The Impact of Environmental Label Presence and Diversified Label Issuer Type on Purchase Intention and Consumer Skepticism toward Luxurious Coffee Products

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ABSTRACT

The incredible amount of Eco-information that surrounds consumers on a daily basis makes it tricky for marketers to choose the most successful labeling option. Environmental labels can be issued by the third parties or by the producers or manufacturers themselves. The label persuasiveness and its effect on purchase intention is a hot topic nowadays. However, there are still gaps to be filled in terms of the role of consumer skepticism as an attitude toward the labels. This research distinguishes two types of skepticism – the predispositional and situational. Situational skepticism is a type of skepticism that arises when the consumer considers a specific product, and the predispositional skepticism covers the consumers' resistance to marketing tricks in general. This research aims to find out how does the type of environmental label issuer affect the purchase intention and if consumer' predispositional and situational skepticism moderate this relationship.

The nature of this research was rather hypothetical since artificially crafted labels were used in the study experiment. The research attempts to find a rule of thumb in understanding the nature of relationships between environmental label levels and purchase intention basing on the case of luxurious coffee produced by highly recognizable brand Nespresso.

In this research it is presumed that two different authorities (a third party and the coffee producer) have decided to issue new labels. The aim is to see which of them would better succeed when labels were put on products, and presented to the potential consumers.

The casual and descriptive research designs were implemented. The respondents sample size estimated 114 students and recent graduates with the age range 18-35. The respondents had to fill out the questionnaire. The sample was separated into two groups. One of the groups was exposed to the third party label and second one to the producer's label in the beginning of the questionnaire and their attitude toward the labels was assessed before the start of the experiment.

The factor analysis, and regression analyses were conducted, and the case of Nespresso coffee was investigated.

The significant results were found in relationships between label presence and purchase intention.

It was also found that the C. Obermiller's scale to measure consumer skepticism toward advertising is also applicable to measure the situational skepticism in context of environmental

labels. The significant results were found when analyzing the relationships between situational skepticism and purchase intention. Despite of insignificance of some results, many of the effects had the direction that goes in line with previous literature. That gives a reason to conduct further studies in this area with more collected data and larger samples.

1. LITERATURE REVIEW

1.1 Introduction

Over the past decades, concern about the environment has widely escalated and became a highly important social issue and consequently a pivotal topic in academic research. Starting from 1970s the environmentalism as a trend has begun to force business models to shift toward ecological concern and social impact of products in consumers' eyes, (Alwitt, 1996) moving far away from such claims as «We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing rate» that has been said by Victor Lebow (an American retail analyst in 1948) cited in The Green Marketing Manifesto (Grant, 2007).

Nowadays consumers are increasingly looking for 'more durable, fairer and produced from recyclable materials products' (Lozano et al., 2010). The global environmental concern has provoked marketers to pay closest attention to such aspects as greener design, production, packaging, labelling and consumption (Rahbar, 2011) to satisfy consumers' needs.

Moreover, the changes in consumers' attitude, increased governmental pressure and stimulated competition have driven companies to consider "greenness" in marketing strategies and invent new sophisticated tools (Ghosh, 2010). Such tools like environmental labels issued by third parties and other authorities came into place with the aim to ensure the quality of products sold to consumers.

The marketing researchers are looking for a rule of thumb that could guide them through in a changed world situation. However, there are still gaps in understanding the impact of the labels on consumer purchase intention (Bickart, Ruth, 2012). In addition, the role of consumers' attitude toward the products, labelled by certain authorities, needs to be thoroughly investigated.

The researchers distinguish the attitudes toward the marketing tricks, specifically, two types of skepticism that may arise when the consumer considers the product. Both of them can affect the intention to purchase. These types of attitude are called situational (Obermiller 1998) and predispositional skepticism (Morh and Webb 1998). Finding out that the individuals purchase intention may vary depending on the type of label issuer would help the managers to choose appropriate labelling option and enjoy the greatest purchases. However, this research is rather hypothetical, and aims to contribute to existing theory.

1.2 Research Question

Referring to the previous paragraph, in this paper the effect of types of environmental labels issuers on consumer's purchase intention was investigated and it was examined how situational and predispositional skepticism moderate this effect. The research question reads as follows:

How does the type of environmental label issuer affect the purchase intention and how the predispositional and situational skepticism moderate this relationship?

In order to answer this research question, it needs to be broken down into several sub questions, which is discussed in chapter 2.

Sub-questions

1. ***What relationship is there between environmental label presence and purchase intention?***
2. ***Does the change in the level of skepticism increase the purchase intention when the environmental label is present?***

The sub-questions have explored previous research to give predictive answers. Based on that further investigation was required mainly because of inconsistency in previous studies. In the end of second chapter of this study, the hypotheses are presented.

1.3 Trust issues

As the studies show, it is less likely for consumers to distrust innovative marketing practice because it needs time to identify the persuasive intent. (Yeo Jung Kim a & Wei-Na Lee, 2009) Consumers did not have an opportunity to verify the "responsible" nature of purchased products (Nelson, 1970) that is why, the percentage of consumers who truly trusted the ads in very start was tremendously growing, whereas the input of the companies remained insufficient or simply low. Moreover, some companies tended to exaggerate the positive characteristics of their products (Saha and Darnton, 2005) and to provide dubious eco-information (Gordon et al., 2011; Moisander, 2007).

Regardless the fact that the European food sector belongs to one of the most regulated sectors in the world (Trienekens & Zuurbier, 2008), in 2013, the European food industry faced several food scandals. For instance, the scandal concerning horsemeat, which was labeled as beef on the store display in UK, excrement was found in abattoirs (The Guardian, 2013), undeclared use of nuts that could cause a deadly harm to allergic people (The Telegraph, 2015). Trienekens and Zuurbier (2008) suggest that one of the reasons for such confusion in the food market is due to the globalization of the food production and demand and the ways that interconnected system is developing. Their study explains that when local grocery stores obtain their food products from all over the world, it sometimes remains unclear whether the producers activity is regulated by the national/international safety and animal friendly regulations or not. That is why the consumers start to feel skeptical about the food safety and quality and their trust has declined during the last decade.

Such scandals rapidly attract media interest and increase confusion among consumers and among other environmentally concerned parties, which leads them to continually question credibility of green claims (Mohr, Eroglu, and Ellen 1998). Due to grown society's involvement, environmental disasters and conflicts false green claims are transforming from specific problems into major public issues (Qader and Zainuddin 2011). Consequently, consumer distrust started to lower the ad's claim acceptance (Fishbein & Ajzen, 1975).

1.4 Green marketing and labeling of eco-friendly goods

During the past decades, both society and government have made an effort to diminish consumers' mistrust and provide proper regulation and certification of eco-friendly goods.

In the end of 1980's appeared a new term - Green marketing, which was defined as the activities taken by companies concerned about environmental problems or green problems, by delivering the environmental sound goods or services to create customers' and society's satisfaction. (Chen and Chai, 2010)

Also, in late 1980's ecolabels and certification programs were developed in order to inform consumers and to create new incentives for producers. These tools were seen as a potential to build credibility and to entice marketers. (J. Ottman, 1996)

That has forced companies to become more honest and cautious when elaborating on environmental themes, to hire more scientific approaches, and as a result, to gain positive attitude from their consumers, by constant monitoring of their moods, believes and desires.

Using environmental labels is still believed to be a solution to resolve the market failures by eliminating information asymmetry about product quality (Lusk et al., 2007; Mason, 2006).
Environmental labeling transforms a credence attribute into a search attribute and therefore helps consumers to make successful selections based on reliable information (Grolleau and Caswell, 2006), improving transparency and consumer trust in environmental and social claims (Thøgersen, 2002). The existing literature (Aguilar and Cai, 2010; Bjorner et al., 2004; Dekhili and Achabou, 2012) asserts that environmentally and socially conscious consumers are willing to pay premium prices for responsible products. Benoit-Moreau et al. (2008) in their research have found that respondents considered the presence of environmental claims as a sign of independent and credible certification, even though it is not always true.
Information labelling can play an important role in reassuring consumers sensitive to brands with a commitment to positive ethics, and thus encourage responsible consumption (Bartiaux, 2008; Erskine and Collins, 1997).
The survey conducted by Albemarle Marketing Research (AMR) in 2012 (MSC, 2012) was aimed to understand consumers' support towards environmental labels in general in such countries as the Netherlands, Germany, UK, Sweden, Denmark, France, USA, Canada, Japan and Australia. A total of 5,977 interviews were completed. Across the 10 countries, the consumers reported increasing trust in environmental labels (Table 1.)

Table 1. Trust in environmental labels

Environmental labels are effective in 'helping bringing changes to environmental/social problems'	**54%**
A product that carries an environmental label has less impact on the environment'	**59% (up from 52 per cent in 2010)**
Consumers reported a higher level of trust for brands that use environmental labels	**44% (up from 40 per cent in 2010)**

The research also showed that labelled with environmental label products make a positive impact on consumers' perception about the host brand. The environmental labels on products were

considered as the most trusted sources of information on socially and environmentally responsible goods in the UK and the Netherlands. In Japan, Australia, France and the US, ecolabels ranked second after recommendation by friends and family.

However, despite numerous assurance and certification cues that marketers use to verify the organic nature of products, the impact of individual tools on intention to buy is not well understood. Therefore, marketing research organizations constantly collect, analyze and report information regarding consumers' attitudes towards environmental labels and their impact on host brand and attractiveness of the labeled products. (Bickart, Ruth, 2012)

1.5 Conflicting theories

Considerably big amount of competing labeling programs and certifications, organizations may force consumer's confusion and diminish credibility (Salzhauer, 1991; Nilsson et al., 2004). Byrd-Bredbenner and Coltee (2000) in the study of female consumer's understanding of EU and US nutrition labels concluded that assessing label claims is a difficult task for the consumer. Many environmental labels lack recognition by the average consumer, due to the fact, that they are not widely advertised. Oppositely, other labels enjoy the consumers' trust. For example, The Energy Star label has gained strong awareness by having many producers promoting the label coupled with advertising of their own products (Ottman, 2011).

Eco-label Index – the platform for data collection on ecolabels globally indicates that, nowadays, there are 459 ecolabels circulating in 197 countries, and in 25 industry sectors. The environmental labels issued by producers are not included in that list (Ecolabel Index, 2015).

This variety of opportunities makes the credibility question very prominent. The analysis of characteristics of an efficient label to promote sustainable consumption in Switzerland has shown that the issuer's credibility was one of the important conditions (Pant, Summers, 2003). There is a lot of research on the effects of quality and quantity of information that should be provided to the consumers in order to influence their purchase intention but the results are often contradictory (Mayer, Johnson, 1989; Keller, Staelin, 1989). While the number of issued environmental labels grows rapidly (Bounds 2009), there are also important gaps in knowledge about their persuasiveness (Bickart, Ruth, 2012).

1.6 Persuasion and communicator's credibility

Persuasion is a type of communication defined as the use of symbols (sometimes accompanied by images) by one social actor for the purpose of changing or maintaining another social actor's opinion (Price Dillard, 2009). Cacioppo, Petty and Crites (1994) define it as an active attempt to change person's attitude through information. Its success depends on the communicator factor such as source, or communicator, of a message. To be effective, a communicator must have credibility based on his or her perceived knowledge of the topic, also, to be considered trustworthy.

In the academic literature on consumer purchase intention of environmental labeled goods, authors have not paid much attention to the relevance of considering well-known brands. For example, it is unclear whether highlighting the superiority of certifications provided by third party over certification given by producer is as valid in the case of well-known brands.

Thøgersen et al. (2010) emphasize the need for contributions that give more understanding to consumer reaction to environmental labeling. Therefore, a study that investigates the relationships between the label issuer and consumers purchase intention in presence of moderating factor such as specific attitude is required.

1.7 Communicator's credibility in coffee industry

Coffee is known as the strongest responsible product segment in developed countries (Heindkamp et al., 2008; International Coffee Organization, 2012). The 8% of the worldwide coffee market is represented by responsible coffee export. The International Coffee Organization (2015) lists several responsible programs and label issuing authorities. Some of the listed labels are issued by the third parties, such as Fair Trade certification, other are developed by coffee producers or by companies. Over the past few years, several well-known brands have adopted self-styled environmental labels. For example, Nespresso in the domain of coffee has launched its own responsible label, Nespresso AAA (Figure 1.7(1)), in 2003. The program was launched in collaboration with Rainforest Alliance aiming to ensure the highest quality of coffee and to protect the natural environment (such as carbon footprint reduction), also to improve the lives of coffee farmers. In 2009 the Ecolaboration™ program was launched and the environmental label was issued. The sustainability requirements of the program are based on social and environmental standards developed by the Sustainable Agriculture Network (SAN). However,

one should note that The Nespresso AAA has faced criticisms for lacking transparency by Solidar Suisse non-governmental organization (Solidar Suisse, 2011, p. 3).

Nevertheless, Nespresso AAA label constitutes an interesting case for number of previous studies when compared to strongly recognizable alternative organized by third party. For example, Achabou and Dekhili (2014) have measured the consumer preference for Nespresso AAA label in comparison to Fair trade Max Havelaar label and the importance of product attributes in French market. The results have shown that consumers prefer labeled products to unlabeled ones regardless of nature of the issuer. However, women react more negatively to an absence of the label than men. The difference of the content of presented labels was presented as a limitation for the study, since the respondents may have biased opinion about the social and environmental dimensions of the labels.

Figure 1.7(1) Nespresso AAA label

This research aims to avoid the limitation of biased perception of tested labels that comes from their dimensional inequality also to avoid another limitation that comes from inequality of label visuals and these are later explained in paragraph 3.5. (Label design). Another important goal is to generalize the study to European market, since the questionnaire had been presented to the students and recent graduates of mixed nationalities. For this purpose, as an alternative to the highly known brand we needed to present a label that would be recognized by all of the respondents, regardless of their country of origin. All that has moved this study toward a hypothetical scenario.

2. DEFINITIONS

Since consumers do not have a chance to try the product before purchasing in general, the only way to get information about the product is the packaging material (Gruner, Bech-Larsen & Bredahl, 2000). This theoretical framework has explored the literature on how environmental labels and types of the issuers are used as communication tool and able to affect the purchase intention. Moreover, in this chapter are discussed the effects that environmental label certified by different types of issuers have on the level of consumer skepticism. The sub-questions of the research are answered using previous literature.

2.1 Ecolabel vs. environmental label

According to Global Ecolabelling Network (GEN), the ecolabel is defined as label which 'identified overall environmental preference of a product within a product category based on life cycle considerations'. Only those environmental labels that have been awarded by an impartial third party to products that meet 'established environmental leadership criteria' can be called ecolabels, in contrast to self-styled environmental labels developed by the producer or service providers.

2.2 Environmental label issued by the third party

The environmental label (ecolabel) issued by the third party is a voluntary, multiple-criteria based third party program. It awards a license which authorizes the use of environmental labels on products indicating overall environmental preference of a product within a product category. It is based on life cycle considerations, which undermined higher credibility level, since the awarded label information cannot be manipulated easily (GEN, 2004).

Ecolabels reflect a determination and recognition of products' environmental performance leadership characteristics rather than simply a presentation of quantified environmental data. 'In this respect, the ecolabels "flag" leadership products in the marketplace rather than requiring consumers to undertake their own comparative analyses.' (*ibid*) However, the application for ecolabelling is not an easy process. It involves compliance verification and testing, applicant licensing and monitoring. Another unpleasant aspect is that once the applicant becomes licensed to use the label on, or in association with its certified products or services, an annual fee is charged for use of the ecolabel. (*ibid*)

In the study of 58 eco-labels in 2004, two types of the most trustworthy sources were named - the government (EU or national) and NGOs with strong stakeholder support. (Nilsson et al. 2004) Although, the European labels are considered to be the most standardized and comprehensive, they are difficult in use due to different national and social specifics. Nevertheless, the general suggestion is that labels provided by independent parties are more trusted than those, provided by producers and retailers (Albersmeier et al., 2010; D'Souza et al., 2007; Thøgersen, 2000).

Followed up by Crespi and Marette (2005) who argue that the increase of legitimacy and acceptance can be achieved when the government is involved in the labeling process, due to participation of a third party from outside the company (Karstens and Belz, 2006; Laufer, 2003). Without independent supervision, the company can manipulate the green information in a claim (Darnall 2008). It has been found that labels presented by the industry were perceived as less credible by consumers (Leire and Thidell, 2005; Ozanne and Vlosky, 2003).

2.3 Environmental label issued by producer

The environmental labels issued by producer are the informative environmental self-declaration (GEN, 2004). By that type of labeling, the producers indicate their own environmental and social achievements, and they are not carrying endorsements or the credibility of an independent third party (Ottman, 2011).

However, in some industries, the evidence of equal preference for both types of labels – issued by the industry and issued by the third party were found (O'Brien and Teisl 2004). Some authors argue, that labels issued by producer may also be convincing under certain circumstances e.g. highly environmentally concerned consumers may respond more favorably to ecolabels issued by familiar brands, than to independent ones (Bickart, Ruth, 2012). Moreover, the trust given to highly familiar brands can be explained by the effect of brand image, which can be seen by consumers as a reliable source of certification. Since the brand has managed to gain the worldwide recognition it is expected to have a good level of expertise in the own field. Keller (1993) defines the brand's image as "the perceptions of a brand that are reflected by the brand associations stored in the consumers' memory." That means, if the brand associates with e.g. competence, responsibility in consumers' minds, the environmental and social information conveyed by this brand might be perceived as credible and generate less skepticism in consumers' mind.

In the existing literature on consumer preference for responsible labeled goods, authors have paid little attention to skepticism towards the issuer of environmental label. For instance, it is unclear whether the superiority of third party certifications over assurance given by the producer is as valid in the case of well-known brands.

2.4 Consumer's purchase intention

Purchase intention is defined as the intent of an individual, after making personal considerations, to purchase a certain product (Khan, Ghauri & Majeed, 2012). The intention to purchase is highly important topic in marketing management as it helps to make a prognosis of sales for new and existing product or services. According to Tsitsou (2006), data regarding the consumer purchase intention helps managers in decision making, effective marketing strategy planning, market segmentation and demand forecasting for new and existing products.

Purchase intention is described as a likelihood that consumer will choose a certain brand of product category in concrete situation (Crosno et al., 2009). According to Fishbein and Ajzen (1975) the purchase intention is closely related with buying behavior, as the only way to predict a consumer's behavior is to measure his/her individual intention to commit the behavior.

Ajzen (1991) stresses in the link between beliefs and behavior, however, consumers' judgment of organic food products attributes are influenced by their perception.

2.5 Consumer skepticism

Bonti-Ankomah and Yiridoe (2006) suggest that consumers may experience skepticism and uncertainty when considering the attributes of labelled products, which may cause mental barriers when regarding a product purchase. In order to provide more accurate overview for the reasons why some consumers are willing to purchase labeled products with environmental labels provided by different authorities, other attributes than only a label presence need to be added into the study, e.g. price premium.

In Forehand and Grier's (2003) research, skepticism is defined as a consumer distrust or disbelief of marketer actions and motives, such as specific advertising claims, and public relations efforts. Mohr, Eroglu, and Ellen (1998) define it as "cognitive response that varies depending on the context of communication, and may only reveal itself on certain occasions". Kisielius and

Sternthal (1984) suggest that skepticism should lead to counter arguing and less positive attitudes toward the product.

According to Fishbein and Aizen (1975), people tend to react to the objects or information explicitly (when they are aware of their reaction and can report about it) or implicitly (when they have automatic predisposition, may not be aware of it or even deny it) (Devine 1989; Greenwald & Banaji, 1995; Wilson, Lindsey & Schooler, 2000).

For example, individuals can possess implicit prejudices (Devine 1989) or other evaluative tendencies (Petty, Tormala, Brinol & Jarvis, 2006) that they don't even endorse. This is also in line with Greenwald & Banaji, (1995); Wilson, Lindsey & Schooler, 2000).

Ajzen (1988) defines attitude as a "disposition to respond favorably or unfavorably to an object, person, institution, or event". Attitude acquired through "information and/or experience with an object is a predisposition to respond in a certain way, and has to reflect a reliable pattern of positive or negative reactions to that object" (Hakkert and Kemp 2006).

Regarding the level of consumer skepticism as an attitude toward innovative marketing tactics, the studies show that in general it stays relatively low, since consumers don't yet identify the persuasive intent. By the time consumers understand the persuasive nature of the tactic, they become skeptical (Morh and Webb 1998).

2.5.1 Predispositional skepticism

In academic literature it is argued that there are two types of consumer skepticism – predispositional and situational. (*ibid*.) Predispositional skepticism is a general tendency to suspect marketers' motives. It is usually beyond marketers' reach and in many research on skepticism toward advertising this variable is dropped. But in some cases, the predispositional skepticism still remains an important variable in marketing studies. For example, Boush, Friestad&Rose (1994) in their study of adolescent skepticism toward TV advertising and knowledge of advertiser tactics, were especially concerned about predispositional skepticism, since they were interested in understanding of how ready are the minds of viewers to believe or reject whatever is shown on TV in order to enhance the discernment of teenagers.

Due to the relatively long history of speculation on topics of "environmental truth" promoted by companies, the idea of predisposition skepticism may become prominent in regards of green advertising and promotion (Mohr, Eroglu, and Ellen 1998; Zinkhan and Carlson 1995).

This thesis suggests that the skepticism toward environmental claims can be seen as a predispositional skepticism toward environmental labels and play a considerable role in the way how these labels are perceived by consumers. This skepticism leads to consumers' negative responses to advertising and then results in resisting persuasive communication. In particular, highly skeptical consumers tend to avoid giving attention to advertising claims (Obermiller, Spangenberg & MacLachlan, 2005). Moreover, consumers with high predispositional skepticism level have less belief in advertising claims as information, like advertisements less, and purchase fewer products than consumers with lower skepticism level (Obermiller & Spangenberg, 1998; Chen & Leu, 2011). This is evident in research held by Laroche, Bergeron, and Barbaro-Forleo (2001) that showed that consumers, which became skeptical toward green advertising, might represent a type of risk avoidance behavior when buying green products. Further, in this study the predispositional skepticism will be abbreviated as PS.

2.5.2 Situational Skepticism

Situational skepticism is a temporary state to doubt a certain marketer's motive, it may occur toward specific marketing tricks (Obermiller 1998). An example of the case where situational skepticism arises is the moment of exposure to the certain type of advertising message. When consumer sees the environmental label, the level of his or her situational skepticism changes in a positive or negative manner. However, the effect of situational skepticism is not long lasting.

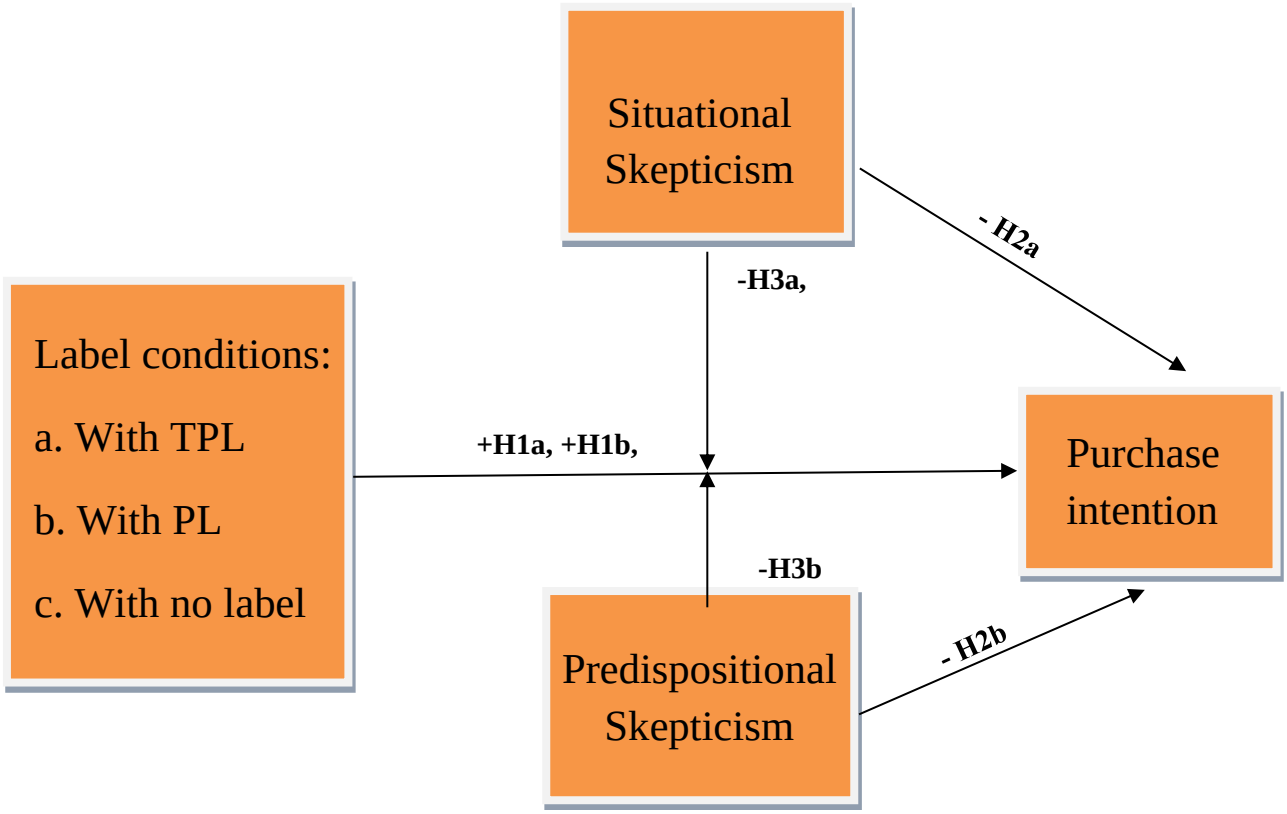
Situational skepticism may positively or negatively be influenced by marketers and message formulation (Kim & Lee, 2009). Situational variable influences consumer skepticism by inducing a 'state' of skepticism (Forehand & Grier, 2003).

Forehand and Grier (2003) found several effects that confirmed the partly situational nature of skepticism, for example the development of skepticism when advertising claims are not clearly verifiable. Obermiller and Spangenberg (1998) agree with the fact that even extreme skepticism can be influenced by situational factors; therefore the situational aspect of skepticism needs more attention of marketers (Kim & Lee, 2009).

This paper examines how the level of situational skepticism affects the purchase intention of products certified by government – European Union vs. products certified by producer, brand – Nespresso AAA. Further, in paper situational skepticism will be abbreviated as SS.

2.6 The conceptual model

The conceptual model pictures the relationships between variables. There are expected to be found the direct effect of Environmental label conditions on purchase intention and the moderating effect of PS and SS. Skepticism variables are expected to affect the purchase intention negatively.



2.7 Research sub-questions and Hypotheses.

1. *What relationship is there between environmental label presence and purchase intention?*

According to the research conducted by Benoit-Moreau et al. (2008) and Sihem Dekhili Mohamed Akli Achabou (2014), the environmental label presence has a positive direct effect on purchase intention.

2. *Does the change in the level of skepticism impact the purchase intention when the Environmental label is present?*

According to Forehand and Grier's (2003) research, skepticism is defined as a consumer distrust or disbelief of marketer actions and motives, such as specific advertising claims, and public relations efforts. The relationships between environmental label presence and purchase intention are explained through the change in skepticism level. We suggest that skepticism toward green claims may arise and have a significant effect on purchase intention.

Table of Hypotheses

H1a:	*Presence of environmental label affects the purchase intention in a positive manner.*
H1b:	*Presence of environmental label issued by the third party will have positive effect on purchase intention comparing to the presence of label issued by producer.*
H2a:	*The predispositional skepticism (PS) affects the intention to buy a product in a negative manner.*
H2b:	*The situational skepticism (SS) will affect the intention to buy a product in a negative manner.*
H3a:	*For individuals with higher situational skepticism (SS) the impact of label on purchase intention will be weaker.*
H3b:	*For individuals with higher predispositional skepticism (PS) the impact of a label on purchase intention will be weaker*

3. METHODOLOGY

3.1 Research design

The research design types to be chosen are casual and descriptive designs. The major goal of casual design is to describe cause and effect relationship between variables. Since the aim of this research is to investigate the effect of label conditions on purchase intention, the casual research design was used. Descriptive research was used to depict population elements as a sample.

In order to conduct the research, primary data via survey was collected.

3.2. Participants and Questionnaire

There were two separate surveys conducted during this study. The surveys had been distributed among students and recent graduates via Internet link to online questionnaire designed in Qualtrics (http://qualtrics.com) survey tool. Due to the high level of customization and advanced options together with user-friendly design this software promises to be a convenient tool for data collection, easy to follow for non-experienced users. Also it is environmentally friendly and free of charge.

The respondents were randomly assigned to one of the two groups. The sample size of 114 respondents was split into two groups with 57 respondents per version of the survey.

The last part of the survey consists of personal questions that indicate the socio-demographic features of the participants to insure the non-random convenience sampling.

3.3 Incentives

Economic theories must predict the respondent's actions in the presence of real, salient reward. Contingent incentives are crucial for economic experiments (Croson, 2005) thus; one out of 115 respondents had a chance to win a 35 EUR Amazon.com gift card. A lottery determined the winner.

3.4 Questionnaire Structure

All the respondents were randomly assigned to one of the two experimental groups. Each group was asked to fill out only one questionnaire to insure that participants were not be influenced by learning curve.

Both surveys started out with a picture of one out of two environmental labels accompanied with the short description. Depending on the type of issuer of a label shown on a screen, the respondents were sent to respective experimental group.

After introduction to the label, the familiarity and situational skepticism questions were asked.

The experimental stage was split into two parts. In the first part of experiment, pairs of alternatives with labeled and unlabeled products were presented. In the second part, the respondents were exposed to alternatives labeled with environmental labels issued buy two types of authorities. The details of experiment are further discussed in PRG 3.8.

When the experimental stage was accomplished, the respondents were asked predispositional skepticism questions and questions related to demographic characteristics.

3.5 Labels Design

Since this research attempts to study the influence of the label issuer on purchase intention, both 'third party' and 'producer's label' labels had to refer to the same dimension and to look closely similar. They should have included the visual cues to provide perceived fit. The respondents were expected to be familiar with the authority but not with the label itself. Hence, for the experiment purposes there were designed two artificial labels that represented certification from both Nespresso and European Union.

First group had on a screen Nespresso (representing the producer's self-styled label) and the second group had 'EU' label (representing the third party label).

Depending on which environmental label was displayed; the respondents were directed to either one or another experiment version.

3.5.1 Choosing the label alternatives for experiment

When designing the artificial labels the concepts of existing labels were used.

Since all of the respondents were familiar with the European food market, as a reference for a third party label, it was decided to use a mixture of two highly recognizable EU environmental labels' concepts – a concept of European organic logo (Figure 3.5a) and EU Ecolabel (Figure 3.5(2)).

European organic logo marks the products with at least 95% of organic agricultural ingredients (Ecolabel Index, 2015). EU Ecolabel is recognized throughout Europe, as a voluntary label

promoting environmental excellence that aims to inform the consumer that the product or a service is both environmentally friendly and good quality.

Referring to EU authority as a representative of a third party label, the issuer was seen to provide an easier way to generalize this study to European market.

Figure 3.5(1). European organic logo.

Figure 3.5(2). EU Ecolabel

As a fit alternative in the choice experiment, the producer's label, Nespresso AAA label (see Figure 1.7(1) from PRG 1.7) was chosen.

Both artificial labels had content the environmental claim 'organic' following the European organic logo example and some items that the original labels have.

3.5.2 Graphic design theory and execution

A strong logo and a subsequent visual system is one of a corporation's greatest assets. In existing literature, it states that 'according to the way our natural senses function color is the most influential, followed by shapes, symbols, and finally words'. The shape and color are the critical attributes of process as consumers have learned responses to form meaning. Mnemonic value is linked seamlessly with emotional association. Consistency of shape contributes to the power of logo (Adams, Morioka & Stone, 2006).

Geometric shapes (circles, squares, triangles etc.) are built on a base of regular patterns to enable the noticing and recognizing. Shapes have meaning, e.g., circles represent the eternal whole, suggest well-roundedness and completeness, also community, integrity, and perfection. Circles are less common in design, which enables them to attract attention, and to provide emphasis (Krause, 2013).

The color theory provides the meaning of colors. For example, green is the easiest color for the eye and it stands for peaceful, growth, health, environment, signifies the nature (Adams Morioka, 2008).

The agency is usually hired to create appropriate graphic or aesthetic identification elements.

For this study purposes, the professional graphic designer has been hired to create the labels based on common distinctive features used in environmental labels creation. The green color, round shape, word 'organic' have been picked as distinctive features.

The goal is to exclude the majority of other interferential factors that influence consumer's judgments. In that order both labels had a similar look in terms of shapes and colors to avoid interference of adverse judgments and ensure similar perception (Keller, 2012). Also, the logo should have the natural look of the environmental label and ensure the believability in its actual existence.

3.6 Label message and description

Clear messaging also allows organizations to avoid the greenwashing sin of vagueness and the sin of irrelevance (TerraChoice, 2007). Label should have included the explicitly highlighted message; in case of European organic label it is 'organic'. Another study by Tang et al. (2004) suggests that the labels with a logo and an additional written message that specifies the main responsible attribute of the products seem to be the most successful.

As it was explained earlier, the artificial environmental labels have been created for this study purposes. European Union certified label was represented by artificial EU Organic label (Figure 3.6(1)) and the Nespresso AAA was represented by artificial Nespresso AAA Organic label (Figure 3.6(2)), respectively.

The label description text has been adopted from existing description of French label AB (Agriculture Biologique), which is the France's national logo for organic products since 1985. L'Agence Bio began managing and promoting the label in 2008. This label has been picked because it verifies only one environmental performance aspect – 'organic', which matches the criteria (Ecolabel Index, 2015). Same text was applied for both labels as a description.

Figure 3.6(1) Artificial label as EU Organic label (Used in Survey 1)

Figure 3.6(2) Artificial label as Nespresso AAA Organic label (Used in Survey 2)

After seeing the label, the respondents were asked to confirm the issuer of the logo, to make sure that they have paid enough attention to the main aspect of research interest. The respondent had to pick one out of two offered options either the name of the actual issuer (EU/Nespresso) or the name of other random Eco-label issuer - Rain Forest Alliance. If the wrong label was chosen, the respondents had to go back and read the description again.

The specific attributes and benefits, together with product class cues were expected to enable the issuer recall during the later questions processing (Crowder, 1976).

3.7 Situational Skepticism

In the second part of the survey both groups were asked to rank on a Likert scale from 1 (Strongly disagree) to 7 (Strongly Agree) the statements that were meant to reflect the level of their SS. The scale has been borrowed and adapted from **"**Development of a Scale to Measure Consumer Skepticism Toward Advertising", Carl Obermiller (1998**)**. The following 7 items were used as measurements:

1. I can depend on getting the truth in this Eco-label.
2. This Environmental label aims to inform the consumer.
3. This Environmental label is generally truthful.
4. This Environmental label is a reliable source of information about the quality and performance of labeled items.
5. In general, this Environmental label presents a true picture of the item advertised.
6. I feel I have been accurately informed after viewing of this Environmental label.
7. This Environmental label provides consumers with essential information.

The Principal Component factor analysis with Oblimin Direct rotation was used to find a proper structure of the model.

3.8 Profiles and choice sets

The respondents were divided into two separate groups – at the start of the experiment one group was be exposed to the 'EU' label and the second group saw the 'Nespresso' label. In the experimental stage of a questionnaire, the participants were exposed to the sets of choice cards. Each choice set consisted of a pair of cards with a number of attributes and levels associated with a product. The respondents were asked to indicate their preference toward labelled/unlabelled product and toward labelled with EU label or labelled with Nespresso label product on a Likert scale from from 1 (Strongly disagree) to 7 (Strongly agree). There were also two price levels – 32 EUR (average market price) or 34 EUR (high price)

The experiment design was borrowed and adapted from "Eco-labeling brand strategy", Sihem Dekhili Mohamed Akli Achabou (2014). In that paper, the authors studied the consumer preference for environmental labels issued by the producer and third party on examples of Nespresso AAA and The fair trade Max Havelaar labels.

This study aimed to estimate a relationship between the probability of a made choice and the attributes levels of a chosen alternative. According to Bennett and Blamey (2011), in order to

identify the relationship in complete, all possible combinations of attribute levels had to be presented to the respondents. Due to the limited number of product attributes and levels, in this study the full factorial design had been approached to satisfy that requirement. As an outcome of full factorial analysis a number of 6 choice cards for label presence/absence experiment and 6 cards for label issuer type experiment ('Nespresso'/'EU'). However, in total respondents had to make just 10 choices instead of 12, since there have been two choices, that turned out to have same attribute levels in both sets: 'Nespresso' label low price against same label with high price and 'EU' label low price against same label with high price. Taking that into account, we did not ask the respondents to consider these choices twice. The questionnaire ended up with 6 choices for presence/absence experiment and 4 choices for issuer type experiment.

The cards were presented to the respondents along with verbal and pictorial descriptions (Figure 3.9b) as stimuli to prevent the possibility that different respondents interpret the words differently, thereby increasing the heterogeneity in the responses (Vishwanathan & Narayan, 1992). Furthermore, pictures make the process more interesting for the respondents.

Label Presence

There was expected that respondent' reaction to an environmental label displayed on the product may differ according to the type of issuer. Three possible scenarios were presented:

1. No label displayed
2. Label issued by brand
3. Label issued by Third Party

We also chose two price ranges corresponding to the price levels operated in the market by Nespresso for a batch of 30 espresso coffee capsules (approximately 500 g). The attribute levels retained are summarized in the Table 3.9.2(1) below.

Price

Two price options were added, corresponding to the price levels operated in the market by Nespresso brand for a package. (Amazon.com)

Table 3.9.2(1) Attributes and levels

Attributes	Levels

Environmental label presence condition	With label
	No label
Environmental label Issuer condition	Label issued by third party
	Label issued by producer
Price	32 EUR (average price)
	34 EUR (high price)

More detailed information about the choice sets and profiles can be seen in Appendix A.

Figure 3.9.2(2) Example of a choice set. Issuer type experiment.

Please look at the cards carefully and indicate your preference.

Statement: I am more willing to buy the product on the right rather than the product on the left in future.

Nespresso

Batch of 30 capsules
*Different falvors available

32.00 EUR

Nespresso

Batch of 30 capsules
*Different falvors available

34.00 EUR

Strongly disagree	Disagree	Somewhat disagree	Neither Agree nor Disagree	Somewhat agree	Agree	Strongly Agree
○	○	○	○	●	○	○

Confirm your choice

Left	Right
○	●

The second step suggested respondents to confirm their choice by clicking on the right or left card. This action was introduced to insure that each respondent has understood the presented

statement and actually paid attention to the scale points, also to avoid heuristics. There were 3 questionnaires in which respondents "confirmed" the options that have been evaluated low (1-3) on a scale due to unknown circumstances. These were eliminated from the analysis to insure clean results.

3.9 Predispositional Skepticism

Skepticism toward general advertising is a multidimensional concept defined as the "tendency toward disbelief in advertising claims and mistrust in advertisers' motives" (Boush, Freistad & Rose, 1994). This concept is based on consumers' beliefs about the marketplace and non-personal communication (Obermiller & Spangenberg, 1998). If consumers decide that the purpose of advertising was to sell products, they were more likely to believe that advertising is exaggerated and misleading. The skepticism leads to consumer's negative responses to advertising. Consequently, consumers become resistant to persuasive communication. In particular, highly skeptical consumers tend to avoid giving attention to advertising claims (Obermiller, Spangenberg & MacLachlan, 2005).

In part four, the participants were asked to rate a number of statements that are going to determine their level of predispositional skepticism toward environmental claims in general.

Mohr, Eroglu and Ellen (1998) suggest measuring skepticism as a set of two types of skepticism (i.e., advertisers' motives and advertising claims).

Respondents were asked to evaluate each of the 9 displayed affirmative on a 7-point Likert scale from 1 (Strongly disagree) to 7 (Strongly agree).

The statements were borrowed and adapted from "The Development and Testing of a Measure of Skepticism Toward Environmental Claims in Marketers' Communications" (Lois a. Mohr, Dogan Eroglu, and Pam Scholder Ellen (1998);

The following 9 items were used for measurements:

1. Most environmental claims made on package labels, or in advertising are true.
2. I am skeptical about the accuracy of environmental claims made on package labels or in advertising.
3. Because environmental claims are exaggerated, consumers would be better off if such claims on package labels or in advertising were eliminated.
4. The only environmental claims I believe are the ones that I can verify.
5. Most environmental claims on package labels or in advertising are intended to mislead rather than to inform consumers.

6. I don't believe environmental claims on package labels or in advertising until the producers provide evidence that the claims are true.
7. Environmental claims on package labels or in advertising lead people to believe things that aren't true.
8. I do not believe most environmental claims made on package labels or in advertising.
9. Environmental claims made on package labels, or in advertisements are generally truthful.

The Principal Component factor analysis with Oblimin Direct rotation was used to find a proper structure of the model.

3.10 Demographic characteristics

The survey was distributed among students and recent graduates. The expected characteristics are represented below.

The question about gender was formulated as an open question 'what is your gender?' that can be answered with either male or female.

Participants had to indicate their age that has fallen within one of the offered age ranges: 18 and younger, from 18 to 25, from 26 to 35, and 35 and older.

The education level question was formulated as an open-ended question 'what is your highest education level?' This study suggests 5 levels such as (1) Bachelor Degree (2) Master Degree (3) Doctoral Degree.

3.10 Perceived label familiarity and perceived fit

Many studies suggest that consumers may also rely on different types of cues such as familiarity (Devlin, 2011; Park and Lessing, 1981). The familiarity arises from personal experience that consumers gained through purchase and consumption and it is considered as a precondition of subject knowledge. Higher level of familiarity enables the better understanding of the meaning of product information by consumers (Alba and Hutchinson, 1987). Importance of familiarity, in case of responsible products, confirmed the impact on responsible consumption (D'Souza et al. 2007). However, even sometimes subjects and environments one has never been intact with can still seem familiar. That is the case of perceived familiarity (Craig, Conniff, and Galan-Diaz, 2012). Perceived familiarity is characterized as a feeling that comes together with exposure to a particular stimulus that is considered to be in some way familiar. This is different from actual familiarity because it is internal to the individual.

As Crowder (1976) defines the actual familiarity as 'information in memory is accessed via retrieval cues'. The cues may originate in the immediate environment, or consumers may internally generate these cues. There are two types of retrieval cues that can make a brand association accessible on a particular choice occasion – specific attributes or benefits, and product class cues.

The purpose of designing artificial labels is to create an effect of perceived fit, but avoid perceived familiarity. Keller (1990) states that perceived fit means the extent to which "a consumer perceived the new item to be consistent with the parent brand" (p. 29). The respondents had to be able to recall the issuer when being exposed to the label. However, the labels themselves should have not been seen as 'familiar' by the respondents, otherwise it may have affected their judgments.

We had to check the perceived familiarity of respondents with the labels, in order to make sure that it did not affect their level of skepticism and purchase intention, and thus to understand whether the labels were designed fairly in accordance with the aims of this research.

The familiarity scale has been borrowed from the study about familiarity of fast-moving goods by Kaj P.N. Morel and Ad Th.H. Pruyn (2003). In the study, the respondents were asked to rate the extent of familiarity with the label by agreeing with the following statements on a Likert scale from 1 (Strongly disagree) to 7 (Strongly Agree).

Example from the survey:

Please look at the (label) image and carefully read the information on the right.

1. I am familiar with this environmental label;
2. I have often seen or heard about this environmental label;
3. I have often seen or heard about this environmental label;
4. I have experience of using products labeled with this environmental label;

3.11 Hypotheses and statistics

In the table below the hypotheses are presented along with statistical analysis methods that were implemented in this study.

Table 3.10(1)

Hypotheses	Statistics

H1a, H1b	**Linear regression**
H2a, H2b	**Factor Analysis + Linear Regression**
H3a, H3b	**Linear regression (Moderating effects)**

4. RESULTS

In this chapter the results of empirical tests are presented. The results were acquired from running analyses in SPSS with the data set that was obtained by surveys filled out by 114 respondents.

4.1 Descriptive results

The link to the survey has been opened on 12th of June and closed on 17th of June, 2015. During this period, a total amount of 160 respondents have received the link to the survey via personal message option on Facebook. The author of this research stayed online with respondents and gave the explanation or translation to all of the questions in the survey when it was needed. This has ensured a high response rate and willingness of the respondents to spend time filling in the data. Unfortunately, due to some technical problems, quite a lot of the surveys came back half-finished or contained a lot of missing data. It was decided to drop them out of the study. As a result only 114 surveys remained for further examination.

4.1.1 Sample size adequacy

The adequate sample size according to Christensen (2007) should be minimum of 30 respondents per group. In the case of this study both groups were represented by 57 respondents.

Nevertheless, that four age category options were available for respondents, it turned out that non on the respondents were younger than 18 years old or older than 35. In the Table 4.1.1(1) one can see the percentage of the population that represent the demographic characteristics of the sample.

Table 4.1.1(1) Socio-demographics of the sample

Type of	(N)	Age	Gender	Level of Education

condition								
		18 - 25	26 - 35	Male	Female	Bachelor degree	Master degree	Doctoral degree
'EU' group	57	52,6%	47,4%	45,6%	54,4%	50,8%	45,6%	3,5%
'Nespresso' group	57	50,1%	49,1%	56,1%	43,8%	56,1%	40,3%	3,5%
Total	114	51,4%	48,3%	50,9%	49,1%	53,5%	43,0%	3,5%

The percentage of age category was very different between two groups. In the groups, which were exposed to 'EU', label there was almost equal percentage represented by both age categories (52,6% versus 47,4%). Also in 'Nespresso' group percentage of younger category (18-25) was slightly higher (51,4% versus 48,3%).

The percentage of females was higher than males in 'EU' group (45,6% versus 54,4%), and opposite were found in 'Nespresso' group – the higher percentage of respondents was males (56,1% versus 43,8%). The most respondents have obtained the Bachelor degree - 53,5% out of entire sample, and 50,8% within 'EU' group and 56,1% within 'Nespresso' respectively. Master degree have obtained 45,6% respondents within 'EU' group and 40,3% within 'Nespresso. The smallest number of respondents have obtained a Doctoral degree – 3,5% in both groups.

4.2 Situational skepticism

4.2.1 Exploratory Phase: 'EU' and 'Nespresso' groups

The reliability of scales in both groups have been investigated with the help of reliability analysis the highest possible Cronbach's Alpha was achieved in both groups (Table 4.4.1(1)). A few items that supressed the Alpha were eliminated. (Cortina,1993)

For 'EU', The Kaiser-Meyer-Oklin value was ,811, (>.6) and ,851(>.6) – for 'Nespresso. The Barlett's Test of Sphericity for both groups was equal: p=,000 (< 0.05). The solution of PCA (Oblimin rotation) revealed the presence of single component with eigenvalues exceeding 1: in 'EU' group - 4,202 and in 'Nespresso' group - 3,354 (see tables in Appendix B)

An inspection of the scree plot revealed clear breaks after the first component. Consequently, for each group single components were retained for further investigation. The one principal component in 'EU' group accounted for 70,0 percent of the variance, and in 'Nespresso' - 67,1 percent.

All items load high on the component (<0.3) or contribute meaningfully to the component, demonstrating the clean solution that can be seen from the tables in Appendix B.

4.3 Predispositional skepticism

4.3.1 Exploratory Phase: 'EU' and 'Nespresso' groups

The items 1 and 9 were reversal coded to follow the logic of the scale.

The reliability of scales in both groups have been investigated. The items that suppressed the Cronbach's Alpha were eliminated (Table 4.4.1(1)).

The Kaiser-Meyer-Oklin value for 'EU' group was ,842 and for 'Nespresso' it was the same ,842 (>.6) but with lesser degree of freedom (15 against 21 for 'EU'). Barlett's Test for both groups showed p=,000 which is < 0.05.

The solution of PCA (Oblimin rotation) revealed the presence of single components with eigenvalues exceeding 1: In 'Nespresso' group - 3,208 and in 'EU' - 3,843, respectively. An inspection of the scree plot revealed clear breaks after the first component. Consequently, single components in each group were retained for further investigation. The one principal component accounted for 53,5 percent of the variance (Appendix C).

All items load high on the component (>0.3) or contribute meaningfully to the component, demonstrating the clean solution, which can be observed from the tables in Appendix B.

4.4 Investigating skepticism scales

In order to find out if we can distinguish among the scales, we had to run extra tests. The scales were tested with PCA (Oblimin rotation) analysis, which was run on all four scales.

4.4.1 Reliability

The scale reliability has been investigated. The items that suppressed the Cronbach's Alpha have been eliminated. The highest possible Cronbach's Alpha were achieved. (Table 4.4.1(1)).

Table 4.4.1 (1).Reliability coefficients for skepticism scales

Situational scepticism (SS)	**Cronbach's Alpha (> .700)**
'EU' group	.913 (Item 2, eliminated)
'NESPRESSO' group	.864 (Item 1, 2 eliminated)
Predispositional scepticism (PS)	
'EU' group	.862 (Item 4, 5, eliminated)
'NESPRESSO' group	.823 (Item 1, 3, 4, eliminated)

The Kaiser-Meyer-Olkin value was .720 (>.6) and the Barlett's Test of Sphericity p=,000 (< 0.05), supporting the factorability of the correlation matrix (Appendix D).

An inspection of the scree plot revealed a small break after the 4th component (see Appendix D). However, the examination of table of eigenvalues has shown 5 values above 1. Consequently, the analysis result suggests keeping 5 components: eigenvalues 6,649, (27,702% of variance explained) 3,726 (15,527%), 2,813 (11,721%), 2,256 (9,401%) and 1,209 (5,040%).

To determine the true number of components that should be retained for further investigation the additional parallel analysis was performed.

To do so, the list of eigenvalues provided in the Total Variance Explained table (Appendix D), and additional information from another statistical program Monte Carlo PCA for Parallel Analysis (developed by Marley Watkins, 2000) were used. The program has generated 100 sets of random data of the same size (24 variables x 57 cases) as the real data file and calculated the average eigenvalues for these 100 randomly generated samples. Later on, the first eigenvalue obtained in SPSS were systematically compared with the corresponding first value from the random results generated by parallel analysis (Pallant, 2005). In cases when actual eigenvalue from PCA was smaller than eigenvalue from parallel analysis, the component was dropped (Table 4.4.1 (2)).

Table 4.4.1 (2). Monte Carlo PCA for parallel analysis

Component Number	Actual eigenvalues from PCA	Criterion value from parallel analysis	Decision
1	6,649	2,4172	Accept
2	3,726	2,1576	Accept
3	2,813	1,9612	Accept
4	2,256	1,7899	Accept
5	1,209	1,659	Reject

The results of parallel analysis have supported the decision from the scree plot to retain only four factors that are discussed later on.

4.4.2 Results 'Nespresso' group

Seemingly, for the 'Nespresso' group there is the difference between two scales since all of the items that belong to the Predispositional skepticism scale have loaded on Component 3 and all of the items that belong to the SS scale have loaded on the Component 3. Thus, SS and predispositional skepticism are measured on the different scales (Appendix D).

4.4.3 Results 'EU' group

After inspection of the Rotated Component Matrix (Appendix D), for the 'EU' group there has been found the difference between two scales since all of the items that belong to the SS scale had loaded on Component 1 and all of the items that belong to the

Predispositional Skepticism scale have loaded on the Component 2. (Appendix D) Consequently, we conclude that we have to distinguish all four scales.

The test on normality of distribution was ran. The Shapiro-Wilk test has not shown any significant results. Thus, we conclude that the data is normally distributed. (Appendix D)

4.5 Purchase intention

To assess the validity of the proposed hypotheses, we ran the regression analyses in SPSS.

Prior starting the analysis we had to prepare the data and provide appropriate coding. The dependent variable represented the purchase intention. The intention was measured on a 7-point Likert scale, where 1 is strongly disagree and 7 is strongly agree (Chen and Chang, 2008).

The independent variables for attributes price, label and issuer were coded as 1 and -1. That can be observed from the Table 4.5(1) below.

Table 4.5(1). Binary coding for attribute levels

Price condition	High price (34 EUR)	1
	Average market price (32 EUR)	-1
Label Presence condition	With a label	1
	Without a label	-1
Label Issuer condition	With 'EU' label	1
	With Nespresso label	-1

The dependent variable purchase intention, in both groups seems to indicate a non-normal distribution since these the Shapiro-Wilk test has shown the significance value of $p < .000$. Unfortunately, neither square root nor log transformation did not make the data to become more normally distributed.

4.6 Hypotheses testing

Several linear regression analyses in SPSS were run to explore the relationships between price, label, issuer conditions and intention to buy in both groups – the 'EU' and the 'Nespresso'.

4.6.1 The effect of label (and price) conditions on purchase intention

H1a: Presence of environmental label affects the purchase intention in a positive manner.
H0: Presence of environmental label does not affect consumer' purchase intention.

H1b: Presence of environmental label issued by the third party will have positive effect on purchase intention comparing to the presence of label issued by producer.
H0: There is no difference in effect derived from the type of issuer of the label on purchase intention.

Results for 'EU' group

Table 4.6.1a(1) Label presence/absence condition and condition 'EU'/'Nespresso' label

EU' group	Dependent variable			
	Intention			
Independent variables	label presence/absence		Issuer type	
	B	Sig.	B	Sig.
Label	,219	,002	,270	,001
Price	-,324	,001	-,160	,083
	R^2=,152		R^2=,049	

Regression model for label presence condition:

$$Purchase\ intention = \beta_0 + \beta_1\ price + \beta_2\ label + \beta_3 intention + \varepsilon$$

Regression model for issuer condition:

$$Purchase\ intention = \beta_0 + \beta_1\ price + \beta_2\ issuer's\ label + \beta_3 intention + \varepsilon$$

As it can be observed from Table 4.6.1a (1) above, the label presence on a product in label presence/absence experiment had a positive significant effect on purchase intention. The 'EU' label presence in issuer experiment had a positive significant effect on purchase intention (p-

value <,05). That is in line with H1a and H1b. Thus, the Null hypotheses for 'EU' group were rejected.

The additional analysis has shown that the high price weakened the purchase intention (negative effect) in the label experiment (p-value <,05). In issuer type experiment no significant effect of price on purchase intention was found. However, the direction of effect was, again, negative.

Results for 'Nespresso' group

Table 4.6.1b (1). Label presence/absence condition and condition 'EU'/'Nespresso' label

Nespresso' group	Dependent variable			
	Intention			
Independent variables	label presence/absence		Issuer type	
	B	Sig.	B	Sig.
Label	,204	,009	,310	,000
Price	,036	,561	-,069	,443
	R^2=,021		R^2=,079	

From the Table 4.6.1b (1) above, the label presence on a product in label experiment had a positive significant effect on purchase intention. The 'EU' label presence in issuer type experiment had a positive significant impact on the purchase intention (p-value <,05). That is in line with H1a and H1b. The Null hypotheses for 'Nespresso' group were rejected.

The additional analysis has shown that price had no significant effect on purchase intention in this group. The direction of effect is negative.

4.6.2 The effect of predispositional and situational skepticism on purchase intention

Several linear regression analyses in SPSS were run to investigate the relationships between SS/PS and purchase intention in both groups – the 'EU' and the 'Nespresso'.

H2a: SS will affect the intention to buy a product in a negative manner.
H0: SS does not affect the intention to buy a product

H2b: PS will affect the intention to buy a product in a negative manner.
H0: PS does not affect the intention to buy a product.

Regression model for situational skepticism effect on purchase intention:

$Purchase\ intention = \beta_0 + \beta_1\ SS + \beta_2\ intention + \varepsilon$

Regression model for predispositional skepticism effect on purchase intention:

$Purchase\ intention = \beta_0 + \beta_1\ PS + \beta_2\ intention + \varepsilon$

Results for 'EU' group

Table 4.6.2a (1) Label presence/absence condition and condition 'EU'/'Nespresso' label

EU' group	Dependent variable			
	Intention			
Independent variables	label presence/absence		Issuer type	
	B	Sig.	B	Sig.
SS	,260	,001	,005	,942
	R^2=,028		R^2=,001	
PS	-,167	,002	,082	,215
	R^2=,068		R^2=,007	

As the 4.6.2a (1) shows, that in label presence/absence experiment SS had a positive significant effect on purchase intention (p-value <,05). This is not in line with H2a.

In issuer type experiment, no significant effect of SS on purchase intention was found.

In label experiment, the effect of PS on purchase intention was negative, which is in line with the H2b. In issuer experiment also no statistically significant effect of PS on purchase intention was found.

Consequently, the hypothesis H2a was not supported. However, the Null hypothesis cannot be rejected. Hypothesis H2b in 'EU' group was supported. Thus, we rejected both Null hypotheses.

Results for 'Nespresso' group

Table 4.6.2b (1) Condition 'EU'/'Nespresso' label and condition with/without label

Nespresso' group	Dependent variable			
	Intention			
Independent variables	label presence/absence		Issuer type	
	B	Sig.	B	Sig.
SS	,082	,135	-,033	,615
	R^2=,007		R^2=,001	
PS	,082	,138	,057	,395

	R^2=,007	R^2=,003

From the Table 4.6.2a (2) can be observed that in both label and issuer type experiments nor SS neither PS had no significant effect on purchase intention (p-value >,05).
Consequently, the hypotheses H2a and H2b were not supported. Thus, the Null hypotheses could not be rejected.

4.6.3 Moderating effect of situational skepticism

H3a: For individuals with higher SS the impact of label on purchase intention will be weaker.
H0: For individuals with higher SS there will be no impact of a label on purchase intention.

Regression model:

$$Purchase\ intention = b_0 + b_1\ price + b_2\ label + b_3\ SS + b_4 SS*label + \varepsilon$$

Prior to testing the hypothesis H3a we had to measure the main effect, in other words, the causal relationship in which the variable X is presumed to cause the variable Y. H3a and H3b presume that the effect of X to Y varies with the value of Z. This implies that X and Z interact in their effects to Y. The moderator variables Z in this study are the SS and PS, which were expected to alter the strength of the causal relationship. In other words, the SS and PS were expected to weaken the impact of label condition on purchase intention.
Before running the regression analysis, we have created a new variable, which is a product of SS and label. Since the dependent variables are continuous, linear regression has been performed (Janssens, et al., 2006). The same linear regression was run, but with the new variables added. The continues scales were standardized.
First table corresponds to the results in 'EU' group.

Table 4.6.3 (1) The summary of models for 'EU' group.

Model 1 (Main effect)			**Model 2 (interaction effect included)**	
EU' group	**Dependent variable**			
	Intention			
Independent variables	**B**	**Sig.**	**B**	**Sig.**
'EU' label	,270	,001	,270	,001
Issuer condition price	-,160	,083	-,160	,083
SS	,005	,940	,005	,940
'EU' label*SS			-,080	,218
	R^2=,049		R^2=,055	

Label	,219	,002	,222	,001
label condition price	-,324	,000	-,324	,000
SS	,260	,000	,213	,001
label *SS			,071	,280
	R^2=,220		R^2=,222	

Issuer condition

As it can be observed from the table, the main effect of 'EU' label on purchase intention (Model 1) was significant in 'EU' group. However, the interaction effect of SS and 'EU' label (Model 2) on purchase intention was insignificant. Consequently, H3a has not been supported. Thus, for individuals with higher SS there was no significant impact of an issuer's label on purchase intention. The Null hypothesis has not been rejected.

Label condition

The main effect of label presence, high price and SS on purchase intention (Model 1) were found to be significant (p-value <,05). However, the interaction effect of SS and label (Model 2) on purchase intention was insignificant. Consequently, H3a has not been supported. Thus, for individuals with higher SS there was no significant impact of a label on purchase intention. The Null hypothesis has not been rejected.

The second table corresponds to results in 'Nespresso' group.

Table 4.6.3 (2) The summary of models for 'Nespresso' group.

Model 1 (Main effect)			**Model 2 (interaction effect included)**	
Nespresso' group	**Dependent variable**			
	Intention			
Independent variables	**B**	**Sig.**	**B**	**Sig.**
'EU' label	,310	0,000	,308	,000
Issuer condition price	-,069	0,444	-,069	,443
SS	-,033	0,602	-,033	,601
'EU' label*SS			-,091	,157
	R^2=,080		R^2=,088	
Label	,204	,008	,208	,008
label condition price	,036	,561	,036	,561
SS	,082	,132	,050	,497
label *SS			,049	,506
	R^2=,028		R^2=,029	

Issuer condition

Form the table above on can see that the main effect of 'EU' label on purchase intention (Model 1) was significant in 'Nespresso' group. However, the interaction effect of SS and 'EU' label (Model 2) on purchase intention was insignificant. Consequently, H3a has not been supported. Thus, for individuals with higher SS there was no significant impact of an issuer's label on purchase intention. The Null hypothesis could not be rejected.

Label condition

In label condition only the label presence had a significant effect (p-value <,05) on purchase intention (Model 1). However, the interaction effect of SS and label (Model 2) on purchase intention was insignificant. Consequently, H3a has not been supported. Thus, for individuals with higher SS there was no significant impact of a label on purchase intention. The Null hypothesis could not be rejected.

4.6.4 Moderating effect of predispositional skepticism

H3b: For individuals with higher PS the impact of a label on purchase intention will be weaker.

H0: For individuals with higher PS there will be no impact of a label on purchase intention.

Regression model:

$$Purchase\ intention = b_0 + b_1\ price + b_2\ label + b_3\ PS + b_4 PS{*}label + \varepsilon$$

Table 4.6.4 (1) The summary of models for 'EU' group.

Model 1 (Main effect)			Model 2 (interaction effect included)	
EU' group	Dependent variable			
	Intention			
Independent variables	B	Sig.	B	Sig.
EU' label	0,270	0,001	0,270	0,001
Issuer condition price	-0,160	0,082	-0,160	0,083
PS	0,082	0,206	0,082	0,207
EU' label*PS			0,007	0,913
	R^2=,056		R^2=,057	
Label	,219	,002	,220	,002
label condition high price	-,324	,000	-,324	,000
PS	-,167	,001	-,192	,005
label *PS			,037	,584
	R^2=,180		R^2=,181	

Issuer condition

The table above shows that the main effect of 'EU' label on purchase intention (Model 1) was significant in 'EU' group. Unfortunately, the interaction effect of PS and 'EU' label (Model 2) on purchase intention was insignificant. Consequently, H3b has not been supported. Thus, for individuals with higher PS there was no significant impact of an issuer's label on purchase intention. The Null hypothesis has not been rejected.

Label condition

The main effect of label presence, high price and PS on purchase intention (Model 1) were found to be significant (p-value <,05). Nevertheless, all the mentioned above effects were significant in Model 2, the interaction effect of PS and label on purchase intention was not found to be significant. Consequently, H3b has not been supported. Thus, for individuals with higher SS there was no significant impact of a label on purchase intention. The Null hypothesis has not been rejected.

The second table corresponds to results in 'Nespresso' group.

Table 4.6.3 (2) The summary of models for 'Nespresso' group.

Model 1 (Main effect)			**Model 2 (interaction effect included)**	
Nespresso' group	**Dependent variable**			
	Intention			
Independent variables	**B**	**Sig.**	**B**	**Sig.**
Nespresso' label	,310	0,000	,310	0,000
Issuer condition price	-,069	0,443	-,069	0,444
PS	,057	0,378	,057	0,378
'EU' label*PS			,031	0,630
	R^2=,082		R^2=,083	
Label	,204	,008	,210	,007
label condition price	,036	,561	,036	,560
PS	,082	,135	,089	,105
label *PS			,089	,105
	R^2=,028		R^2=,036	

Issuer condition

As it can be observed from the table above, the main effect of 'EU' label on purchase intention (Model 1) was significant in 'Nespresso' group. However, the interaction effect of PS and 'EU' label (Model 2) on purchase intention was insignificant. Consequently, H3a has not been

supported. Thus, for individuals with higher PS there was no significant impact of a issuer's label on purchase intention. The Null hypothesis has not been rejected.

Label condition

The main effect of label presence on purchase intention (Model 1) were found to be significant (p-value <,05) and the PS had an insignificant impact. However, the interaction effect of SS and label (Model 2) on purchase intention was insignificant. Consequently, H3b has not been supported. Thus, for individuals with higher PS there was no significant impact of a label on purchase intention. The Null hypothesis has not been rejected.

4.7 Additional analysis: Label familiarity check

The familiarity scales were investigated with a reliability test. None of the items supressed the Cronbach's Alpha of ,884 for 'EU' group and ,843 for 'Nespresso'.

The Kaiser-Meyer-Oklin value was ,821, and ,695 respectively exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Sphericity (Bartlett, 1954) for both reached statistical significance p=,000 (< 0.05), supporting the factorability of the correlation matrix (Appendix E).

The structure of the familiarity scale was investigated with exploratory factor analysis. The solution of PCA (Oblimin rotation) revealed the presence of just one component in both groups with eigenvalues exceeding 1, which indicates that a single-component solution best described the data.

An inspection of the scree plots revealed a clear break after the first component. (see Appendix E) Consequently, single components for each group were retained for further investigation. The one principal component (eigenvalue is 2,983) accounted for 74,58 percent in 'EU' group and 68,68 percent (eigenvalue 2,747) of the variance in 'Nespresso' group.

All items load high on the component (<0.3) or contribute meaningfully to the component, demonstrating the clean solution that can be observed from the tables in Appendix E.

The factor analysis (Principal Component Analysis with Oblimin rotation) was run to find out if two scales had to be distinguished. The results show, that both items have loaded on a single component. Only one eigenvalue greater than 1 was found.

These results tell that we cannot distinguish between two scales, and the next step was to find the mean for familiarity scales and use that variable in a linear regression test.

4.7.1 The effect of age and gender on Familiarity

Prior conducting an analysis the test on normality of distribution has been run. The Shapiro-Wilk test resulted with p-value ,215 (>,05) indicating the normal distribution of the data (Appendix E). A series of linear regressions have been performed in order to investigate the relationships between demographic characteristics (coded as dummies) – age (18-25 group -0, 26-35 group -1) and gender (Female-1, Male -0) as independent variables and familiarity as dependent. In the tables 4.7.1(1) and 4.7.1(2) below, the left column contains independent variables and the values in the table are actually the coefficients that dependent variables take.

Table 4.7.1(1) 'EU' and Nespresso' groups. Demographics

	Dependent variable			
	Familiarity			
Independent variables	'EU' group		'Nespresso' group	
	B	Sig.	B	Sig.
Gender	,167	,367	-,225	,217
Age	,065	,722	-,267	,141
	R^2 = 0,018		R^2 = 0,071	

As one can observe from the tables, the age and gender in both groups had no statistically significant effect on familiarity with the labels. In 'EU' and 'Nespresso' groups the effect of gender on familiarity had p-values greater than ,05, the effect of age on familiarity was also insignificant.

4.7.2 The effect of label familiarity on respondents' scepticism and purchase intention

A series of linear regressions have been performed in order to investigate the relationships between label familiarity and scepticism with familiarity as independent variable, and scepticism as dependent.

Table 4.7.2(1) The effect of Familiarity on SS and PS.

	Dependent variables			
	SS		PS	
Independent variables	B	Sig.	B	Sig.
Familiarity in 'EU' group	,050	,364	,087	,111
Familiarity in 'Nespresso' group	,164	,003	,047	,396

As it can be observed from the table 4.7.2(1) above, the effect of familiarity with 'Nespresso' label on SS in 'Nespresso' group was significant (p-value <0,05). None of the rest effects were found to be significant. The direction of effect in 'EU' group was positive. In other words the familiarity with the label drives the scepticism to increase.
However, in case of type of issuer 'producer', the situational scepticism (instant reaction) toward marketing tricks seems to be prominent.

Table 4.7.2(1) The effect of Familiarity on purchase intention in 'EU' and 'Nespresso' groups.

	Dependent variables			
	Intention (label experiment)		Intention (issuer type experiment)	
Independent variables	**B**	**Sig.**	**B**	**Sig.**
Familiarity in 'EU' group	,054	,326	-,190	,104
Familiarity in 'Nespresso' group	-,054	,321	-,275	,100

From the table above it is seen that the familiarity had no significant impact on intention to purchase a product in both groups, in issuer type experiment. In label presence/absence experiment, also no significant effect was found. The direction of the effect was negative in 'Nespresso' group in both experiments. In 'EU' group, in label experiment there was a positive direction of the familiarity effect on purchase intention and negative effect was found in issuer type experiment.

5 CONCLUSION

The purpose of this research was attempt in finding the rule of thumb that could guide the marketers to the understanding which label issuers displayed on the environmental labels positively affect the consumer purchase intention. The role of situational and PS in this context was expected to be moderating. The data analysis has given the some results that were expected and some of them were not.

5.1 Main findings

Table 5.1(1) The summary of results.

'EU' group		Label experiment	Issuer type experiment	'Nespresso' group		Label experiment	Issuer type experiment
	Decision	**B**	**B**		**Decision**	**B**	**B**
H1a	support	**,219****	-	**H1a**	support	**,204****	-
H1b	support	-	**,270****	**H1b**	support	-	**,310****
H2a	support	**,260****	,005	**H2a**	reject	,082	-,033
H2b	support	**-,167****	,082	**H2b**	reject	,082	,057
H3a	reject	,280	,218	**H3a**	reject	,506	,157
H3b	reject	,584	,913	**H3b**	reject	,584	,913

***** - Significant at p-value < ,05***
B – Estimate value

In today's world the responsible products market is confronted with a serious challenge and understanding the influence of environmental labels on consumer purchase intention is a big part of it. Taking into account the incredible amount of eco-information that surrounds consumers on a daily basis it becomes tricky for managers to decide which labeling option to choose, while some labels are issued by the third parties, others are freely organized by the companies themselves. Numerous studies exist on topic of persuasiveness of environmental labels. However, there is a lack of research about the consumer skepticism that plays a role when consumers are exposed either to environmental labels or to ecolabel. Moreover, there is hardly any research about the roles of SS or PS toward environmental labels measured and compared in the same study.

The nature of this research was rather hypothetical. It aimed to give managers an insight into understanding how the level of skepticism (SS and PS) is related to different types of environmental labels and to purchase intention on the example of luxurious coffee from highly recognizable brand Nespresso.

In this research we tried to imagine what would happen if two different authorities (a third party and the coffee producer) decided to issue new labels; and see which of them would better succeed when labels were presented to the consumers.

With a help of professional graphic designer, the artificial environmental labels have been created to achieve the goal of this study. The labels were meant to be real-a-like, and that might have created a bias of perceived familiarity due to highly recognizable issuer authorities involved. To avoid that possibility we did a perceived familiarity check. In a result of additional

regression analysis the age and gender had no significant effects on familiarity. Furthermore, no significant effects of the familiarity on skepticism variables or purchase intention were observed.

The respondents were divided into two separate groups – one group was exposed to the third party label and other – to the label issued by producer at the start of the questionnaire. We compared the results of the data obtained.

Using linear regression analyses we were able observe the effects of different levels of studied attributes. We found that the third party label and the producer's label presence had a significant positive impact on intention in label presence/absence experiment. The results are in line with the previous literature Benoit-Moreau et al. (2008) and Sihem Dekhili Mohamed Akli Achabou (2014).

There are several reasons for such results to occur. Firstly, the effect of the brand image (Keller, 1993) is capable to reassure consumers in the reliability of producer's labels. Secondly, the effect of increase of legitimacy achieved when the government is involved in the labeling process makes consumers perceive the third party label as credible. (Karstens and Belz, 2006; Laufer, 2003). Therefore, the hypothesis H1a has been supported.

In issuer type experiment, where the respondents had to choose between third party and producer's label, the effect of 'EU' label presence on purchase intention was positive in both groups. These results are in line with the hypothesis H1b. This is also in line with previous studies conducted by Leire and Thidell (2005), Thøgersen (2000). Albersmeier et al. (2010); Darnall (2008), D'Souza et al.(2007). The authors argue that the third party labels are seen as more favorable than the producer's labels by consumers. Consequently, the hypothesis H1b has been supported.

However, these results do not correlate with studies by Benoit-Moreau et al., 2008 and Sihem Dekhili Mohamed Akli Achabou, (2014). In their research was found that consumers react favorably to the environmental labels, regardless of the nature of the certifier in case of highly recognized brands.

Moreover, the results do not correlate with the studies by Bickart, Ruth (2012). These authors suggest that in case of highly recognizable brands the consumers' reaction to the producer's label could be more positive than toward the third party label.

The additional analysis of the relationships between price and purchase intention was aimed to provide a better understanding of consumer behavior towards the labels. The analysis has shown that in the label presence/absence experiment, the respondents became more price-sensitive. The higher price had a negative impact on purchase intention in 'EU' group, but no such effect was found in 'Nespresso' group. It seems that when the third party label was displayed, the 'EU' group members were less willing to trade up for products that meet the aspiration needs (Yeoman, McMahon-Beattie, Una, 2006). Further, no price effect on purchase intention was found in issuer type experiment in both groups.

Some studies suggest that consumers are willing to pay higher prices for responsible products if the perceived quality is satisfactory (D'Souza et al., 2007), but it may also depend on the product category (Achabou and Dekhili, 2013).

In the literature there are also examples when consumers may just reject the responsible behavior movement (D'Astous and Legendre, 2009). The explanation relays on the fact that environmental initiatives may affect the economic and social variables that are valuable to consumers in a negative way. However, for better understanding of respondents' motivation to react negatively to the higher price of products labelled with just the third party label, the further research on this topic is needed.

The testing of hypotheses H2a has led to the interesting results. The situational skepticism (SS) level has shown to increase the purchase intention instead of decreasing it in the label presence/absence experiment, in 'EU' group. That is not in line with the hypothesis; however, according to Forehand and Grier (2003), the situational skepticism is a short-lasting temporary state of consumer's attitude. Its effect may become negative and strengthen when advertising claims are not clearly verifiable. In this case, mental barriers may arise when consumers consider a product purchase (Bonti-Ankomah and Yiridoe, 2006). As the literature states, the third party label issuer is generally regarded as a credible source of goods certification. Consequently, the situational variable (the instant reaction) has actually increased the purchase intention. Thus, the Null hypothesis for 'EU' group was rejected.

In 'Nespresso' group with producer's label displayed, no significant effect of SS on purchase intention was found. This also happened with PS. The H2a and H2b were not supported for 'Nespresso' group.

Nevertheless, in issuer type experiment (in both groups), neither the SS nor PS have not showed significant effect on purchase intention. This could mean that when consumers get to choose between two types of issuers instantly, individual's skepticism does affect the purchase intention. Both H2a and H2b were not supported.

The testing interaction effects of a label and skepticism (SS and PS) on purchase intention have resulted to be insignificant in both groups. The skepticism as a moderator did not significantly alter the nature of the relationship between label and the purchase intention neither in label presence/absence nor in the issuer type experiments. Both H3a and H3b were not supported.

Referring to the previous research, the respondents may have had highly trustful relationships with these particular authorities and believed them to be honest in their messaging. It is possible due to the fact, that these two label issuers are highly recognized in the European market. This is why the impact of skepticism on purchase intention, and the moderator impact were insignificant. That is also in line with the previous literature.

On the other hand, it can be assumed that by the time when research was held, the respondents did not recognize persuasive nature of studied marketing tactics. In this case, perhaps, the respondents might become more skeptical over time (Morh and Webb 1998). Either way, there is a field for further research.

5.2 Limitations

Since the nature of this research was rather hypothetical, there are plenty of limitations arise concerning this model.

The study was built on the assumption that two highly similar in terms of visuals and messaging environmental labels were going to compete in the market, which is highly unlikely in the real-life situation. However, the model includes aspects that explain the effect of label presence and the issuer type on purchase intention, when almost nothing else but the name of authority interferes the judgment process.

Like in any other research, there were limitations in the process to be faced with. One of them belongs to the concerns about the type of goods that we included in the research. The research

was especially tailored for luxurious coffee, which means that when including inferior or normal goods the results may vary.

Furthermore, the number of attributes that the consumer would be exposed to in the real in-store situation would be significantly higher than presented in the survey. For instance, consumers would be able to pick a smaller size package with a desired environmental label for a lower price, if they are more price-sensitive. There also might be different flavors and different package designs and so on. All these can influence purchase behavior.

Another limitation is the hypothetical nature of the responses, which is also different form the real-life situation as there will always be a gap between what the respondents think they will do and the actual behavior.

Moreover, bigger sample size may have given the more significant results.

Also the survey was spread out among students and graduates, which means that the research represents only that layer of society. There is a big chance of differentiation in purchase intention when we would ask the same question for example the housewives.

5.3 Future research

For future research, it would be great to include more types of goods. Since the price variable for e.g. conventional goods may play different roles in purchase intention, when the label is present. Other product categories and other brands could also be tested.

The effect of consumer skepticism as a moderator on the relationships between different types of environmental labels and purchase intention could be studied with greater sample. Increasing the sample size may give more of significant results. Furthermore, adding questions that relate to respondents attitude toward the studied brands would uncover the wider picture.

That would be also interesting to see what would happen if less recognizable producer's label would compete with also less recognizable third party label.

Furthermore, the study could be replicated with the sample of environmentally concerned respondents (Cherrier et al., 2012).

Finally, the results of this research have shown the need to further study the price discount and price premium effect on purchase intention of labelled goods. For example, the moderating effects of mentioned price variables in relationship between products labelled by both third party and producer and purchase intention.

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DESIGNER SERVICES

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APPENDIXES

APPENDIX A

Choice sets

Label presence/absence experiment				
	Left card		Right card	
Set No.	**Label**	**Price**	**Label**	**Price**
1	no	32	yes	32
2	no	34	yes	32
3	no	32	yes	34
4	no	32	no	34
5	no	34	yes	34
6	yes	32	yes	34
Issuer type experiment				
	Left card		Right card	
Set No.	**Label**	**Price**	**Label**	**Price**
1	EU	32	Nespresso	34
2	EU	32	Nespresso	32
3	EU	34	Nespresso	32
4	EU	34	Nespresso	34

APPENDIX B

Situational Skepticism

Variance and eigenvalues for 'EU' group

Total Variance Explained ('EU' group)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**4,202**	**70,030**	**70,030**	**4,202**	**70,030**	**70,030**
2	,650	10,828	80,858			
3	,469	7,812	88,671			
4	,412	6,870	95,540			
5	,188	3,135	98,675			
6	,080	1,325	100,000			
Extraction Method: Principal Component Analysis.						
	$\Sigma\lambda = 6$			$6\ \Sigma\lambda = 4{,}202$		$(4{,}202/6) = 70{,}030$

Variance and eigenvalues for 'Nespresso' group

Total Variance Explained ('Nespresso' group)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,354	67,074	67,074	3,354	67,074	67,074
2	,658	13,157	80,232			
3	,379	7,583	87,815			
4	,339	6,773	94,588			
5	,271	5,412	100,000			

Extraction Method: Principal Component Analysis.

$\Sigma\lambda = 5$ $5\ \Sigma\lambda = 3{,}354$ $(3{,}354/5) = 67{,}074$

Factor loadings 'EU' group

Communalities/Component ('EU' group)

Question Number	Communalities	Component
	Extraction	1
q1	,582	,763
q3	,640	,800
q4	,785	,886
q5	,684	,827
q6	,774	,880
q7	,737	,859

Factor loadings 'Nespresso' group

Communalities/Component ('Nespresso' group)

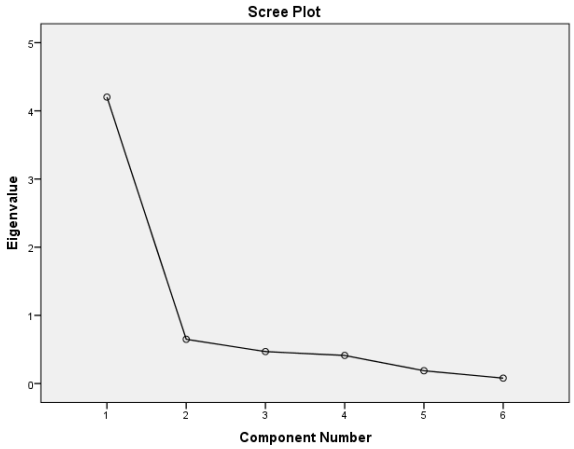
Question number	Communalities	Component
	Extraction	1
q3	,676	,822
q4	,697	,835
q5	,772	,879
q6	,661	,813
q7	,547	,739

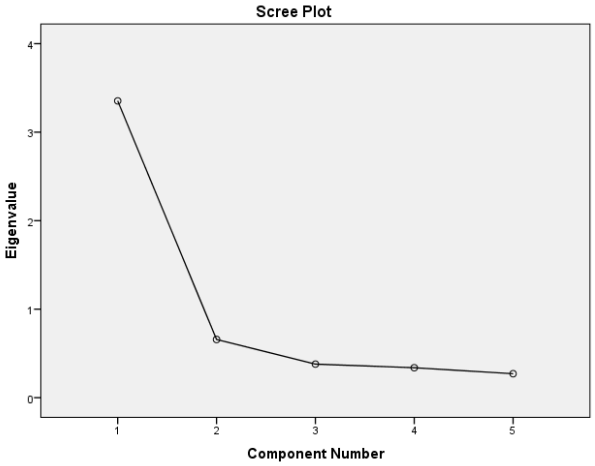
'EU'(right) and 'Nespresso' (left) group. KMO and Bartlett's Test. SPSS output.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,811
Bartlett's Test of Sphericity	Approx. Chi-Square	257,463
	df	15
	Sig.	,000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,851
Bartlett's Test of Sphericity	Approx. Chi-Square	139,975
	df	10
	Sig.	0

'EU' (right) and 'Nespresso' (left) group. Scree plot. SPSS output.


Scree Plot
Eigenvalue
Component Number
0
1
2
3
4
5
1
2
3
4
5
6


Scree Plot
Eigenvalue
Component Number
0
1
2
3
4
1
2
3
4
5

APPENDIX C

Predispositional Skepticism

Eigenvalues 'EU' group

Total Variance Explained ('EU' Group)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**3,843**	**54,903**	**54,903**	**3,843**	**54,903**	**54,903**
2	,922	13,169	68,072			
3	,621	8,867	76,939			
4	,511	7,299	84,239			
5	,458	6,549	90,787			
6	,390	5,570	96,357			
7	,255	3,643	100,000			
Extraction Method: Principal Component Analysis.						

$\Sigma\lambda = 7$ $7\ \Sigma\lambda = 3{,}843$ $(3{,}843/7) = 54{,}903$

Table Eigenvalues 'Nespresso' group

Total Variance Explained ('Nespresso' group)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**3,208**	**53,467**	**53,467**	**3,208**	**53,467**	**53,467**
2	,814	13,560	67,026			
3	,719	11,983	79,010			
4	,490	8,167	87,177			
5	,410	6,836	94,013			
6	,359	5,987	100,000			
Extraction Method: Principal Component Analysis.						

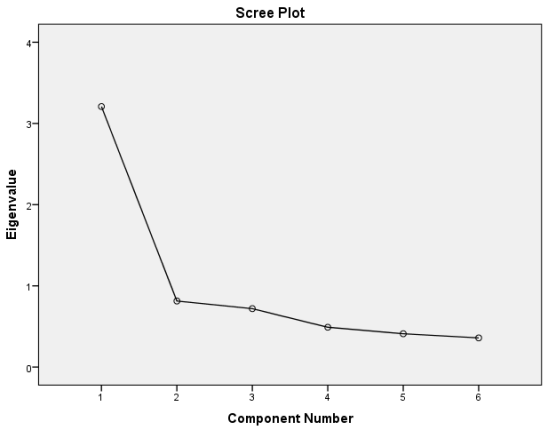
$\Sigma\lambda = 6$ $6\ \Sigma\lambda = 3{,}208$ $(3{,}208/6) = 53{,}467$

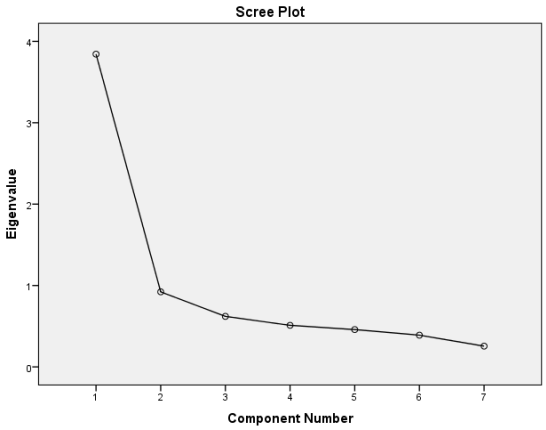
'Nespresso' group. KMO and Bartlett's Test. SPSS output.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,842
Bartlett's Test of Sphericity	Approx. Chi-Square	108,272
	df	15
	Sig.	,000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,842
Bartlett's Test of Sphericity	Approx. Chi-Square	157,014
	df	21
	Sig.	,000

'Nespresso'(right) and 'EU'(left) group Scree Plot. SPSS output.





Factor loadings 'EU' group

Communalities/Component ('EU' group)

Question number	Communalities	Component
	Extraction	**1**
q1	,444	,667
q2	,580	,762
q3	,539	,734
q6	,379	,616
q7	,686	,828
q8	,519	,720
q9	,695	,834

Factor loadings 'Nespresso' group

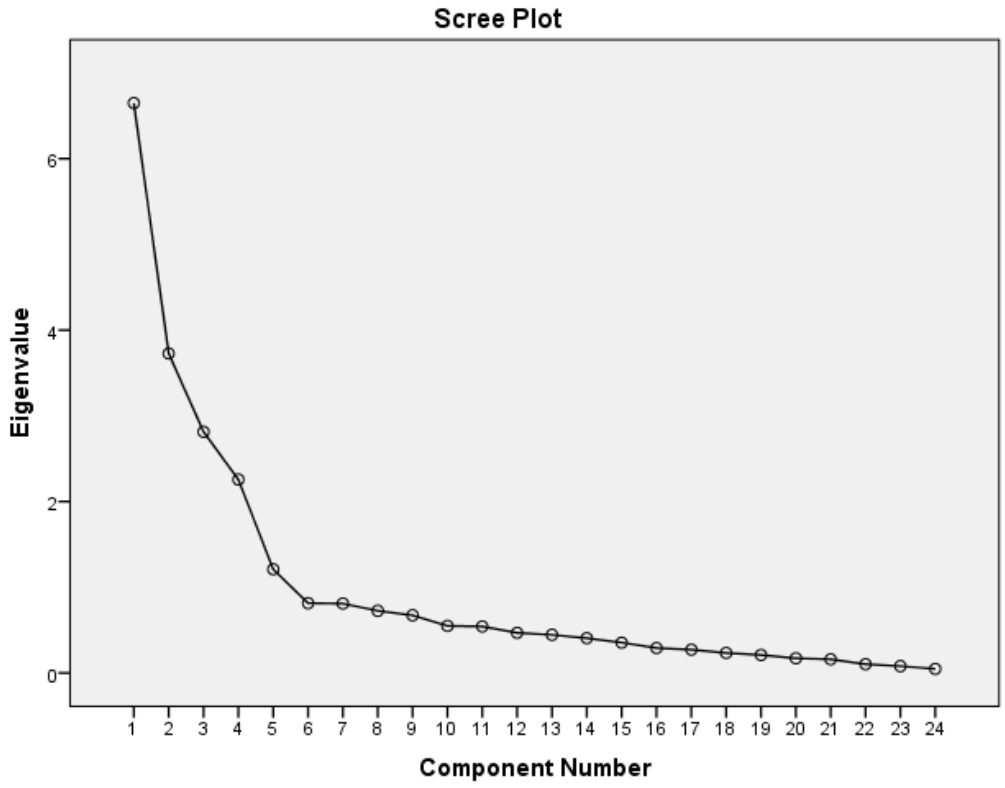
Communalities/Component ('Nespresso' group)

Question number	Communalities	Component
	Extraction	**1**
q2	,377	,614
q5	,483	,695
q6	,407	,638
q7	,648	,805
q8	,619	,787
q9	,674	,821

APPENDIX D

Investigation of Scales

Scree Plot. Predispositional skepticism vs. SS. SPSS output.



Predispositional vs. SS in 'EU' and 'Nespresso' groups. KMO and Bartlett's Test. SPSS output

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,720
Bartlett's Test of Sphericity	Approx. Chi-Square	832,346
	df	276
	Sig.	,000

Eigenvalues. Predispositional vs. SS in 'EU' and 'Nespresso' groups

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,649	27,702	27,702	6,649	27,702	27,702	5,329
2	3,726	15,527	43,229	3,726	15,527	43,229	3,726
3	2,813	11,721	54,95	2,813	11,721	54,95	3,864
4	2,256	9,401	64,351	2,256	9,401	64,351	4,418
5	1,209	5,04	69,391	1,209	5,04	69,391	1,328
6	0,814	3,39	72,781				
7	0,809	3,372	76,153				
8	0,725	3,019	79,172				
9	0,672	2,801	81,973				
10	0,549	2,286	84,259				
11	0,542	2,259	86,518				
12	0,468	1,951	88,469				
13	0,445	1,854	90,323				
14	0,406	1,691	92,014				
15	0,354	1,474	93,488				
16	0,29	1,209	94,696				
17	0,272	1,132	95,829				
18	0,233	0,969	96,798				
19	0,21	0,875	97,673				
20	0,172	0,715	98,389				
21	0,158	0,66	99,049				
22	0,102	0,424	99,473				
23	0,079	0,329	99,803				
24	0,047	0,197	100				
Extraction Method: Principal Component Analysis.							
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

Nespresso' and 'EU' groups. Principal Component Analysis. Oblimin Rotation

Pattern/Structure Matrix								
	Components				Components			
	1	2	3	4	1	2	3	4
SS in 'EU' group	-,785	,075	,123	-,047	-,778	,191	-,082	-,238
	-,794	,110	,024	,029	-,796	,227	-,177	-,171
	-,822	,003	-,143	-,021	-,864	,127	-,354	-,256
	-,802	,070	,071	-,113	-,823	,177	-,153	-,305
	-,867	-,040	-,085	,029	-,877	,109	-,290	-,231
	-,828	-,011	-,096	,010	-,851	,131	-,294	-,240
PS in 'EU' group	-,039	-,158	-,035	,621	,150	-,164	,014	,637
	,029	,159	,227	,698	,250	,172	,318	,744
	,261	,143	-,152	,597	,366	,103	-,025	,675
	,294	,082	-,050	,575	,419	,080	,109	,626
	-,026	-,057	,039	,844	,219	-,027	,137	,843
	-,010	-,028	,179	,726	,231	,012	,276	,728
	,054	-,054	-,083	,840	,268	-,035	,035	,844
PS in 'Nespresso' group	,208	,090	,534	-,038	,324	,024	,563	,120
	-,010	,358	,701	,164	,153	,367	,720	,255
	,251	,110	,578	-,146	,336	,082	,633	-,023
	,037	-,161	,833	-,201	,218	-,184	,816	-,087
	-,048	-,156	,741	,202	,217	-,151	,753	,280
	,025	-,144	,769	,222	,300	-,148	,802	,323
SS in 'Nespresso' group	-,102	,774	-,271	,059	-,272	,789	-,298	,030
	-,045	,780	-,186	,006	-,210	,786	-,204	,000
	,025	,899	-,029	-,178	-,167	,880	-,057	-,135
	-,063	,799	,101	,035	-,153	,817	,088	,050
	-,059	,745	,213	,082	-,100	,764	,208	,109
	Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.				Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.			

'Nespresso' and 'EU' groups. Pattern table

Pattern			
SS in 'EU' group	PS in 'EU' group	PS in 'Nespresso' group	SS in 'Nespresso' group
Components			
1	2	3	4
-,785	,621	,534	,774
-,794	,698	,701	,780

-,822	,597	,578	,899
-,802	,575	,833	,799
-,867	,844	,741	,745
-,828	,726	,769	
	,840		

'Nespresso' and 'EU' groups. Structure table

Structure			
SS 'EU' group	**PS in 'EU' group**	**PS in 'Nespresso' group**	**SS in 'Nespresso' group**
Components			
1	2	3	4
-,778	,789	,637	,563
-,796	,786	,744	,720
-,864	,880	,675	,633
-,823	,817	,626	,816
-,877	,764	,843	,753
-,851		,728	,802
		,844	

'Nespresso' and 'EU' groups. Normality distribution test

		Tests of Normality					
		Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
		Statistic	df	Sig.	Statistic	df	Sig.
'EU' group	**SS**	,109	57	,091	,968	57	,140
	PS	,066	57	,200*	,989	57	,883
'Nespresso' group	**SS**	,077	57	,200*	,968	57	,138
	PS	,077	57	,200*	,986	57	,740

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix E

Additional Analysis

Variance and eigenvalues for 'EU' group. Familiarity. SPSS output.

Total Variance Explained ('EU' group)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2,983**	**74,579**	**74,579**	**2,983**	**74,579**	**74,579**
2	,420	10,488	85,067			
3	,378	9,443	94,510			
4	,220	5,490	100,000			
Extraction Method: Principal Component Analysis.						
	$\Sigma\lambda = 4$			$6\ \Sigma\lambda = 2{,}983$		$(2{,}983/4) = 74{,}579$

Variance and eigenvalues for 'Nespresso' group. Familiarity. SPSS output.

Total Variance Explained ('Nespresso' group)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2,747**	**68,683**	**68,683**	**2,747**	**68,683**	**68,683**
2	,623	15,575	84,258			
3	,425	10,618	94,876			
4	,205	5,124	100,000			
Extraction Method: Principal Component Analysis.						
	$\Sigma\lambda = 4$			$6\ \Sigma\lambda = 2{,}747$		$(2{,}747/4) = 68{,}683$

Factor loadings. SPSS output.

Communalities/Component ('EU' group)		
Question Number	Communalities	Component
	Extraction	1
q1	,678	,824
q2	,795	,892
q3	,713	,845
q4	,796	,892

Factor loadings. SPSS output.

Communalities/Component ('Nespresso' group)		
Question Number	Communalities	Component
	Extraction	1
q1	,730	,854
q2	,733	,856
q3	,741	,861
q4	,543	,737

Eigenvalues. Familiarity scales in both groups

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2,000**	**100,000**	**100,000**	**2,000**	**100,000**	**100,000**
2	-1,084E-019	-5,421E-018	100,000			

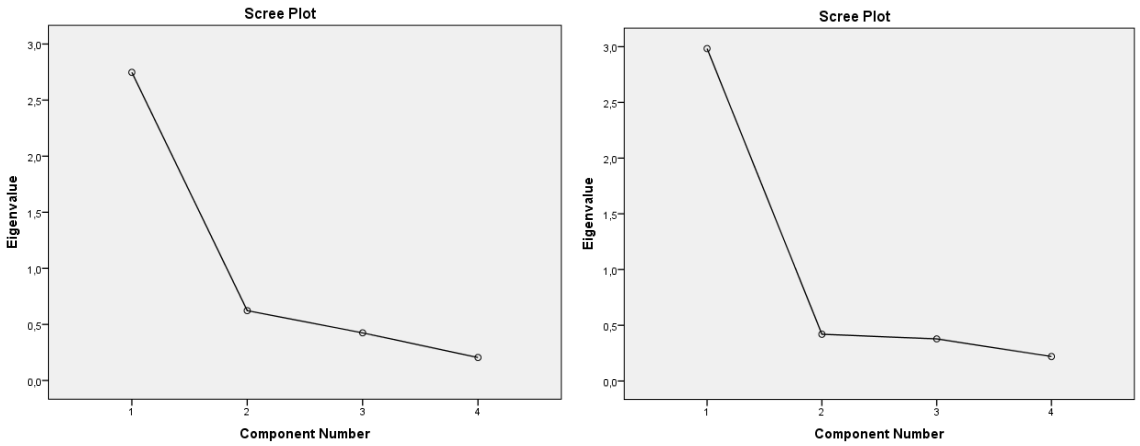
Extraction Method: Principal Component Analysis.

'Nespresso' (left) and 'EU' group (right). KMO and Bartlett's Test. SPSS output.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,695
Bartlett's Test of Sphericity	Approx. Chi-Square	102,492
	df	6
	Sig.	,000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,821
Bartlett's Test of Sphericity	Approx. Chi-Square	121,945
	df	6
	Sig.	,000

'Nespresso'(left) and 'EU' (right) group. Scree plot. SPSS output.



Familiarity. Distribution normality test. SPSS output.

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Familiarity	,077	57	,200*	,972	57	,215

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction