

# Bacheloroppgave

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*Moderating factors of the country image effect on  
product evaluation*

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# Abstract

**Objective:** In this study, our objective is investigate how product involvement and product familiarity moderate the effect of country image on product evaluation, as well as if and how a positive or a negative country image may moderate this effect. To reach this objective, we developed five hypotheses and tested them empirically.

**Data collection:** We used a convenience sample consisting of Norwegian students. Data was collected through an online survey, measuring product evaluation, product familiarity, product involvement and country image. All the scales used in this survey were adapted from previous studies in the fields of international marketing and consumer behavior.

**Analyses:** To test for main effects, we ran multiple regression analyses, and to test our hypotheses, we ran simple regression analyses. All analyses were done in the IBM SPSS software.

**Conclusions:** We found that country image significantly affects product evaluation. Our findings also indicate that the halo effect is not valid below a certain level of involvement. The findings also suggest that for less familiar product categories, a positive country image will have a larger effect on product evaluations than a negative country image, and that this difference increases as involvement decreases. A direct effect of product involvement on product evaluation was also identified.



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## 1.0 Introduction

### 1.1 Background

Country-of-origin research is one of the most intensively studied topics in modern international marketing research (Brijs, et al., 2011, p. 1259), yet there is no consensus concerning the relevance and effect of country-of-origin image on product evaluation. Some conclude that there is an effect and that country-of-origin image is relevant in the product evaluation process (e.g. Josiassen, et al., 2008; Roth & Diamantopoulos, 2009), while others question whether the country-of-origin image effect is even relevant, claiming that most consumers are not aware of a products country-of-origin (Usunier, 2006), and that most consumers do consider the country-of-origin of products they purchase (Samiee, 2010, p. 443).

In an increasingly globalized economy, where trade barriers are continuously decreasing, consumers face a multitude of product choices from all over the world. Usunier (2006) claims that globalization decreases the relevance of country-of-origin image, as a result of increasing multinational production, global branding, and consumers' growing acceptance of products irrespective of their origin. On the other hand, Roth & Diamantopoulos (2009, p. 726) claim that "[i]n today's globalized markets a favorable country-of-origin image (CoI) has a considerable impact on consumers' evaluation of products originating from different countries and therefore influences their subsequent buying decisions."

Among those who consider country-of-origin image to have an effect on product evaluation, there is still no consensus about how strong this effect is, and which moderating factors affect the use of country-of-origin image in product evaluations. Two moderating factors that have been claimed to moderate the country-of-origin effect on product evaluation are product involvement (e.g. Ahmed, et al., 2004; Josiassen, et al., 2008) and product familiarity (e.g. Josiassen, et al., 2008; Laroche, et al., 2005; Maheswaran, 1994).

The image of a country as product origin is defined as the country-of-origin image (Roth & Diamantopoulos, 2009). In the country-of-origin image research, there are three distinct groups that differ in their focal object: 1) country image (the general image of a country), 2) product-country image (the image of countries and their products) and 3) product image (the images of products from a country) (Roth & Diamantopoulos, 2009, p. 727). In this study, we want to investigate the effect of country image, rather than product-country image or product image, because country image is independent of the products that a country is known for, and therefore we believe that our findings may apply to a wider range of products and countries. Country image mainly focuses on economical, technological, social and political variables of a country, and this general image is somewhat distinct from products associated with a specific country (Wang, et al., 2012, pp. 1041-1042).

## 1.2 Objective

In this study, our objective is to investigate how product involvement and product familiarity moderate the effect of country image on product evaluation, and also if and how a positive or a negative country image may moderate this effect.

To reach our objective we will empirically examine, by testing hypotheses, how product familiarity, product involvement, and positive and negative country images moderate the effect of country image on product evaluation. First, we will provide the theoretical background for our study. Based on this, we will formulate our hypotheses, then we will present the methodology, after which we will present the results and discuss the findings, managerial implications, limitations and recommendations for future research.

## 2.0 Theoretical background

### 2.1 Country image

A person's image of a country can develop from direct experience with the country, it may be influenced by outside sources of information and/or affected by inferences based on past

experience such as opinions gained from using products originating in that particular country (Martin & Eroglu, 1993, pp. 193-194).

## 2.2 Operationalization of country image

In the country-of-origin literature there is no consensus on how to operationalize the country-of-origin image (Laroche, et al., 2005), which leaves researchers with little guidance on how to best operationalize the construct (Roth & Diamantopoulos, 2009, p. 726). In their review of the country-of-origin literature, Roth and Diamantopoulos (2009, p. 733) suggested that attitude theory was the best way to conceptualize the country-of-origin construct.

### 2.2.1 Attitude theory

Schiffman et al. (2012, p. 432) define attitude as a "learned predisposition to behave in a consistently favourable or unfavourable manner with respect to a given object." The tricomponent attitude model suggests that attitudes consist of a cognitive, an affective and a conative component. The cognitive component consists of the consumer's knowledge and perceptions of the object, the affective component consists of the consumer's feelings towards the object, and the conative component consists of the consumer's behavioral intentions towards the object. (Schiffman, et al., 2012)

According to Roth & Diamantopoulos (2009, p. 728) attitude theory is a powerful tool in country-of-origin image research for several reasons: It can explain how countries are seen in the mind of the consumers, i.e. what beliefs (including stereotypes and schemas) and emotions they have towards a country. It can also explain how this information affects their reactions towards a country, i.e. consumers' country conations.

In Laroche et al.'s (2005) operationalization of the country image construct they applied attitude theory by measuring the cognitive, affective and conative component through country beliefs, people affect and desired interaction. Country beliefs refer to as consumers' beliefs

about the country's industrial development and technological advancement, people affect refers to consumers' affective responses, e.g. liking, to the country's people, and desired interaction refers to consumers' willingness to build close economic ties with the country in question.

In line with Laroche et al.'s (2005) operationalization of the country image construct, we define country image as the consumers' beliefs about the country's industrial development and technological advancement, consumers' affective responses to the country's people, and consumers' willingness to build close economic ties with the country in question.

### 2.2.1 Capturing the affective component

Laroche et al.'s (2005) operationalization of the affective component (people affect) has been criticized by Roth and Diamantopoulos (2009), who claim that they failed to sufficiently distinguish the components in the model. For example, the statement "*people are friendly and likeable*", which is typically used to measure the affective component, does not directly evoke the respondent's emotions. A person might think that the people of a country are friendly and likable, but that does not necessarily imply that the person likes the country. (Roth & Diamantopoulos, 2009, p. 734)

Other researchers, such as Brijs et al. (2011) and Wang et al. (2012), have tried to develop scales that better capture the affective component. Brijs et al. (2011) used a PANAS emotions scale to capture the affective component in their scale. However, they also pointed out that PANAS scales measure emotions in general, and that country image research requires country-specific emotions scales, such as the one proposed by Klein (2002). In her study, Klein (2002) developed an emotions scale measuring consumer animosity among American consumers toward Japan. To the best of our knowledge, country-specific emotions scales for measuring the emotions of Norwegians towards other countries have yet to be developed. Due to the limits of this paper, as well as limited resources, we could not develop country-specific emotions scales for measuring the emotions of Norwegians towards Romania and Switzerland. In Brijs et al.'s study (2011), they had to drop several items from the scale because respondents did not find them relevant. They highlight that using the general PANAS

scale was a limitation of their study, and claim that country-of-origin research requires country-specific scales. Therefore, we decided not to adapt their scale.

Contrary to Brijs et al. (2011), Wang et al. (2012) chose an approach more similar to Laroche et al. (2005); asking respondents to answer questions about whether a country's people are "*Peaceful*", "*Friendly toward us*", "*Cooperative toward us*" and "*Likable*" based on their feelings. They claim that their scale better captures the affective component than Laroche et al.'s (2005) scale, however, this scale does not include the conative component. After reviewing these scales, we decided to adapt Laroche et al.'s (2005) scale, including some modifications adapted from Wang et al.'s (2012) scale, in an attempt to better capture the affective component.

### 2.3 Country image as an external cue that affects product evaluation

Cues are defined as "stimuli that give direction to consumer motives (i.e. that suggests a specific way to satisfy a salient motive)" (Schiffman, et al., 2012, p. 435). Cues can be intrinsic or extrinsic. Intrinsic cues are physical characteristics of the product itself, e.g. size and color (Schiffman, et al., 2012). If an intrinsic cue is changed, it would result in a change in the physical product itself (Szybillo & Jacoby, 1974). Extrinsic cues, on the other hand, are external to the product, e.g. price, brand and country-of-origin. Both intrinsic and extrinsic cues serve to influence the consumer's perception of a product's quality. (Schiffman, et al., 2012)

In Bilkey and Nes' review (1982) it was suggested that the country-of-origin cue might have only a limited influence on product quality perceptions, since several studies had found that intrinsic cues had a greater effect on quality judgments than extrinsic cues. However, Schiffman et al. (Schiffman, et al., 2012, pp. 180-181) claim that when judging the quality of a product, consumers use extrinsic cues more often than intrinsic cues, and that many consumers use country-of-origin stereotypes to evaluate products, and believe that a "Made in"-label can mean that a product is "superior" or "inferior".

Brijs et al. (2011, p. 1266) claim that the non-product-oriented country-image concept offers value as an indicator from which consumers may infer functional quality attributes, and that even if non-product-related elements seem irrelevant as a source of a product's functional quality, they exert a significant influence on product attitudes. Even if a product is not associated with the country, the country image will still affect the product evaluation, through positive or negative connotations of the country and its people (Baker & Ballington, 2002). In this study, we define product evaluation as the consumer's beliefs about the products intrinsic characteristics, which can be translated into beliefs about quality and reliability, as well as the consumer's attitudes towards the product.

Country image and product image are likely to have different impacts on the evaluation of product quality (Wang, et al., 2012, p. 1042), and according to Samiee (2010) a key question in this area of research is to consider whether country image actually influences product evaluation and purchase.

## 2.4 Moderating factors of the country image effect

Many of those who claim that country image affects product evaluation also claim that familiarity is a moderating factor of this effect (e.g. Josiassen, et al., 2008; Laroche, et al., 2005; Maheswaran, 1994). Another context specific factor that has been suggested to have affect the relationship between country image and product evaluation is product involvement (e.g. Ahmed, et al., 2004; Josiassen, et al., 2008).

There may also be other factors moderating the effect of country image on product evaluation. Most of the country-of-origin research have used sourcing countries that traditionally enjoy a rather positive country image (e.g. USA, Germany, Japan) (Roth & Diamantopoulos, 2009). Some have suggested that it may be interesting to include countries that have a more negative country image (Laroche, et al., 2005). In this study, we want to investigate whether having a positive or negative country image also moderates the relationship between the country image effect and product evaluation.

We will elaborate on each of these effects separately before presenting our hypothesis, starting with familiarity, which has been the most intensively studied factor of the three.

#### 2.4.1 Familiarity: a moderator of country image effects on product evaluation

How familiar a consumer is with a given product category is referred to as product familiarity (Josiassen, et al., 2008, p. 424). Product familiarity implies a broader knowledge about the cue and/or the product (Koubaa, et al., 2015, p. 118). Schiffman et al. (2012) claim that when a consumer does not have experience with a product they often judge product quality on the basis of extrinsic cues, such as price, brand or country of origin.

In the country-of-origin literature, the country-of-origin effect has often explained as a halo effect when the consumer is less familiar with the product category. This implies that the less familiar a consumer is with the product category, the more he or she will use country-of-origin information as indirect evidence of product quality or performance. (Han, 1989; Josiassen, et al., 2008; Laroche, et al., 2005)

It has also been suggested that when the consumer is more familiar with the product category, country-of-origin is used as a summary cue. This view suggests that the more familiar a consumer is with the product category, the more he or she will use country-of-origin information when evaluating the product. (Han, 1989; Jahansson, 1989) This implies that when evaluating, for example, a motorcycle from Germany, the consumer will evaluate it more positively because he or she knows that Germany is known for producing good cars. Based on this, we conclude that the summary cue reflects the use of the product-country image, not the country image. In our study we set out to use product categories that are not associated with the sourcing countries, or similar products that these countries produce, to avoid finding product-country image effects rather than country image effects.

Laroche et al. (2005) suggest that consumers use the country-of-origin image as a halo to infer an evaluation of a product when they have little knowledge of the product itself, but the

results of their study were inconclusive. Nevertheless, there are other studies that have found support for this view, such as Han (1989), Maheswaran (1994) and Josiassen et al. (2008).

Maheswaran (1994) suggests that familiarity with the product category tends to decrease the use of country-of-origin as an informational cue. He found that while novices (i.e. consumers who are less familiar with the product) always used country-of-origin information in their evaluation, experts (i.e. consumers who are more familiar with the product) would only use this information when other information was ambiguous. Josiassen et al.'s (2008, p. 424) findings also indicate that consumers place more emphasis on country-of-origin image when evaluating products from product categories that they are less familiar with. These findings suggest that as consumers' familiarity with the product category increases, the effect of country image on product evaluation decreases (this is illustrated in Figure 1, Appendix 1).

#### 2.4.2 Involvement: a moderator of country image effects on product evaluation

Product involvement refers to the degree of personal relevance that the product holds for the consumer. High-involvement products are very important to the consumer and provoke extensive information processing. When evaluating high-involvement products, consumers are more likely to evaluate carefully the merits and weaknesses of the product. Oppositely, low-involvement purchases are not very important to the consumer, and do not require extensive information processing. (Schiffman, et al., 2012, pp. 217-218)

In the absence of intrinsic cues, or when these cannot be easily assessed, consumers have a tendency to rely on extrinsic cues (Jacoby et al., 1977; cited in Ahmed et al., 2004, p. 104), which is often the case for low-involvement, since the cost of searching for intrinsic cues far exceeds the benefits (Zeithaml, 1988; cited in Ahmed et al., 2004, p. 104). In Ahmed et al.'s study (2004, p. 102), they found that country image does affect consumers' evaluation of low-involvement products (bread and coffee), but that the effect is weak in the presence of other extrinsic cues such as price or brand. Josiassen et al.'s (2008, p. 435) findings indicate that country image is used as a salient cue by consumers, and that it is more important for consumers when evaluating products they are less involved with. Their findings suggest that

as the consumers' level of involvement increases, the effect of country image on product evaluation decreases (this is illustrated in Figure 2, Appendix 2).

#### 2.4.3 Loss aversion and the importance of negative information

Tversky & Kahneman (1991, p. 1057) claim that “a decision maker who seeks to maximize the experienced utility of outcomes is well advised to assign greater weight to negative than to positive consequences.” Applying the theory of loss aversion to the context of our study, we expect a consumer to place greater importance on country image when evaluating a product from a country with a negative image, than when evaluating a product from a country with a positive country image. This may be a result of consumers' aversion to getting a “bad deal” when buying a product from a country with a negative country image.

Based on the literature that we have reviewed, we want to investigate whether country image has an effect on product evaluation, and how this effect differs with different levels of familiarity and involvement. In addition, we want to investigate if and how the country image effect differs depending on whether the country image is positive or negative. To reach this objective, we will propose five hypothesis and test them empirically.

### 3.0 Hypotheses

Figure 1 illustrates the relationship between country image and product evaluation, based on the literature above. Country image consists of three components: the cognitive, affective and conative component. Its effect on product evaluation is moderated by familiarity and involvement.

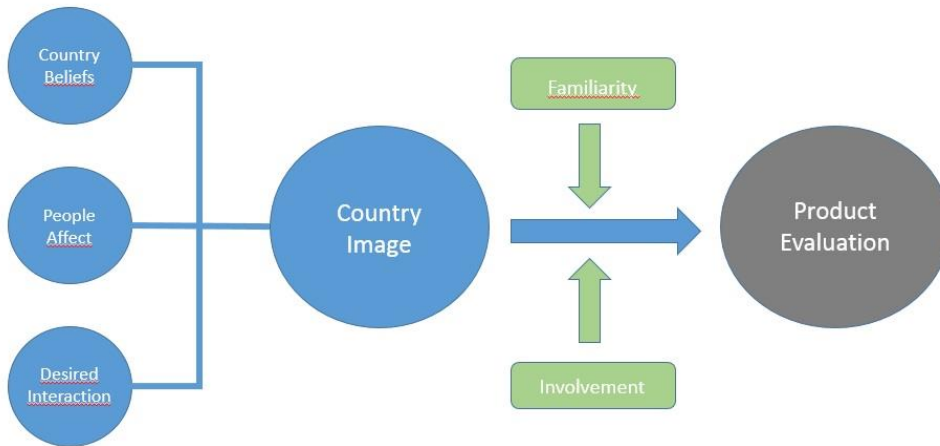


Figure 1. The relationship between country image and product evaluation

In their study, Josiassen et al. (2008) measured the relationship between country-of-origin image and product evaluation. According to Roth and Diamantopoulos' (2009) definitions, Josiassen et al. (2008) measured the **product image**, and not the country image. It has been claimed that country image and product image influence product evaluations in different ways (Wang, et al., 2012), and while some claim that country image affect product evaluation (Baker & Ballington, 2002; Liefeld, 1993), others question this (Samiee, 2010). In this study, we choose to investigate the effects of country image rather than product image or product-country image. In line with Baker & Ballington (2002), we believe that even if a product is not associated with the country, the country image will still affect the product evaluation, through positive or negative connotations of the country and its people. Thereby, we propose the following hypothesis:

**H1.** Country image has a significant effect on product evaluation

Both decreasing familiarity and decreasing involvement have been suggested to increase the effect of country image on product evaluation (Han, 1989; Josiassen, et al., 2008; Laroche, et al., 2005; Liefeld, 1993; Maheswaran, 1994). Based on this, we propose that in combination, the country image effect on product evaluation is largest when evaluating product categories that are both less familiar and less involving, and smallest when evaluating product categories that are both more familiar and more involving. Thereby, we propose our second hypothesis:

**H2.** The effect of country image on product evaluation is larger for less familiar, less involving product categories, than for more familiar, more involving product categories.

We argued that since decreasing familiarity and decreasing involvement have been suggested to increase the effect of country image on product evaluation, the effect of country image is largest when the product category is both less familiar and less involving. Further, we argue that if the effect is largest when the product category is both less familiar and less involving, the effect will be smaller when the product category is either more familiar and less involving, or less familiar and more involving. Hence, we propose our third hypothesis:

**H3.** The effect of country image on product evaluation is larger when the product category is both less familiar and less involving, than when the product category is either more familiar and less involving, or less familiar and more involving.

By the same logic, we argued that the effect of country image on product evaluation is smallest for products that are both more familiar and more involving. Thereby, we propose that the effect of country image will be larger when the product category is either more familiar and less involving, or less familiar and more involving, than when the product category is both more familiar and more involving. Based on this, we propose our fourth hypothesis:

**H4.** The effect of country image on product evaluation is smaller when the product category is both more familiar and more involving, than when the product category is either more familiar and less involving, or less familiar and more involving.

Tversky & Kahneman's (1991, p. 1057) theory of loss aversion suggests that people assign greater weight to negative than to positive consequences. We suggest that in a consumer behavior context, a negative consequence may be to "get a bad deal" when buying a product. We therefore believe that a consumer will place greater importance on country image when

evaluating a product from a country with a negative image, than when evaluating a product from a country with a positive country image. Thereby, we propose our fifth hypothesis:

**H5.** The effect size of country image on product evaluation will be larger for a negative country image, than for a positive country image

## 4.0 Methodology

### 4.1 Choice of research design

In line with many other researchers in this field, we chose a quantitative design that would allow us to run statistical tests in order to test our hypotheses. Such data could also have been obtained through a combination of qualitative and quantitative design, e.g. through experiments followed by the completion of a questionnaire, however, we did not do this due to limited resources. To assure a certain level of validity, all the scales used in this study have been adapted from previous studies. We chose to use a self-completion questionnaire to avoid interviewer bias. We created an online survey using the software eSurveyspro. Respondents replied online through a hyperlink that was distributed by email and the social networking site: Facebook.

### 4.2 Choosing the product categories and sourcing countries

#### 4.2.1 Choice of product categories

We pretested several product categories to find the four categories needed to test our hypotheses. We found that the following product categories would be a good fit for our purpose:

- More familiar, more involving product category: Smartphones
- More familiar, less involving product category: Toothpaste
- Less familiar, more involving product category: Mattresses

- Less familiar, less involving product category: Dusters

#### 4.2.2 Choice of countries

Previous country image literature (for reviews see e.g. Dinnie, 2003; Roth & Diamantopoulos, 2009) criticize the use of the same countries (e.g. USA, Japan, and Germany) in much of the country-of-origin research. Due to this we decided to choose two countries that are not among the most reoccurring sourcing countries in the country-of-origin research.

Some countries are well known for certain product categories (e.g. German is known for cars and France is known for perfume), thus country-of-origin may have high value in certain product categories but not in others (Tseng & Balabanis, 2011, p. 582). In such cases, the product-country image effect will play a role in the product evaluation process, and country-of-origin information may be used as a summary cue. In this study, we are only measuring the effects of country image, thus, we set out to use countries that are not associated with the product categories used in our study, or with similar product categories, to avoid finding product-country image effects rather than country image effects.

In order to test whether the effect of country image on product evaluation differs depending on whether the country image is positive or negative, we also needed to make sure that one of the countries had a positive country image and the other a negative one. We pretested eight countries, of which we believed half had a positive country image, and the other half a negative country image. The pretests showed that Switzerland, England and Germany all had a positive country image, receiving the same score of 5,3. We chose to use Switzerland in this study because it is not a country that has been frequently used as a sourcing country in such studies, and, to the best of our knowledge, it is not associated with the product categories we use in this study, or with similar product categories. Romania had the lowest score in the pretest, and was therefore chosen as the sourcing country representing a negative country image. To the best of our knowledge, Romania also meets our requirements in regards to not being associated with our product categories and not being frequently used in country-of-origin research.

### 4.2.3 Pretests

We first performed a pretest to test which products and countries would best suit our study's purpose. We chose a convenience sample of 10 respondents from the same target population that we used in the survey; Norwegian students. We handed out a self-completion questionnaire during a 15 minutes break in an accounting lecture for first year students at the University College of Aalesund. This test resulted Switzerland and Romania being chosen as our sourcing countries.

The results on the product categories were inconclusive and the responses on *Product familiarity* suggested that respondents misunderstood the question, because they reported high familiarity in categories one would expect to be less familiar to the students. The product category “*Jacuzzis*” and the product category “*Laptops*” received almost the same mean score (respectively 5,7 and 5,8 of 7) on the question “*How familiar are you with Product X?*”. Product familiarity implies a broader knowledge about the cue and/or the product, and if our question was measuring this, one would expect students to report much higher familiarity for laptops than for jacuzzis. Therefore, we decided to perform a new pretest, with some changes in the choice of product categories and altering the question measuring familiarity to “*How familiar are you with different brands/models of Product X?*”

This time, the pretest was created using the online service eSurveyspro, and 12 respondents, still from the same target population, completed the questionnaire online. From these results, we concluded that the product categories listed above meet the requirements for the purpose of this study, and that the modified familiarity question better measured the concept of product familiarity.

The pretests were performed in English, and after getting feedback from some of the respondents that the questions concerning *Product involvement* were difficult to understand, we decided to change the language to Norwegian. The questions measuring involvement were “*Do you think Product X is...*” followed by “*exciting or unexciting*”, “*of meaning to you or*

*of no meaning to you*” and *“appealing or unappealing”*. In light of the feedback, we decided to change the questions to *“If you were to buy the following product, would it be...”* followed by *“exciting or unexciting”*, *“of meaning to you or of no meaning to you”* and *“appealing or unappealing”*.

### 4.3 Measures

All the scales used in our survey were adapted from previous studies in the fields of international marketing and consumer behavior. The scales were translated into Norwegian to facilitate understanding and completion. For all the scales in our survey, we employed a seven-point semantic scale. We chose a semantic scale rather than a Likert scale, because all the studies from which we adapted our scales also employed semantic scales.

We adapted Laroche et al.’s (2005) scale (see Appendix 3), applying a small modification adapted from Wang et al.’s scale (2012) (see Appendix 4), in an attempt to better distinguish between the cognitive, affective and conative components in our operationalization of the country image construct. In light of Roth and Diamantopoulos’ (2009) critique, this was specifically aimed at better capturing the affective component. The modification included adding the phrase *“In your perception, country X is/has”* in front of every item loading on cognition, the phrase *“Based on your feelings, people from country X are”* in front of every item loading on affect, and the phrase *“Based on your desired interaction with Country X”* in front of every item loading on conation. The final scale used to measure country image is included in Appendix 5. Our questionnaire format for measuring country image was based on the country-based format from Jaffee & Nebenzahl (1984) (see Appendix 6), since their findings indicate that this format provides better internal reliability than the attribute-based format.

The scale for measuring product evaluation was adapted from Mukherjee and Hoyer’s study (2001), which investigated the effect of novel attributes on product evaluation. Their scale consisted of six items, but when adapting this scale we decided not to include the item *“useful/not useful”*. This item is relevant when measuring the effect of novel attributes on

product evaluation, because a product's usefulness might increase with the addition of a novel attribute. Since we are not measuring product evaluation of the same products with different attributes, we do not consider this item to be relevant for our study, thus, we did not include this item in our scale. In our study, product evaluation was measured by a five-item, seven-point semantic scale anchored by *“good/bad”*, *“like/dislike”*, *“desirable/undesirable”*, *“high quality/ low quality”* and *“favorable/unfavorable”* (Mukherjee & Hoyer, 2001, p. 466).

Product familiarity was measured by a single-item scale adapted from Josiassen et al. (2008), since a single-item scale is sufficient for measuring singular constructs (Josiassen, et al., 2008, p. 429). The respondents were asked to answer the question *“How familiar are you with different brands/models of product X?”* on a seven-point semantic scale, anchored by *“familiar/not familiar”*.

Product involvement was measured by asking respondents *“If you were to buy the following product, would it be...”* followed by *“exciting or unexciting”*, *“of meaning to you or of no meaning to you”* and *“appealing or unappealing”*. This scale was also adapted from Josiassen et al.'s study (2008).

#### 4.4 Questionnaire design

The questionnaire was divided into five main parts. Since we only had a few classification questions, we decided to include them in the first part with the screening questions. In the second part we asked the respondents to evaluate four product from Romania and Switzerland. We chose to ask respondents to evaluate the product first, to avoid any bias that may have been caused by answering questions relating to familiarity, involvement or country image before evaluating the product. In the third part, we asked about product familiarity, and in the fourth, about product involvement. In the fifth part, we asked the respondents the nine questions measuring country image for each country. We decided to ask the questions about Romania before Switzerland, to avoid that Romania would receive an artificially low score because respondents were, consciously or unconsciously, comparing it with Switzerland. However, this means that Switzerland's score may be artificially high because respondents might have responded in comparison with Romania. When comparing our results with the

pretest, where Romania was evaluated after France, we found that Romania received a lower score (2,99) than in our final survey (3,37). The scores for Switzerland were the same for the pretest and the final survey (5,3), and we cannot determine whether or not this score is artificially high.

## 4.5 Reliability and Validity

When testing a scale's reliability, the most common measure for internal consistency is the Cronbach alpha, which should be above 0,6 to indicate satisfactory internal consistency-reliability (Wilson, 2012, p. 170). "The validity of a scale relates to whether the differences in the scores on the scale reflect true differences in what is being measured." (Wilson, 2012, p. 171). In order to be valid, a scale must be reliable, but it can be reliable without being valid. Therefore, it is important to assess the validity of the scales. The two most common measures of validity are content validity and construct validity. (Wilson, 2012, p. 171) Biased scales are scales that may lead to respondents not reporting the true value, thus biased scales weaken the validity of the findings.

### 4.5.1 Reliability

To test the reliability we ran reliability analyses for all the scales used in our questionnaire. The scales for product evaluation had a Cronbach alpha above 0,8 for all four product categories in both countries (see Table A1-A8, Appendix 7). This indicates good internal consistency. The reliability analyses for product involvement showed that all our product categories except one had a Cronbach alpha above 0,7 (see Table A9-A11, Appendix 8). The Cronbach alpha for the more familiar, less involving product category was just below the acceptable limit for satisfactory internal consistency-reliability (0,572). The Summary Item Statistics table did not report satisfactory inter-item correlation values either. We checked the Item Total Statistics table to see if we could improve the scale by removing an item, but this was not possible (see Table A12-A14, Appendix 9). It is quite difficult to obtain a Cronbach alpha above 0,5 for a scale with less than 10 items (Pallant, 2013), and unfortunately this will weaken the reliability of our scale, and thereby, its validity. The scale for country image also

showed good internal consistency. For both countries the Cronbach alpha was above 0,8 (see table A15-16, Appendix 10).

## 4.5.2 Validity

### 4.5.2.1 Content validity

Content validity is a subjective and systematic assessment of whether or not the scale measures the topic of interest. All the dimensions of the construct or topic should be included in the scale. (Wilson, 2012, p. 171)

Product evaluation was defined as the consumer's beliefs about the products intrinsic characteristics such as quality and reliability, as well as the consumer's attitudes towards the product. Beliefs about product quality is measured through the item "*high quality/low quality*", beliefs about reliability is measured through "*good/bad*", and attitudes towards the product is measured through "*favourable/unfavourable*", "*like/dislike*" and "*desirable/undesirable*". We suggest that the three latter items represent the three dimensions of attitudes. "*Favourable/unfavourable*" measures the cognitive component, "*like/dislike*" measures the affective component and "*desirable/undesirable*" measures the conative component. Thus, we believe this scale has good content validity.

Product involvement refers to the degree of personal relevance the product holds for the consumer. The items used to measure this were *exciting or unexciting*, *of meaning to you or of no meaning to you* and *appealing or unappealing to you*. The Cronbach alpha for one of our involvement scales was just below the accepted limit for satisfactory internal consistency, this weakens the validity of the scale, and thereby this is a limitation of our study.

Country image was defined as consumers' beliefs about the country's industrial development and technological advancement, consumers' affective responses to the country's people, and consumers' willingness to build close economic ties with the country in question. This definition includes all three dimensions of the country image construct; the cognitive (country

beliefs), affective (people affect) and conative component (desired interaction). The cognitive component (i.e. consumers' beliefs about the country's industrial development and technological advancement) was measured by the following items: *rich/poor*, *technologically advanced/not technologically advanced*, and *high/low level of education*. The affective component (i.e. consumers' affective responses to the country's people) is measured through assessments about whether the country's people are *hardworking/not hardworking*, *trustworthy/not trustworthy*, and *likable/not likable*. The conative component (i.e. consumers' willingness to build close economic ties with the country) was also measured by three items: *should/should not have closer ties with*, *ideal/not ideal country*, and *would/would not welcome more investment from*. As mentioned earlier, we made modifications in an attempt to better distinguish and capture the three dimensions, by asking respondents to answer the questions based on their perceptions (beliefs), feelings (affect) and desired interaction. We believe that our scale capture all the dimensions of the underlying construct (i.e. country image), and that the modifications we applied to the scale strengthens its content validity.

#### 4.5.2.2 Construct validity

Construct validity looks at the underlying theories and past research that support the inclusion of the various items in the scale. The fact that all our scales are based on scales from past research within the fields of international marketing and consumer behavior, strengthen the construct validity for our scales.

#### 4.5.2.3 Biases

Social desirability bias may have weakened the validity of this study. Social desirability implies that respondents will not report "the real value" but rather what they believe is socially desirable (Wilson, 2012). This may apply especially to the country image scale used in this study. For example, respondents who do not trust Romanians and think that they are not hardworking may have reported less extreme values, because they feel that their opinions are not socially desirable or acceptable. In addition, Friedman & Amoo (1999) suggest that respondents are reluctant to choose extreme descriptors for their response. This may also

apply especially to the country image scale, e.g. respondents may have been reluctant to choose 1 or 7, indicating “Ideal” or “Not ideal”.

The fact that we chose to only use forced-choice rating scales (i.e. we did not include an option for “*I don’t know*” or “*I don’t have an opinion*”) may have led to respondents to choose a rating from the middle of the scales, when not having an opinion on the matter. This affects the mean and median to shift toward the middle of the scale. (Friedman & Amoo, 1999). All our semantic scales had the negative descriptors to the left and the positive descriptions to the right. Since bipolar rating scales have shown a certain bias towards the left side of the scale, this may have biased our results toward producing more negative evaluations than if we would have placed the positive descriptors to the left and the negative to the right. (Friedman & Amoo, 1999)

Demand effects occur when respondents interpret the meaning of the questions and/or try to guess the purpose, and answer what they believe is the “right answer” (Bilkey & Nes, 1982; Friedman & Amoo, 1999). If respondents have guessed what we are measuring and replied strategically. The fact that questions about Romania were always asked before asking the same questions about Switzerland, may have resulted in artificially high scores for Switzerland, as respondents may have, consciously or unconsciously, compared Switzerland to Romania.

All the biases described above, may have weakened the validity of our findings.

## 4.6 Data collection

A homogenous group does not require as large a sample as when there are large variations within the group (Wilson, 2012). We believe that Norwegian students is a more homogeneous group than e.g. Norway’s population, and since we wanted an easily accessible, homogeneous group, we chose Norwegian students as our target population. Our target population does not include students at a high school level or below, only students studying at universities,

colleges or the equivalent. The use of student samples in country-of-origin research has been criticized, however, neither Peterson & Jolibert (1995), nor Liefeld (1993), found statistically significant differences between students and non-students in regards to quality/reliability perceptions.

Since we did not have complete listings of all Norwegian students, or of several clusters that would be representative for this population, we could not use probability sampling methods, although this could have made our results projectable to the total population (Wilson, 2012), and enhanced the utility of our study and findings. Due to limited amount of time and resources, we chose to use a convenience sample, meaning that we approached the most accessible members of the target population (Wilson, 2012). This is one of the most commonly used sampling methods in the country-of-origin research (Roth & Diamantopoulos, 2009). According to Wilson (2012, p. 192), a convenience sample can provide useful information if the composition of the sample is reasonably similar to the population of interest. We do not believe that the students in our sample are significantly different from other Norwegian students, however, we cannot be certain of this, and thus, it is a limitation of this study.

We solicited respondents mainly through Facebook, and a few through e-mail. Since we were not sure if we would get enough respondents, we decided to collect data from any Norwegian person willing to answer our survey, student or not. We included screening questions about age, nationality and whether or not they were students. Skip logic directed non-Norwegians to the last page of the survey. After removing the cases with missing values and non-Norwegians that the skip logic had not redirected, 154 valid cases remained, of which 75 reported that they were students. We also removed the respondents that were under the age of 19 because these are probably high school students, and thus not part of our target population. This left us with 73 valid cases.

Tabachnick and Fidell (2013, p. 128; cited in Pallant, 2013, p. 157) define outliers as cases with standardized residual above 3,3 or below -3,3. One case was identified as an outlier in two of the regression analyses, and in one of these analyses its standardized residual value

was below -3,3 (see Table A17-A18, Appendix 11), therefore we decided to remove it from our sample. After removing this, 72 valid cases remained, 30,6% males and 69,4% females, ranging from the age 20 to 51 (see Table A19-A21, appendix 12).

When testing for significant differences within our sample, we did not find any significant differences between males and females. However, we did find a significant difference between respondents of 26 years or older and those younger than 26, in regard to their level of involvement in smartphone purchases (see Table A22-23, Appendix 13). Nevertheless, the mean scores of both groups were both above 5, and thus, we consider smartphones to be a more involving product for both groups, and therefore we do not consider this difference to impact our findings.

We ran our analyses on the IBM SPSS software. First we checked the mean scores for familiarity, involvement, country images and product evaluation, to confirm that our classification of product categories and countries were supported, and to see the differences between product evaluation scores across different product categories and countries. After this, we ran multiple regression analyses to check for main effects of familiarity, involvement and country image on product evaluation. Lastly, we ran simple regression analyses to test for the effect of country image on product evaluation, and to see how this effect differs with different levels of familiarity and involvement, and with positive and negative country images.

## 5.0 Results

The findings support our classification of the four product categories, as well as our suggestion that Switzerland has a positive country image and Romania has a negative country image. This is illustrated in Figure 2 and Figure 3 below. (For mean scores for familiarity, involvement and country images see Table A24, Appendix 14)

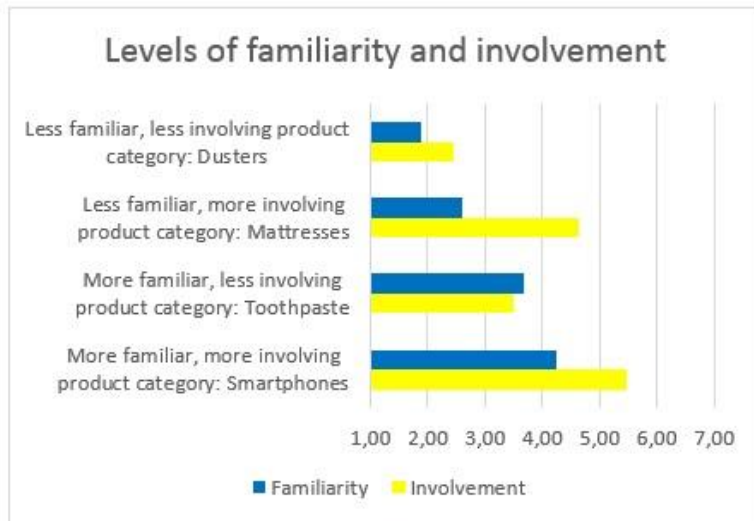


Figure 2. Levels of familiarity and involvement

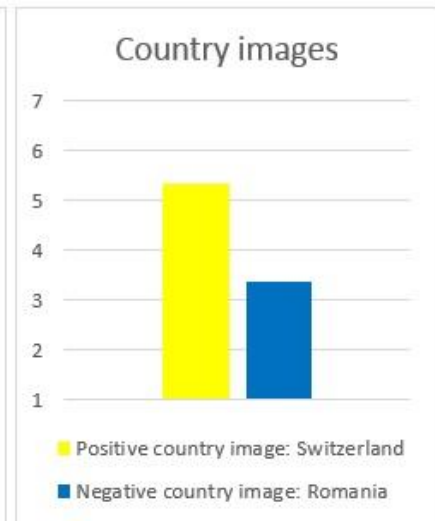


Figure 3. Country images

As illustrated by figure 4, product categories from the country with a positive country image scored consequently higher than product categories from the country with a negative country image (see Table A25, Appendix 15).

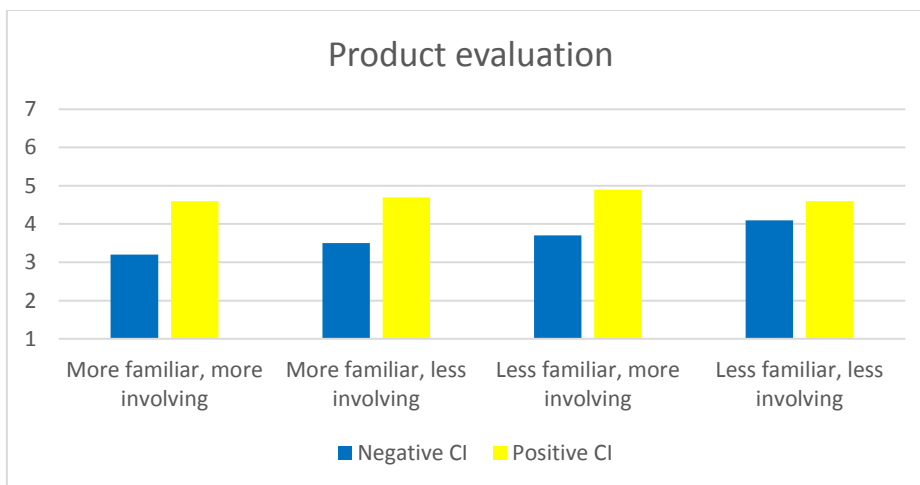


Figure 4. Product evaluation

## 5.1 Main effects of familiarity, involvement and country image

The main results from the multiple regression analyses are included in Table 1 below, while the original tables are included in Appendix 16 to 23.

Main effects of familiarity, involvement, and country image on product evaluation								
Negative country image					Positive country image			
	More familiar, more involving product category				More familiar, more involving product category			
Variable / Value	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta
Constant	0,247	1,819		0,001	0,248	0,923		0,001
Familiarity		0,088	0,011	0,924		-0,56	-0,089	0,438
Involvement		-0,141	-0,13	0,252		0,08	0,092	0,425
Country Image		0,624	0,51	0,001		0,662	0,495	0,001
	More familiar, less involving product category				More familiar, less involving product category			
Variable / Value	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta
Constant	0,343	1,124		0,056	0,377	-0,232		0,769
Familiarity		-0,059	-0,073	0,458		-0,018	-0,025	0,792
Involvement		0,065	0,057	0,563		0,213	<u>0,213</u>	<u>0,03</u>
Country Image		0,702	0,599	0,001		0,797	0,567	0,001
	Less familiar, more involving product category				Less familiar, more involving product category			
Variable / Value	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta
Constant	0,381	2,06		0,001	0,434	0,302		0,001
Familiarity		-0,131	-0,144	0,135		-0,017	-0,022	0,816
Involvement		-0,054	-0,059	0,548		0,155	<u>0,201</u>	<u>0,035</u>
Country Image		0,656	0,62	0,001		0,734	0,596	0,001
	Less familiar, less involving product category				Less familiar, less involving product category			
Variable / Value	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta	Adjusted R <sup>2</sup>	Unstd. Beta	Std. Beta	p-value for Beta
Constant	0,215	2,21		0,001	0,362	0,831		0,001
Familiarity		-0,095	-0,082	0,453		-0,053	-0,057	0,57
Involvement		0,198	0,184	0,1		0,254	<u>0,294</u>	<u>0,004</u>
Country Image		0,467	0,422	0,001		0,615	0,506	0,001

Table 1. Main effects of familiarity, involvement and country image on product evaluation

When familiarity is high (4,26), product involvement does not have a significant effect on product evaluation. However, when familiarity is lower (3,67) involvement has a significant effect on product evaluation at a 5%-level. The effect of involvement on product evaluation is

strongest for the least familiar product category (1,89), with a standardized beta of 0,294, significant at a 1%-level. These results indicate that the less familiar a consumer is with the product he or she is evaluating, the more the consumer's level of involvement will affect his or her product evaluation, when the country image is positive. Figure 5 illustrates this relationship.

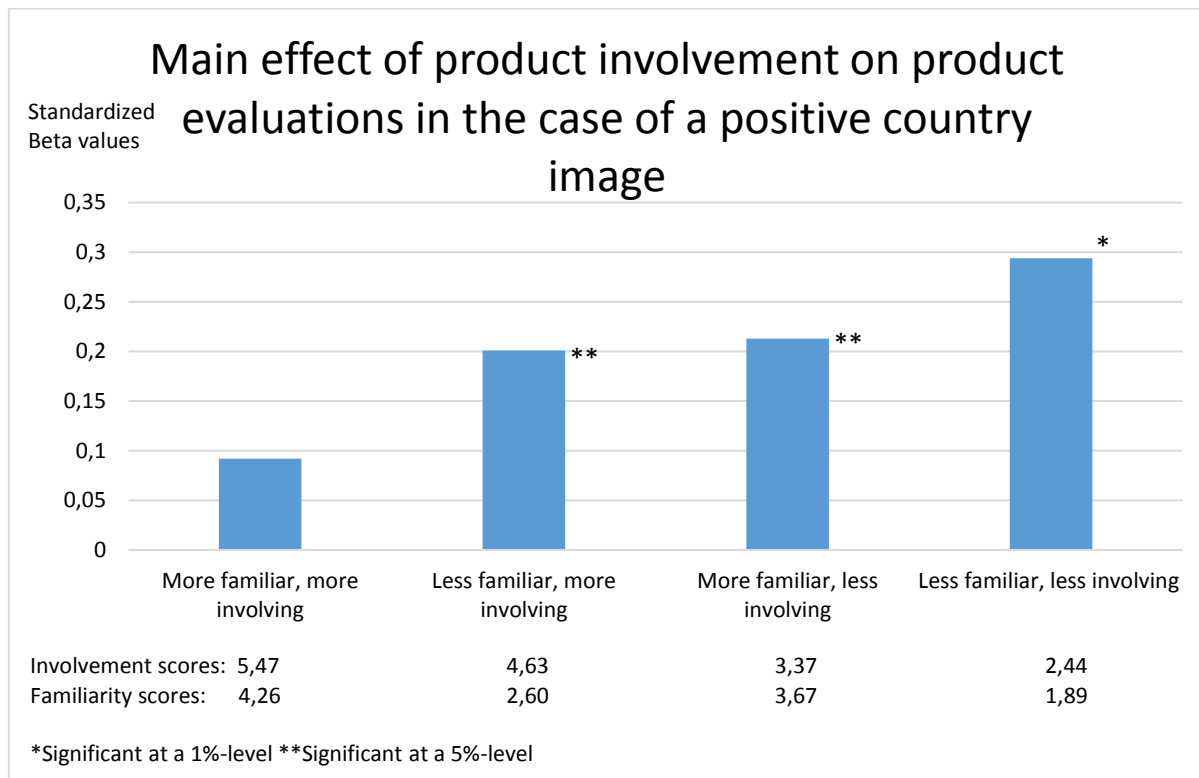


Figure 5. Main effect of involvement on product evaluation in the case of positive country image

## 5.2 The country image effect

All our regression models proved to be significant at a 1%-level (see appendix 24-31), thus confirming that country image does have a significant effect on product evaluation. This provides support for H1, stating that country image has a significant effect on product evaluation.

Table 2 below state the main results from the simple regression analyses, testing the effect of country image on product evaluation.

<b>Country image effect on product evaluation</b>			
	<b>Negative country image</b>	<b>Positive country image</b>	<b>Difference between negative and positive</b>
<b>More familiar, more involving product category</b>			
Adjusted R2	0,253*	0,26*	-0,007
Constant	1,073**	0,942	
Standardized beta	0,513*	0,52*	-0,007
<b>More familiar, less involving product category</b>			
Adjusted R2	0,355*	0,351*	0,004
Constant	1,119*	0,203	
Standardized beta	0,603*	0,6*	0,003
<b>Less familiar, more involving product category</b>			
Adjusted R2	0,372*	0,412*	-0,04
Constant	1,481*	0,629	
Standardized beta	0,617*	0,648*	-0,031
<b>Less familiar, less involving product category</b>			
Adjusted R2	0,205*	0,299*	-0,094
Constant	2,352*	1,026	
Standardized beta	0,465*	0,556*	-0,091

\*Significant at a 1%-level \*\*Significant at a 5%-level

Table 2. Country image effect on product evaluation

These results suggest that the effect of country image on product evaluation differs with the level of familiarity and involvement. Figure 6 illustrates how this effect differs.

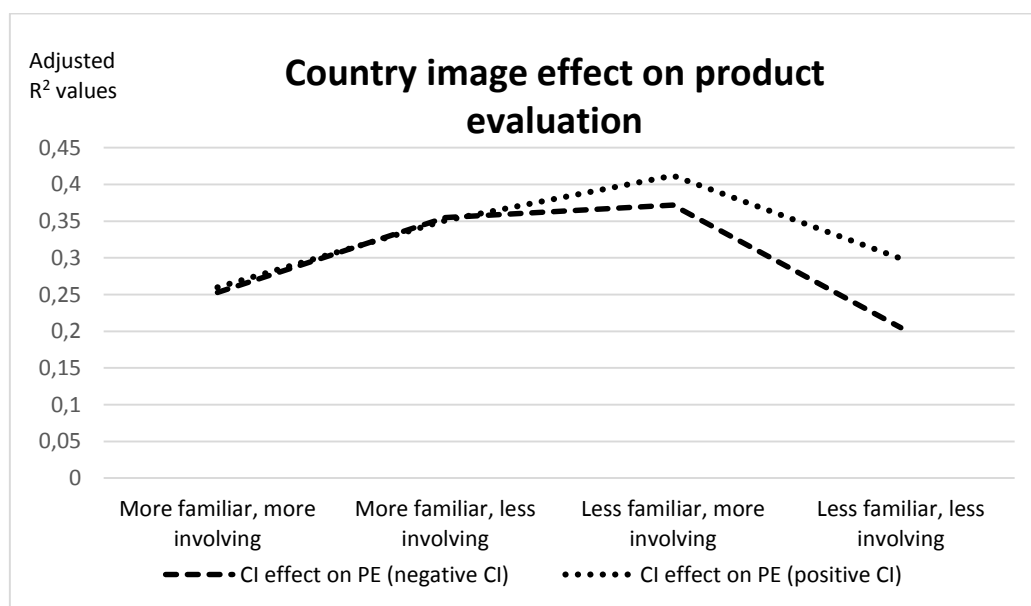


Figure 6. Country image effect on product evaluation moderated by familiarity and involvement

### 5.2.1 Familiarity and involvement

Our results show that the effect of country image on product evaluation is smaller for more familiar, more involving product categories than for less familiar, less involving product categories, when the country image is positive. However, when the country image is negative, the effect is smallest in the case of less familiar, less involving product categories. Thus, our findings provide partial support for H2, stating that the effect of country image on product evaluation is larger for less familiar, less involving product categories, than for more familiar, more involving product categories.

The effect of country image is smaller when the product category is both less familiar and less involving, than when the product category is either more familiar and less involving, or less familiar and more involving. This does not support H3, stating that the effect of country image on product evaluation is larger when the product category is both less familiar and less involving, than when the product category is either more familiar and less involving, or less familiar and more involving.

The effect of country image on product evaluation is smaller when the product category is more familiar and more involving, than when the product category is either more familiar and less involving, or less familiar and more involving. This provides support for H4, which states that the effect of country image on product evaluation is smaller when the product category is both more familiar and more involving, than when the product category is either more familiar and less involving, or less familiar and more involving.

### 5.2.2. Positive and negative country image

The results show that for the more familiar product categories, there was almost no difference between a positive and negative country image in regards to the effect sizes of country image on product evaluation. Nevertheless, we did find a difference for less familiar product categories. The results suggest that as familiarity and involvement decrease, the difference increases. The findings suggest that in cases of low familiarity, a positive country image has a

stronger effect on product evaluation than a negative country image; this difference grows larger when involvement decreases. Thus, these findings do not support H5, stating that the effect size of country image on product evaluation will be larger for a negative country image, than for a positive country image.

## 6.0 Discussion

From our results we found support for H1 and H3, partial support for H2, and no support for H4 and H5, as shown in Table 3.

<b><u>Hypotheses: Supported/Not Supported</u></b>		
		<b>Supported/not supported</b>
<b>H1</b>	Country image has a significant effect on product evaluation	Supported
<b>H2</b>	The effect of country image on product evaluation is larger for less familiar, less involving product categories, than for more familiar, more involving product categories.	Partially Supported
<b>H3</b>	The effect of country image on product evaluation is larger when the product category is both less familiar and less involving, than when the product category is either more familiar and less involving, or less familiar and more involving.	Supported
<b>H4</b>	The effect of country image on product evaluation is smaller when the product category is both more familiar and more involving, than when the product category is either more familiar and less involving, or less familiar and more involving.	Not Supported
<b>H5</b>	The effect size of country image on product evaluation will be larger for a negative country image, than for a positive country image	Not Supported

Table 3. Hypotheses: Supported/Not Supported

Our results indicates that country image has a significant effect on product evaluation, and that the size of the effect differs with the degree of product familiarity and involvement. We found that when a consumer is familiar with the product category, the effect of country image increases as the level of involvement decreases. Oppositely, when a consumer is less familiar with a product category, the effect of country image decreases as the level of involvement decreases. In the same manner, we found that when the product category is more involving,

the effect of country image increases as familiarity decreases, and that when the product category is less involving, the effect of country image increases as familiarity increases. These findings are illustrated in Figure 7.

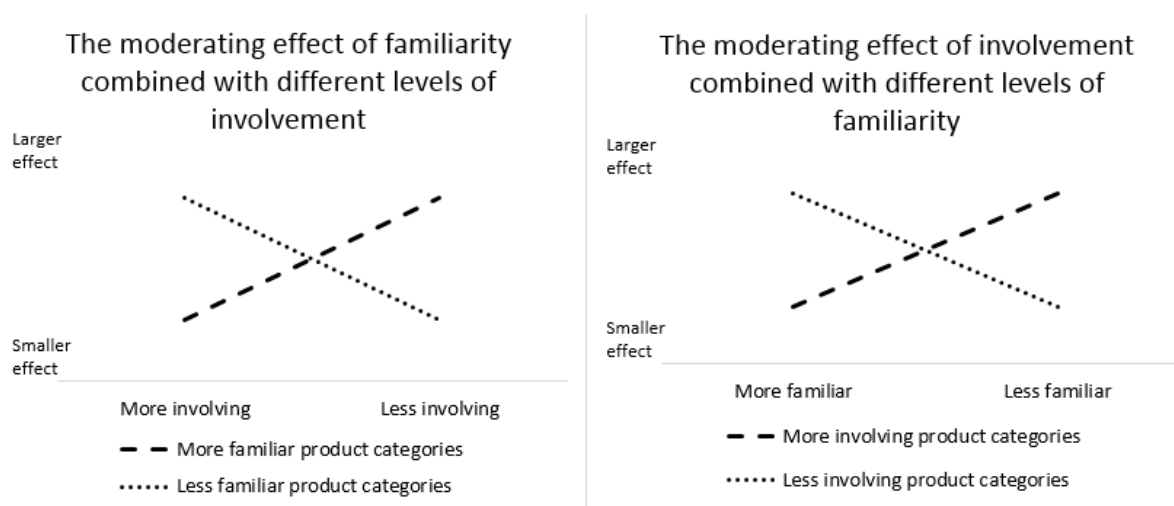


Figure 7. Moderating effects of familiarity and involvement combined

This suggests that country image has the largest effect on product evaluation when a product category is either less familiar and more involving, or more familiar and less involving.

The results also indicate that when the country image is positive, the effect of country image is largest for the less familiar and more involving product category. For a negative country image, there is almost no difference in the effect of country image between the less familiar, more involving product category and the more familiar, less involving product category.

Interestingly, when the consumer is more familiar with the product category, the effect of country image on product evaluation is approximately the same whether the country image is positive or negative. However, when the product category is less familiar to the consumer, a positive country image will have a larger effect on product evaluation than a negative country image. This difference will increase with decreasing involvement and familiarity. This is illustrated in Figure 8.

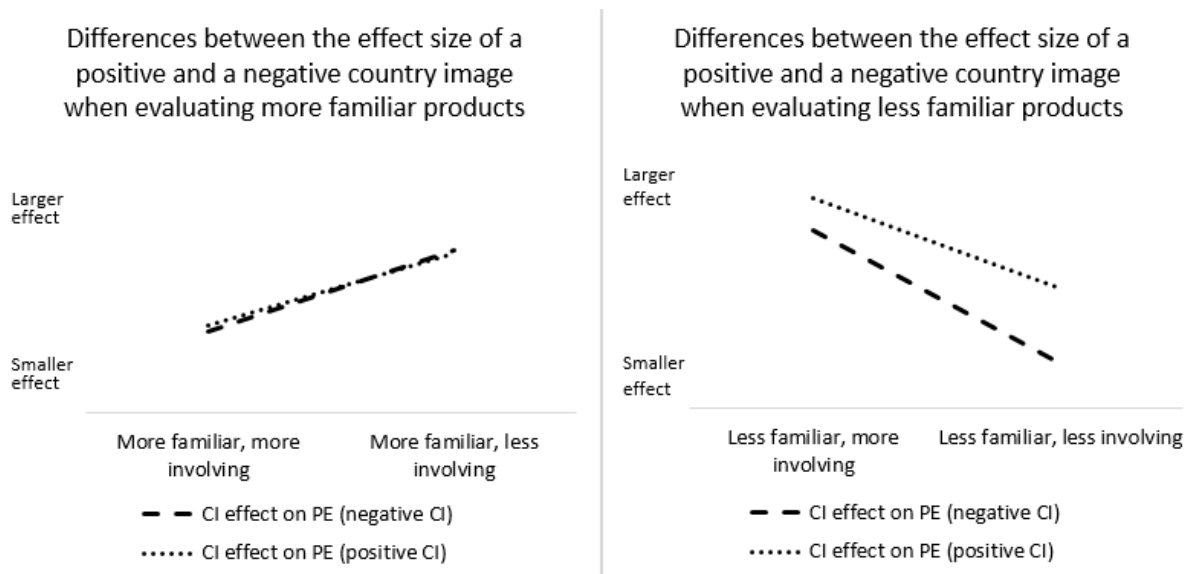


Figure 8. Differences between the effect size of country image on product evaluation for a positive and a negative country image

## 6.1 Main effects of involvement on product evaluation

The results suggest that the less familiar a consumer is with the product he or she is evaluating, the more the consumer's level of involvement will affect his or her product evaluation, when the country image is positive. This suggests that when evaluating a smartphone from Switzerland, the level of involvement does not have a significant effect on product evaluation, because of the consumers' higher level of familiarity (4,26). However, when evaluating toothpaste from Switzerland, which is also a familiar product (3,67), but less so than smartphones, involvement has a significant effect on product evaluation. Suggesting that the more involved you are in your toothpaste purchase, the more positively you will evaluate the product, given that the country image is positive. As familiarity decreases, the effect of involvement on product evaluation increases. For the least familiar product, dusters (1,89), the effect of involvement on product evaluation proved to be the largest.

However, the same relationship was not found for a country with a negative country image. This implies that it is only in the case of a positive country image that the level of involvement may work as a boosting effect on product evaluation; the more involved you are, the more positively you evaluate the product. In addition, familiarity may be an important

driver of this boosting effect; the less familiar you are with the product, the more your level of involvement will influence your evaluation.

As these results are quite unexpected, we find it difficult to explain this effect. However, we believe that if this effect is real, and not simply a coincidental finding, it can provide useful insight in the fields of international marketing and consumer behavior. Therefore, we suggest that this will be an interesting topic for further research.

## 6.2 The halo effect

The halo effect implies that when a consumer is unfamiliar with a product he or she will use the country image as an informational cue to infer product quality, which in turn affects product evaluation. This implies that the consumer will place more emphasis on country image when evaluating a product that he or she is less familiar with. This should manifest itself through an increase in the effect of country image on product evaluation as familiarity decreases.

We found that as familiarity decreases, the effect of country image increases, implying that there is a halo effect. However, if the halo effect was valid for all levels of involvement, the effect of country image on product evaluation should be largest for the least familiar product category (less familiar, less involving, which scored 1,89 on familiarity). However, our findings suggest that the effect is largest in less familiar and more involving product categories (familiarity score: 2,6). When familiarity and involvement decrease further, the effect of country image on product evaluation also decreases. Based on this, we suggest that the halo effect only occurs when there is a certain level of product involvement. Below this level of involvement, decreasing familiarity will not result in an increasing effect of country image on product evaluation. This is illustrated in Figure 9.

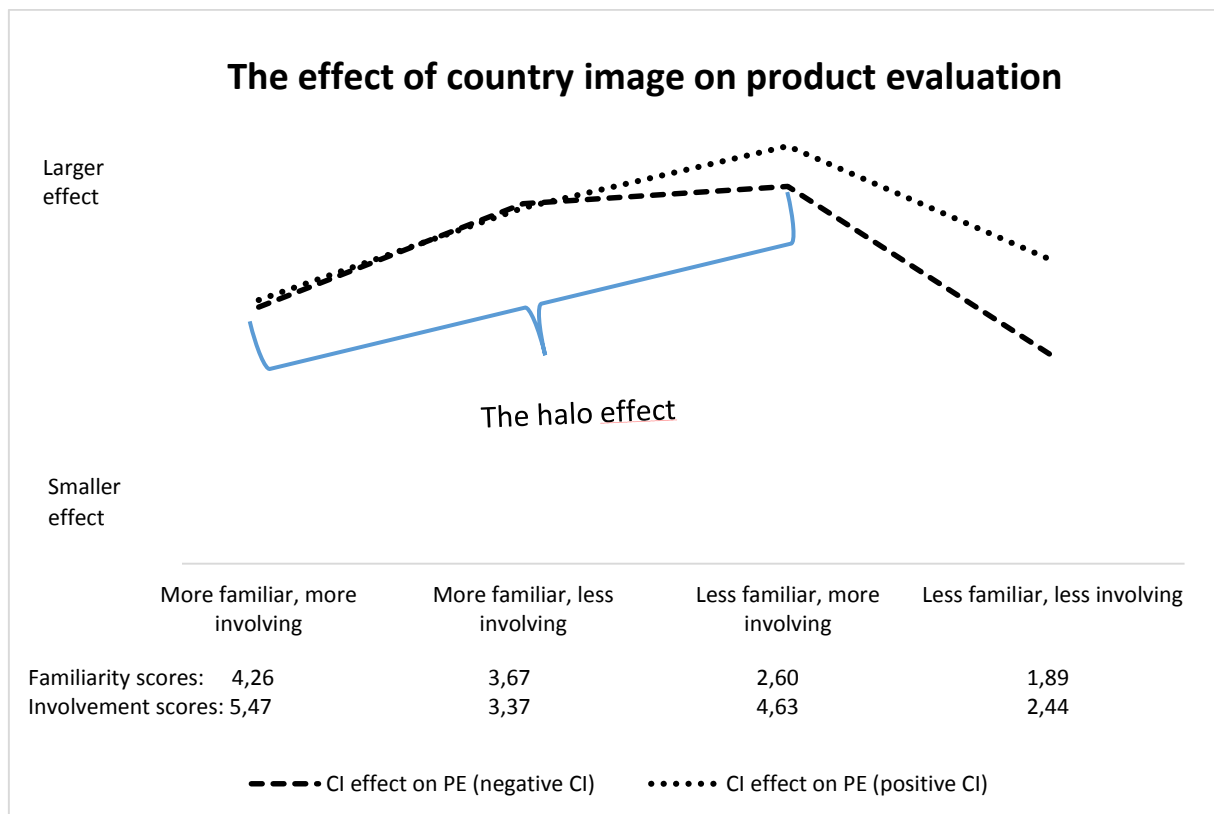


Figure 9. The halo effect

### 6.3 Less familiar, less involving product categories

In line with Josiassen et al. (2008), our findings support the existence of a halo effect. However, our results suggest that the effect is not valid below a certain level of involvement. In regards to Josiassen et al.'s (2008) suggestion that consumers use country image as a salient cue when evaluating products that they are not very involved with, and that decreasing involvement leads to an increase in the country image effect on product evaluation, our findings indicate that this is only the case when the consumer is familiar with the product. For less involving, less familiar product categories, consumers place less emphasis on the country image when evaluating products than if they are either more familiar or more involved. Thus, our findings contradict Josiassen et al.'s (2008) claim that when a product is both less familiar and less involving, the consumer will place more importance on the country-of-origin image.

A possible explanation for this may be that below a certain level of product involvement, the moderating effect of involvement overrides the moderating effect of familiarity. We suggest

that because low-involvement products are not of personal relevance for the consumer and therefore do not provoke extensive information processing, at a very low level of involvement, the consumer simply does not care.

There are differences between Josiassen et al.'s study (2008) and this study, which also may explain why our findings do not comply. In Josiassen et al.'s study (2008), they measured the product image, not the country image, and none of the product categories was low-involvement per se.

#### 6.4 Positive and negative country image

As mentioned earlier, we did not find support for H5, stating that the effect size of country image on product evaluation will be larger for a negative country image, than for a positive country image. Our findings suggest that when product categories are familiar, the effect size of country image on product evaluation is almost the same for a negative and a positive country image. However, below a certain level of familiarity, the country image effect on product evaluation is stronger for a positive country image than for a negative one. Our findings also suggest that when the consumer is less familiar with the product categories, the difference between the effects of a negative and a positive country image increases as involvement decreases.

We find it difficult to find an explanation for this effect based on theory. However, we have tried to reason and find a logical explanation. For example, if a person does not care about politics, but learns that the candidate he or she has a positive image of won the election, he or she might evaluate the government more positively. However, if the person learns that a candidate that he or she has a negative or neutral image of won the election, he or she might not evaluate the government any differently, because to begin with, he or she does not really care. In the same way, a positive country image may enhance the importance a consumer places on the country image when evaluating a product that he or she is less involved and less familiar with. On the other hand, if the country image is negative, he or she does not place much importance on it, because he or she is not very involved to begin with. Hence, below a

certain level of familiarity, the effect of country image on product evaluation is stronger for a positive country image than for a negative one and this difference increases as involvement decreases.

## 6.5 Evaluating our effect sizes

In their meta-analysis of country-of-origin effects, Peterson & Jolibert (1995) presented mean effect sizes for selected COO characteristics (see Appendix 32), based on 1520 effect sizes from 69 individual studies, against which they suggest other researchers can compare and evaluate their own research. The mean effect sizes of country-of-origin on quality/reliability perceptions for studies that resemble ours (in terms of sample size, type of respondents, study cues, etc.) are between 0,28 and 0,32. In comparison with these sizes, the effect size of the negative country image that we found in the case of the less familiar, less involving product category seem quite small at 0,205. The effect sizes of country image on more familiar, more involving product categories for both positive and negative country images are also weaker than the average (0,26 in the case of a positive country image and 0,253 in the case of a negative).

Peterson & Jolibert's (1995, p. 883) also found that while the mean effect size for quality/reliability perceptions was 0,30, the average effect size for purchase intention was 0,19. This is suggested to be due to the fact that

(...) a purchase intention would imply a greater degree of personal commitment than a perceptual response. Moreover, a purchase intention is not as direct an evaluation as a quality/reliability perception and is likely to have more (and a greater variety of) influencing antecedents. (Peterson & Jolibert, 1995, p. 894)

In addition, single-cue settings had a mean effect size of 0,30, which is almost the double of the mean effect size of multiple-cue settings (0,16) (Peterson & Jolibert, 1995).

In light of Peterson & Jolibert's (1995) findings, we believe that the effect sizes identified in our study will be smaller in a real purchasing contexts where multiple-cues are present, and the consumer must engage in some form of personal commitment. One may even question if the effect of less familiar, less involving products from countries with a negative country

image, and the effect of more familiar, more involving product categories, will actually have a significant impact on consumers' actual purchasing decisions.

## 6.6 Managerial implications

Our findings indicate that country image has a significant effect on product evaluation. However, as stated earlier, in a purchasing context, this effect will probably be smaller. Thus, this limits the extent to which marketers should emphasize country-of-origin, rather than focusing their marketing efforts on other cues.

Our findings indicate that emphasizing the country-of-origin will have the largest effect on product evaluation, when products are characterized by high-involvement and consumers are unfamiliar with the product category. Thus, companies selling such products will have the most to benefit from emphasizing the country-of-origin, assuming that their country image is positive. Oppositely, if the country image is negative, such companies will have the most to lose on emphasizing the country-of-origin, and the most to gain on downplaying it.

If a company wishes to emphasize the country-of-origin, it should make this extrinsic cue easily accessible to the consumers. This can be done through advertising, and also through having a cue strategically placed on the packaging or the product itself, indicating the country-of-origin. This goes beyond the simple "Made in"-label, by using symbols associated with the country in question. On the other hand, if a company wishes to downplay the country-of-origin, it should emphasize the product image in its marketing efforts.

## 6.7 Limitations

While this study provides interesting insights into how the effect of country image on product evaluation may be moderated by familiarity, involvement and whether the country image is positive or negative, it has several limitations.

The small sample size and the use of a student convenience sample limits the generalization of our findings onto consumers in general. The use of only European countries, and the use of only one target country and two sourcing countries, are also limitations to the findings generalizability. We might have gotten other results if we used countries from e.g. Asia, Africa or Latin America. In line with many researchers in this field, we stress the importance of the use cross-cultural studies for future research.

The single cue setting is also an important limitation to our study, as this might have artificially enhanced the effect of country image on product evaluation. In their meta-analysis of country-of-origin effects, Peterson & Jolibert (1995, p. 883) found that “single-cue studies produce larger COO effect sizes than multiple-cue studies”. In a purchasing context, consumers are faced with multiple cues, such brand and price, and when such cues are present, the effect of country image on product evaluation may be reduced (Ahmed, et al., 2004; Bilkey & Nes, 1982).

The fact that the respondents were only given verbal references to products, instead of being presented with tangible products, is also a limitation to this study, because product evaluations may differ according to whether a tangible or intangible product is used (Bilkey & Nes, 1982). Effect sizes of country-of-origin are reported to be larger for studies using verbal product descriptions, rather than presenting the actual product (Peterson & Jolibert, 1995).

Another limitation is that we only measured product evaluations. Although rating a product favorably may lead to subsequent purchasing behavior, Peterson & Jolibert (1995) found that effect sizes were considerably lower when measuring purchasing intentions rather than quality/reliability perceptions.

Biases explained in our methodology might have weakened the validity of our findings. The lack of satisfactory reliability values for the product involvement scale for the more familiar, less involving product category might also have weakened the validity of this scale.

To the best of our knowledge, there are no associations between the product categories and sourcing countries in this study, but we did not verify this assumption. Thus, there is a chance that some of our findings may be attributed to the product-country image effect, rather than the country image effect.

## 6.8 Future research

This study provides an important addition to the halo effect view, suggesting that it does not apply for all levels of involvement. Further research should investigate this, measuring for more low-involvement products that consumers' are unfamiliar with, to confirm that such a "limit" of the halo effect actually exists. We also recommend that in doing so, they employ a multi-cue setting, and that they present tangible products, rather than verbal descriptions, to overcome some of the limitations of this study. We also believe it would be interesting for future research to replicate the study using hedonic products, as well as more product categories with different levels of involvement and familiarity, to see if similar effects are identified.

We found that in the case of a positive country image, the level of involvement may work as a boosting effect on product evaluation, and that familiarity may be an important driver of this boosting effect. Since we could not explain these findings based on theory, we recommend future research to investigate these findings in an attempt to explain them and their implications in a marketing context. In their efforts to do so, we recommend the use of more reliable product involvement scales, perhaps including more items such as the ones proposed by Schiffman et al. (2012).

Another finding we could not explain based on literature, is why a positive country image seems to have a stronger effect on product evaluations than a negative country image. We suggest that future research should try to find an explanation for this, as we believe this may provide useful insights into the fields of international marketing and consumer behavior.

## 7.0 Conclusion

We set out to investigate how product involvement and product familiarity moderate the effect of country image on product evaluation, and also if and how a positive or a negative country image may moderate this effect. The effect of country image on product evaluation has been suggested to increase as familiarity decreases, which is referred to as the halo effect. It has also been suggested that the effect of country image increases as involvement decreases. Applying the theory of loss aversion, we expected a negative country image to have a larger effect on product evaluation, than a positive country image.

We found that country image significantly affects product evaluation, and when investigating how product involvement and product familiarity moderate this effect, we identified the halo effect. Interestingly, our findings indicate that this effect is not valid below a certain level of involvement. We consider this to be an interesting contribution to the country-of-origin research and the field of international marketing. Our findings also indicate that the country image effect is largest for high-involvement products that the consumers are less familiar with, and smallest for low-involvement products from countries with a negative country image.

Our results indicate that whether a country's image is positive or negative moderates the country image effect on product evaluations when the consumer is less familiar with the product categories. Our findings suggest that for less familiar product categories, a positive country image will have a larger effect on product evaluations than a negative country image, and that this difference increases as involvement decreases. However, for familiar product categories, there seems to be almost no difference in the effect size of a positive and a negative country image.

An unexpected finding in this study, was that involvement seems to have a direct effect on product evaluation. Our findings suggest that in the case of a positive country image, the level of involvement may work as a boosting effect on product evaluation, and that familiarity may be an important driver of this boosting effect.

Main limitations to this study are: the use of a single-cue setting, providing verbal product descriptions rather than actual products, and only measuring effects on product evaluations, not purchasing intentions. For future research, we recommend further to investigate if the halo effect does not apply below a certain level of involvement, as our findings suggest. We also recommend investigating why a positive country image has a larger effect on product evaluations when consumers are less familiar with the product category. Lastly, we would also recommend investigating the proposed existence of a direct effect of involvement on product evaluations, and whether this effect may be moderated by product familiarity.

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# Appendices

## Appendix 1

Familiarity moderating the effect of country image on product evaluation

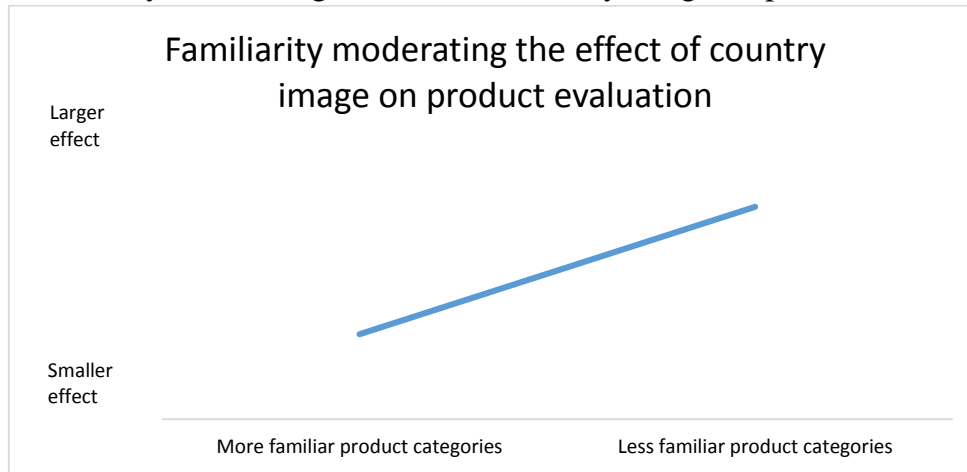


Figure A1. Familiarity moderating the effect of country image on product evaluation

## Appendix 2

### Involvement moderating the effect of country image on product evaluation

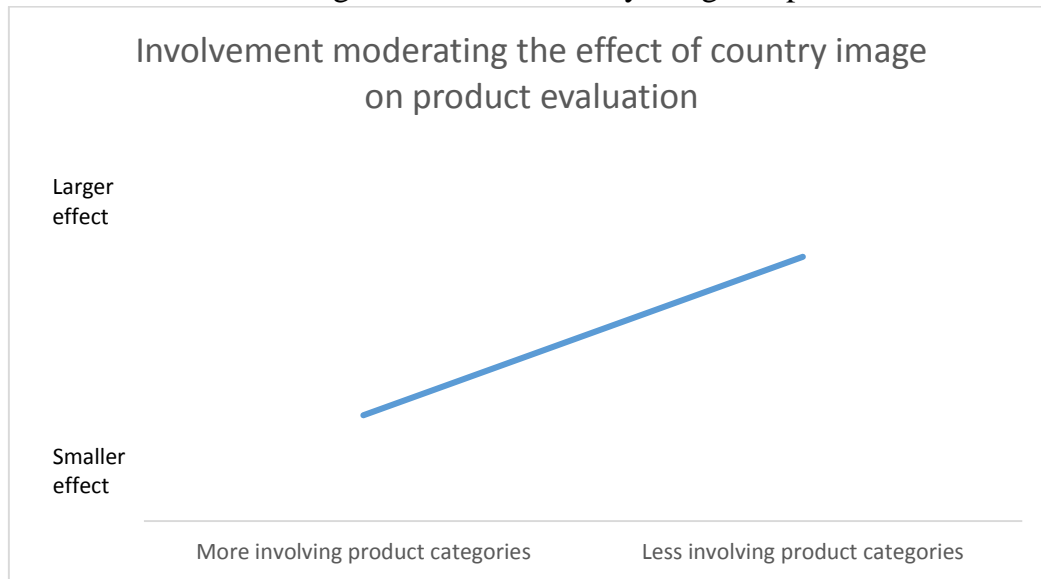


Figure A2. Involvement moderating the effect of country image on product evaluation

## Appendix 3

### Laroche et al.'s country image scale

Item description
<i>Country beliefs</i>
Rich-poor
Technologically advanced-not advanced
High-low level of education
<i>People affect</i>
Trustworthy-not trustworthy
Hard working-not hard working
Likeable-not likeable
<i>Desired interaction</i>
We should-should not have closer ties with-
Ideal-not ideal country
Would-would not welcome more investment from-
<i>Product beliefs</i>
Unreliable-reliable
Poor-good workmanship
Poor-good quality
<i>Product evaluation</i>
Willing-not willing to buy (country) products
Would-would not be proud to own products of-
Products of – are—are not for people like me
<i>Familiarity</i>
I know-do not know (country) products very well

(Laroche, et al., 2005, p. 114)

## Appendix 4

### Wang et al.'s country image scale

Table 2  
Measurement scales and factor analysis of survey variables (varimax rotation).

Measurement items	Component		
	Cognitive country image (CCI) $\alpha = .90$	Affective country image (ACI) $\alpha = .89$	Product image (PI) $\alpha = .85$
In your perception, country XYZ is/has			
A.11 Affluent	.85	.18	.05
A.12 Economically well developed	.85	.18	.09
A.13 High living standards	.77	.27	.09
A.14 Advanced technology	.82	.16	.15
A.15 Good standard of life	.83	.18	.04
Based on your feelings, country XYZ is			
A.111 Peace loving	.02	.87	.08
A.112 Friendly towards us	.02	.90	.09
A.113 Cooperative with us	.02	.82	.13
A.114 Likable	.09	.85	.14
When you think about products made in country XYZ, you generally perceive their image as			
A.71 High quality	.13	.18	.75
A.72 Having global brand presence	.22	.01	.73
A.73 High workmanship	.28	.05	.79
A.74 Reliable	.13	.18	.78
A.75 Well-designed	.17	.12	.74
Proportion of variance accounted for (%)	36.95	12.64	21.14

Variance explained = 70.73%.

(Wang, et al., 2012, p. 1046)

## Appendix 5

### Our scale for measuring Country Image

*In your perception, Country X is/has*

Rich/Poor

Technologically advanced/Not technologically advanced

High level of education/Low level of education

*Based on your feelings, people from Country X are*

Hardworking/Not hardworking

Trustworthy/Not trustworthy

Likable/Not likable

*Based on your desired interaction with Country X*

We should have closer ties with Country X/We should not have closer ties with Country X

Country X is an ideal country/Country X is not an ideal country

Would welcome more investment from Country X/Would not welcome more investment from Country X

## Appendix 6

### Alternative questionnaire formats

**Table 1**  
**ALTERNATIVE QUESTIONNAIRE FORMATS FOR COMPARATIVE IMAGE STUDIES USING A SEMANTIC DIFFERENTIAL SCALE**

<i>Q<sub>1</sub></i>		<i>Q<sub>2</sub></i>	
Great Britain		Expensive	Inexpensive
Expensive	Inexpensive	Great Britain	
Reliable	Unreliable	Israel	
Exclusive	Common	Japan	
⋮	⋮	⋮	
Inventive	Imitative	United States	
Israel		Reliable	Unreliable
Expensive	Inexpensive	Great Britain	
Reliable	Unreliable	Israel	
Exclusive	Common	Japan	
⋮	⋮	⋮	
Inventive	Imitative	United States	
United States		Exclusive	Common
Expensive	Inexpensive	Great Britain	
Reliable	Unreliable	Israel	
Exclusive	Common	Japan	
⋮	⋮	⋮	
Inventive	Imitative	United States	
		Inventive	Imitative
		Great Britain	
		Israel	
		Japan	
		⋮	
		United States	

(Jaffe & Nebenzahl, 1984, p. 464)

## Appendix 7

### Reliability analyses: Product evaluation scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,927	,930	5

Table A1. Reliability statistics for product evaluation scale: toothpaste from Romania

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,900	,903	5

Table A2. Reliability statistics for product evaluation scale: mattresses from Romania

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,903	,906	5

Table A3. Reliability statistics for product evaluation scale: dusters from Romania

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,931	,932	5

Table A4. Reliability statistics for product evaluation scale: smartphones from Romania

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,905	,907	5

Table A5. Reliability statistics for product evaluation scale: toothpaste from Switzerland

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,895	,895	5

Table A6. Reliability statistics for product evaluation scale: mattresses from Switzerland

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,855	,855	5

Table A7. Reliability statistics for product evaluation scale: dusters from Switzerland

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,902	,901	5

Table A8. Reliability statistics for product evaluation scale: smartphones from Switzerland

## Appendix 8

### Reliability analyses: Product involvement scale

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,754	,758	3

Table A9. Reliability statistics for product involvement scale: Mattresses

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,729	,733	3

Table A10. Reliability statistics for product involvement scale: Dusters

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,718	,718	3

Table A11. Reliability statistics for product involvement scale: Smartphones

## Appendix 9

### Reliability analysis: Product involvement: Toothpaste

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,572	,570	3

Table A12. Reliability statistics for product involvement scale: toothpaste

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	,307	,257	,404	,147	1,570	,006	3

Table A13. Summary Item Statistics table for product involvement: toothpaste

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Is toothpaste of meaning or no meaning to you?	6,39	5,565	,422	,189	,408
Is toothpaste appealing or unappealing to you?	6,60	6,469	,425	,188	,404
Is toothpaste exciting or unexciting to you?	8,07	7,756	,308	,095	,572

Table A14. Item-Total statistics table for product involvement: toothpaste

## Appendix 10

### Reliability analyses: Country image scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,917	,920	9

Table A15. Reliability statistics for country image scale: Romania

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,884	,885	9

Table A16. Reliability statistics for country image scale: Switzerland

## Appendix 11

### Outliers

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	PEspS	Predicted Value	Residual
66	-3,324	1,80	5,2850	-3,48497

a. Dependent Variable: PEspS

Table A17. Casewise Diagnostics table from simple regression analysis: Country image effect on product evaluation of smartphones from Switzerland

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	PEmS	Predicted Value	Residual
66	-3,159	3,00	5,6770	-2,67696

a. Dependent Variable: PEmS

Table A18. Casewise Diagnostics table from simple regression analysis: Country image effect on product evaluation of mattresses from Switzerland

## Appendix 12

### Gender distribution and age range

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	22	30,6	30,6	30,6
	Female	50	69,4	69,4	100,0
	Total	72	100,0	100,0	

Table A19. Frequency table: Gender

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	1,4	1,4	1,4
	21	1	1,4	1,4	2,8
	22	5	6,9	6,9	9,7
	23	8	11,1	11,1	20,8
	24	11	15,3	15,3	36,1
	25	9	12,5	12,5	48,6
	26	7	9,7	9,7	58,3
	27	10	13,9	13,9	72,2
	28	7	9,7	9,7	81,9
	29	5	6,9	6,9	88,9
	30	1	1,4	1,4	90,3
	31	4	5,6	5,6	95,8
	32	1	1,4	1,4	97,2
	49	1	1,4	1,4	98,6
	51	1	1,4	1,4	100,0
	Total	72	100,0	100,0	

Table A20. Frequency table: Age

Statistics		
Age		
N	Valid	72
	Missing	0
Mean		26,43
Median		26,00
Mode		24
Minimum		20
Maximum		51

Table A21. Descriptive statistics table: Age

## Appendix 13

### T-test for two independent groups

Group Statistics					
	Age	N	Mean	Std. Deviation	Std. Error Mean
Product involvement:	>= 26	37	5,0991	1,34913	,22180
smartphones	< 26	35	5,8667	1,08224	,18293

Table A22. Group Statistics table

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product involvement: smartphones	Equal variances assumed	1,703	,196	-2,654	70	,010	-,76757	,28926	-1,34449	-,19065
	Equal variances not assumed			-2,670	68,214	,009	-,76757	,28750	-1,34124	-,19390

Table A23. Independent samples test

## Appendix 14

Mean scores for familiarity, involvement and country images

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
How familiar are you with different brands/models of smartphones?	72	1	7	4,26	1,760
How familiar are you with different brands/models of toothpaste?	72	1	7	3,67	1,644
How familiar are you with different brands/models of mattresses?	72	1	6	2,60	1,318
How familiar are you with different brands/models of dusters?	72	1	4	1,89	1,082
Product involvement: smartphones	72	2,00	7,00	5,4722	1,27790
Product involvement: toothpaste	72	1,00	7,00	3,5093	1,16546
Product involvement: mattresses	72	1,00	7,00	4,6296	1,32338
Product involvement: dusters	72	1,00	7,00	2,4398	1,16660
Country image: Switzerland	72	3,56	7,00	5,3256	,82757
Country image: Romania	72	1,00	7,00	3,3719	1,13498
Valid N (listwise)	72				

Table A24. Descriptive Statistics table for familiarity, involvement and country images

## Appendix 15

Mean scores for product evaluations

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PEtpR	72	1,00	7,00	3,5028	1,33089
PEmR	72	1,00	7,00	3,6833	1,20129
PEdR	72	1,00	7,00	4,0889	1,25727
PEspR	72	1,00	7,00	3,1889	1,38763
PEspS	72	1,60	7,00	4,6444	1,10580
PEdS	72	3,00	7,00	4,6250	1,00642
PEmS	72	3,00	7,00	4,8833	1,01967
PEtpS	72	1,00	7,00	4,6917	1,16180
Valid N (listwise)	72				

Table A25. Descriptive Statistics table for product evaluation

## Appendix 16

### Multiple regression analysis: Smartphones from Romania

Descriptive Statistics			
	Mean	Std. Deviation	N
PEspR	3,1889	1,38763	72
InvolvementSmartphones	5,4722	1,27790	72
How familiar are you with different brands/models of smartphones?	4,26	1,760	72
CIRomania	3,3719	1,13498	72

Table A26. Descriptive Statistics table for multiple regression analysis: Smartphones from Romania

Correlations					
		PEspR	Product involvement: smartphones	How familiar are you with different brands/models of smartphones?	Country image: Romania
Pearson Correlation	PEspR	1,000	-,136	-,041	,513
	Product involvement: smartphones	-,136	1,000	,395	-,021
	How familiar are you with different brands/models of smartphones?	-,041	,395	1,000	-,002
	Country image: Romania	,513	-,021	-,002	1,000
Sig. (1-tailed)	PEspR	.	,127	,365	,000
	Product involvement: smartphones	,127	.	,000	,429
	How familiar are you with different brands/models of smartphones?	,365	,000	.	,493
	Country image: Romania	,000	,429	,493	.
N	PEspR	72	72	72	72
	Product involvement: smartphones	72	72	72	72
	How familiar are you with different brands/models of smartphones?	72	72	72	72
	Country image: Romania	72	72	72	72

Table A27. Correlations table for multiple regression analysis: Smartphones from Romania

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,137 <sup>a</sup>	,019	-,010	1,39434	,019	,659	2	69	,521
2	,528 <sup>b</sup>	,279	,247	1,20382	,260	24,569	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones

b. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones, CIRomania

c. Dependent Variable: PEspR

Table A28. Model Summary table for multiple regression analysis: Smartphones from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,563	2	1,281	,659	,521 <sup>b</sup>
	Residual	134,148	69	1,944		
	Total	136,711	71			
2	Regression	38,167	3	12,722	8,779	,000 <sup>c</sup>
	Residual	98,544	68	1,449		
	Total	136,711	71			

a. Dependent Variable: PEspR

b. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones

c. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones, CIRomania

Table A29. ANOVA table for multiple regression analysis: Smartphones from Romania

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,984	,739		5,389	,000	2,509	5,459
	InvolvementSmartphones	-,154	,141	-,142	-1,094	,278	-,435	,127
	How familiar are you with different brands/models of smartphones?	,012	,102	,015	,112	,911	-,193	,216
2	(Constant)	1,819	,773		2,351	,022	,275	3,362
	InvolvementSmartphones	-,141	,122	-,130	-1,156	,252	-,384	,102
	How familiar are you with different brands/models of smartphones?	,008	,088	,011	,096	,924	-,168	,185
	CIRomania	,624	,126	,510	4,957	,000	,373	,875

a. Dependent Variable: PEspR

Table A30. Coefficients table for multiple regression analysis: Smartphones from Romania

## Appendix 17

### Multiple regression analysis: Smartphones from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEspS	4,6444	1,10580	72
InvolvementSmartphones	5,4722	1,27790	72
How familiar are you with different brands/models of smartphones?	4,26	1,760	72
CISwitzerland	5,3256	,82757	72

Table A31. Descriptive Statistics table for multiple regression analysis: Smartphones from Switzerland

**Correlations**

		PEspS	Product involvement: smartphones	How familiar are you with different brands/models of smartphones?	Country image: Switzerland
Pearson Correlation	PEspS	1,000	,138	-,109	,520
	Product involvement: smartphones	,138	1,000	,395	,163
	How familiar are you with different brands/models of smartphones?	-,109	,395	1,000	-,114
	Country image: Switzerland	,520	,163	-,114	1,000
Sig. (1-tailed)	PEspS	.	,124	,181	,000
	Product involvement: smartphones	,124	.	,000	,086
	How familiar are you with different brands/models of smartphones?	,181	,000	.	,171
	Country image: Switzerland	,000	,086	,171	.
N	PEspS	72	72	72	72
	Product involvement: smartphones	72	72	72	72
	How familiar are you with different brands/models of smartphones?	72	72	72	72
	Country image: Switzerland	72	72	72	72

Table A32. Correlations table for multiple regression analysis: Smartphones from Switzerland

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,225 <sup>a</sup>	,051	,023	1,09299	,051	1,836	2	69	,167
2	,529 <sup>b</sup>	,280	,248	,95878	,229	21,671	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones

b. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones, CISwitzerland

c. Dependent Variable: PEspS

Table A33. Model Summary table for multiple regression analysis: Smartphones from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,388	2	2,194	1,836	,167 <sup>b</sup>
	Residual	82,430	69	1,195		
	Total	86,818	71			
2	Regression	24,309	3	8,103	8,815	,000 <sup>c</sup>
	Residual	62,509	68	,919		
	Total	86,818	71			

a. Dependent Variable: PEspS

b. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones

c. Predictors: (Constant), How familiar are you with different brands/models of smartphones?, InvolvementSmartphones, CISwitzerland

Table A34. ANOVA table for multiple regression analysis: Smartphones from Switzerland

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4,149	,580		7,159	,000	2,993	5,305
	InvolvementSmartphones	,185	,110	,214	1,677	,098	-,035	,406
	How familiar are you with different brands/models of smartphones?	-,121	,080	-,193	-1,514	,134	-,281	,039
2	(Constant)	,923	,859		1,074	,287	-,792	2,638
	InvolvementSmartphones	,080	,100	,092	,803	,425	-,119	,278
	How familiar are you with different brands/models of smartphones?	-,056	,072	-,089	-,780	,438	-,199	,087
	CISwitzerland	,662	,142	,495	4,655	,000	,378	,945

a. Dependent Variable: PEspS

Table A35. Coefficients table for multiple regression analysis: Smartphones from Switzerland

## Appendix 18

### Multiple regression analysis: Toothpaste from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEtpR	3,5028	1,33089	72
InvolvementTP	3,5093	1,16546	72
How familiar are you with different brands/models of toothpaste?	3,67	1,644	72
CIRomania	3,3719	1,13498	72

Table A36. Descriptive Statistics table for multiple regression analysis: Toothpaste from Romania

**Correlations**

		PEtpR	Product involvement: toothpaste	How familiar are you with different brands/models of toothpaste?	Country image: Romania
Pearson Correlation	PEtpR	1,000	,106	-,052	,603
	Product involvement: toothpaste	,106	1,000	,163	,101
	How familiar are you with different brands/models of toothpaste?	-,052	,163	1,000	,019
	Country image: Romania	,603	,101	,019	1,000
Sig. (1-tailed)	PEtpR	.	,189	,331	,000
	Product involvement: toothpaste	,189	.	,085	,199
	How familiar are you with different brands/models of toothpaste?	,331	,085	.	,438
	Country image: Romania	,000	,199	,438	.
N	PEtpR	72	72	72	72
	Product involvement: toothpaste	72	72	72	72
	How familiar are you with different brands/models of toothpaste?	72	72	72	72
	Country image: Romania	72	72	72	72

Table A37. Correlations table for multiple regression analysis: Toothpaste from Romania

Model Summary <sup>c</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,127 <sup>a</sup>	,016	-,012	1,33910	,016	,566	2	69	,571
2	,609 <sup>b</sup>	,371	,343	1,07874	,355	38,326	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP

b. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP, CIRomania

c. Dependent Variable: PEtpR

Table A38. Model Summary table for multiple regression analysis: Toothpaste from Romania

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,029	2	1,014	,566	,571 <sup>b</sup>
	Residual	123,731	69	1,793		
	Total	125,759	71			
2	Regression	46,629	3	15,543	13,357	,000 <sup>c</sup>
	Residual	79,131	68	1,164		
	Total	125,759	71			

a. Dependent Variable: PEtpR

b. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP

c. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP, CIRomania

Table A39. ANOVA table for multiple regression analysis: Toothpaste from Romania

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,245	,576		5,629	,000	2,095	4,395
	InvolvementTP	,134	,138	,117	,969	,336	-,142	,410
	How familiar are you with different brands/models of toothpaste?	-,058	,098	-,071	-,591	,557	-,253	,138
2	(Constant)	1,124	,577		1,948	,056	-,027	2,276
	InvolvementTP	,065	,112	,057	,581	,563	-,158	,288
	How familiar are you with different brands/models of toothpaste?	-,059	,079	-,073	-,747	,458	-,216	,099
	CIRomania	,702	,113	,599	6,191	,000	,476	,928

a. Dependent Variable: PEtpR

Table A40. Coefficients table for multiple regression analysis: Toothpaste from Romania

## Appendix 19

### Multiple regression analysis: Toothpaste from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEtpS	4,6917	1,16180	72
InvolvementTP	3,5093	1,16546	72
How familiar are you with different brands/models of toothpaste?	3,67	1,644	72
CISwitzerland	5,3256	,82757	72

Table A41. Descriptive Statistics table for multiple regression analysis: Toothpaste from Switzerland

**Correlations**

		PEtpS	Product involvement: toothpaste	How familiar are you with different brands/models of toothpaste?	Country image: Switzerland
Pearson Correlation	PEtpS	1,000	,292	-,028	,600
	Product involvement: toothpaste	,292	1,000	,163	,146
	How familiar are you with different brands/models of toothpaste?	-,028	,163	1,000	-,066
	Country image: Switzerland	,600	,146	-,066	1,000
Sig. (1-tailed)	PEtpS	.	,006	,408	,000
	Product involvement: toothpaste	,006	.	,085	,110
	How familiar are you with different brands/models of toothpaste?	,408	,085	.	,290
	Country image: Switzerland	,000	,110	,290	.
N	PEtpS	72	72	72	72
	Product involvement: toothpaste	72	72	72	72
	How familiar are you with different brands/models of toothpaste?	72	72	72	72
	Country image: Switzerland	72	72	72	72

Table A42. Correlations table for multiple regression analysis: Toothpaste from Switzerland

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,302 <sup>a</sup>	,091	,065	1,12339	,091	3,469	2	69	,037
2	,635 <sup>b</sup>	,404	,377	,91666	,312	35,633	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP

b. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP, CISwitzerland

c. Dependent Variable: PEtpS

Table A43. Model Summary table for multiple regression analysis: Toothpaste from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8,756	2	4,378	3,469	,037 <sup>b</sup>
	Residual	87,079	69	1,262		
	Total	95,835	71			
2	Regression	38,697	3	12,899	15,351	,000 <sup>c</sup>
	Residual	57,138	68	,840		
	Total	95,835	71			

a. Dependent Variable: PEtpS

b. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP

c. Predictors: (Constant), How familiar are you with different brands/models of toothpaste?, InvolvementTP, CISwitzerland

Table A44. ANOVA table for multiple regression analysis: Toothpaste from Switzerland

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,826	,484		7,912	,000	2,861	4,791
	InvolvementTP	,304	,116	,305	2,623	,011	,073	,535
	How familiar are you with different brands/models of toothpaste?	-,055	,082	-,078	-,669	,506	-,219	,109
2	(Constant)	-,232	,786		-,295	,769	-1,801	1,336
	InvolvementTP	,213	,096	,213	2,220	,030	,021	,404
	How familiar are you with different brands/models of toothpaste?	-,018	,067	-,025	-,265	,792	-,152	,117
	CISwitzerland	,797	,133	,567	5,969	,000	,530	1,063

a. Dependent Variable: PEtpS

Table A45. Coefficients table for multiple regression analysis: Toothpaste from Switzerland

## Appendix 20

### Multiple regression analysis: Mattresses from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEmR	3,6833	1,20129	72
InvolvementMattresses	4,6296	1,32338	72
How familiar are you with different brands/models of mattresses?	2,60	1,318	72
CIRomania	3,3719	1,13498	72

Table A46. Descriptive Statistics table for multiple regression analysis: Mattresses from Romania

**Correlations**

		PEmR	Product involvement: mattresses	How familiar are you with different brands/models of mattresses?	Country image: Romania
Pearson Correlation	PEmR	1,000	,089	-,208	,617
	Product involvement: mattresses	,089	1,000	,123	,268
	How familiar are you with different brands/models of mattresses?	-,208	,123	1,000	-,092
	Country image: Romania	,617	,268	-,092	1,000
Sig. (1-tailed)	PEmR	.	,228	,040	,000
	Product involvement: mattresses	,228	.	,151	,011
	How familiar are you with different brands/models of mattresses?	,040	,151	.	,221
	Country image: Romania	,000	,011	,221	.
N	PEmR	72	72	72	72
	Product involvement: mattresses	72	72	72	72
	How familiar are you with different brands/models of mattresses?	72	72	72	72
	Country image: Romania	72	72	72	72

Table A47. Correlations table for multiple regression analysis: Mattresses from Romania

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,238 <sup>a</sup>	,057	,029	1,18352	,057	2,074	2	69	,133
2	,638 <sup>b</sup>	,407	,381	,94512	,350	40,200	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses

b. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses, CIRomania

c. Dependent Variable: PEmR

Table A48. Model Summary table for multiple regression analysis: Mattresses from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5,810	2	2,905	2,074	,133 <sup>b</sup>
	Residual	96,650	69	1,401		
	Total	102,460	71			
2	Regression	41,719	3	13,906	15,568	,000 <sup>c</sup>
	Residual	60,741	68	,893		
	Total	102,460	71			

a. Dependent Variable: PEmR

b. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses

c. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses, CIRomania

Table A49. ANOVA table for multiple regression analysis: Mattresses from Romania

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,719	,555		6,697	,000	2,611	4,827
	InvolvementMattresses	,106	,107	,117	,991	,325	-,107	,319
	How familiar are you with different brands/models of mattresses?	-,203	,107	-,222	-1,888	,063	-,417	,012
2	(Constant)	2,060	,515		4,002	,000	1,033	3,088
	InvolvementMattresses	-,054	,089	-,059	-,604	,548	-,232	,124
	How familiar are you with different brands/models of mattresses?	-,131	,087	-,144	-1,514	,135	-,304	,042
	CIRomania	,656	,103	,620	6,340	,000	,450	,863

a. Dependent Variable: PEmR

Table A50. Coefficients table for multiple regression analysis: Mattresses from Romania

## Appendix 21

### Multiple regression analysis: Mattresses from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEmS	4,8833	1,01967	72
InvolvementMattresses	4,6296	1,32338	72
How familiar are you with different brands/models of mattresses?	2,60	1,318	72
ClSwitzerland	5,3256	,82757	72

Table A51. Descriptive Statistics table for multiple regression analysis: Mattresses from Switzerland

**Correlations**

		PEmS	Product involvement: mattresses	How familiar are you with different brands/models of mattresses?	Country image: Switzerland
Pearson Correlation	PEmS	1,000	,334	-,182	,648
	Product involvement: mattresses	,334	1,000	,123	,228
	How familiar are you with different brands/models of mattresses?	-,182	,123	1,000	-,310
	Country image: Switzerland	,648	,228	-,310	1,000
Sig. (1-tailed)	PEmS	.	,002	,063	,000
	Product involvement: mattresses	,002	.	,151	,027
	How familiar are you with different brands/models of mattresses?	,063	,151	.	,004
	Country image: Switzerland	,000	,027	,004	.
N	PEmS	72	72	72	72
	Product involvement: mattresses	72	72	72	72
	How familiar are you with different brands/models of mattresses?	72	72	72	72
	Country image: Switzerland	72	72	72	72

Table A52. Correlations table for multiple regression analysis: Mattresses from Switzerland

Model Summary <sup>c</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,403 <sup>a</sup>	,162	,138	,94664	,162	6,688	2	69	,002
2	,676 <sup>b</sup>	,458	,434	,76741	,295	36,994	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses

b. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses, CISwitzerland

c. Dependent Variable: PEmS

Table A53. Model Summary table for multiple regression analysis: Mattresses from Switzerland

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11,987	2	5,993	6,688	,002 <sup>b</sup>
	Residual	61,833	69	,896		
	Total	73,820	71			
2	Regression	33,773	3	11,258	19,116	,000 <sup>c</sup>
	Residual	40,047	68	,589		
	Total	73,820	71			

a. Dependent Variable: PEmS

b. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses

c. Predictors: (Constant), How familiar are you with different brands/models of mattresses?, InvolvementMattresses, CISwitzerland

Table A54. ANOVA table for multiple regression analysis: Mattresses from Switzerland

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4,047	,444		9,112	,000	3,161	4,933
	InvolvementMattresses	,279	,086	,362	3,262	,002	,108	,450
	How familiar are you with different brands/models of mattresses?	-,175	,086	-,227	-2,043	,045	-,347	-,004
2	(Constant)	,302	,713		,424	,673	-1,121	1,726
	InvolvementMattresses	,155	,072	,201	2,145	,035	,011	,299
	How familiar are you with different brands/models of mattresses?	-,017	,074	-,022	-,233	,816	-,166	,131
	CISwitzerland	,734	,121	,596	6,082	,000	,493	,975

a. Dependent Variable: PEmS

Table A55. Coefficients table for multiple regression analysis: Mattresses from Switzerland

## Appendix 22

### Multiple regression analysis: Dusters from Romania

Descriptive Statistics			
	Mean	Std. Deviation	N
PEdR	4,0889	1,25727	72
InvolvementDusters	2,4398	1,16660	72
How familiar are you with different brands/models of dusters?	1,89	1,082	72
CIRomania	3,3719	1,13498	72

Table A56. Descriptive Statistics table for multiple regression analysis: Dusters from Romania

Correlations					
		PEdR	Product involvement: dusters	How familiar are you with different brands/models of dusters?	Country image: Romania
Pearson Correlation	PEdR	1,000	,253	-,073	,465
	Product involvement: dusters	,253	1,000	,207	,205
	How familiar are you with different brands/models of dusters?	-,073	,207	1,000	-,070
	Country image: Romania	,465	,205	-,070	1,000
Sig. (1-tailed)	PEdR	.	,016	,270	,000
	Product involvement: dusters	,016	.	,041	,042
	How familiar are you with different brands/models of dusters?	,270	,041	.	,278
	Country image: Romania	,000	,042	,278	.
N	PEdR	72	72	72	72
	Product involvement: dusters	72	72	72	72
	How familiar are you with different brands/models of dusters?	72	72	72	72
	Country image: Romania	72	72	72	72

Table A57. Correlations table for multiple regression analysis: Dusters from Romania

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,284 <sup>a</sup>	,081	,054	1,22280	,081	3,029	2	69	,055
2	,499 <sup>b</sup>	,249	,215	1,11362	,168	15,193	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters

b. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters, CIRomania

c. Dependent Variable: PEdR

Table A58. Model Summary table for multiple regression analysis: Dusters from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,059	2	4,529	3,029	,055 <sup>b</sup>
	Residual	103,172	69	1,495		
	Total	112,231	71			
2	Regression	27,901	3	9,300	7,499	,000 <sup>c</sup>
	Residual	84,331	68	1,240		
	Total	112,231	71			

a. Dependent Variable: PEdR

b. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters

c. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters, CIRomania

Table A59. ANOVA table for multiple regression analysis: Dusters from Romania

Coefficients <sup>a</sup>								
		Unstandardized		Standardized			95,0% Confidence Interval	
		Coefficients		Coefficients			for B	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	3,640	,388		9,371	,000	2,865	4,414
	InvolvementDusters	,302	,127	,281	2,378	,020	,049	,556
	How familiar are you with different brands/models of dusters?	-,153	,137	-,131	-1,114	,269	-,426	,121
2	(Constant)	2,210	,510		4,338	,000	1,193	3,227
	InvolvementDusters	,198	,119	,184	1,668	,100	-,039	,435
	How familiar are you with different brands/models of dusters?	-,095	,126	-,082	-,755	,453	-,346	,156
	CIRomania	,467	,120	,422	3,898	,000	,228	,706

a. Dependent Variable: PEdR

Table A60. Correlations table for multiple regression analysis: Dusters from Romania

## Appendix 23

### Multiple regression analysis: Dusters from Switzerland

Descriptive Statistics			
	Mean	Std. Deviation	N
PEdS	4,6250	1,00642	72
InvolvementDusters	2,4398	1,16660	72
How familiar are you with different brands/models of dusters?	1,89	1,082	72
CISwitzerland	5,3256	,82757	72

Table A61. Descriptive Statistics table for multiple regression analysis: Dusters from Switzerland

Correlations					
		PEdS	Product involvement: dusters	How familiar are you with different brands/models of dusters?	Country image: Switzerland
Pearson Correlation	PEdS	1,000	,345	-,116	,556
	Product involvement: dusters	,345	1,000	,207	,124
	How familiar are you with different brands/models of dusters?	-,116	,207	1,000	-,237
	Country image: Switzerland	,556	,124	-,237	1,000
Sig. (1-tailed)	PEdS	.	,002	,165	,000
	Product involvement: dusters	,002	.	,041	,151
	How familiar are you with different brands/models of dusters?	,165	,041	.	,023
	Country image: Switzerland	,000	,151	,023	.
N	PEdS	72	72	72	72
	Product involvement: dusters	72	72	72	72
	How familiar are you with different brands/models of dusters?	72	72	72	72
	Country image: Switzerland	72	72	72	72

Table A62. Correlations table for multiple regression analysis: Dusters from Switzerland

Model Summary <sup>c</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,395 <sup>a</sup>	,156	,131	,93809	,156	6,361	2	69	,003
2	,624 <sup>b</sup>	,389	,362	,80378	,233	25,986	1	68	,000

a. Predictors: (Constant), How familiar are you with different brands/models of dusters?, Product involvement: dusters

b. Predictors: (Constant), How familiar are you with different brands/models of dusters?, Product involvement: dusters, Country image: Switzerland

c. Dependent Variable: PEdS

Table A63. Model Summary table for multiple regression analysis: Dusters from Switzerland

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11,195	2	5,597	6,361	,003 <sup>b</sup>
	Residual	60,720	69	,880		
	Total	71,915	71			
2	Regression	27,983	3	9,328	14,438	,000 <sup>c</sup>
	Residual	43,932	68	,646		
	Total	71,915	71			

a. Dependent Variable: PEdS

b. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters

c. Predictors: (Constant), How familiar are you with different brands/models of dusters?, InvolvementDusters, CISwitzerland

Table A64. ANOVA table for multiple regression analysis: Dusters from Switzerland

Coefficients <sup>a</sup>								
		Unstandardized		Standardized			95,0% Confidence Interval	
		Coefficients		Coefficients			for B	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	4,158	,298		13,957	,000	3,564	4,753
	InvolvementDusters	,332	,098	,385	3,408	,001	,138	,527
	How familiar are you with different brands/models of dusters?	-,182	,105	-,196	-1,734	,087	-,392	,027
2	(Constant)	,831	,701		1,186	,240	-,567	2,230
	InvolvementDusters	,254	,085	,294	2,986	,004	,084	,423
	How familiar are you with different brands/models of dusters?	-,053	,094	-,057	-,570	,570	-,240	,133
	CISwitzerland	,615	,121	,506	5,098	,000	,374	,856

a. Dependent Variable: PEdS

Table A65. Coefficients table for multiple regression analysis: Dusters from Switzerland

## Appendix 24

### Simple regression analysis: Smartphones from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEspR	3,1889	1,38763	72
CIRomania	3,3719	1,13498	72

Table A66. Descriptive Statistics table from simple regression analysis: Smartphones from Romania

**Correlations**

		PEspR	CIRomania
Pearson Correlation	PEspR	1,000	,513
	CIRomania	,513	1,000
Sig. (1-tailed)	PEspR	.	,000
	CIRomania	,000	.
N	PEspR	72	72
	CIRomania	72	72

Table A67. Correlations table from simple regression analysis: Smartphones from Romania

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,513 <sup>a</sup>	,263	,253	1,19943	,263	25,028	1	70	,000

a. Predictors: (Constant), CIRomania

b. Dependent Variable: PEspR

Table A68. Model Summary table from simple regression analysis: Smartphones from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36,007	1	36,007	25,028	,000 <sup>b</sup>
	Residual	100,704	70	1,439		
	Total	136,711	71			

a. Dependent Variable: PEspR

b. Predictors: (Constant), CIRomania

Table A69. ANOVA table from simple regression analysis: Smartphones from Romania

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1,073	,446		2,407	,019	,184	1,963
CIRomania	,627	,125	,513	5,003	,000	,377	,878

a. Dependent Variable: PEspR

Table A70. Coefficients table from simple regression analysis: Smartphones from Romania

## Appendix 25

### Simple regression analysis: Smartphones from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEspS	4,6444	1,10580	72
CISwitzerland	5,3256	,82757	72

Table A71. Descriptive Statistics table from simple regression analysis: Smartphones from Switzerland

**Correlations**

		PEspS	CISwitzerland
Pearson Correlation	PEspS	1,000	,520
	CISwitzerland	,520	1,000
Sig. (1-tailed)	PEspS	.	,000
	CISwitzerland	,000	.
N	PEspS	72	72
	CISwitzerland	72	72

Table A72. Correlations table from simple regression analysis: Smartphones from Switzerland

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,520 <sup>a</sup>	,271	,260	,95109	,271	25,977	1	70	,000

a. Predictors: (Constant), CISwitzerland

b. Dependent Variable: PEspS

Table A73. Model Summary table from simple regression analysis: Smartphones from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23,498	1	23,498	25,977	,000 <sup>b</sup>
	Residual	63,320	70	,905		
	Total	86,818	71			

a. Dependent Variable: PEspS

b. Predictors: (Constant), CISwitzerland

Table A74. ANOVA table from simple regression analysis: Smartphones from Switzerland

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	,942	,735		1,282	,204	-,524	2,408
CISwitzerland	,695	,136	,520	5,097	,000	,423	,967

a. Dependent Variable: PEspS

Table A75. Coefficients table from simple regression analysis: Smartphones from Switzerland

## Appendix 26

### Simple regression analysis: Toothpaste from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEtpR	3,5028	1,33089	72
CIRomania	3,3719	1,13498	72

Table A76. Descriptive Statistics table from simple regression analysis: Toothpaste from Romania

**Correlations**

		PEtpR	CIRomania
Pearson Correlation	PEtpR	1,000	,603
	CIRomania	,603	1,000
Sig. (1-tailed)	PEtpR	.	,000
	CIRomania	,000	.
N	PEtpR	72	72
	CIRomania	72	72

Table A77. Correlations table from simple regression analysis: Toothpaste from Romania

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,603 <sup>a</sup>	,364	,355	1,06926	,364	39,995	1	70	,000

a. Predictors: (Constant), CIRomania

b. Dependent Variable: PEtpR

Table A78. Model Summary table from simple regression analysis: Toothpaste from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45,727	1	45,727	39,995	,000 <sup>b</sup>
	Residual	80,033	70	1,143		
	Total	125,759	71			

a. Dependent Variable: PEtpR

b. Predictors: (Constant), CIRomania

Table A79. ANOVA table from simple regression analysis: Toothpaste from Romania

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1,119	,398		2,814	,006	,326	1,911
CIRomania	,707	,112	,603	6,324	,000	,484	,930

a. Dependent Variable: PEtpR

Table A80. Descriptive Statistics table from simple regression analysis: Toothpaste from Romania

## Appendix 27

### Simple regression analysis: Toothpaste from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEtpS	4,6917	1,16180	72
CISwitzerland	5,3256	,82757	72

Table A81. Descriptive Statistics table from simple regression analysis: Toothpaste from Switzerland

**Correlations**

		PEtpS	CISwitzerland
Pearson Correlation	PEtpS	1,000	,600
	CISwitzerland	,600	1,000
Sig. (1-tailed)	PEtpS	.	,000
	CISwitzerland	,000	.
N	PEtpS	72	72
	CISwitzerland	72	72

Table A82. Correlations table from simple regression analysis: Toothpaste from Switzerland

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,600 <sup>a</sup>	,360	,351	,93573	,360	39,452	1	70	,000

a. Predictors: (Constant), CISwitzerland

b. Dependent Variable: PEtpS

Table A83. Model Summary table from simple regression analysis: Toothpaste from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34,544	1	34,544	39,452	,000 <sup>b</sup>
	Residual	61,291	70	,876		
	Total	95,835	71			

a. Dependent Variable: PEtpS

b. Predictors: (Constant), CISwitzerland

Table A84. ANOVA table from simple regression analysis: Toothpaste from Switzerland

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	,203	,723		,281	,780	-1,239	1,645
CISwitzerland	,843	,134	,600	6,281	,000	,575	1,110

a. Dependent Variable: PEtpS

Table A85. Coefficients table from simple regression analysis: Toothpaste from Switzerland

## Appendix 28

### Simple regression analysis: Mattresses from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEmR	3,6833	1,20129	72
CIRomania	3,3719	1,13498	72

Table A86. Descriptive Statistics table from simple regression analysis: Mattresses from Romania

**Correlations**

		PEmR	CIRomania
Pearson Correlation	PEmR	1,000	,617
	CIRomania	,617	1,000
Sig. (1-tailed)	PEmR	.	,000
	CIRomania	,000	.
N	PEmR	72	72
	CIRomania	72	72

Table A87. Correlations table from simple regression analysis: Mattresses from Romania

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,617 <sup>a</sup>	,381	,372	,95192	,381	43,071	1	70	,000

a. Predictors: (Constant), CIRomania

b. Dependent Variable: PEmR

Table A88. Model Summary table from simple regression analysis: Mattresses from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39,029	1	39,029	43,071	,000 <sup>b</sup>
	Residual	63,431	70	,906		
	Total	102,460	71			

a. Dependent Variable: PEmR

b. Predictors: (Constant), CIRomania

Table A89. ANOVA table from simple regression analysis: Mattresses from Romania

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1,481	,354		4,184	,000	,775	2,186
CIRomania	,653	,100	,617	6,563	,000	,455	,852

a. Dependent Variable: PEmR

Table A90. Descriptive Statistics table from simple regression analysis: Mattresses from Romania

## Appendix 29

### Simple regression analysis: Mattresses from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEmS	4,8833	1,01967	72
CISwitzerland	5,3256	,82757	72

Table A91. Descriptive Statistics table from simple regression analysis: Mattresses from Switzerland

**Correlations**

		PEmS	CISwitzerland
Pearson Correlation	PEmS	1,000	,648
	CISwitzerland	,648	1,000
Sig. (1-tailed)	PEmS	.	,000
	CISwitzerland	,000	.
N	PEmS	72	72
	CISwitzerland	72	72

Table A92. Coefficients table from simple regression analysis: Mattresses from Switzerland

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,648 <sup>a</sup>	,420	,412	,78181	,420	50,773	1	70	,000

a. Predictors: (Constant), CISwitzerland

b. Dependent Variable: PEmS

Table A93. Model Summary table from simple regression analysis: Mattresses from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,034	1	31,034	50,773	,000 <sup>b</sup>
	Residual	42,786	70	,611		
	Total	73,820	71			

a. Dependent Variable: PEmS

b. Predictors: (Constant), CISwitzerland

Table A94. ANOVA table from simple regression analysis: Mattresses from Switzerland

Coefficients <sup>a</sup>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B
		B	Std. Error	Beta			Lower Bound Upper Bound
1	(Constant)	,629	,604		1,041	,302	-,576 1,834
	CISwitzerland	,799	,112	,648	7,126	,000	,575 1,022

a. Dependent Variable: PEmS

Table A95. Correlations table from simple regression analysis: Mattresses from Switzerland

## Appendix 30

### Simple regression analysis: Dusters from Romania

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEdR	4,0889	1,25727	72
CIRomania	3,3719	1,13498	72

Table A96. Descriptive Statistics table from simple regression analysis: Dusters from Romania

**Correlations**

		PEdR	CIRomania
Pearson Correlation	PEdR	1,000	,465
	CIRomania	,465	1,000
Sig. (1-tailed)	PEdR	.	,000
	CIRomania	,000	.
N	PEdR	72	72
	CIRomania	72	72

Table A97. Correlations table from simple regression analysis: Dusters from Romania

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,465 <sup>a</sup>	,216	,205	1,12101	,216	19,308	1	70	,000

a. Predictors: (Constant), CIRomania

b. Dependent Variable: PEdR

Table A98. Model Summary table from simple regression analysis: Dusters from Romania

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24,264	1	24,264	19,308	,000 <sup>b</sup>
	Residual	87,967	70	1,257		
	Total	112,231	71			

a. Dependent Variable: PEdR

b. Predictors: (Constant), CIRomania

Table A99. ANOVA table from simple regression analysis: Dusters from Romania

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2,352	,417		5,644	,000	1,521	3,183
CIRomania	,515	,117	,465	4,394	,000	,281	,749

a. Dependent Variable: PEdR

Table A100. Coefficients table from simple regression analysis: Dusters from Romania

## Appendix 31

### Simple regression analysis: Dusters from Switzerland

**Descriptive Statistics**

	Mean	Std. Deviation	N
PEdS	4,6250	1,00642	72
CISwitzerland	5,3256	,82757	72

Table A101. Descriptive Statistics table from simple regression analysis: Dusters from Switzerland

**Correlations**

		PEdS	CISwitzerland
Pearson Correlation	PEdS	1,000	,556
	CISwitzerland	,556	1,000
Sig. (1-tailed)	PEdS	.	,000
	CISwitzerland	,000	.
N	PEdS	72	72
	CISwitzerland	72	72

Table A102. Correlations table from simple regression analysis: Dusters from Switzerland

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,556 <sup>a</sup>	,309	,299	,84271	,309	31,266	1	70	,000

a. Predictors: (Constant), CISwitzerland

b. Dependent Variable: PEdS

Table A103. Model Summary table from simple regression analysis: Dusters from Switzerland

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22,204	1	22,204	31,266	,000 <sup>b</sup>
	Residual	49,711	70	,710		
	Total	71,915	71			

a. Dependent Variable: PEdS

b. Predictors: (Constant), CISwitzerland

Table A102. ANOVA table from simple regression analysis: Dusters from Switzerland

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1,026	,651		1,576	,120	-,273	2,325
CISwitzerland	,676	,121	,556	5,592	,000	,435	,917

a. Dependent Variable: PEdS

Table A103. Coefficients table from simple regression analysis: Dusters from Switzerland

## Appendix 32

### Mean effect sizes for selected COO study characteristics

**TABLE 2**  
**Mean Effect Sizes for Selected COO Study Characteristics**

Study Characteristic	Quality/Reliability Perception			Probability	Intention to Purchase			Probability
	$\bar{X}$	SD	N		$\bar{X}$	SD	N	
Research Design				.05				.55
Within-subject	.30	.24	797		.19	.23	545	
Between-subject	.26	.25	167		.15	.27	11	
Type of Respondent				.44				.00
Students	.28	.24	139		.05	.05	218	
Consumers	.30	.25	704		.28	.32	129	
Businesspeople	.32	.21	122		.28	.22	209	
Study Cues				.00				.03
Single cue	.30	.25	919		.19	.23	546	
Multiple cues	.16	.16	45		.03	.03	11	
Sample Size								.00
Less than 260	.28	.24	577	.00	.16	.21	411	
260 or more	.32	.26	387		.27	.26	145	
Stimulus Context				.00				.02
Paper and pencil	.32	.25	851		.19	.23	546	
Stimulus present	.14	.18	113		.02	.01	10	
Country of Stimulus				.00				.72
Includes respondents' country	.34	.27	256		.20	.28	108	
Does not include respondents' country	.28	.24	708		.19	.22	448	
Source of Respondents				.00				-
One country	.30	.25	928		.19	.23	556	
More than one country	.17	.18	36		-	-	-	
Number of Countries Studied				.96				.00
Ten or less	.30	.25	566		.14	.23	347	
More than ten	.30	.23	398		.28	.22	209	
Respondent Nationality				.24				.05
U.S.	.31	.26	311		.21	.26	271	
Non U.S.	.29	.24	640		.17	.20	285	
Stimulus Product Level				.86				.17
General	.29	.22	311		.22	.22	93	
Category	.30	.26	653		.18	.23	463	
Stimulus Product Type				.53				.00
Industrial	.28	.20	57		.32	.20	116	
Consumer	.30	.26	750		.14	.23	347	
Both/mixed	.28	.20	157		.22	.22	93	
Stimulus Product Kind				.55				.00
Durable	.30	.27	518		.20	.24	402	
Nondurable	.28	.20	114		.07	.10	61	
Not defined/mixed	.29	.23	332		.22	.22	93	
Mode of Data Collection				.00				.00
Self-administered	.32	.24	827		.18	.22	535	
Other-administered	.17	.23	137		.47	.36	21	
Year of Study				.00				.00
Before 1980	.27	.22	130		.35	.16	16	
1980 – 1989	.29	.24	791		.29	.24	255	
After 1990	.45	.31	43		.09	.18	285	
Study Context				.20				.00
Laboratory	.28	.21	193		.15	.18	341	
Field	.30	.25	771		.26	.28	215	

(Peterson & Jolibert, 1995)