 1960s and has been defined in many ways. Bauer (1960) defines perceived risk as a two-dimensional concept that involves in one hand uncertainty and in other hand negative consequences.

Kogan and Wallach (1964) also suggested that the concept of risk may have two facets: "a chance aspect where the focus is on probability and a danger aspect where the emphasis is on severity of negative consequences". Cunningham (1967) also conceptualized perceived risk in terms of two similar components, namely: the amount that would be lost if the consequences of an act were not favorable, and the individual's subjective feeling of certainty that the consequences will be unfavorable.

Stone and Winter (1985) view risk as an expectation of loss. According to the author, risk is defined as "a subjectively-determined expectation of loss" and the greater the

probability of this loss, the greater the risk is the perception for an individual.

Consumer behaviour involves always risk because consumer's action will have consequences which cannot be anticipated with certainty. Sweeney et al. (1999) also reinforce the "loss anticipation" inherent to risk and defined it as "a subjective anticipation of loss of some degree".

Aqueveque (2006), defined perceived risks as "the subjective anticipation by consumers of conceivable losses when assessing alternative choices". Perceived risks are also considered as significant upstream precedents impacting ethical consumer behaviour (Tan, 2002, Boivin et al., 2011).

Risk is often viewed as an antecedent of involvement (Choffee and McLeod, 1973) particularly when the price is high and the consumer risks losing money. However, it has also been conceptualized as an intrinsic part of the involvement construct (Laurent and Kapferer, 1985).

Like risk attitudes, involvement has been separated into enduring and situational (Richins et al., 1992). However, distinctions have also been drawn between cognitive and effective involvement (Park and Young, 1986), that act at the product category or brand level.

Risk reduction is also linked to involvement as high involvement with a single brand is commonly known as brand loyalty which has been shown to be a major risk reducer (Roselius, 1971). Moorthy et al. (1997) argue that product class involvement or low search costs are not sufficient to induce large amounts of search activity and that the existence of relative uncertainty among brands is necessary for search to be useful.

Risk is also related to trust, which has recently been given much attention in the relationship marketing literature (Berry, 1995; Dion et al., 1995; Morgan and Hunt, 1994; Smeltzer, 1997). Ring and Van de Ven (1994) note that two views on trust can be found in the management and sociology literatures. One is a business view based on confidence or risk in the predictability of one's expectations. The other is a view based on confidence in the other's goodwill.

In other words, risk is a subjective estimation by consumers connected with possible consequences of wrong decisions; a possibility that the product will not offer all its expected benefits (Roselius, 1971).

2.4 Perceived Risks Dimensions

Jacoby and Kaplan (1972) have identified five types of perceived risks:

Financial: Risk of losing money with the new product or risk of investing more money than one can expect to receive in return. Consumers when facing a purchase decision might face that they are losing money, because the product does not satisfy their expectations;

Performance/functional: Risk that a product might not work, not work properly or not work in the manner in which the consumer would like it to work; According to Sweeney et al. (1999) when making a purchase decision, consumers are always faced with some concern over the performance of the product since perfect information regarding future performance is never known and consumers consider these consequences as risk when developing perceptions of value;

Physical: Risk that the consumer injure him/herself or others through use of the product; For example, perceived physical risk is the possibility that a product might be harmful to individuals' health (Jacoby and Kaplan, 1972) or products do not look as good as the individuals expect (Simpson and Lakner, 1993);

Psychological and Social: It is a combination between psychological and social. The psychological risk is the possibility that individuals suffer psychological stress associated with their purchasing behaviour. Social perceived risk is somehow to what extent consumer perceive as risky to choose a bad product which could have a negative impact on the consumer's ego; risk of choosing a product impacting consumer status with respect to friends, family and/or colleagues (Snoj et al., 2004). A risk that by choosing a product, a consumer's status will change among his friends family and/or colleagues. Some authors consider psychological and social separated and others consider into one dimension (Boivin et al., 2011).

Temporal: Risk that time spent on searching for a product will be lost, if a product does not perform according to a consumer's expectations. Perceived time-loss risk is the possibility that people loose time because of their shopping behaviour and it is associated with convenience (Roselius, 1971).

To sum up, as per literature review, there is a gap regarding the purchase of ecological products, namely in personal care category. Consumers are becoming more environmentally concerned, nevertheless there are some factors that affect their purchase behavior. Several authors have identified the role of perceived risks have on

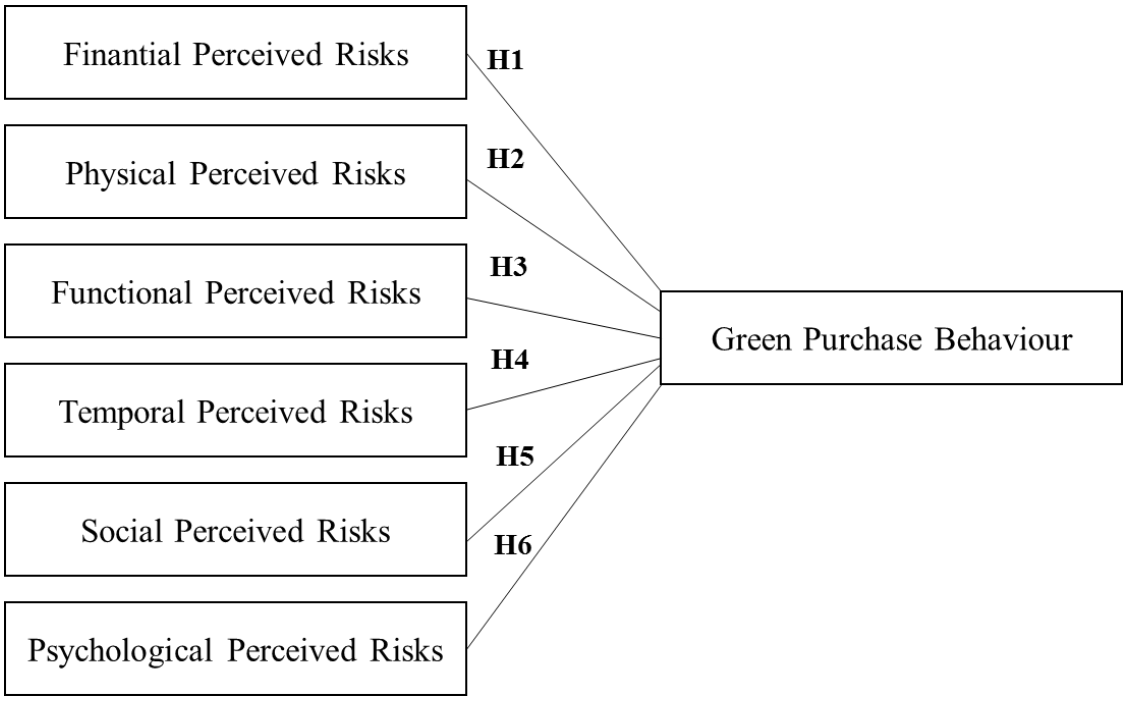
the purchase behavior. The aim of this paper is to explore this relation and identify the perceived risks and enlighten the knowledge in the consumption hebaviour field of green products.

3. CONCEPTUAL MODEL AND HYPOTHESES

As stated previously, the objective of this paper is to explore and better understand green purchase behaviour of ecological personal care products. The literature review has shown that consumers perceive risks regarding the purchase of these products.

Based on the theoretical discussion on literature review made, we stated several hypotheses of this study namely:

Figure 1- Conceptual Model



H1 - There is a positive association between Financial Risks Perception and Green Purchase Behavior.

H2 - There is a negative association between Physical Risks Perception and Green Purchase Behavior.

H3 - There is a negative association between Functional Risks Perception and Green Purchase Behaviour.

H4 - There is a positive association between Temporal Risks Perception and Green Purchase Behavior.

H5 - There is a negative association between Social Risks Perception and Green Purchase Behavior.

H6 - There is a negative association between Psychological risks perception and Green Purchase Behavior.

4. METHODOLOGY

This chapter describes the data collection method, the measures, the sample and the population of the study.

4.1 The Questionnaire and Measures

This research is based on a quantitative study and used a structured questionnaire that took into account the information needs and the data collection method chosen, that was an online survey. The questionnaire was subjected to a pre-test before the launch.

The measures were adapted from previous studies (Kilbourne and Picket, 2008; Boivin et al., 2011), namely adaptations regarding terminology of the product category of the study (ecological personal care products). In this questionnaire the Likert scale was used, so that the respondents could classify their position on each item of the questions.

All of the items were measured on a 7-point Likert scale, where 1 represents "strongly disagree" and 7 represents "strongly agree".

Green Purchase Behaviour was measured by five items adapted from Kilbourne and Picket (2008).

Financial, functional, physical, temporal, social and psychological perceived risks were measured by the items adapted from Boivin et al. (2011).

4.2 Sample and Procedure

The study used a convenience sample. The respondents were adults (≥ 18 years) potentially environmentally conscious and residents in Portugal and Spain. In order to assess the sample units, a partnership was developed with local biological supermarkets, whose consumers are mainly environmentally concerned. The study was conducted from January to March 2015.

5. RESULTS

In total there were 702 valid respondents. As reported in Table 1, males comprised about 49 % of respondents, while female are 51%.

Table 1- Sample Descriptives – Gender

	Frequency	Percent (%)
Male	343	49
Female	359	51
Total	702	100

Source: research data

Regarding educational level, 55% of respondents have a degree and 29% a master (Table 2).

Table 2 - Sample Descriptives – School Grade

	Frequency	Percent (%)
Primary	7	1
Until 9th Grade	7	1
High School	79	11
Degree	389	55
Master	203	29
PhD	18	3
Total	702	100

Source: research data

In terms of income, 53% of respondents have a total net income per household till 2000 € (Table 3).

Table 3 - Sample Descriptives – Monthly Nett Income of Household (total)

	Frequency	Percent (%)
Until 1000 €	127	18
1001-1500 €	118	17
1501-2000 €	124	18
2001-2500 €	87	12
2501-3000 €	79	11
3001-3500 €	51	7
More tan 3500 €	116	17
Total	702	100

Source: research data

Principal Component Analysis (PCA) was used to obtain preliminary results on the dimensionality of the constructs. Thus, PCA was performed to assess the ability of the indicators to measure the constructs theoretically presented. PCA for each construct with varimax rotation was performed with all items.

Then, Kaiser–Meyer–Oklin Measure (KMO) of Sampling Adequacy was assessed. Hutcheson and Sofroniou (1999) suggested that KMO values between 0,5 and 0,7 are normal, values between 0,7 and 0,8 are good, values between 0,8 and 0,9 are great, and values above 0,9 are superb. The result of our factor analysis reveals satisfactory KMO values (range from 0,723 and 0,803).

Bartlett's Test of Sphericity reveals good approximated Chi-Square values with a significance value of 0,000, which means that the factorability of our correlation matrix is suitable. The KMO's and Bartlett's Test results are depicted on Table 4.

Table 4 - KMO and Bartlett's Test

		Green Purchase Behaviour	Finantial Perceived Risks	Physical Perceived Risks	Performance Perceived Risks	Temporal Perceived Risks	Social Perceived Risks	Psychological Perceived Risks
KMO		0,803	0,723	0,750	0,779	0,777	0,783	0,777
Bartlett's Test	**Approx. Chi-Square**	2075,765	1220,430	1363,720	2973,251	1474,318	1773,230	1474,318
	df	10	3	3	6	6	6	6
	Sig.	0,000	0,000	0,000	0,000	0,000	0,000	0,000

Source: research data

The PCA revealed the presence of one component in each construct with eigenvalues greater than one which explained up to 65.250 of the total variance. Details regarding the total variance explained are provided in Tables 5, 6, 7, 8, 9, 10 and 11.

All the items were aggregated around the factor that was supposed to measure, given the correlations between the observed variables and factors (loadings).

Table 5 - Total Variance Explained – Green Purchase Behaviour

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.263	65.250	65.250	3.263	65.250	65.250
2	.827	16.538	81.788			
3	.338	6.764	88.551			
4	.308	6.160	94.711			
5	.264	5.289	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 6 - Total Variance Explained – Financial Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.394	79.795	79.795	2.394	79.795	79.795
2	.383	12.767	92.561			
3	.223	7.439	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 7 - Total Variance Explained – Physical Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.475	82.508	82.508	2.475	82.508	82.508
2	.278	9.253	91.761			
3	.247	8.239	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 8 - Total Variance Explained – Performance Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.335	83.370	83.370	3.335	83.370	83.370
2	.375	9.384	92.754			
3	.210	5.261	98.015			
4	.079	1.985	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 9 - Total Variance Explained –Temporal Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.794	69.851	69.851	2.794	69.851	69.851
2	.628	15.697	85.548			
3	.379	9.483	95.030			
4	.199	4.970	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 10 - Total Variance Explained –Social Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.989	74.713	74.713	2.989	74.713	74.713
2	.534	13.354	88.066			
3	.283	7.079	95.145			
4	.194	4.855	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

Table 11 - Total Variance Explained –Psychological Perceived Risks

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.564	85.453	85.453	2.564	85.453	85.453
2	.305	10.162	95.616			
3	.132	4.384	100.000			
Extraction Method: Principal Component Analysis.						

Source: research data

The Alpha Cronbach's coefficient of the seven scales were above 0,854, which are good (Hair et al., 1998).

Table 12 - Reliability – Alpha Cronbach

	Cronbach's Alpha	N of Items
Green Purchase Behaviour	.863	5
Financial Perceived Risks	.863	3
Physical Perceived Risks	.891	3
Performance Perceived Risks	.934	4
Temporal Perceived Risks	.854	4
Social Perceived Risks	.915	3
Psychological Perceived Risks	.886	4

Source: research data

In order to test H1, H2, H3, H4, H5, H6, correlations were conducted. As shown in Table 12, results have shown that financial (H1) perceived risks revealed a low correlation with green purchase behaviour (R=0.062), positive and statistically significant (p > 0.05). H1 was confirmed proving there is a relation (negative) between financial risks perception and green purchase behavior.

Physical (H2) perceived risks revealed a moderate correlation with green purchase behaviour (R= - 0.447), negative and statistically significant (p > 0.05). H2 was confirmed proving there is a relation (positive) between physical risks perception and green purchase behavior.

Performance (H3) perceived risks revealed a moderated correlation with green purchase behaviour (R= - 0-443), negative and statistically significant (p > 0.05), supporting H3. This proves that there is a relation (positive) between performance risks perception and green purchase behavior.

Temporal (H4) perceived risks revealed a low correlation with green purchase behaviour (R= 0.246), positive and statistically significant (p > 0.05), supporting H4. H4 was confirmed proving there is a relation (negative) between temporal risks perception and green purchase behavior.

Social (H5) perceived risks revealed a low correlation with green purchase behaviour (R= -0,.03), negative and statistically significant (p > 0.05). H5 was confirmed proving there is a relation (negative) between social risks perception and green purchase behavior;

Psychological (H6) perceived risks revealed a moderate correlation with green purchase behaviour (R= -0.362), negative and statistically significant (p > 0.05). H6 was confirmed proving there is a relation (negative) between psychological risks perception and green purchase behavior.

Table 13 - Correlations

		Green Purchase Behaviour
Financial Perceived Risks	Pearson Correlation	.062
	Sig. (2-tailed)	.086
	N	772
Physical Perceived Risks	Pearson Correlation	-.447**
	Sig. (2-tailed)	.000
	N	772
Performance Perceived Risks	Pearson Correlation	-.443**
	Sig. (2-tailed)	.000
	N	772
Temporal Perceived Risks	Pearson Correlation	.246**
	Sig. (2-tailed)	.000
	N	732
Social Perceived Risks	Pearson Correlation	-.203**
	Sig. (2-tailed)	.000
	N	732
Psychological Perceived Risks	Pearson Correlation	-.362**
	Sig. (2-tailed)	.000
	N	732
**. Correlation is significant at the 0.01 level (2-tailed).		

6. CONCLUSIONS AND LIMITATIONS

The aim of this paper was to research the consumer purchase behaviour of ecological personal care products, more specifically the influence that risks perception have in this relation. Data was collected through online questionnaire. In this final section we discuss practical implications, limitations and future research.

Results of the present study have demonstrated that price and convenience are observed as perceived risks by consumers. These conclusions are aligned with Boivin et al. (2011).

Financial perceived risks and convenience perceived risks had a positive correlation with green purchase behaviour, which means that are perceived as risks.

Due to the lack of scale economies in production, green products are usually more expensive than conventional ones and consumers perceive green products as highly priced. Although environmental attitudes induce green purchase decision, high prices of ecological personal care products can inhibit the actual purchase where consumers are price sensitive. Convenience is also perceived as a risk by the respondents of the present study. It refers to temporal perceived risks and includes the availability and accessibility to the product in the market, the information available about the product inside the store and in the packaging. In other words, consumers' perceived convenience regarding ecological personal care products refers to how easily they perceive they can get it and in this product category it is an obstacle.

Results of the present study have demonstrated that physical, performance perceived risks, social and psychological perceived risks had a negative correlation with green purchase behaviour, which means that are not perceived as risks, but as facilitators or motivators.

For some product categories, performance is considered as a perceived risk since consumers are reluctant on buying green products because they feel that performance is sacrificed to guarantee that the products are environmentally compliant (Sriram and Forman, 1993; Ottman, 1998).

Physical risks refer to the health damage inherent to the consumption or use of a certain product and in the case of green products it was expected to be the reverse, as actually was confirmed. For instance, in the case of ecological personal care products consumers feel that they are better for their health.

Social and psychological factors are also seen as motivators. Psychological perceived risks are somehow related to what an extent consumer perceive as risky to choose a bad product which could have a negative impact on consumer's ego. The results are aligned with previous studies that indicate that green products have a positive connotation and consumers who buy these products tend to be more altruists (Akehurst et al., 2012). Social perceived risks relates to how the purchase decision will affect the opinions other people hold regarding the shopper. Some studies reveal that social pressure induced pro-environmental attitudes (Allcott, 2009).

In management perspective, results reveal that pricing strategy is a substantial part in the green marketing mix. Usually, the price of ecological personal care products is higher than conventional products product and consumers in most part of the cases don't understand why they need to pay premium for these products. For marketers it is crucial to inform consumers why ecological personal care products are more expensive and, most important, to explain the value for the money.

The temporal risks are associated with availability of the ecological personal care products and it requires company to provide to consumers not only the access to their products but also to assure it is done in a greener way. Therefore, managers and marketers should implement tactics that enable consumers to understand the differences between ecological personal care products and conventional ones enhancing quality as a key factor. Exogenous factors as certification in quality, product labels and package that highlight natural ingredients and health benefits, information about production process, etc, might thereby enable consumers to more clearly assess product quality.

For marketers, the challenge is to activate the psychosocial motivators. Since impression on others associated with altruism matters there is a need to provide regular feedback about the campaigns implemented to consumers to show they are making a difference.

This research presents a number of limitations due to a limited and non representative sample. Results have to be replicated on wider and more representative sample.

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