UNIVERSITY OF LJUBLJANA
FACULTY OF ECONOMICS

MASTER'S THESIS

# AN ANALYSIS OF CELL PHONE BRAND ORIGIN RECOGNITION ACCURACY IN SLOVENIA

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# AUTHORSHIP STATEMENT

The undersigned Tina Zajc, a student at the University of Ljubljana, Faculty of Economics, (hereafter: FELU), author of this written final work of studies with the title An Analysis Of Cell Phone Brand Origin Recognition Accuracy In Slovenia, prepared under supervision of Professor Irena Vida, Ph.D.

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# INTRODUCTION

Endless changes in technology allow for the geographical extension of the market, resulting in new foreign players. Increased supply, together with mass media, has exposed local consumers to a broader variety of foreign products and provided them with greater choice (Kalicharan, 2014). Globalization leads to many positive advantages, such as speed, flexibility, and cost savings. This is best reflected in the departments for research and development (hereinafter: R&D), procurement, production, marketing, and distribution. A globally organized R&D department enables the simplification of the product portfolio, quick responses to market requirements, and higher efficiency through joint cooperation. Sourcing on a global scale helps companies adapt to market changes quickly and adjust their purchases of raw materials. Production for global markets requires large volumes, which results in economies of scale and thus lower costs. Global marketing enables companies to limit their budget expenses with the cost-effective use of global media and adapt to different markets by sharing knowledge and experience. Distribution gets simplified, since products or services must be promptly available anywhere in the world. However, this also requires that all international companies must be linked to all markets in which they are present, regardless of the country-of-origin (Coomber, 2002, p.41).

On the other hand, such a brisk pace of globalization makes it impossible for companies to become accustomed to rapid changes and increases in volume based on the demand. They face this challenge by looking into all the traits that impact the consumer's perception of the product (Silvakumar, 2008). Not long ago brands were purely local, as the consumer's needs were limited to national borders. Nowadays, neither brands nor companies can be limited by borders. The products are unlikely to be just typically German or French in character, they would be considered European or even as the products without exact origin (Coomber, 2002, p.40).

Both intrinsic and extrinsic cues help shape consumers' product evaluation. Intrinsic cues embody a product's inherent features, which cannot be changed without altering its physical characteristics, such as taste, design, and performance. They are also harder to access before purchasing, which results in consumers' obligation to depend on extrinsic cues when making a judgment about a product (Bredahl, 2004). Extrinsic cues are features that are associated with the product, but external to its physical form, such as the country-of-origin, the brand name, or the price. Among these this thesis will focus on country-of-origin, since it not only impacts consumers' evaluations of a product, but it also serves as an indication of product quality, determines consumers' perceptions of risk and value, and directly influences the probability of purchase (Koschate-Fischer, Diamantopoulos, & Oldenkotte, 2012).

Companies operating on a global scale deal with complex structures, since they must supply and produce their parts from different locations (Tjiptono & Rakotondrainibe, 2016).

Modern manufacturing processes involve several countries, which makes it harder to distinguish their true country-of-origin. Products are usually designed in one country, manufactured in another, and assembled in yet a third (Lim & O'Cass, 2001). From this perspective the origin of a brand might be the only permanent information about the product (Martín & Cerviño, 2011, p.532). The term country-of-origin identifies the home country of the product, while the phrase made-in usually refers to the country where the product is produced. Some authors (Kim, 2006; Fong, Lee, & Du, 2014) also use the term "designed-in-country" to highlight the country in which the finished product was designed. Consequently, consumers find it difficult to distinguish the correct country-of-origin.

The concept of brand origin recognition accuracy (hereinafter: BORA) was found by Samiee, Shimp, and Sharma (2005), as they wanted to validate how the perceived origin of brand influences consumers' attitudes and purchase intention. Some consumers find brand origin to be extremely important information during their purchase decision. However, in many cases brand origin is not vital, especially when it comes to purchasing large quantities of products and when products are reasonably priced. With this in mind, I can assume that consumers' attained BORA scores for low-cost products are quite low. On the other hand, high-cost products, for example cell phones, will likely reach higher BORA scores, as their purchase decision is given a more thorough thought.

The essence of the concept BORA is to determine the reason why people admire or dislike brand origination from certain countries. In some cases, consumers themselves identify the brand origin, even if they are not extremely attentive. In the category of consumer electronics it is often important to choose a reputable origin, as the brand provides additional information about the quality of products and related services (Samiee et al., 2005). This thesis will examine whether Slovenian consumers are able to correctly identify where well-known cell phone brands originated from (Samiee et al., 2005; Almani, Pournaserani, & Pournaserani, 2011). I will assess the consumers' brand origin recognition of 18 cell phone brands from 11 countries. The common belief within origin research is that the applicable unit is the country. Yet, consumers may also distinguish origin units based on regional categorizations (Diamantopoulos, Herz, & Koschate-Fischer, 2017). Therefore, in the post hoc analysis, the brands origins will be divided into three regions, namely American ($BORA_{AM}$), Asian ($BORA_{AS}$), and European ($BORA_{EU}$).

The key **research problem** of this thesis is to determine the level of BORA of Slovenian consumers based on previous studies, and the result that these aspects have on the recognition of brands' true origin in the cell phone industry. The country market included in this thesis, Slovenia, has at some point offered all of the above cell phone brands on its marketplace and the majority of them are still used by Slovenian consumers nowadays. Due to a small market and a lack of domestic cell phone providers, European (Finland, France, Germany, the Netherlands, and Sweden) brands will be considered local, while American (Canada, USA) and Asian (China, Japan, South Korea and Taiwan) brands will be

considered foreign. The European Union (hereinafter: EU) is a unit, where countries within the EU are regularly considered a group in consumers' minds (Diamantopoulos et al., 2017). The empirical study will test the hypothesized relations. It will reveal if consumers' BORA is related to educational level, income, cosmopolitanism, age, gender, and daily Internet usage.

The **purpose** of this master's thesis is to examine the accuracy of consumer recognition of brand origin in the Slovenian cell phone market. Firstly, I will determine respondents' general BORA scores, and latter divide it to local (European) and foreign (American, Asian) brands, which will show the proportion of brand origins that they have correctly identified. By using explicit origin cues in relation to a brand, brand companies exploit consumers' attitudes and emotive implications in connection to that origin, planning to extend these implications over to the brand. In succession, consumers use accessible origin information to appraise the brand features and accordingly form their opinions regarding the brands (Diamantopoulos et al., 2017).

Education level and net household monthly income variables will indicate if more educated and higher-income consumers demonstrate higher BORA scores (Almani et al., 2011, p.364). Consumers' cosmopolitanism will be determined based on their agreement with statements regarding people from foreign countries and cultures (Cleveland, Laroche, & Papasopoulos, 2009). Additionally, I will test whether demographics, such as age and gender, influence brand origin recognition (Samiee et al., 2005, p. 386; Almani et al., 2011, p.366). Furthermore, I will presume that more frequent users of the Internet will have higher BORA scores, due to the fact that the Internet is a source of information that consumers use to gain information even if they have never come across certain brands before (Almani et al., 2011, p.366).

The **objectives** of this empirical research are as follows:

1. To determine respondents' BORA scores.
2. To examine the effects of respondents' socio-demographic characteristics in Slovenia on their level of BORA scores.
3. To determine respondents' cosmopolitanism level.
4. To empirically test whether cosmopolitanism has any effect on brand origin recognition of cell phone brands.
5. To test whether the use of Internet affects BORA scores.

The **secondary literature** (Lim et al., 2001; Samiee et al., 2005; Almani et al., 2011; Souiden, Pons, & Mayrand, 2011; Koschate-Fischer et al., 2012) has shown that country-of-origin information does significantly impact product evaluation and buying behavior, yet recently the opposite perception has emerged, implying that country-of-origin effects have been exaggerated in prior studies and even that the concept of country-of-origin has become

irrelevant (Samiee, 2010). With that in mind this thesis' intention is to **empirically** test, using a survey methodology, whether respondents' education level, income, cosmopolitanism, demographics, and level of Internet usage influences how well they recognize cell phone brand origin.

The **first chapter** describes the most important concepts learned from the reviewed literature. Firstly, it describes the theory of brand origin, and then continues with the definition of country-of-origin, brand origin, and the difference between the two. Definitions are followed by an overview of the cell phone industry, both globally and in Slovenia. Additionally, it reviews all of the mentioned regions and correlated brands. The following, **second chapter**, tackles BORA's definition and influencing factors.

The **third chapter** covers the observed study of BORA in Slovenia. This chapter shows the conceptual model and describes research hypotheses, which are supported by related literature. Next segment covers methodology, which contains concept measures, questionnaire design and sampling. For a better overview of the measurement tools used, this section portrays every part of the questionnaire. The last subchapter covers the data analysis, where sample characteristics, means and frequencies, and BORA scores are outlined and illustrated. This is followed by an analysis of the relationship between the variables, in order to test hypotheses.

The final, **fourth chapter**, sums up the results of the study, in addition to limitations and proposals for further research. Next, the results of tested hypotheses are presented in the same conceptual model as in the third chapter. This is followed by an overview of the results, which show the clarification of the final outcome and potential reasons for that exact conclusion.

# 1 BRAND ORIGIN

## 1.1 The concept of country-of-origin and brand origin

### 1.1.1 Defining country-of-origin

Not all of the extant literature regarding country-of-origin (hereinafter: COO) emphasizes how intrinsic and extrinsic product cues serve to reinforce or dilute the brand origin. The majority of the literature focuses on how country name and brand name impact product assessments, or how brand name and origin are often mistaken, instead of focusing on how intrinsic and extrinsic product cues help to strengthen or weaken the origin–product associations (Spielmann, 2015, p. 24). Martín and Cerviño (2011, p. 537) define COO as an extrinsic informational cue that is subjective to individual consumers and used for the categorization of a brand or a product. Consumers assign a brand to a country and, then later, they evaluate its unknown characteristics.

COO effects function as an indication of product quality, since it changes consumers' assessments of risk and value, and directly influences the probability of a purchase (Koschate-Fischer et al., 2012, p. 19). Al-Sulaiti and Barker (1998, p. 150) describe COO effects as intangible obstacles for entering new markets and as a negative consumer tendency regarding imported products. COO has also been described as the country from which a product or a brand originates and where the corporate headquarters of the company are located (Lim & O'Cass, 2011, pp. 122-123).

Fong et al. (2014, p. 24) mention that the globalization of value activity has furthered the division of the global COO concept into country-of-design (hereinafter: COD), country-of-manufacture (hereinafter: COM), and country-of-brand (hereinafter: COB). These several different classifications make it possible to conceal the COO (Kim, 2006). One of the most common reasons for obscuring COO is a negative bias. As found by Lim and O'Cass (2011, pp. 122-123), consumer preference of COO differs from one country to another. Consumers find purchase of foreign products and products from emerging countries riskier in comparison to local products, due to estimated poor quality, opposition towards that country's government, and adverse media representation (Dinnie, 2016, p. 99). These assumptions are based on the economic, social, cultural, historical, and political systems of the source countries, as products from developed economies are perceived to be more superior to products from undeveloped and developing countries (Spielmann, 2015, p. 23).

COO designates the country the product is "made-in", which may or may not coincide with the home country or the brand origin (Koschate-Fischer et al., 2012, p. 20). Relative to a product, the term COO identifies the origin country of a product, while the phrase made-in, indicates the country where it was produced as well as represented by the made-in label on the product (Kim, 2006, p. 127). Elliott and Cameron (1994, p. 51) found that consumers might be biased when evaluating products from various countries, especially being in favor of home country products. Also, products made in developed countries generally hold a positive correlation with product evaluations.

COO has traditionally involved only one country, but in the modern marketplace products are designed, manufactured, and assembled in several countries. So-called "hybrid products" might include more than one COO, due to the fluctuating strategies of global corporations. Their growth has caused that product components come from numerous source countries, which counteracts the accuracy or legitimacy of "made-in" labels (Al-Sulaiti & Barker, 1998, p. 150). As hybrid products became more common in the global marketplace, consumers find it difficult to attain accurate COO information, since nowadays companies choose which county represents their true COO (Lim & O'Cass, 2001, pp. 122-123). Hybrid products can relate to any of the participating countries or part themselves if they wish (Kim, 2006, p. 130). Usunier (2011, p. 487) states that manufacturing origin has turned out to be mostly insignificant, and brands have gradually set a trend in indicating product origin. COO is now generally associated with brand origin perception, in cases where there might be a

lack of other either intrinsic or extrinsic cues, which consumers might require for origin-based evaluations.

### 1.1.2 Defining brand origin

The concept of brand origin differs from the previously mentioned constructs such as COO, COD, COM, and COB, because they are affected by the product. On the other hand, brand origin never changes, no matter if the assembly location of the company relocates. This leads to the conclusion that brand origin might not correspond to "made-in" labels on products, as it is possibly the only permanent information about a product (Tjiptono & Rakotondrainibe, 2016). Various definitions have been adopted in the study of brand origin. Thakor (1996, p. 27) defines it as the place, region, or country to which the brand is perceived to belong by its target consumers. Similar descriptions are found both by Samiee (1994, p. 581) as well as Martín and Cerviño (2011, p. 532), who define brand origin as the country where the brand originated and from which it takes its personality, regardless of where it is manufactured or the corporate headquarters of the brand's parent firm are located.

Brand origin perception can differ from reality due to unawareness, insignificance of origin information for a specific brand, or purposeful misperception done by companies which are worried how consumers will react to an undesirable origin (Thakor, 1996). Thakor (1996, p.28) describes an example where "telling experimental subjects that a Samsung sound system or Toyota car was assembled in one or the other country may not stop them continuing to regard them as a Korean or Japanese brand". He continues with the claim that "there is such a thing as a "default" origin for a brand, based on where the manufacturer of the brand first started business. Brands like Honda and Toyota are widely regarded as Japanese, which requires their using images of American plants, workers and suppliers in order to lay claim to a "naturalized" status" (Thakor, 1996, p.36).

The BORA concept was first introduced by Samiee et al. (2005) with the purpose of examining how brand origin affects consumers' attitudes and purchase intentions. BORA determines respondents' capability to recognize renowned global brands from foreign countries with presence in the relevant country's market (usually domestic). If the country in question is emerging or is not identified as belonging to this product category, foreign brands have a tendency to be more desirable and, as they have a global reputation, they are more expensive and exclusive which showcases inferiority (Tjiptono & Rakotondrainibe, 2016). On the other hand, Samiee et al. (2005) have found that respondents tend to accurately identify local brands better than foreign ones, due to their accessibility, affordability, and local media influence. Generally, local brands are better represented within their local market, as they are easily accessible to both retailers and suppliers, therefore consumers might have had more experience with them, which consecutively improves accurate brand identification (Martín & Cerviño, 2011).

Almani et al. (2011) describe four possible scenarios relating to BORA detection. First, consumers who perceive products' brand origin country as a significant determinant for purchase will inquire about the accurate origin if they cannot recall it from their memory. Another viewpoint, which is in contrast to the majority of COO and brand origin literature, claims that consumers are unaware of brand origins, meaning that this information is not related to their brand preference. This outlook can be supported when BORA scores are low. The third prospect is that consumers inaccurately identify the brands' origin, which affects their purchase decision. This can be deliberately communicated in order to associate the brand to a desirable source country. For example, LG and HTC probably used acronyms as their brand name in order to mask their Korean and Taiwanese origins, which were not reputable when these brands first entered the global market (Usunier, 2011, p. 489). In this case such communication could indicate false associations and misleading consumers in their purchase decisions. The last scenario is when consumers relate the brand with multiple origin countries. Lately, due to globalization, companies outsource their production processes to foreign countries, which can baffle consumers and make them unable to distinguish the accurate origin (Tjiptono & Rakotondrainibe, 2016).

### 1.1.3 Difference between country-of-origin and brand origin

Thakor (1996, p. 27) made a partition between brand origin and COO, claiming that brand origin is a country of company establishment which cannot be altered, while on the other hand COO, defined by Martín and Cerviño (2011, p.532) is the country to which the company is linked, where the product is made-in, as well as where the brand's headquarters are situated. Several studies (Lim & O'Cass, 2001; Thakor & Lavack, 2003; Samiee et al., 2005; Usunier, 2011) showed that brand origin has a considerably higher significance on consumer brand assessment than COO. The main reason for this claim is the complexity of international supply chain management, initiated by economies of scale, where consumers are uncertain which is the COO or COM. Therefore, this notion does not affect consumers' evaluation of product quality and purchase behavior as much as brand origin does (Usunier, 2011, p. 486). Tjiptono and Rakotondrainibe (2016) presume that brand's origin information is particularly noteworthy for high technological products purchase, such as cell phones, since it is regarded as a clue of product's quality.

Nevertheless, such concept division cannot prevent consumers' inaccurate brand origin country perceptions. The misidentification of origin and its consequent purchase decision might therefore be positively or negatively affected (Thakor & Lavack, 2003). Samiee et al. (2005) realized that consumers' (in)accurate assignment of brand origins is related to socio-economic factors and cultural inclination. For that reason, this study intends to analyze consumers' BORA and its relationships with demographic characteristics and cosmopolitanism tendencies.

## 1.2 Cell phone industry brand origin

### 1.2.1 Cell phone industry worldwide

Consumer product evaluation decisions are greatly affected by technology. The endless available information that consumers can easily access has created numerous marketable circumstances, while testing traditional business models (Euromonitor, 2013a). Among the biggest drivers of technology are consumer electronics, whereas cell phones have appeared to become the largest quantity and cost driver. In spite of this, the number of sales and the price of the products have been dropping, as there are fewer first time buyers in developed economies. Nonetheless, there is still some hidden demand, which would become evident if there were a reduction of substitute products as well as diminished influence of the second-hand and black market. Another opportunity for increased demand is the rising percentage of users who will be purchasing their next cell phone. Together with expanding usage of mobile network data, an increasing number of consumers will be urged to exchange their current cell phone for better performing and more expensive devices (Euromonitor, 2014).

Euromonitor (2013a) has come up with a name for consumers who are very involved and interested in new technology – techsumers. They are mainly present in developed markets, for instance North America and Western Europe. Provided with required socio-economic position, such as high income and education level, joint with established communication infrastructure, make an ideal setting for techsumers. The majority of developing economies fall behind Western markets in terms of mobile communication**.** Cell phone implementation in developing markets has been active as a result of the development of low-priced cell phones, but the continuous high expenses of mobile data transmission restricts its usage in several markets (Cisco, 2017). In recent years cell phone sales have faced a reduced growth rate. O'Connor (2015) recognizes that this decelerated growth rate correlates to the oversupplied Chinese market. Almost one third of global cell phone sales occur in China. Even though there are still some first-time cell phone buyers, their purchases cannot drive the market, given that there is a drop in device sales year after year (O'Connor, 2015).

Globally Samsung has kept its lead in the cell phone market with a 23% market share in mid-2016 (International Data Corporation Research, Inc., n.d.). A year prior, the South Korean giant fell behind Apple, while the general demand for and sales of phones decelerated. At that time plus-size iPhones kept Apple’s share of worldwide cell phone sales afloat (O'Connor, 2015). This year Samsung stepped up with the new Galaxy S7 series phones and improved range, positioning itself as a strong opponent not only in the developed markets, but also in the developing markets where it has been opposing local manufacturers. Additionally, the boosted distribution of affordable series, especially to regions like Southeast Asia, the Middle East, and Africa, have also played a part in its triumph. Samsung's restructured range of products, together with its low-priced J-series, prevailed in several mid-level markets that were usually led by domestic brands (International Data

Corporation Research, Inc., n.d.). Overall, Apple distributed 15% fewer products as it did previous year. The new iPhone 6s has been the internationally best-selling cell phone device of 2016, while Apple's iPhone SE was well received in developing as well as developed markets (International Data Corporation Research, Inc., n.d.). Huawei remained third by expanding its range to premium products, while gradually increasing prices (International Data Corporation Research, Inc., n.d.). Another brand mentioned in this thesis, Lenovo, was previously listed as the fourth biggest cell phone vendor by market share, but was recently overtaken by OPPO and Vivo, two Chinese brands unavailable in Europe and America, but very represented in Asia (Gartner, 2016).

### 1.2.2 Cell phone industry in Slovenia

Current economic struggles in Slovenia, which have been persistent since the financial crisis in 2009, have resulted in a reduction in purchasing power, confidence in retail trade, and high unemployment. As a result, consumers have modified their shopping habits, which are based on a constant search of better value for money, as selling price is the most important purchase criteria. The consumer has become modest, while shopping for non-essential products. With reduced disposable income in 2015, they tended to buy more economically. Greater consumer moderation leads to them not buying objects they deem unnecessary. Grocery stores accordingly suffered a lesser amount of decline, since food is still considered indispensable. Retail stores, consequentially, experienced lower demand, as many customers postponed their non-essential purchases. Overall, this purchasing behavior in the previous year had a negative effect on retail as a whole (Euromonitor, 2016a).

Regardless of the statistics that have portrayed Slovenia as having one of the lowest household annual disposable income performances in the last few years, Euromonitor (2015a) data shows that it had the highest household income in Eastern Europe in 2014. Euromonitor (2016a) states that recovery of the economic situation over the next few years will lead to an improvement in purchasing power and a lower unemployment rate. In the event of increased disposable income consumers will express interest and demand for non-essential retail products. The elderly will enjoy significant wealth, an inclination that will most likely improve due to the aging population (Euromonitor, 2015a). For this reason, retail stores are expected to recover once Slovenia’s economic situation improves.

The Slovenian cell phone market has been dominated by Samsung in recent years, whose market share ranges between 40 and 50%. Depending on the quarter, 10-15% of the market is divided between Apple, LG, and Samsung (Ropret, 2015). All other brands have far fewer sales, including former leader Nokia (now Microsoft). In the last few years there have been several new entries of unknown brands onto the Slovenian market. Most of them came indirectly through distributors, who offer phones throughout Central and Eastern Europe. Exceptions are the Chinese brands Lenovo and Huawei, which have set up local offices with customer support chain. Cell phone brands such as Caterpillar, Meizu, Gigabyte, Prestigio, Xiaomi, and others have been increasingly imported through channels outside our border

(Ropret, 2015). The latest research by international organizations ICERTIAS revealed that if an average Slovenian consumer had an unlimited amount of money, they would buy a Samsung cell phone. A year prior, most participants choose Apple as a top-quality manufacturer of mobile phones, however it was eventually overtaken by its South Korean competitor (Zaletel, 2016).

### 1.2.3 Brands of American country origin

#### 1.2.3.1 Canadian mobile brands

Canada is not a major player in the cell phone industry, especially since the country has some underdeveloped regions with limited broadband coverage. This has changed in recent years with governmental policies that have boosted cell phone adoption and increased global competition (Euromonitor, 2016b). Their local brand, Blackberry, yielded to Apple and Samsung, which have remained the leading cell phone brands in the last few years (Hardy, 2015).

- Blackberry

Blackberry Limited, the main Canadian mobile communications company, was established in 1984 in Waterloo, Ontario (Company, 2016). Nowadays it is mostly recognized as a provider of reliable and dependable software, generally used by businesses and various governmental organizations. The brand is currently present in more than 90 countries, with approximately 23 million subscribers to Blackberry mobile phones worldwide (Blackberry US, n.d.).

#### 1.2.3.2 US mobile brands

The USA, among other developed countries, is facing maturation of the cell phone segment, since steady growth has led to saturation. Manufacturers have to be cautious of the product's maturity and adjust new products towards new trends, given that just about every US citizen owns a cell phone (Euromonitor, 2016c). In the USA the domestic phenomenon Apple remains the best-selling cell phone brand, while Samsung follows with an almost half smaller market share. LG, Motorola and HTC follow them far behind (Statista, n.d.-a)

- Apple

The Apple Inc. brand originates from Silicon Valley in California, where it was founded in 1976. This American global technology corporation creates, develops, and sells consumer electronics, services, and software (Hertzfeld & Capps, 2005). Despite its early success, during a succession of overlooked opportunities and product fails Apple's market share declined, even though the Apple name had high brand loyalty (Crainer & Dearlove, 2003, p.19). In 2007 Apple shifted from the PC-only company named Apple Computer, Inc. to renamed PC and mobile device company Apple Inc. (Pike, 2015, p. 145). Currently, Apple holds the place of world's leading information technology corporation by profits and total assets, in addition to being the world's second-largest cell phone manufacturer (Chen, 2015).

- Caterpillar

The Caterpillar Inc. brand dates back to 1904, when the Californian brand first introduced its core products: tractors and similar machinery. In 2012 they merged with the company Bullitt Mobile Ltd., with which they created Cat mobile phones, which are currently sold in over 30 countries worldwide. Their products are well-known for their durability and long life (About us, 2016).

- Microsoft

Founded in 1975, Microsoft Corporation is the worldwide leader in software, services, devices, and solutions, originating from the American state of Washington. Widely known for products such as Microsoft Windows, Microsoft Office, Internet Explorer, the Edge web browser, and Xbox, it has ventured out and acquired Skype Technologies, LinkedIn, and Nokia (Facts about Microsoft, 2016). Now known as Microsoft Mobile, Nokia's devices and services were acquired in 2014, with the subsidiary's headquarters remaining in Espoo, Finland (Bright, 2014). Since then their mobile phone devices have carried the Microsoft name and logo (Warren, 2014a).

- Motorola

Illinois-based multinational company Motorola Inc. was split at the beginning of 2011 into two independent companies, namely Motorola Mobility and Motorola Solutions (Ante, 2011). The former is regarded as the successor to Motorola, Inc., while the latter was acquired by Google in 2012 and later sold to Lenovo in 2014 (Miller & Gelles, 2014).

### 1.2.4 Brands of Asian country origin

#### 1.2.4.1 Chinese mobile brands

Increased revenue in China has resulted in a growing demand for high-end mobile phones. Local producers face severe rivalry and low profitability for cheap mobile phones, wherefore they have started to upgrade their products to higher-priced devices. This move will enable producers to achieve greater profitability (Euromonitor, 2016d). The opening of the Chinese market for foreign companies has changed the reputation of domestic Chinese brands. Consequently, Chinese brands are compared to the Japanese and South Korean ones, with the result that their brands are perceived positively by both foreign and local consumers (Dinnie, 2016, p.91). International Data Corporation Research, Inc. (2016a) reveals that a local brand, Huawei, currently holds the largest market share in China. Among the top five brands with the biggest market shares is American Apple, which joins Chinese domestic brands Xiaomi, OPPO and Vivo.

- Huawei

Huawei Technologies Co., Ltd. was established in 1987 and started off producing phone switches, but in recent years has extended its business to forming telecommunications networks. In 2015 Huawei was present in more than 140 countries and employed over

170,000 people, the majority of them working in the research and development institutes (About Huawei, 2016). With its rapid growth, it has overtaken Ericsson as the largest telecommunications equipment manufacturer in the world (The Economist, 2012).

- Lenovo

In 1984 Legend Holdings was created as a designer, developer, manufacturer and seller of personal computers, tablets, smartphones, servers, electronic storage devices, and smart televisions. Only in 2004 was the Lenovo brand formed, under the name Lenovo Group Ltd.. The company has two headquarters, one in Beijing, China, and the other in Morrisville, North Carolina, USA. Today, Lenovo is present in more than 160 countries and is currently the world's largest PC vendor (About Lenovo, 2016). In 2012 Lenovo entered the smartphone market and has been China's largest smartphone vendor since 2014, when it acquired Motorola Mobility (Warren, 2014b).

#### 1.2.4.2 Japanese mobile brand

Consumers worldwide appreciate products with their origin from Japan, especially in the technological product category. A positive relationship between the brand and its origin country is extremely important, although often we do not know why this connection is positive. Dinnie (2016, p. 90) wonders which comes first, whether the renowned technological pioneer Sony increases the country's brand image, or whether the prospect of Japan as an origin country of technological devices reinforces the Sony brand? In my opinion, both claims mutually empower each other. Like many other developed countries, Japan is also facing a decline in the use of mobile phones. In 2015 Apple had significant dominance in the Japanese mobile market. This was partly due to the fact that Japan has become a popular tourist shopping destination, and with its powerful international awareness, consumers inquire after prestigious mobile phones such as Apple's iPhone (Euromonitor, 2016e). Nonetheless, Japanese local cell phone brands Sony and Sharp still remain among the most popular devices available.

- Sony

The Sony Corporation, a Japanese corporation integrated in consumer electronics, video games, entertainment, and finances, originates in Tokyo, Japan. Their beginnings date back to World War II, when an electronic shop was opened in 1946 (Corporate Info, 2016). One of the many Sony Corporation subsidiaries is also Sony Mobile Communications Inc., which was previously also known under the name Sony Ericsson. In 2001, Sony and Ericsson formed a joint venture and were ranked in fourth place, after Nokia, Samsung, and LG (Sony, 2001). Sony Ericsson's market share fell in 2010, which is why Sony decided to released smartphones under the Xperia name (Sony, 2014).

#### 1.2.4.3 South Korean mobile brands

A noticeable improvement in the quality of Korean products and the positive perception by foreign consumers in recent years has had an extremely positive impact on the Korea's image

as a country. Large multinational companies such as Samsung Electronics and LG Electronics have played an important role in changing the perception of Korea and overseas Korean products, in spite of their efforts to distance themselves from their origin country (Dinnie, 2016, p. 128). Even though the cell phone segment reached its maturity, Korea is still showing some upward trends. The major barrier to expanded penetration in the cell phone market has been costly devices by renowned brands. Mid- to low-price devices have accordingly become prevalent in all age groups, including the over-65-year old generation. Samsung Electronics Co. is the undoubted leader in cell phones in South Korea (Euromonitor, 2016f).

- LG

Lak-Hui Chemical Industrial Corp was established in 1947 and was referred to as Lucky-Goldstar. Since 1995, the Seoul-based company has been known under the name of LG Corporation and is present in the electronic and chemical markets. Amongst their most recognizable subsidiaries are LG Electronics, Zenith, LG Display, LG Uplus, and LG Chem (Overview, 2016). LG Electronics Inc. is currently facing some difficult times with reduced revenue in its mobile division (Weiss, 2016).

- Samsung

South Korea's biggest business conglomerate, Samsung, is located in Samsung Town, Seoul. Since 1938, when it was established as a trading company, Samsung entered the electronics industry in late 1960s (Lee & Lee, 2003). Samsung Electronics Co., Ltd. is the world's largest manufacturer of cell phones and the second-biggest information technology corporation by profit, after Apple (Grobart, 2013; Garside, 2013). I also found interesting that Samsung Electronics provides electronic components used in Apple, Sony, HTC, and Nokia devices, even though they are their biggest competitors (Demeritt, 2012).

#### 1.2.4.4 Taiwanese mobile brands

The perception of the COO is dynamic and may change over time. As mentioned, origin country performance can eventually improve, as China, South Korea, and Taiwan bear witness (Usunier, 2006). Taiwan has striven hard to encourage a positive perception of the country with an intensive nation-branding campaign (Dinnie, 2016, p. 97). Similar to other countries, Taiwan faces declining sales growth of cell phones every year, as consumers are reluctant to upgrade their cell phones to the latest model (Euromonitor, 2016g). The market share is dominated by Samsung, followed by Asus, Apple, HTC, and Sony. Both Samsung and Asus reap the benefits from their efforts in low- to mid-price models by selling more units than other brands (Taiwan smartphone sales fall in June on economic slowdown, 2016).

- Asus

Taiwanese multinational company ASUSTeK Computer Inc. or Asus, is headquartered in Taipei. It was found in 1989 as a computer hardware business. Later on, they spread their

activity to consumer electronics (Asus, 2016). Asus smartphone usage is presently prevailing in Asian mobile markets (Lai, 2015).

- HTC

HTC Corporation is a pioneer in designing and manufacturing the smartphones that we know today. Founded in 1997, the Taiwanese company from New Taipei City led the way in the consumer electronics. Their accomplishments include "world's first touch and wireless hand-held device, first Android smartphone, the first Microsoft-powered smartphone, and the first Microsoft 3G phone" (Company Overview, 2016). Unfortunately, due to the presence of smaller smartphone vendors, HTC has a harder task of competing in the fast changing mobile market (Beaver, 2015).

### 1.2.5 Brands of European country origin

#### 1.2.5.1 Finnish mobile brand

Asian countries are renowned for dominating the consumer electronics field; however, some European companies, aided by the European Union, have made a name for themselves in the cell phone industry (Johansson, 2009, p. 5). One such company is Finland's Nokia. The cell phone user base is changing rapidly in Finland. Finnish consumers have recently become more inclined to purchase premium and novel consumer electronics, which will play a role in increasing the value of the product category (Euromonitor, 2016h). However, they are still loyal to their local brand, Nokia, which enjoys almost 50% of the cell phone market share. The domestic brand is followed by Samsung and Apple (Statista, n.d.-b).

- Nokia

Nokia Corporation was established in 1865 and headquartered in Espoo, Finland. In 2014 the company was present in 150 countries and employed more than 60,000 people in 2014 (Articles of Association of Nokia Corporation, n.d.). With the rise of the cell phone industry, Nokia contributed with the development of GSM and LTE standards, making it the largest mobile phone retailer. In 2014 Nokia was bought by Microsoft (Pierce, 2013). Ever since the acquirement of its mobile phone business Nokia has concentrated on its telecommunications infrastructure and the attainment of the French company Alcatel-Lucent (Nokia, 2016).

#### 1.2.5.2 French mobile brands

The cell phone industry is reaching its maturity, and consumer electronics experts say that French households are about to focus on smart accessories instead of upgrading their cell phone models (Euromonitor, 2016i). As previously mentioned, cell phone sales are declining. Samsung Electronics and Apple, followed by Nokia, have secured the biggest market share in France in recent years (Statista, n.d.-c).

- Alcatel

Alcatel was formed in 1966 and it was merged with Lucent Technologies in 2016, creating Alcatel-Lucent S.A., headquartered in Boulogne-Billancourt (About Alcatel, 2016). This French telecommunications company was merged with Nokia in January 2016 (Tonner, 2016). However, Alcatel mobile handsets have been part of the Chinese TCL Corporation since 2004. For the purpose of this thesis, we will take into account brand Alcatel's original brand origin, which is France (Johansson, 2009, p. 5).

- Sagem

The Paris-based company Sagem was founded in 1925 and started developing consumer electronics in the 1980s and 1990s. Sagem and Snecma, an aircraft manufacturer, united to form Safran. Since 2008 the Sagem Group has followed-up and formed Sagem Wireless, which manufactures and sells Sagem mobile phones (Safran Electronics Defense, n.d.).

#### 1.2.5.3 German mobile brand

Decreased sales of cell phones indicate the saturation of the industry. German customers have an average of 1.6 devices per household, so the prospective growth stays very restricted. One of the most promising options for increasing the penetration of cell phones is users switching from their current devices to the newer models (Euromonitor, 2016j). Samsung Electronics surpassed its competitors in Germany by holding onto its first place. As usual, following right behind Samsung was Apple. The third-biggest market share in Germany belonged to Sony (Statista, n.d.-d).

- Siemens

Established in 1847, Siemens AG is the largest engineering company not only in its native Germany, but also in the rest of Europe. Headquartered in both Berlin and Munich, Siemens employs nearly 350,000 people in more than 200 countries worldwide (About Siemens, 2016). Siemens Mobile, a division of Siemens AG, was sold to BenQ in 2005. Its acquisition by the Taiwanese company led to the formation of the BenQ-Siemes brand, whose last released mobile phones were sold in the same year (Murtazin, 2006).

#### 1.2.5.4 Dutch mobile brand

The Netherlands is no different from any other developed country, where cell phone penetration has reached its peak. In 2016 the Dutch cell phone market reached 186% saturation; however, Euromonitor (2016k) predicts that this number will rise up to 190% in 2017, since consumers tend to own several devices at once. Research from 2013 lists Samsung in the top spot, followed by Nokia and Apple (Samsung dominates Dutch smartphone market, 2013).

- Phillips

The Dutch technology corporation headquartered in Amsterdam, Royal Philips Electronics, was established in 1891 (Our Heritage, n.d.). In 1997 Lucent Consumer Products formed a

joint venture with Philips; however, after the low market share and loss of revenue, they fell apart a year later (McDonald, n.d.).

#### 1.2.5.5 Swedish mobile brand

Cell phones are much more than just a device made for phone calls or sending messages, but are an essential part of Swedes' everyday lives. Thus, cell phone devices have become a status symbol, with an increasingly present trend of updating devices to the latest model (Euromonitor, 2016l). The most dominant brand on the Swedish market is Apple, followed by the South Korean Samsung (Vatu, 2015).

- Ericsson

This Stockholm-based networking and telecommunications company was founded in 1876 (Ericsson history, 2016). The company is currently present in 180 countries and employees around 140,000 people (About us, 2016b). In 1994 Ericsson created a subsidiary the development and manufacture of cell phone handsets, namely Ericsson Mobile Communications AB. Ericsson united with Intel and established Bluetooth technology. Despite of Bluetooth's success, the company faced losing its market share at the end of the century, mainly due to Nokia's focus on design and usage of economies of scale, Ericsson Mobile Communications AB closed down in 2001. In 2011 Sony acquired Ericsson and has since then sold its products under the name Sony Xperia (Singh, 2011).

# 2 FACTORS INFLUENCING BRAND ORIGIN RECOGNITION

## 2.1 Defining brand origin recognition accuracy (BORA)

Martín and Cerviño (2011, p. 531) divide a brand's origin country into two groups: local and foreign. Business publications state that knowledge about origins impacts consumers' purchase intentions, however we have to take into consideration that in reality consumers sometimes do not know the accurate COO. This makes me assume, that their ignorance or wrong perception influences their opinion and prevents purchase. The process of determining accurate brand origin, similarly to COO, could be overlooked as consumers might not care or might be indifferent about the brand's origin. A shortage of prominent origin indications in relation to other assessment signals might perhaps clarify why brand origin cues seem dependent on products, consumers, and situations (Usunier, 2011, p. 488).

Samiee et al. (2005) wanted to further explore the task of brand origin as a factor in consumer perception, which is why they drew up their approach to BORA. Their method differs from others by being based on their own empirical case. In their study they identify the origins of the renowned brands from countries dominant in that product category (Samiee et al., 2005). Balabanis and Diamantopoulos (2008; 2011) had a different approach, as they focused only on one product category (in their case microwaves). Literature on the topic of brand origin show that the assessment of products and their willingness to purchase them is connected to

the accurate recognition of brand's origin country (Balabanis & Diamantopoulos, 2008; Laroche, Papadopoulos, Heslop, & Mourali, 2005; Samiee et al., 2005; Steenkamp, Batra, & Alden, 2003). Brand origin influences consumer's perceptions of brands' equity, their attitudes toward brands, and their purchase intentions (Pappu, Quester, & Cooksey, 2005; Yasin, Noor, & Mohamad, 2007; Dagger & Raciti, 2011; Samiee et al., 2005).

## 2.2 Factors influencing brand origin recognition

### 2.2.1 Impact of education level on brand origin

It is expected that people with varying degrees of education have different buying behavior and perception of brands (Martín & Cerviño, 2011, p. 538). Friese (2000, p. 9) points out the importance of education, as it gives consumers an impartial view and allows them to think outside the box. It also makes them aware of the global market situation, international economics, and politics. Most studies revealed that consumers with a high level of education have less difficulty identifying the accurate brand origin from available information (Lassar, Mittal, & Sharma, 1995; Samiee et al., 2005; Almani et al., 2011, p. 364).

Samiee et al. (2005) also argue that consumers with higher levels of education and income notice brand origin more accurately than those with lower socioeconomic status, since the latter find the information on the country of origin less indicative in comparison to price and product characteristics. Besides, higher education provides a chance to work in a variety of jobs of a person's own choosing, which also boosts ours income. A gratifying work position further promotes personal development. Often such jobs support international travel, due to specialized knowledge. This kind of lifestyle encourages and gives the opportunity to meet and interact with people from other countries and cultures (Friese, 2000, p.9).

### 2.2.2 Impact of income on brand origin

The cultural environment in most countries is extensive, which is shown in the assemblage of social classes and in a society's level of contentedness (Johansson, 2009, p. 105). Consumer behavior, whether it is modest or excessive, is a reflection of their countries' economic position. Data on household income is part of the public record, which gives marketers an insight into how income is related to the welfare of the domestic economy. In many countries, especially developing ones, there is a gap in purchasing power between wealthy minorities and the numerous poor (Johansson, 2009, p. 106).

Zhuang, Wang, Zhou, & Zhou (2008, p. 442) describe that consumers from less developed countries favor foreign brands from more developed countries or regions, since they believe that these brands indicate high-quality, status, cosmopolitanism, and modernity. The social trait of foreign brands trumps the practical value of other products and is a vital factor in the consumer's purchase decision. Economic growth has inevitably triggered an increase in prosperity and therefore the consumption of foreign products, mostly from developed

countries. The rapid escalation of income and impact of materially-focused Western values directed consumers from emerging countries to prefer foreign brands that offer reputation, which lets them increase their sense of self-worth. This has consequentially led to the emergence of cosmopolitanism, portrayed by consumers' acceptance of foreign products, and their admiration and desire to purchase products linked with the West (Lee, Lee, & Lee, 2014, p.1134).

### 2.2.3 Impact of cosmopolitanism on brand origin

Despite the fact that industries are constantly changing and globalizing, every so often this trend fails to reach the consumer. Communication, marketing, and business are becoming borderless, which also contributes to reducing inequality and increasing awareness about cross-border cultures and their influence. Acceptance of foreign economies contributes to greater cosmopolitanism and represents better conditions for global players (Cleveland et al., 2009, p. 116).

Merton (1957) describes cosmopolitanism as a sociological notion formed in the 1950s, by describing cosmopolitans as people who live beyond their borders rather than being inclined by local traditions and values (in Riefler & Diamantopoulos, 2009, p. 286). Marketing researchers have an adapted view of cosmopolitan consumers, as being unprejudiced citizens whose consumption course goes beyond any cultural settings. Riefler and Diamantopoulos (2009, p. 286) observe that the key feature of cosmopolitans is their broad openness towards other people and cultures. Travel, therefore, is one of the best guides to understanding and living through the principles of other cultures, no matter whether this travel takes place because of personal or professional reasons (Riefler & Diamantopoulos, 2009, p. 287). This openness reveals their understanding and fascination with other cultures, and represents a keenness to experience culturally diverse products. This interest also improves attitudes regarding global advertising, since their open attitude tends to acknowledge new ideas, which can diminish possible outcomes from the negative assessment of foreign press (Lee & Mazodier, 2015, p. 923). With this I can summarize that cosmopolitan consumers are not inclined to products from a particular country, including their own, and their actions are consequently unlike those with a highly patriotic character (Lee & Mazodier, 2015, p. 1137). Cosmopolitan consumers are likely to concentrate on functional needs and impartially consider products by their potential to deliver required functions no matter what the products' origin is (Riefler & Diamantopoulos, 2009, p. 407).

Brand denomination, as described by Martín and Cerviño (2011, p. 539), is a brand characteristic that has to do with the rate of recurrence with which consumers identify country origin of a specific brand. LeClerc, Schmitt, and Dube (1994) found that brands written in a particular language are likely to imply a country origin. Additionally, there are empirical indications that suggest that brand names that are unrelated to a brand's true origin cause a negative effect on consumers' country origin categorization performance (Balabanis & Diamantopoulos, 2008). An English-sounding brand name might be considered American

by consumers even though that brand is Korean (for example LG), and a Finish-sounding brand name might be considered as originating in Finland although that brand is undoubtedly American (for example Motorola). Consumers may act on their mistaken brand origin perception, especially in cases when the inaccurately perceived country holds lower objectivities than the country from which the brand really originates from. Therefore, marketing department needs to assess whether their brands are being misperceived as being from countries with higher objectivities than their real source countries. Then again, I can understand why a brand manager from a country with low objectivity – namely, taking into account the product quality perceptions – might in fact choose to use a brand name that distances it from its origin country and implies a country recognized for high quality in that industry (Samiee et al., 2005, p. 392). Such cases are best evidenced by some Korean and Taiwanese companies', which use abbreviations and English-sounding brand names as part of their international marketing strategies (for example LG and HTC).

### 2.2.4 Impact of demographics on brand origin

A product's brand origin may be significant to some consumers and be inconsequential to others. Demographic segmentation is one method that can group consumers based on whether they find brand origin as a relevant product cue (Dinnie, 2016, p. 95). Brand awareness might be connected with the age of the consumer, given that older consumers will have come into contact with more brands (Martín & Cerviño, 2011, p. 538). However, Samiee et al. (2005, p. 385) find that younger consumers are more aware of foreign brands and frequently distinguish country origin correctly due to greater worldliness. I expect that a consumer's age has an impact on brand origin recognition, as younger people have had greater better opportunity to recognize and purchase both local and foreign brands.

Domoff, Tankersley, and White (1974) found that many studies on the perception of brands support the argument that age contributes to the correct brand origin identification. On the other hand, Schooler (1971) does not attribute any differences in the perception of foreign products based on consumers' gender. Gender-based research on country origin reveals that men are more reluctant towards foreign products, and that women are keener on foreign products, although they have a greater inclination to purchase local products (Schooler, 1971, p. 77). It is expected that a positive view of foreign products could motivate learning about brand-related information, such as COO, while those with negative views of foreign brands might be less knowledgeable (Samiee et al., 2005, p. 385). Dinnie (2016, p. 95) recommended that brand managers determine which demographic characteristics of their target consumers will enable them to form segments, based on an inclination toward positive brand origin.

### 2.2.5 Impact of Internet usage on brand origin

Every day more and more consumers are searching the Internet for information and use it as a guide to product choice and understanding its intrinsic as well as extrinsic cues. This

medium enables the fast transmission of information, which consequently saves money and time. Given that many consumers do advanced research on the Internet prior to their product selection, of particular importance are extrinsic cues (such as brand origin), which are usually unobtainable in time of purchase (Almani et al., 2011, p. 366)

Not only it is helpful to the consumers', it also assists the multinational companies reach international markets (Samiee, 1998, p. 413). Global companies depend on progressive communications technologies to connect with their customers in different countries, since they have limited organizational and managerial budgets. Additionally, accessibility of market data, formerly unobtainable to smaller firms, makes their overseas penetration possible (Johansson, 2009, p. 178).

# 3 EMPIRICAL STUDY OF BRAND ORIGIN RECOGNITION ACCURACY IN SLOVENIA

There are several studies on BORA in the literature (Samiee et al., 2005; Almani et al., 2011; Martín & Cerviño, 2011). While a lot of studies have been conducted on brand origin, is it suitable to further inquire into the issue and apply it to Slovenian consumers? The answer is yes, because none of the above-mentioned studies consider European brands local. The initial literature review showed that even though brand origin was widely studied, the majority of studies were conducted in countries that were brand origin countries of products mentioned in the study itself. This might diminish the local connotation of European brands, however I presume that Slovenian respondents still have wider knowledge of European brands than do American or Asian consumers. At this point, I must also mention that European cell phone brands are not market leaders. Currently, the most internationally popular cell phone brands are Samsung, Apple, and Huawei. None of the European cell phone brands are even present among the current global cell phone brands with the highest market shares (International Data Corporation Research, Inc., 2016b).

Slovenia, a small country with population of 2 million, lies in the south of central Europe. As an export-oriented economy, Slovenia puts strong emphasis on international trade. Slovenia's economic profile is similar to those of Western countries to a much greater degree than other parts of Eastern Europe, to which it is usually compared, as a former member of Yugoslav Federation. However, its economy's growth came to a halt in both the 2009 and 2012 recessions. During that time the mild export-driven recovery weakened as external demand fell (Euromonitor, 2015b). In spite of this, recently there has been an increase in cell and Internet users in Slovenia, thanks to growing incomes and progressing consumerism. At the end of the year 2016, there were almost 2.4 million mobile network users in Slovenia or 1% more than a year ago (Statistical Office of the Republic of Slovenia, 2017). Technology development will allow greater regional inclusion and encourage economic expansion (Euromonitor, 2008).

The empirical part of this thesis focuses on the concept of brand origin recognition applied to Slovenia. The focal point is put on determining the level of brand origin recognition by Slovenian consumers and its influence on the recognition of local (European) vs. foreign (American and Asian) cell phone brands. The objective is to examine the BORA scores and their effect on cosmopolitanism and demographic traits. Cell phone brands were chosen as a product category because of its growing importance both worldwide and for the Slovenian consumers. Slovenia is regaining its spending power after the global financial crisis, which can be seen in positive GDP value for the last few years. In 2015 it grew by almost 10% compared to the previous year (Statistical Office of the Republic of Slovenia, 2015). Besides, the overall usage of mobile devices and subscription to mobile operators is increasing yearly.

The objectives of the empirical research are as follows:

1. To determine respondents' BORA scores.
2. To examine the effects of respondents' socio-demographic characteristics in Slovenia on their level of BORA scores.
3. To determine respondents' cosmopolitanism level.
4. To empirically test whether cosmopolitanism has any effect on brand origin recognition of cell phone brands.
5. To test whether the use of Internet affects BORA scores.

This empirical research uses a quantitative methodological approach. The questionnaire is used to gather primary data, given that this is regarded the most suitable way to test the suggested hypotheses. For this reason, the research instrument uses an assortment of closed-ended and structural questions. The questionnaire is composed of three different parts. The first part is dedicated to the BORA, where respondents have to select the origin county among 11 listed for 18 cell phone brands. The options "Don't know" and "Not listed" are also available. The second part focuses on cosmopolitanism, whereas the constructs of the variables are represented by the three statements measured on a five-point Likert scale. Respondents have to evaluate each sentence on a scale from 1 = "strongly disagree" to 5 = "strongly agree". The final part of the survey continues with some general socio-demographic characteristics of respondents, such as age, gender, education, and income, and concludes with daily Internet usage. The gathered data are put through quantitative data analysis and are examined using the Statistical Package for Social Sciences (SPSS).

## 3.1 Formulation of Conceptual Model and Research Hypotheses

The conceptual model of the study was developed based on the literature review in Chapters 1 and 2. The source for the model is the combined graphic framework by Samiee et al. (2005) and Almani et al. (2011). The model is altered to my research, eliminating the variables that are not covered in this thesis (socioeconomic status, international experience and

ethnocentric tendency). Following is a short discussion the background and the development of the eight sets of hypotheses, which represent the empirical study.

First hypothesis depicts the relationship between education and BORA scores. The formation of $H_1$ hypothesis is created on the base of Samiee et al. (2005) and Almani et al. (2011) research, whose findings for socioeconomic status, consisting of variables education and income, were statistically significant. In the cross-cultural literature it is often pointed out that socioeconomic status is related to income, knowledge, wealth, social standing, and power (Inglehart & Baker, 2000; Levitt, 1983). Most studies revealed that people with a high level of education are more in favor of foreign products than those with limited education (Schooler, 1971; Wall & Heslop, 1986; Samiee et al., 2005). Therefore, they tend to be more informed about multinational brands and their origin countries (Almani et al., 2011). Hypothesis will then be further examined for each region in the post hoc analysis. Based on the literature, I propose that:

**$H_1$: Consumers higher in education level should exhibit higher levels of $BORA_{TOTAL}$.**
$H_{1A}$: Consumers higher in education level should exhibit higher levels of $BORA_{AM}$.
$H_{1B}$: Consumers higher in education level should exhibit higher levels of $BORA_{AS}$.
$H_{1C}$: Consumers higher in education level should exhibit higher levels of $BORA_{EU}$.

The division of wealth is of great relevance to marketers, as it reveals who has the greatest buying power and market potential. Wealth is not in the slightest divided equally across the classes. However, there is a more impartial division of wealth across European countries in comparison to Asia and America (Solomon, 2004, p. 438). The income level affects what consumers can afford to purchase. People with the same income level, tend to have similar purchasing habits, since they mainly socialize with each other, and share the same values and ideas. Those from lower income groups are more likely going to spent their money on the necessities such as food and clothes, rather than purchasing luxury brands and latest consumer electronics gadget (Solomon, 2004, p. 12). In the post hoc analysis, BORA scores will be divided and analyzed for before mentioned three regions. For that reason, I propose the following hypotheses:

**$H_2$: Consumers higher in income should exhibit higher levels of $BORA_{TOTAL}$.**
$H_{2A}$: Consumers higher in income should exhibit higher levels of $BORA_{AM}$.
$H_{2B}$: Consumers higher in income should exhibit higher levels of $BORA_{AS}$.
$H_{2C}$: Consumers higher in income should exhibit higher levels of $BORA_{EU}$.

A positive affiliation is expected between both education level and income in a relation to the level of respondents' cosmopolitanism. The hypotheses $H_3$ and $H_4$ are founded on the grounds of studies conducted by Samiee et al. (2005) and Almani et al. (2011). As mentioned in the previous hypotheses $H_1$ and $H_2$, I have used variables education level and income, instead of socioeconomic status. Also, both studies used international experience, with

indicators of international travel and foreign language expertise. However, in this thesis, I have instead chosen a similar variable – cosmopolitanism. Samiee et al. (2005) and Almani et al. (2011) confirmed the positive relationship between cosmopolitanism and socioeconomic status, therefore my hypotheses will also claim that higher educational level and income will reflect higher cosmopolitanism tendencies. Cosmopolitanism scale will be described in a succeeding segment of this chapter. Cleveland et al. (2009) states that cosmopolitans identify themselves as being worldly, so they would most probably be more open to international cultures and, therefore, more prone to choosing products from other cultures and countries. It could also be explained as eagerness to engage with different cultures. The following hypotheses are formed:

**$H_3$: Consumers' higher education level is positively related to higher levels of cosmopolitanism.**

**$H_4$: Consumers' higher income is positively related to higher levels of cosmopolitanism.**

Additionally, I predict that respondents who acquired higher cosmopolitanism inclination are going to obtain higher BORA scores, as it has been shown that interest in foreign cultures enhances perceptions toward foreign products and, therefore, origins of brand (Schellinck, 1989; Wall, Liefeld, & Heslop, 1991). The higher level of cosmopolitanism expands consumers' familiarity with products and brands, due to their willingness and interest in foreign cultures. International travel, which could be associated with cosmopolitanism and higher income, has been shown to improve perceptions toward foreign products and, therefore, origins of brand (Samiee et al., 2005; Cleveland et al., 2009; Almani et al., 2011). Accordingly, I expect that consumers who scored higher on cosmopolitanism, should also show higher levels of BORA scores in general. Here, I have decided not to conduct additional post hoc analysis, since I presume that cosmopolitanism level would not differ across regions, as none of the cell phone brands in this research is truly domestic. For that reason, this next hypothesis is formed:

**$H_5$: Consumers exhibiting greater cosmopolitanism scores should manifest higher levels of $BORA_{TOTAL}$.**

Consumers' demographic characteristics, especially age and gender, have shown to be significant in marketplace preferences analysis, as is demonstrated by studies by Schooler, (1971), Samiee et al. (2005) and Almani et al. (2011). In particular, brand origin research presents important confirmation that demographic characteristics are relevant to product knowledge and assessment, stating that brand origin information is inversely related to age. BORA scores are likely to negatively correlate with age, meaning that younger generations will be more aware of brand origin countries than their older counterparts. The concept for below hypotheses $H_6$ and $H_7$ was formulated based on the studies conducted by Samiee et

al. (2005) and Almani et al. (2011). Each claim was later on analyzed for each region in post hoc analysis:

**$H_6$: Younger consumers' will score higher levels of $BORA_{TOTAL}$.**
$H_{6A}$: Younger consumers' will score higher levels of $BORA_{AM}$.
$H_{6B}$: Younger consumers' will score higher levels of $BORA_{AS}$.
$H_{6C}$: Younger consumers' will score higher levels of $BORA_{EU}$.

As previously mentioned, demographic variables are important indicators in brand origin literature. The viewpoint regarding foreign products varies based on consumers' gender, whereas women are more inclined to learn about foreign products (Wall & Heslop, 1986). Additionally, comparative to their female counterparts, male consumers are more likely to be prejudiced against foreign products, meaning that their interest into foreign brands origins might be lesser than that of women (Schooler, 1971). Accordingly, I posit the following hypotheses:

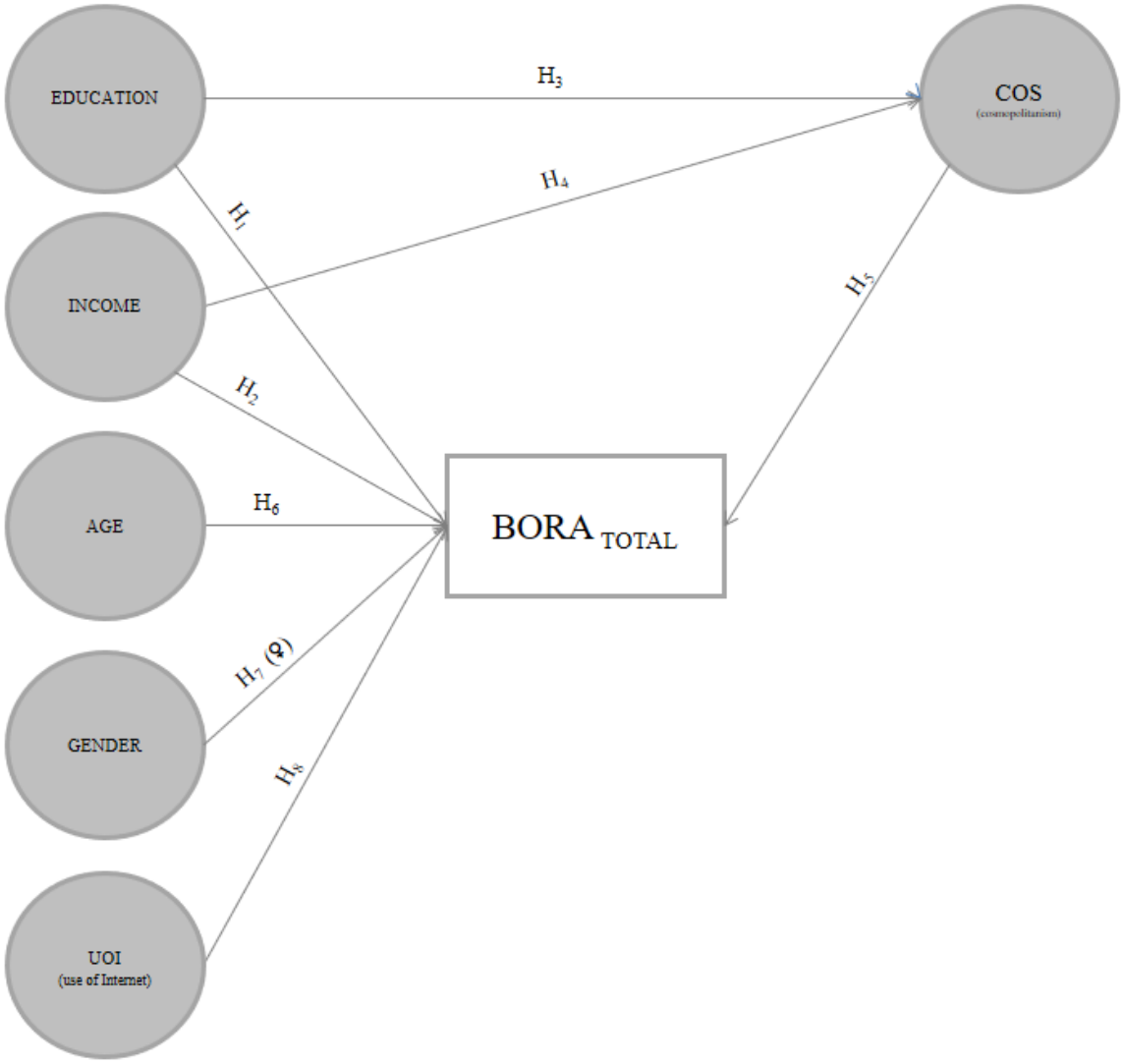
**$H_7$: Women will demonstrate higher levels of $BORA_{TOTAL}$.**
$H_{7A}$: Women will demonstrate higher levels of $BORA_{AM}$.
$H_{7B}$: Women will demonstrate higher levels of $BORA_{AS}$.
$H_{7C}$: Women will demonstrate higher levels of $BORA_{EU}$.

The next hypotheses regarding the Internet usage are based on the study by Almani et al. (2011), where they found that relationship between the Internet usage and BORA scores is significant. The growing amount of information about the Internet in numerous academic publications, has lead researchers to seek new examples that aptly include the Internet's role in marketing theory (Samiee, 1998; Almani et al., 2011). Internet allows individuals, regardless of their physical location, to access information about products characteristics. It has become a source of information for international consumers, which is taken into account by marketers who try to provide all required product information to consumers (Fong & Burton, 2008). Besides, Internet has not only improved the potential for consumers to look into brands' official websites, but also to discuss it on their personal social media and sharing the knowledge with their network, educating them in the process (Rokka & Canniford, 2016). Since the Internet provides such easy access to all product information, including extrinsic cues such as brand origin, respondents who use the Internet more often are more inclined to research brand and product prior to purchase. In view of that, I propose these next hypotheses:

**$H_8$: Consumers who use the Internet more should possess higher levels of $BORA_{TOTAL}$.**
$H_{8A}$: Consumers who use the Internet more should possess higher levels of $BORA_{AM}$.
$H_{8B}$: Consumers who use the Internet more should possess higher levels of $BORA_{AS}$.
$H_{8C}$: Consumers who use the Internet more should possess higher levels of $BORA_{EU}$.

The conceptual model of proposed hypotheses for all the BORA brands included in this research is presented in Figure 1. Each arrow shows the link from independent towards dependent variable.

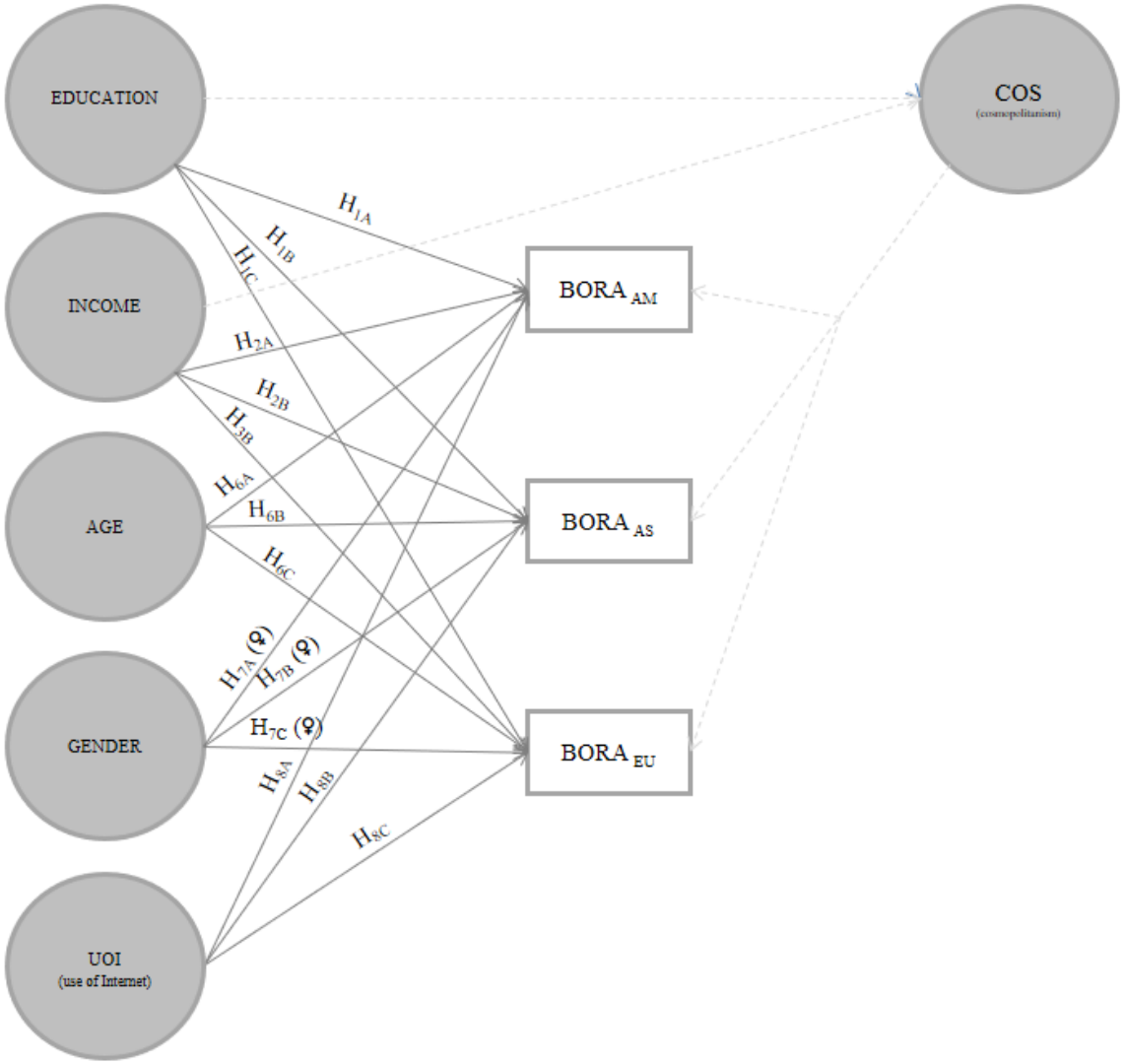
*Figure 1.* Conceptual model and Research Hypotheses




Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, p. 388.

Figure 2 shows the conceptual model and hypotheses' relationships form post hoc analysis. Here, the hypotheses have been divided into three regions, namely American, Asian and European, whereas Figure 1 represented only the relationship towards summarized BORA. Exceptions are hypotheses $H_3$ and $H_4$, which do not seek the relationship to any of the BORA variables, meaning that they do not differentiate in this post hoc analysis. Also, hypothesis $H_5$ is not divided onto three regions and reviewed in post hoc analysis, as I assume that if the construct cosmopolitanism is valid for all regions combined, it should also be valid for each region individually, as none of the brands' origin is domestic.

*Figure 2*. Conceptual model and Research Hypotheses of Post Hoc analysis




Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, p. 388.

## 3.2 Research methodology

The empirical research in this thesis is based on primary and secondary data. Literature review offers me a good starting point for defining objectives (Kotler & Armstrong, 2010). Still, secondary data cannot provide all the necessary information for my own research, which is why I have to gather my own primary data (Kotler & Keller, 2012, p.100). Therefore, I need to apply a quantitative analytical approach. This part consists of an online questionnaire in Slovenian, which was shared within my social network. Based on the content of my master's thesis and the diverse features of my sample, I used bivariate statistical analysis, complemented by t-test to examine the impact of selected aspects on respondents BORA scores.

### 3.2.1 Concept measures

The literature review in the previous chapters shows that several studies researched the concept of BORA, which will give me a direction on how to extend a comparable study in the Slovenian market. The data was collected through a survey, which was divided onto three parts. The first part of the questionnaire covers cell phone brands and their origin countries in order to assess the level of BORA scores. The second part contains three statements on cosmopolitanism adapted from Cleveland et al. (2009), while the last part of the questionnaire includes demographic variables.

Table 1 includes measured variables and their literature sources. For demographic variables, such as age, gender, income and education, I used the same measurement item as the sources, as well as for variable Use of Internet. Their measurement items fitted my objectives, therefore I did not need to adjust them. In the case of BORA, I adapted the measurement scale to fit the framework of cell phone category in the Slovenian market. In the construct cosmopolitanism, I only used three statements instead of six from the original study, as those in my opinion best described cosmopolitan tendencies and which respondents could easily comprehend.

Table 1. Measurement items' sources

| Label | Construct | Measurement | Source |
|---|---|---|---|
| BORA | Brand origin recognition accuracy | Dummy variable (0=incorrect; 1=correct) | Samiee et al. (2005); Almani et al. (2011) |
| COS | Cosmopolitanism | Level of agreement (one to five) | Cleveland et al. (2009) |
| Use of Internet | Use of Internet | Daily time spent on Internet (1=less than 1 hour; 2=1-2 hours; 3=2-3 hours; 4=3-4 hours; 5=4-5 hours; 6=5 hours or more) | Almani et al. (2011) |

Source: O. M. Martín & J. Cerviño, *Towards an integrative framework of brand country of origin recognition determinants*, 2011, p.543.

The BORA scores measurement is adapted from Samiee et al. (2005) and Almani et al. (2011). I selected a range of 18 cell phone brands that were at some point available in Slovenia. The 18 brands have origins from 11 different countries, which are divided into three sections; American brands ($BORA_{AM}$), Asian brands ($BORA_{AS}$), and European brands ($BORA_{EU}$). None of the cell phone brands originate from Slovenia, however, I have determined that five European (Finland, France, Germany, The Netherlands, and Sweden) country origins should be considered local, while two American (Canada and USA) and four

Asian (Japan, South Korea, China and Taiwan) brand origins should be considered foreign. Measured BORA scores extend from 0% to 100% and signify the proportion of correctly identified brand origins. Respondents with vast knowledge of cell phone brands can recognize all brand origins and receive a perfect score of 100%, while non-experts' scores could reach as low as zero. These scores stand for both genuine knowledge about cell phone brands and random guessing (Samiee et al., 2005). Table 2 shows an example of measurement item for Alcatels' origin country. The respondents had to choose amongst the presented countries. However, if they did not have the knowledge of the origin country, they could select an option "Don't know" or if they presumed that the origin country is not listed, then they could have selected the "Not listed" option.

Table 2. Example of survey measurement item for brand origin recognition accuracy

| Choose each brand's country-of-origin | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FIN | FRA | JPN | SKR | CAN | CHN | DEU | NLD | SWE | TWN | USA | DK[a] | NL[a] |
| Alcatel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

*Note*. [a]DK=don't know; NL=not listed.

Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, p. 387.

Cosmopolitanism construct was adapted from Cleveland et al. (2009). Having in mind their original six statements, my questionnaire included only three statements, which I found to best describe the cosmopolitanism tendencies of Slovenian citizen. Additional change from the initial study was the usage of a five-point Liket scale instead of a seven-point one. Respondents rated their agreement with the statements regarding people from other countries and foreign cultures, on a scale from (1) – strongly disagree to (5) – strongly agree, as seen in the Table 3 below.

Table 3. Example of measurement item for cosmopolitanism

| | Strongly disagree | | | | Strongly agree |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I enjoy exchanging ideas with people from other cultures or countries. | ○ | ○ | ○ | ○ | ○ |

Source: M. Cleveland, M. Laroche & N. Papadopoulos, *Cosmopolitanism, Consumer Ethnocentrism, and Materialism: An Eight-Country Study of Antecedents and Outcomes*, 2009, p. 140.

In the final part of the questionnaire, the respondents disclosed their demographic characteristics. They were asked about their gender, age category, level of education, and monthly household income. Respondents also had to answer how many foreign languages

they are proficient in, the number of foreign countries visited in the past year, and their level of daily Internet usage.

### 3.2.2 Questionnaire design

At the beginning of 2016 I created the online questionnaire with all the necessary variables in order to obtain the needed data to analyze the hypotheses. As previously stated, the online questionnaire contained BORA as well as the cosmopolitanism scale and used three blocks of questions. The first part is dedicated to examining the concept of BORA, where respondents have to assign countries of origins to provided cell phone brands (Martín & Cerviño, 2011, p. 542). The next part of the survey concentrates on measuring the cosmopolitanism, while the third part encompasses common socio-demographic variables.

When I was selecting cell phone brands for this study, I had considered a higher level of consumer awareness and their presence in a larger set of countries, meaning that their presence on the foreign and local markets has been advertised, which I examined through the Internet search. I accordingly chose 18 brands, all of them among the most important global cell phone brands, while also taking into account their presence in the Slovenian market. Finally, the brands and their 11 origin countries, where at least one cell phone brand originate, were listed in alphabetical order. This "game design" (by Martín & Cerviño, 2011, p. 542) was presumed to diminish the effects of guessing. Additionally, the "Don't know" and "Not listed" reply options were added, in order to resume with the questionnaire, even after passing over a question. The questionnaire mainly consists of structured, close-ended questions, and only three open-ended questions where the respondents were asked to write their own answers. The statements in the structured questions were measured on the Liket scale ranging from 1 – "strongly disagree" to 5 – "strongly agree". A short introduction to the topic of research and the estimated completion time of the questionnaire was provided at the beginning.

Before collecting the data, the questionnaire needed to be translated from English to Slovene using back-translation (by Werner & Campbell, 1970), since not all of the respondents were fluent in English. This translation was conducted in two phases. Firstly, I translated the English measurement scales, using Slovene business study articles as a reference (Zupančič, 1998). Secondly, a Slovene who is proficient in English was asked to compare the translations in both languages in order to ensure that the measurement items were linguistically compatible and to test other possible mistranslations. Following a comparison of both translated questionnaires, the electronic questionnaire in Slovene was created (see Appendix B for the Slovenian version and Appendix C for the English version of the final questionnaire). However, even though the text was reviewed, there is always the risk that people might misunderstand the statements, depending on their cultural settings (Usunier & Lee, 2006, p. 187).

A pilot study of the final version of the questionnaire was carried out in April 2016, where ten respondents were asked to pre-test the final questionnaire, in order to ensure face validity and verify duration. They were asked to review the structure of the questions and answers, to provide comments that would help improve how it is understood, and to flag recurring problems with the questionnaire fill-in. A few comments and corrections were made regarding the wording of the statements, the grammatical structure, and the design of the form. This made the questions clearer, as well as easier to understand and respond to. All comments and alterations were considered and applied to the online questionnaire after the pre-test completion. Additionally, I asked for feedback about the time required to fulfill the survey and the device used to fill it out, in order to check the compatibility of the questionnaire with various devices such as a smartphone, tablet, laptop, and desktop computer.

After correcting minor issues identified in the pilot study, the final questionnaire was administered in the period from May to June 2016. The website link to the survey was sent by email as well as posted on the social media platform Facebook, through multiple profiles. After one month, the final number of suitably completed questionnaires was 207. In the foreword I wrote that the survey is voluntary and anonymous. On average, the time needed to complete the questionnaire was 5 minutes. The decision to conduct an online survey was not only for the reason of it being relatively inexpensive and effective, but also because it lead to large sample sizes, compared to most traditional paper-and-pencil techniques (Gosling, Vazire, Srivastava, & John, 2004, p. 93). The online format also obliges respondents to respond to each question in a prearranged layout, with no chance to pass among pages of the survey. The considerate order of the questions has led to reduced response bias.

### 3.2.3 Sampling

Though it is impossible to reach the whole population without devoting time and money, I was able to receive a sample of 207 respondents in the time frame of one month. As previously mentioned the data was collected electronically. The final questionnaire was posted on the Slovenian web-based survey host EnKlikAnketa (www.1ka.si) and shared through my network. The link to the online questionnaire was published on my Facebook account and sent via e-mail to both my private as well as business acquaintances. They were invited to share the link further, with the aim of getting a wider variety of respondents. As a result, this formed a convenience sample.

I have to mention that there was a possibility of similar responses, specifically "the (1) unwillingness of the respondent to answer, (2) response bias, or (3) different response styles among the participants" (Usunier & Lee, 2006, p. 194). The (1) unwillingness of the respondent to answer indicates that the respondent might find the question too personal, so they do not want to respond in order not to cause bias. Slovenians are not known to have privacy concerns, so they are likely to respond straightforwardly if their anonymity is

guaranteed (Statistical Office of the Republic of Slovenia, 2012). The second concern is (2) response bias whereas context correspondence takes place, since all the questions as well as the answers include some cultural perspective, which can be interpreted differently by diverse cultures. The third concern is (3) different response styles, such as random responding, choosing only extreme options, and selection of item non-response answers that could affect the dissimilarity of the results from reality.

## 3.3 Data analysis

The data was collected electronically over one month starting on 9 May 2016. Altogether 428 people clicked on the survey link; however, only 207 respondents completed the entire questionnaire, making for a response rate of 48%. Online questionnaire was generated on website EnKlikAnketa, which already offered several analysis instruments and enabled me to transfer data into software Statistical Package for Social Sciences 22.0 (SPSS 22.0).

### 3.3.1 Sample characteristics

The respondents' demographic profile is portrayed by their gender, age, education, household monthly income, foreign language proficiency, foreign travel, and the Internet usage, as seen in the Table 4. Out of 207 respondents 100 were male (48.3%) and 107 female (51.7%). Their mean age was 37 years (st. dev. 1.246), while in January 2016 the Slovenian average age was 42.7 years (Statistical Office of the Republic of Slovenia, 2016a). With such an age difference between those included in the study and the Slovenian average age, I can assume that the total population was not portrayed well. The most well-represented age group in this study was 45 - 54 years (29.5%). The representativeness of the sample might be inadequate because of a low share of respondents in the age group under 18 and the one from 18-24. According to the Statistical Office of the Republic of Slovenia (2016a), 14.8% of Slovenian residents in 2016 were aged 14 or younger in Slovenia, opposed to the mere 1.0% covered in this sample. This signifies that children and young adults are unequally represented in this study. Also, more than half of the respondents marked their highest obtained formal education a university degree (55.6%). This corresponds to the previous data regarding the age, as since majority of the respondents are aged 25 and above, they have likely already graduated from a higher education program.

Ten respondents answered the question of their monthly net income at value 0.00 €, so I am able to analyze only 197 answers. Overall the mean is 2,014.00 € (st. dev. 1,345.097). According to Statistical Office of the Republic of Slovenia (2016b), the average net monthly earnings for July 2016 were 1,010.78 €. This amount is almost exactly half of the net income of our respondents, which indicates that Slovenian citizens with an average monthly income are not fairly represented in this thesis, even though the group 1,001 € - 2,000 € is the most represented in the research. The extent of international travel and foreign language expertise will show respondents' international experience. The majority of respondents can fluently speak and write 2 foreign languages (37.68%), which corresponds to Eurostat (2012) data of

on the average of 1.5 languages per pupil. A quarter of respondents (25.6%) visited at least 3 foreign countries in the past year. Information from the Statistical Office of the Republic of Slovenia (2016c) reveals that on average three in five private trips were made abroad, with Austria, Italy, and Croatia being the top three destinations. With an increasing number of consumers using the Internet as a source of information and as a guide for a product choice, the online marketplace is very important for global brands. Many consumers are likely to do online research prior to their purchase, therefore extrinsic information such as brand origin can be easily obtained. Surprisingly, the most dominant answer was that one third of respondents (37.20%) use the Internet less than 1 hour a day.

Table 4. Demographic characteristics of the respondents

| **Demographic Characteristics** | | **Frequency** | **Relative frequency (%)** |
|---|---|---|---|
| Gender | Male | 100 | 48.30 |
| | Female | 107 | 51.70 |
| Age Groups | Under 18 | 2 | 1.00 |
| | 18 - 24 | 16 | 7.70 |
| | 25 - 34 | 47 | 22.70 |
| | 35 - 44 | 46 | 22.20 |
| | 45 - 54 | 61 | 29.50 |
| | 55 or more | 35 | 16.90 |
| Level of Education | Primary school or less | 1 | 0.50 |
| | Vocational school (2 or 3 years) | 12 | 5.80 |
| | High school (4 years) | 49 | 23.70 |
| | Associate's, Bachelor's degree (1st Bologna level) | 115 | 55.60 |
| | Masters (2nd Bologna level), Specialization, Doctorate | 30 | 14.50 |
| Net income (month) | 0 € | 10 | 4.80 |
| | Under 1.000 € | 40 | 19.30 |
| | 1.001 € - 2.000 € | 74 | 35.70 |
| | 2.001 € - 3.000 € | 58 | 28.00 |
| | 3.001 € - 4.000 € | 18 | 8.70 |
| | 4.001 € - 5.000 € | 4 | 1.90 |
| | 5.001 € - 6.000 € | 1 | 0.50 |
| | 6.001 € - 7.000 € | 0 | 0.00 |
| | 7.001 € - 8.000 € | 0 | 0.00 |
| | 8.001 € - 9.000 € | 1 | 0.50 |
| | 9.001 € - 10.000 € | 1 | 0.50 |
| Knowledge of foreign languages | 0 | 19 | 9.18 |
| | 1 | 62 | 29.95 |
| | 2 | 78 | 37.68 |
| | 3 | 35 | 16.91 |
| | 4 | 10 | 4.83 |
| | 5 | 2 | 0.97 |
| | 8 | 1 | 0.48 |

table continues

continued

| Demographic Characteristics | | Frequency | Relative frequency (%) |
|---|---|---|---|
| Visited foreign countries (year) | 0 | 8 | 3.86 |
| | 1 | 27 | 13.04 |
| | 2 | 43 | 20.77 |
| | 3 | 53 | 25.60 |
| | 4 | 23 | 11.11 |
| | 5 | 30 | 14.49 |
| | 6 | 4 | 1.93 |
| | 7 | 9 | 4.35 |
| | 8 | 2 | 0.97 |
| | 9 | 3 | 1.45 |
| | 10 | 2 | 0.97 |
| | 11 | 3 | 1.45 |
| Use of internet (day) | Less than 1 hour a day | 77 | 37.20 |
| | 1 - 2 hours daily | 60 | 29.00 |
| | 2 -3 hours daily | 30 | 14.50 |
| | 3 - 4 hours daily | 26 | 12.60 |
| | 4 - 5 hours daily | 8 | 3.90 |
| | 5 hours or more daily | 6 | 2.90 |

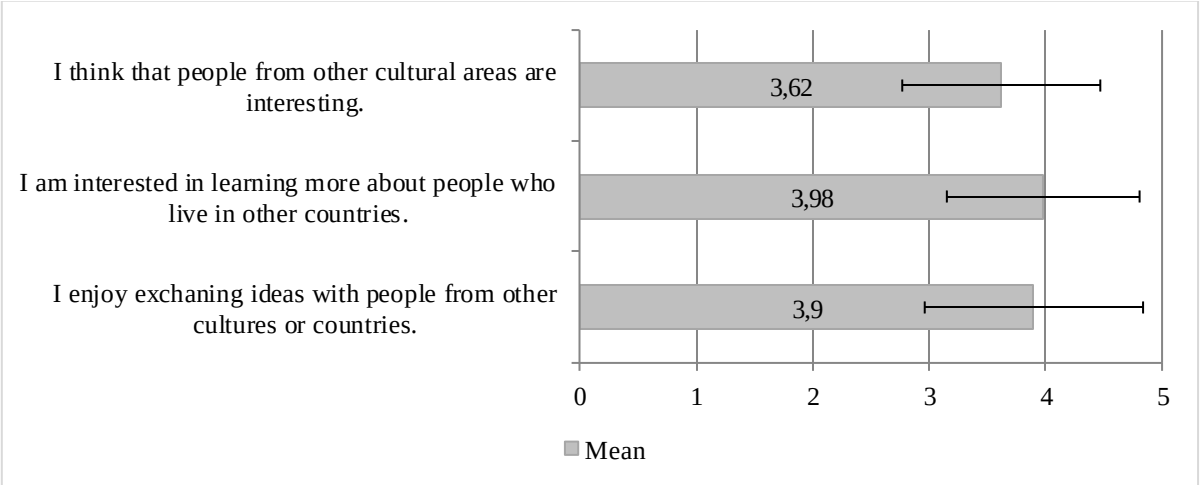
### 3.3.2 Means and Frequencies

The following section provides insight into variables measuring cosmopolitanism.

- Cosmopolitanism

Figure 3 illustrates means and standard deviations for each item measuring Cleveland et al.'s (2009) cosmopolitanism construct. All in all, the questions about cosmopolitanism yielded an average mean of 3.83 (average st. dev. 0.87) on a scale from 1 (low level) to 5 (high level).

*Figure 3*. Means and Standard Deviations for cosmopolitanism



I also calculated Cronbach's alpha (see Appendix D) in order to determine the reliability of cosmopolitanism scales, and the results reveal a sufficient value ($\alpha$=0.797). Since the coefficient is closer to 1 than it is to 0, the internal consistency of the scale and the inter-relatedness of the items is acceptable (Tavakol & Dennick, 2011).

### 3.3.3 BORA scores

I have determined respondents' BORA scores for local (European) and foreign (American, Asian) brands, which had shown the proportion of brand origins that they have correctly identified. The obtained sample answers were divided into two groups on the criterion of correct or incorrect selection of the chosen brand origin. Overall, the correct classification rate for cell phone brands in this study was 47.0%. This is somewhat higher in comparison to Samiee et al. (2005) and slightly lower than in Almani et al. (2011), where respondents showed correct classification rates of 35.0% and 50.3%, respectively. It would seem that the variation between results is due to the fact that I studied a product category whose brands are the least dominant in America and the most dominant in Asia. However, both the above-mentioned studies included several other brands with different product categories, which might diminish their comparison.

Origin perception is evidently a reliant process, even deemed "incidental guessing" by Samiee et al. (2005, p. 383). BORA scores certainly indicate a blend of genuine knowledge in conjunction with error variance as a result of guessing. The majority of respondents was likely to demonstrate limited recognition accuracy. As it turned out, respondents from this sample have modest BORA knowledge. As a matter of fact, the mean BORA score for all 18 brands was hardly higher than half-correct identification ($M_{BORA(TOTAL)}$=55.7%). In particular the average accurate recognition score of the sample for the five American brands was more than two thirds ($M_{BORA(AM)}$=67.8%) and the seven Asian brands followed with nearly half-correct recognition ($M_{BORA(AS)}$=47.7%). Surprisingly, respondents accurately identified merely around half of the six local European brands ($M_{BORA(EU)}$=54.1%).

Correct brand origin classification rates for this study are shown in Table 5, country-by-country based on guidance by Samiee et al. (2005, p. 387). Taking into account, for example, the only presented Canadian brand Blackberry, the main diagonal line reveals that only 19.8% of respondents accurately categorized this brand for its Canadian origin. The horizontal entries convey that 0.5% of the Canadian-brand assignments were associated with China, 2.9% with Finland, 1.4% with France, 1.0% with Germany, and so on. Over one quarter (25.1%) of respondents were not able to appoint the Canadian brand to any country, choosing either the 'Not listed' or 'Don't know' option. As a matter of fact, these data show that a considerable part of all 18 brands were not allocated to any of the countries listed, varying from 5.8% (Finland) to 44.0% (France). It is no surprise that Germany would have the highest accurate brand origin recognition rate in the sample (72.9%), since it is one of Slovenia's biggest trading partners. However, over 11.1% of respondents still could not

associate the German brand, Siemens, with any country. The recognition percentage drops drastically for other origin countries, ranging from only 17.4% and 19.8% for Taiwan and Canada, respectively, to 69.6% and 72.9% for Japan and Germany. These results reveal that Slovenian consumers uphold a moderate level of BORA (Samiee et al., 2005, pp. 386-387).

This thesis has presented an awareness of consumers' BORA and the factors that explain the inconsistency in BORA scores. It is apparent from the results of my national survey that consumers' correct brand origin identification rates of 45% for local brands ($BORA_{EU}$) and 48% for foreign brands (58% for $BORA_{AM}$ and 38% for $BORA_{AS}$) reveal modest BORA scores with 47% correct classification rate altogether. Two respondents were able to recognize all 18 cell phone brands, while four respondents were unable to assign brand origin to any of the brands considered (choosing either "Don't know" or Not listed" option). In general, even though the accurate brand origin identification rates differ extensively across brands, with some exceptions, the majority of respondents either appointed the incorrect brand origin or were unable to choose any of the available origin options. It has surprised me that respondents have gotten such low BORA scores, despite the fact that EU has very strong laws that oblige all products to have visibly indicated COO (Balabanis & Diamantopoulos, 2008).

Table 5. Brand origin recognition accuracy matrix

| Brands from | Brands associated with | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CAN | CHN | FIN | FRA | GER | JPN | NLD | SKR | SWE | TWN | USA | DK[a] | NL[a] |
| CAN | 19.8 | 0.5 | 2.9 | 1.4 | 1.0 | 1.0 | 1.9 | 0.5 | 1.4 | 0.5 | 44.0 | 21.7 | 3.4 |
| CHN | 0.7 | 36.7 | 1.7 | 1.0 | 2.4 | 8.2 | 0.2 | 14.3 | 0.7 | 6.3 | 4.8 | 21.5 | 1.4 |
| FIN | 0.0 | 2.9 | 63.8 | 0.0 | 1.4 | 15.5 | 1.0 | 1.0 | 6.3 | 0.0 | 1.9 | 5.8 | 0.5 |
| FRA | 1.0 | 8.5 | 2.7 | 20.5 | 3.1 | 3.4 | 1.0 | 5.1 | 2.9 | 3.6 | 3.4 | 44.0 | 1.0 |
| GER | 0.0 | 1.4 | 2.9 | 1.4 | 72.9 | 4.3 | 1.9 | 0.5 | 2.4 | 0.0 | 0.0 | 11.1 | 1.0 |
| JPN | 0.5 | 2.4 | 1.9 | 1.4 | 2.9 | 69.6 | 0.0 | 1.9 | 3.4 | 1.0 | 6.8 | 7.7 | 0.5 |
| NLD | 1.0 | 4.3 | 0.5 | 4.3 | 36.2 | 6.8 | 26.6 | 1.9 | 1.9 | 3.4 | 2.9 | 9.7 | 0.5 |
| SKR | 0.2 | 5.1 | 0.5 | 1.4 | 4.3 | 12.3 | 0.7 | 44.4 | 1.4 | 4.1 | 7.0 | 17.9 | 0.5 |
| SWE | 0.0 | 0.5 | 13.0 | 2.4 | 2.4 | 5.3 | 2.4 | 0.5 | 64.3 | 0.5 | 1.4 | 6.8 | 0.5 |
| TWN | 1.2 | 11.8 | 0.7 | 0.7 | 1.4 | 7.0 | 1.9 | 13.5 | 1.0 | 17.4 | 4.3 | 37.7 | 1.2 |
| USA | 2.2 | 1.2 | 2.2 | 0.7 | 3.3 | 3.1 | 0.8 | 0.6 | 1.8 | 0.5 | 67.6 | 15.2 | 0.7 |

*Note*. [a]DK=don't know; NL=not listed.

### 3.3.4 Hypotheses testing

The purpose of this master's thesis is to examine consumer knowledge of brands' origin country in the cell phone market in Slovenia. It was important to demonstrate that Slovenian consumers do have general knowledge of brand origin, with the intention of accepting or rejecting the hypotheses, which will lead me to suitable conclusions. To help me analyze the formulated hypotheses, I used the independent samples t-test values. Results are presented in Table 6, whereas t-values with degrees of freedom in parentheses, and one-tailed p-values, are showing the outcome of this research. For each hypothesis, I have also written the number of respondents belonging to each variable group, in order to get a better overview whether the groups were equally spread through the sample. SPSS outputs are listed in Appendix E.

Table 6. The Outcome of the Hypotheses Tested in the Research

| | | | n[a] | BORA TOTAL | COSMOPOLITANISM LEVEL |
|---|---|---|---|---|---|
| $H_1$ | EDUCATION LEVEL | high | 145 | $t(205) = -0.212$; $P_{(1\text{-tailed})} = 0.416$ | |
| | | low | 62 | | |
| $H_2$ | INCOME | high | 157 | $t(205) = 1.722$; $P_{(1\text{-tailed})} = 0.0435$ | |
| | | low | 50 | | |
| $H_3$ | EDUCATION LEVEL | high | 145 | | $t(105) = 1.728$; $P_{(1\text{-tailed})} = 0.0435$ |
| | | low | 62 | | |
| $H_4$ | INCOME | high | 157 | | $t(75) = 2.016$; $P_{(1\text{-tailed})} = 0.0235$ |
| | | low | 50 | | |
| $H_5$ | COSMOPLITANISM LEVEL | high | 145 | $t(205) = 1.676$; $P_{(1\text{-tailed})} = 0.0475$ | |
| | | low | 62 | | |
| $H_6$ | AGE | young | 65 | $t(205) = -2.045$; $P_{(1\text{-tailed})} = 0.021$ | |
| | | old | 142 | | |
| $H_7$ | GENDER | female | 107 | $t(205) = -7.871$; $P_{(1\text{-tailed})} = 0.000$ | |
| | | men | 100 | | |
| $H_8$ | USE OF INTERNET | frequent | 70 | $t(205) = 0.613$; $P_{(1\text{-tailed})} = 0.2705$ | |
| | | modest | 137 | | |

*Note*. [a]n=number of respondents.

In order to further review the results, I have also analyzed the BORA scores for hypotheses $H_1$, $H_2$, $H_6$, $H_7$ and $H_8$ in the post hoc analysis for each of the three regions; American, Asian and European. Similarly, as stated above, results are presented in Table 7, whereas t-values with degrees of freedom in parentheses, and one-tailed p-values, are showing the outcome of this research. As already described above, I have written the number of respondents belonging to respective variable group. Each result is later on described in detail, concluding if hypotheses were either confirmed or rejected.

Table 7. The Outcome of the Post Hoc Hypotheses Tested in the Research

| | | | n[a] | BORA AM | BORA AS | BORA EU |
|---|---|---|---|---|---|---|
| $H_{1A, 1B, 1C}$ | EDUCATION LEVEL | high | 145 | t(205) = 0.554; $P_{(1\text{-tailed})}$ = 0.2905 | t(205) = -0.176; $P_{(1\text{-tailed})}$ = 0.430 | t(205) = -0.809; $P_{(1\text{-tailed})}$ = 0.2095 |
| | | low | 62 | | | |
| $H_{2A, 2B, 2C}$ | INCOME | high | 157 | t(205) =1.509; $P_{(1\text{-tailed})}$ = 0.0665 | t(205) = 1.265; $P_{(1\text{-tailed})}$ = 0.1035 | t(205) = 1.779; $P_{(1\text{-tailed})}$ = 0.0385 |
| | | low | 50 | | | |
| $H_{6A, 6B, 6C}$ | AGE | young | 65 | t(160) = -1.166; $P_{(1\text{-tailed})}$ = 0.1225 | t(205) = -1.717; $P_{(1\text{-tailed})}$ = 0.0435 | t(205) = -2.423; $P_{(1\text{-tailed})}$ = 0.008 |
| | | old | 142 | | | |
| $H_{7A, 7B, 7C}$ | GENDER | female | 107 | t(205) = -7.521; $P_{(1\text{-tailed})}$ = 0.000 | t(205) = -6.275; $P_{(1\text{-tailed})}$ = 0.000 | t(205) = -6.284; $P_{(1\text{-tailed})}$ = 0.000 |
| | | men | 100 | | | |
| $H_{8A, 8B, 8C}$ | USE OF INTERNET | frequent | 70 | t(205) = 1.130; $P_{(1\text{-tailed})}$ = 0.130 | t(205) = 0.589; $P_{(1\text{-tailed})}$ = 0.278 | t(205) = 0.093; $P_{(1\text{-tailed})}$ = 0.463 |
| | | modest | 137 | | | |

*Note*. [a]n=number of respondents.

**$H_1$: Consumers higher in education level should exhibit higher levels of $BORA_{TOTAL}$.**

$H_{1A}$: Consumers higher in education level should exhibit higher levels of $BORA_{AM}$.

$H_{1B}$: Consumers higher in education level should exhibit higher levels of $BORA_{AS}$.

$H_{1C}$: Consumers higher in education level should exhibit higher levels of $BORA_{EU}$.

In the first Hypothesis I determined whether higher education level affects BORA scores. The measure highest completed level of education (hereinafter: education) was firstly compared to $BORA_{TOTAL}$ scores joined with all brand origin countries in this research, and post hoc reviewed for each of the regions, namely $BORA_{AM}$, $BORA_{AS}$ and $BORA_{EU}$. In order to assess its validity, independent samples t-test was calculated (see Appendix E). Education (measured on ordinal scale), was divided onto two sections, that is respondents with higher education level (Bachelor's degree or above) and those with lower education level (high school education or below). BORA scores for each respondent have been determined by calculating the number of accurate answers in comparison to all available options. This has given me percentage accuracy for $BORA_{TOTAL}$ as well as for both foreign ($BORA_{AM}$, $BORA_{AS}$) and local ($BORA_{EU}$) scores, measuring this dependent variable on interval scale.

It was assumed that more educated consumers reflect better recognition of cell phone brand's origins. However, independent samples t-test determined an insignificant relationship. Levene's test for equality of variance has provided p-values greater than 0.05, meaning that the variability in the two conditions is not statistically significantly different. The one-tailed p-value in hypothesis $H_1$ and post hoc hypotheses $H_{1A}$, $H_{1B}$ and $H_{1C}$ was greater than 0.05 in all t-tests (-0.212 for $BORA_{TOTAL}$, 0.554 for $BORA_{AM}$, -0.176 for $BORA_{AS}$, -0.809 for $BORA_{EU}$). Therefore, there is no statistically significant difference between variable education and BORA. With this I conclude that I cannot claim that higher level of education leads to higher BORA scores.

**$H_2$: Consumers higher in income should exhibit higher levels of $BORA_{TOTAL}$.**
$H_{2A}$: Consumers higher in income should exhibit higher levels of $BORA_{AM}$.
$H_{2B}$: Consumers higher in income should exhibit higher levels of $BORA_{AS}$.
$H_{2C}$: Consumers higher in income should exhibit higher levels of $BORA_{EU}$.

Next Hypothesis, $H_2$, revealed whether higher income influences BORA scores. The measure total income of all family members in a given year (hereinafter: income) was similarly as hypothesis $H_1$ firstly compared to all BORA scores, and post hoc reviewed for each of the regions. Income was divided onto two sections, namely respondents with higher income (1,010.78 € or above) and those with lower income (1,010.77 € or below). This value was set up by a threshold of 1,010.78 €, an average net monthly earning in Slovenia in July 2016 (Statistical Office of the Republic of Slovenia, 2016b).

Levene's test for equality of variance has returned F of 0.809 and p-value of 0.370, exceeding p of 0.05. Consequently, independent samples t-test resulted in a significant relationship with t-value at 1.722 and 205 degrees of freedom. The one-tailed p-value associated with the test is 0.0435 (Appendix E). The p-value is smaller than the threshold of 0.05. Moreover, the mean for respondent with higher income was greater than that of those with lower income, thus supporting the hypothesis $H_2$.

As in previous hypothesis, I also analysed the relationship between income and all three BORA regions. In $BORA_{AM}$ example, the p-value of Levene's test is 0.795. Assuming equal variances, the t-value is 1.509, with 205 degrees of freedom, and with one-tailed p-value of 0.2905. Since the p-value retrieved exceeds the value of 0.05, the hypothesis cannot be supported, meaning that there is no statistically significant evidence that consumer with higher income are able to accurately recognize more American cell phone brand origins as consumers with lower income. Once more using the t-test with hypothesis $H_{2B}$, Levene's test of variance has shown the F-value of 2.738 and p-value of 0.100, again exceeding p-value of 0.05. Therefore, the variances of two populations can be seen as equal. T-test has generated the value of 1.265 with 205 degrees of freedom and one-sided p-value of 0.1035. Since p-value exceeds the threshold value of 0.05, the research hypothesis that higher income consumers recognize more Asian cell phone brand origins, cannot be supported. For the last hypothesis $H_{2C}$, related to local European cell phone brands t-test was applied as well. The p-value of Levene's test is 0.333 and F-value of 0.940. Consequently, the t-test assumption of equal population was applied. The t-value is 1.779 with 205 degrees of freedom. The one-tailed p-value associated with the test is 0.0385. In this case, the p-value does not exceed the threshold value of 0.05, therefore hypothesis $H_{2C}$ is supported. Furthermore, the mean for those with higher income was greater compared to mean of lower income. It can be concluded that consumers with higher income are able to accurately recognize more European cell phone brand origins than those with lower income.

**$H_3$: Consumers' higher education level is positively related to higher levels of cosmopolitanism.**

In the Hypothesis $H_3$ I determined whether higher education level reflects in higher levels of cosmopolitanism. Again, education was divided onto two sections by a threshold of Bachelor's degree. The two samples were made, namely respondents with higher education level (Bachelor's degree or above) and those with lower education level (high school education or below). Cosmopolitanism was measured using Cleveland et al.'s (2009) three statements, where respondents had to mark their agreement with the statements on a 5-choice Liket scale. This variable as well was divided onto two sections, that is respondents with higher (agreement with Cleveland et al.'s (2009) three statements) and those with lower cosmopolitanism tendencies (indifference or disagreement with Cleveland et al.'s (2009) three statements). The hypothesis $H_3$ was tested by means of independent samples t-test. Levene's test for equality of variances has returned F-value of 9.6521 and p-value of 0.002, that does not exceed 0.05 (Appendix E). Hence, the variability in these two populations is not the same, the scores in one population vary much more than the scores in the second one. The t-test with the assumption of unequal variances produced t-value of 1.728 with the one-tailed p-value of 0.0435. Again, p-value does not exceed 0.05, supporting $H_3$, which posits that more educated respondents tend to be more cosmopolitan.

**$H_4$: Consumers' higher income is positively related to higher levels of cosmopolitanism.**

In order to review hypothesis $H_4$, independent samples t-test was calculated. Levene's test has shown F-value of 11.042 with the p-value of 0.001, which is below the threshold of 0.05 (Appendix E). This leads me to believe that the variability of the two conditions is statistically significantly different. Therefore, assuming unequal variances, t-value of 2.016 with 75 degrees of freedom and a significant one-tailed p-value of 0.0235, leads me to conclusion that this hypothesis is supported. Additionally, the mean for respondents with higher income was greater than the mean for those with income lesser of an average net monthly earning in Slovenia in July 2016 (Statistical Office of the Republic of Slovenia, 2016b). With this I can conclude that consumer with greater income, will most likely have higher cosmopolitanism tendencies.

**$H_5$: Consumers exhibiting greater cosmopolitanism scores should manifest higher levels of $BORA_{TOTAL}$.**

Hypothesis $H_5$ was designed to determine the relationships between cosmopolitanism level and BORA scores. I have again used independent samples t-test, where I compared the relationship between respondent with high or low cosmopolitanism tendencies and their $BORA_{TOTAL}$ values. Levene's test for equality of variances has presented F-value of 2.887 and the p-value of 0.91, exceeding p of 0.05. For that reason, the t-test assumption of equal variances was applied. The t-value of 1.676 with 205 degrees of freedom and one-tailed p-

value of 0.0475, makes me assume that the hypothesis $H_5$ is statistically significant as the p-value does not exceed the threshold of 0.05. Having said that, I can conclude that consumers with high cosmopolitan tendencies have been able to accurately identify more total cell phone brand origins as did the respondents with less cosmopolitan scores. As previously mentioned, this hypothesis was not further analyzed through three regions, as they are all foreign. It is true, that European region is considered local in my thesis, but in reality, EU brands are not domestic to our respondents, therefore people with cosmopolitanism tendencies should showcase higher BORA scores for three regions.

**$H_6$: Younger consumers' will score higher levels of $BORA_{TOTAL}$.**
$H_{6A}$: Younger consumers' will score higher levels of $BORA_{AM}$.
$H_{6B}$: Younger consumers' will score higher levels of $BORA_{AS}$.
$H_{6C}$: Younger consumers' will score higher levels of $BORA_{EU}$.

The next set of hypotheses ($H_6$ and $H_7$) refers to relationship between demographic variables age and gender, in relation to BORA scores. Firstly, I had divided the ordinal variable age onto two samples by a threshold of 35 years old, with younger (aged 34 or below) and older respondents (aged 35 or above). These variables, in relationship to $BORA_{TOTAL}$ were then analyzed using independent samples t-test. Levene's test of equality of variances has produced F-valued of 2.187 with insignificant p-value of 0.141, leading me to assume equal variances between samples. T-test with value 2.045, with 205 degrees of freedom and one-tailed 0.021 p-value, is statistically significant. With this I can claim that the $H_6$ is supported, meaning that younger consumers are more likely to recognize cell phone brands' origins better that their older counterparts.

Post hoc t-test revealed that hypothesis $H_{6A}$ with F-value of 5.342 and significant p-value of 0.022, can assume unequal variability of two samples. The t-test of 1.166 with 160 degrees of freedom and one-tailed p-value of 0.1125, reveals p-value greater than 0.05. Therefore, I cannot claim that the relationship between $BORA_{AM}$ and age of consumers is statistically significant and have to reject the hypothesis $H_{6A}$. Levene's t-test was applied also for $H_{6B}$ and $H_{6C}$, producing F-values of 0.05 and 0.002 respectively, with insignificant p-values (0.818 for $BORA_{AS}$ and 0.961 for $BORA_{EU}$). A value greater than 0.05 means that the variability in the two conditions is not statistically significant, so I assumed equal variances. T-test -1.717 with 205 degrees of freedom and one-tailed p-value of 0.0435 reveals that $H_{6B}$ can be supported. Same goes for $H_{6C}$, as its t-value -2.423, 205 degrees of freedom and one-tailed p-value 0.008, reveals statistical significance. This leads me to conclusion that younger people tend to recognize Asian and European brands better than older respondents.

**$H_7$: Women will demonstrate higher levels of $BORA_{TOTAL}$.**
$H_{7A}$: Women will demonstrate higher levels of $BORA_{AM}$.
$H_{7B}$: Women will demonstrate higher levels of $BORA_{AS}$.
$H_{7C}$: Women will demonstrate higher levels of $BORA_{EU}$.

To test this hypothesis, the relationship between variable gender and $BORA_{TOTAL}$, was analyzed. $H_7$ was tested by means of t-test. Levene's test for equality of variances has retuned F-value of 2.812 and p-value of 0.95, exceeding p-value of 0.05. Consequently, the t-test assumption of equal population was applied. The t-value is 7.871 with 205 degrees of freedom. The one-tailed p-value associated with the test id 0.000 (Appendix E). The p-value is smaller than the threshold value of 0.05, therefore hypothesis is supported. Women do demonstrate higher levels of $BORA_{TOTAL}$.

Again, for the conjoined hypothesis from each of the regions, independent samples t-test was applied. The p-value of Levene's test on $H_{7A}$ is 0.763. For that reason, I have to assume equal variances, with the t-value of -7.521, 205 degrees of freedom and one-tailed p-value of 0.000. The results reveal statistically significant relationship between gender and $BORA_{AM}$. Same approach was conducted with $H_{7B}$ and $H_{7C}$, whereas F-values were 3.339 and 1.067, respectively. In both cases p-values exceeded 0.05, so the t-test assumption of equal variances was applied. The t-value of -6.275 for $H_{7B}$ and -6.284 for $H_{7C}$, with 205 degrees of freedom and one-tailed p-value 0.000 revealed statistically significant evidence that women demonstrate higher levels of $BORA_{AS}$ and $BORA_{EU}$. To summarize, all hypotheses regarding gender were statistically significant, confirming that females had more ability to recognize foreign brand origins than did their male counterparts.

**$H_8$: Consumers who use the Internet more should possess higher levels of $BORA_{TOTAL}$.**
$H_{8A}$: Consumers who use the Internet more should possess higher levels of $BORA_{AM}$.
$H_{8B}$: Consumers who use the Internet more should possess higher levels of $BORA_{AS}$.
$H_{8C}$: Consumers who use the Internet more should possess higher levels of $BORA_{EU}$.

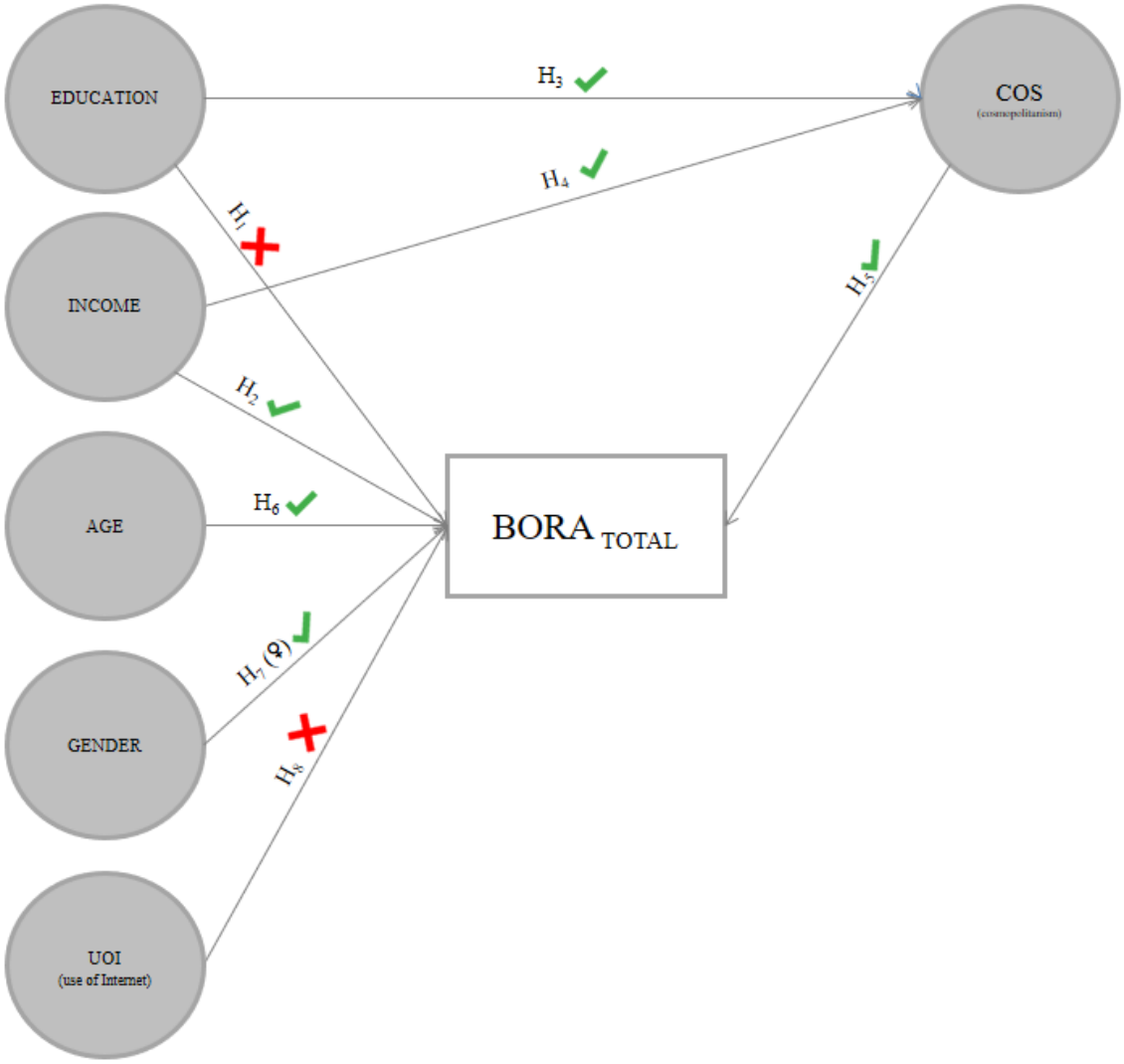
The final Hypothesis is designed to demonstrate the relationship between respondents' Internet usage and their BORA scores. Similarly, to the hypotheses above, I split the respondent into two groups by a threshold of using the Internet for two hours per day, resulting in two samples, frequent (daily usage of Internet two hours or above) and modest (daily Internet usage up to two hours) Internet users. These variables, in relationship to $BORA_{TOTAL}$ were then analyzed using independent samples t-test. Levene's test for equality of variables has produced F-value of 0.103 with insignificant p-value of 0.748. This leads me to assume equal variances for $H_8$, resulting in t-value of 0.613 with 205 degrees of freedom and 0.2705 one-tailed p-value. Since the p-value exceeds 0.05, the research hypothesis $H_8$ cannot be confirmed.

Same process was applied to hypotheses $H_{8A}$, $H_{8B}$ and $H_{8C}$, where Levene's t-test for equality of variance provided p-values for all variables ($BORA_{AM}$, $BORA_{AS}$ and $BORA_{EU}$) greater than 0.05. This means that neither of the hypotheses has statistically significant variability, leading me to assume equal variances. The one-tailed p-values associated with this test were greater than 0.05 in all t-tests (1.130 for $BORA_{AM}$, 0.589 for $BORA_{AS}$, 0.093 for $BORA_{EU}$).

More detailed analysis can be found in Appendix E. To summarize, there is no statistically significant differences between variables that were applied to measure BORA total as well for each region in relation to the Internet usage, as a result, the hypotheses cannot be confirmed.

Figure 4 illustrates a summary of the hypotheses tested in this study. By testing the hypothesis $H_1$ and $H_8$, I found that there is no difference between education level or daily Internet usage in relation to recognition of cell phone brands' country origins. However, our analyses revealed that there is a relationship between higher income, higher cosmopolitanism tendencies and younger female consumers, as all of the t-tests for $H_2$, $H_3$, $H_4$, $H_5$, $H_6$, $H_7$ showed statistically significant difference.

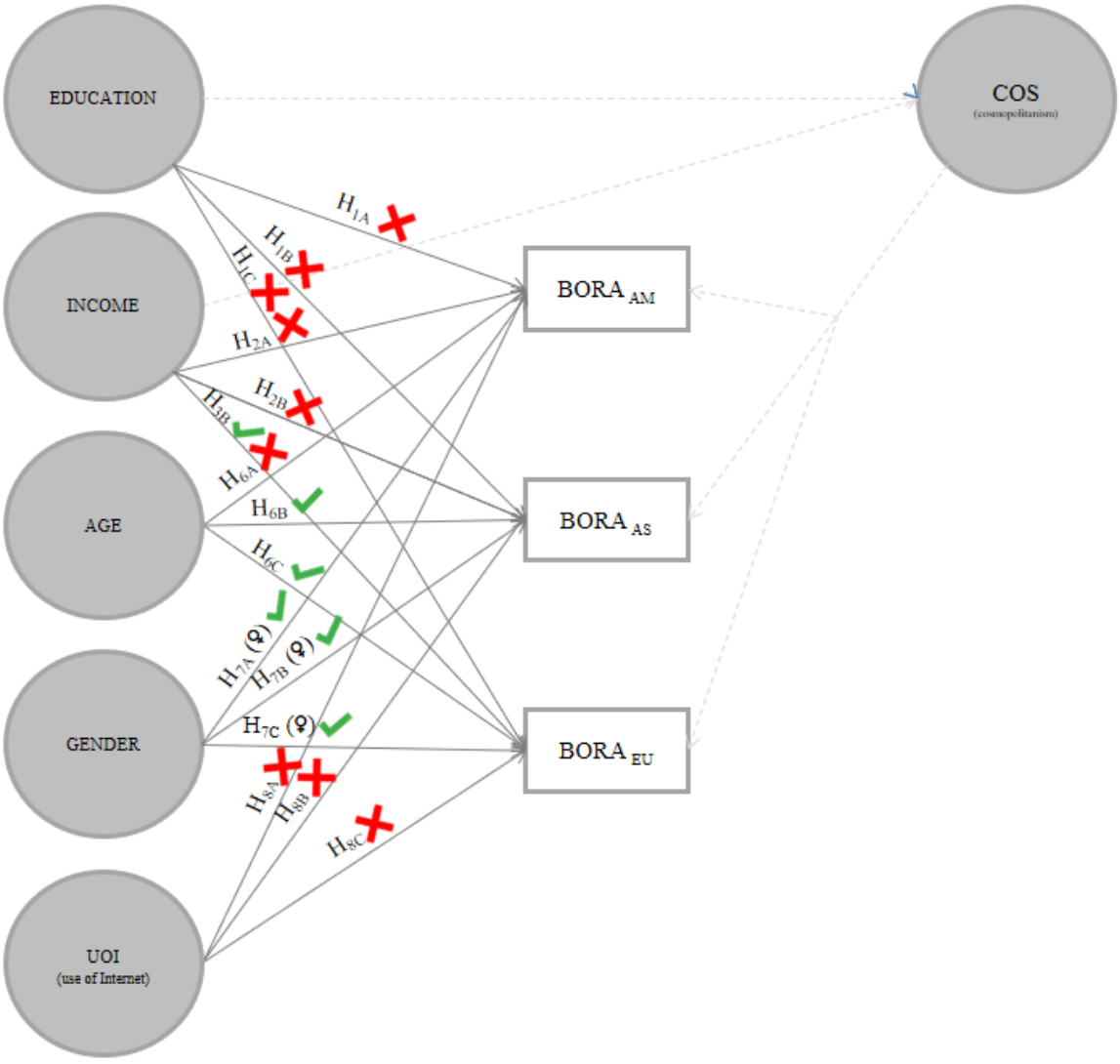
*Figure 4.* Summary of Hypotheses testing




Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, p. 388.

Correspondingly, Figure 5 demonstrates a summary of the post hoc hypotheses. Surprisingly, there is less confirmed hypotheses as in the base analysis. Relationships between education and daily Internet usage is insignificant for all three brand origin regions, which matches to the base analysis of $H_1$ and $H_8$, respectively. However, relationship between income and $BORA_{AM}$ as well as $BORA_{AS}$ was found insignificant, even though $H_2$ was accepted. Variable age was found insignificant with only $BORA_{AM}$, while hypothesis $H_{6B}$ and $H_{6C}$ corresponded with the proven base hypothesis. Relationship between gender and all three BORA regions was found statistically significant, supporting all the hypotheses $H_{7A}$, $H_{7B}$ and $H_{7C}$.

*Figure 5.* Summary of Post Hoc Hypotheses testing




Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, p. 388.

When choosing a certain brand, the role of brand origin is inconvenient in ordinary circumstances, as information about brands' origin has to be physically looked for on the product at the point of purchase or retrieved from memory, which is in most cases

insignificant. Subsequently, we cannot presume that brand origin portrays a vital role in consumer inclination, decision making, and therefore international marketing strategies. However, this assumption is based on the questionable supposition that consumers in fact recognize or inquire about the origins of brands when making purchase evaluations. This research, based on cell phone category and related brands, indicates that respondents have partial recognition of brand origins, or find this kind of information fairly insignificant. Having said that, I do not imply that brand origin bias is not present as literature research supports the occurrence of such predisposition in a minor percentage of the population (Samiee et al., 2005, pp. 391-392).

It is apparent from the outcome of this study that income, cosmopolitanism, age and gender contribute to higher BORA scores. A stronger emphasis on these features in marketing will probably establish better recognition of brand origin (Samiee et al., 2005, pp. 392). However, findings in this thesis also signify that accentuating brand origin as part of international marketing strategy might be less effective than anticipated, as respondents' recognition of brand origins is inadequate (Balabanis & Diamantopoulos, 2008). Modest BORA scores in this study make me assume that marketing managers should include brand origin in their adapted marketing strategy only when research outcomes support the assumptions presented in this thesis. In this kind of cases, the characterized variables can contribute to more beneficial targeting of companies' marketing communications. International marketing managers need to also stress the brand origin's affect on customers' acknowledgement of global brands. With escalated awareness of globalization and the realization of greater economies of scale, this adaptation could also be regarded as companies' global strategy (Samiee et al., 2005, p. 392).

# 4 DISCUSSION

## 4.1 Interpretation of results

The findings from my analysis indicate that Slovenian consumers have moderate knowledge of cell phone brand origins, as only 47% of respondents chose the right brand origin country. However, their level of BORA scores and its impact on either local or foreign origin brands varies and is dependent on different socio-demographic factors. The significance of consumers' demographic characteristics in this type of analysis is reinforced by research conclusions that have demonstrated income, cosmopolitanism, age and gender to be important gauges of marketplace inclinations (Samiee et al., 2005, p. 384). On the other hand, education level and the Internet usage did not show any statistically significant differences, so these hypotheses were rejected. Table 8 shows an overview of my research hypothesis testing results in comparison to studies by authors Samiee et al. (2005), whose local region was considered USA, and Almani et al. (2011), whose local region was considered Asia. Their research was a source for my hypotheses, even though my final outcomes differ.

*Table 8.* Overview of Hypotheses testing in comparison to authors Samiee et al. (2005) & Almani et al. (2011)

| Hypothesis | Dependent variable | This research (2016) | | This research post hoc (2016) | | Samiee et al. (2005) | | Almani et al. (2011) | |
|---|---|---|---|---|---|---|---|---|---|
| | | Variable | Hypothesis | Variable | Hypothesis | Variable | Hypothesis | Variable | Hypothesis |
| $H_1$ | BORA foreign | BORA total | Rejected | AM[a] | Rejected | F[a] | Confirmed | US | Confirmed |
| | | | | AS[a] | Rejected | | | EU | Confirmed |
| | BORA local | | | EU[a] | Rejected | US[a] | Confirmed | AS | Confirmed |
| $H_2$ | BORA foreign | BORA total | Confirmed | AM | Rejected | F | Confirmed | US | Confirmed |
| | | | | AS | Rejected | | | EU | Confirmed |
| | BORA local | | | EU | Confirmed | US | Confirmed | AS | Confirmed |
| $H_3$ | COS[b] | EDU[b] | Confirmed | EDU | Confirmed | IE[b] | Confirmed | IE | Confirmed |
| $H_4$ | COS | INC[b] | Confirmed | INC | Confirmed | | | | |
| $H_5$ | BORA foreign | BORA total | Confirmed | TOTAL | Confirmed | F | Confirmed | US | Confirmed |
| | | | | | | | | EU | Confirmed |
| | BORA local | | | | | US | Confirmed | AS | Confirmed |
| $H_6$ | BORA foreign | BORA total | Confirmed | AM | Rejected | F | Rejected | US | Rejected |
| | | | | AS | Confirmed | | | EU | Rejected |
| | BORA local | | | EU | Confirmed | US | Rejected | AS | Rejected |
| $H_7$ | BORA foreign | BORA total | Confirmed | AM | Confirmed | F | Confirmed | US | Confirmed |
| | | | | AS | Confirmed | | | EU | Confirmed |
| | BORA local | | | EU | Confirmed | US | Confirmed | AS | Confirmed |
| $H_8$ | BORA foreign | BORA total | Rejected | AM | Rejected | n/a | | US | Confirmed |
| | | | | AS | Rejected | | | EU | Confirmed |
| | BORA local | | | EU | Rejected | | | AS | Confirmed |

*Note*. [a]AM=American brand origin, AS=Asian brand origin, EU=European brand origin, F=foreign brand origin, US=United States brand origin; [b]COS=cosmopolitanism level, EDU=education level, INC=net monthly income, IE=international experience.

Source: S. Samiee, T. Shimp & S. Sharma, *Brand Origin Recognition Accuracy: Its Antecedents and Consumers' Cognitive Limitations*, 2005, pp. 388-389;
A. M. Almani, A. Pournaserani & F. Pournaserani, *Consumers' Brand Origin Recognition Accuracy (BORA) Scores: an Empirical Study*, 2011, p. 268.

In the first hypothesis, Samiee et al. (2005) and Almani et al. (2011) compare BORA scores with socioeconomic status and their analysis resulted in significant relationships. Socioeconomic status is represented by consumers' education level and income. In my research, I decided to divide the two variables, as socioeconomic status can be defined not only by education and income, but also by profession. This would make this independent variable inapplicable to other studies (Balabanis & Diamantopoulos, 2008; Martín & Cerviño, 2011).

Education gives consumers an overview of the global market, provides a chance to work in a variety of jobs of a person's own choosing which promotes personal development. With that come opportunities such as international travel (Friese, 2000). This kind of standard of living inspires and gives the chance to interact with people from other countries and cultures, enhancing their perceptions toward foreign products and, therefore, brand origins (Almani et al., 2011). Surprisingly, the results of hypothesis $H_1$ covey that education level does not have a statistically significant impact on not only general $BORA_{TOTAL}$, but also $BORA_{AM}$, $BORA_{AS}$ and $BORA_{EU}$ in my post hoc analysis. I believe this is due to the fact that in Slovenia, education is very affordable, mostly free, contrary to the markets where comparable researches were done, USA and Asia. Ability to choose the education you desire, without limitations such as pricey scholarships or limited positions per capita, blurs the line between consumers would have chosen to study for higher education due to their knowledge and competence, and those who studied, as it was available and expected of them, with no real desire and passion for their learning.

Besides education, income is also one of the factors used to determine person's socioeconomic status. Higher income enables us to experience and afford different products, domestic or otherwise. The information on people's average income is part of public record, making it easier for me to determine if my sample corresponds to average monthly net income. Additionally, it gives me a threshold to determine whether respondent exceed it, listing them into group with higher income or if they do not meet it, listing them in the group with lower income (Statistical Office of the Republic of Slovenia, 2016b). Analysis of the respondents' answers based on $H_2$ revealed that their income does impact their recognition of different brand origins. Even though the post hoc results for $BORA_{AM}$ and $BORA_{AS}$ were not significant, the p-value for $BORA_{EU}$ was within the 0.05 threshold, making its relationship with income significant.

As mentioned in the previous paragraph, income and sometimes even education, can enable consumer to travel abroad and learn about different cultures. Authors, Samiee et al. (2005) and Almani et al. (2011) have reviewed the indicators, the number of foreign countries that a respondent has visited and the number of foreign languages that s/he is being proficient in, joining them into the variable international experience (hereinafter: IE). Even though, my questionnaire also enquired about this information, based on the literature review (Zhuang, et al., 2008; Cleveland et al., 2009; Riefler, Diamantopoulos, & Siguaw, 2012; Lee & Mazodier, 2015), I've decided that variable cosmopolitanism (hereinafter: COS) would better suit my research. My presumption was, that higher COS level would have a positive affect on both education and income. The results of the analysis confirm a significant relationship between both dependent (COS) and independent (education, income) variables, which supports my hypotheses ($H_3$, $H_4$) that consumers with a higher level of education and better income tend to be more receptive and tolerant of foreign cultures, due to their presumed ability to travel abroad and being proficient in foreign languages.

Having that in mind, I also did an analysis of the relationship between COS and BORA, as it correlates with previous four hypotheses. As previously mentioned, cosmopolitanism is a measure of how cultivated a respondent is and can be to some extent related to knowledge of foreign cultures, and consequently cosmopolitan respondents are able to recognize more brand origins than their less cosmopolitan counterparts. Hypotheses $H_5$ was found to be statistically significant, enabling me to confirm that consumers with higher COS tendencies recognize cell phone brands origins' better than those who are indifferent and less inclined towards foreign cultures.

The next part of the analysis concentrates on measuring the relationship between respondent's demographic characteristics on the level of their BORA scores. The results show a significant relationship between both age and gender regarding BORA scores, confirming hypotheses $H_6$ and $H_7$. Yet again, additional post hoc analysis was conducted on these two hypotheses. Age had a statistically significant relationship with $BORA_{AS}$ and $BORA_{EU}$, while gender was significant for all three regions. The only insignificant demographic relationship was found between age and $BORA_{AM}$, rejecting my hypothesis $H_{6A}$, that age is reversely related to recognition of American cell phone brand origins. As majority of my sample has older respondents, their familiarity with American cell phone brands might have swayed the results.

The last part of the study examines the relationship between the daily Internet usage and BORA scores. I assumed that respondents who are very immersed into the Internet have generally wider knowledge of cell phone brand origin countries. As it turned out, the hypothesis $H_8$ was found to be statistically insignificant. Same goes for the post hoc analyses, whereas all the regions revealed p-value exceeding the threshold of 0.05. I found these results quite surprising, as Internet's usage is widespread and related to the product category of consumer electronics. However, reason behind these results differing from my presumption might in the formation of the query in the questionnaire. The survey was enquiring about the daily time spent on the Internet, but the question regarding the Internet search content would have been more suitable and informative.

## 4.2 Limitations

Regardless of the importance of this study and how it assists knowledge of the BORA construct, it is necessary to mention that there are some limitations concerning the conducted research. The first limitation relates to the sample size of 207 respondents, which was selected with the aim of granting the socio-demographic variety required to analyze the proposed hypotheses. However, this convenient sample causes results to be generalized, with high probability that these purposive selected respondents do not represent the whole Slovenian population well.

The second limitation might be my use of Samiee et al. (2005) literature and its definition of BORA. Other sources have used brand ownership instead of brand origin, which would have probably led to different results, if that definition had been applied. Additionally, the majority of COO literature focuses on highly-developed Western countries, with an abundance of domestic products, which leads to incomparable hypotheses and results that do not match lesser-developed research markets (Dinnie, 2016, p. 90). Moreover, the COO concept has also been condemned as being less applicable. Tjiptono and Andrianombonana (2016) point out three statements, supported by their authors: (1) consumers have restricted knowledge of the accurate product origin (Balabanis & Diamantopoulos, 2008; Samiee et al., 2005); (2) the majority of consumers do not find the COO as liable deciding factor (Liefeld, 2004; Samiee, 2010); and (3) globalization has made COO less important (Diamantopoulos, Schlegelmilch, & Palihawadana, 2011; Usunier, 2006).

The third limitation is that this study focuses only on a single product category. Namely, cell phone brands were chosen for this study due to my own professional experience, as well as the fast-changing pace and product quantity in consumer electronics. Concentration on only one product category can cause incorrect assumptions if we generalize results for all product categories on the Slovenian market, since it can cause marketing managers' to stray from the correct strategy. Samiee et al.'s (2005) approach with multiple product categories provides a better insight than experimental designs, where the meaning of brand origin information tends to be exaggerated (Tjiptono & Andrianombonana, 2016). Also, I have chosen a set of brands that are present in the Slovenian market, even though they might not be the most recognizable worldwide. The BORA scores in this study highlight respondents' limited knowledge of brand origins, however the results might be different if I had chosen the cell phone brands with greater global presence.

Another important limitation was the length of the questionnaire; even though I attempted to shorten the questionnaire, it still had nine questions in total, whereas the first question had 18 listed brands and for each brand 11 country possibilities, as well as options "Don't know" and "Not listed". Given the length of the survey, especially the first question, respondents' weariness might have influenced the accuracy of some chosen answers. Nonetheless, I believe that this has not severely altered the responses and I am certain that obtained results characterize a realistic evaluation of consumers' subjective knowledge of cell phone brand's origins.

The last limitation of the study is that the two of the hypotheses ($H_1$ and $H_8$) were not supported. Wanting to additionally research the BORA concept, I have also conducted post hoc analysis, which resulted in some statistically insignificant relationships (hypotheses $H_{1A}$, $H_{1B}$, $H_{1C}$, $H_{2A}$, $H_{2B}$, $H_{6A}$, $H_{8A}$, $H_{8B}$ and $H_{8C}$). Reasons for which I believe that these hypotheses were opposing my predictions are described in the previous subchapter. As there might be inconsistency in my deliberate sample or the choosing of dependable variables, there is still a need to analyze them further.

## 4.3 Implications for Further research

This study provides insight to into the BORA level and its affects on Slovenian respondents to both local EU and foreign marketing managers. Based on the findings, brand managers can choose the appropriate strategies and communication tools to connect with their preferred target segment. A few studies have analyzed brand associated respondents' recognition and its affect on consumers' assessment; Samiee et al. (2005, pp. 393-394) states that "brand origin should realistically be viewed as a component of brand equity, because the origins of many products are very much a part of their characters". With this statement, they encourage field studies with substantial brands in order to evaluate consumers' cognitive structures.

Homogenous branding approaches are fundamentally associated with the firm's global positioning and strategies. Companies cannot establish new brands every time they enter a new market in order to avoid negative brand origin or COO predisposition (Samiee et al., 2005, p. 393). Samiee (1994) states that there are groups of consumers for whom a brand's origin is particularly indicative when making brand-selection assessments in those product categories where a certain country is favorably viewed in making a specific product – Japan and electronics, Germany and automobiles, France and high fashion. Therefore, I can affirm that BORA scores affect consumers' selection to certain degree. Consequently, future studies that connect the associations of brand origin recollection to the companies' global orientation are needed (Samiee et al., 2005, p. 393)

BORA scores are to some extent affected by COS. Cosmopolitan consumers are more probable to associate with companies that express cultural diversity and values of social responsibility. This is often the case with inventive and trendsetting brands, which are acclaimed for their exceptional brand reputations (Prince, 2016). Apple is a leading case of such a company in the cell phone industry that is prone to gain from better awareness of cosmopolitan consumers. Their approach to brand interaction with consumers has an important feature in making it a global phenomenon, as their business model transcends language and culture, making consumers throughout the world part of their international image.

Although this can be generally valid, it is essential that the different socio-demographic characteristics of the targeted segments are contemplated, since majority of them revealed a positive relationship with BORA scores. The cell phone industry companies present in Slovenian market should take into consideration income, cosmopolitanism tendecies, age and gender, when making their marketing campaigns. If the target market are better educated and high-income consumers, then the advertisements should relate to cosmopolitanism values as well, since both characterisitcs relate to each other. The same would apply for age and gender, as their relationship with BORA scores were mostly found significant. Younger female respondents showed significant results within general and post hoc analyses, with

lone exception in hypothesis $H_{6A}$, implaying that relationship between older consumers and American cell phone brands recognition is not supported. Contrary to the literature (Samiee et al., 2005; Almani et al., 2011), this research discovered that consumers with higher educational level, who spent above 2 hours daily on the Internet, do not show statistically significant relationship between BORA scores in any of the studied regions. This research highlights the companies' opportunities to target young females with high income and cosmopolitanism tendencies.

The acquired results from this study should lessen the marketing risk and expand the knowledge regarding cosmopolitanism and demographic characteristics affects on BORA. There is still much to learn about brand origin recognition, but respondents' overall portrayal, as gathered from this analysis, makes it easier to recognize which segment is familiar with cell phone brand origins, being foreign or local, and to which segment should marketing be targeted at.

## CONCLUSION

Brand origin recognition receives more and more attention in practice, as recent studies show that it may be an important factor in a brand's image. This thesis shows that it is necessary to understand consumers and market products in relation to their perception of brand origin. Origin is particularly important for product categories that we use daily, such as cars, computers, and cell phones (Samiee, et al, 2005, p. 382; Balabanis and Diamantopoulos, 2008, p.42; Martín & Cerviño, 2011, p. 540). Their brand origins can reveal if the country is succeeding in product category, which consequently leads us to believe it is of good quality. Samie, et al. (2005, p. 382) state that "brand's country origin may be highly diagnostic information for choosing an automobile or other technological or crafted product, because the country origin conveys additional information about product quality and other purchase-relevant ascriptions, but country origin information may be entirely non-diagnostic for inexpensive packaged goods, where it is less likely that country superiority is attached to a product category".

Brand origin recognition accuracy (BORA) is a notion that is very important for marketers, as it lets them know whether consumers wrongly perceive brand origin and how it affects their purchase behavior. Of course, the percentage of correct recognition varies depending on the region and the country itself, as this depends on a variety of factors, such as culture, socioeconomic status, and demographic aspects. This field has been studied numerous times, but mainly from an American or Asian perspective. With this in mind, I decided to conduct an empirical study in Slovenia, to get a European perspective, even though Europe is no longer a leader in the segment of consumer electronics.

The study conducted in this thesis and the results obtained evidently prove that Slovenians are to some extent knowledgeable about accurate brand origin of cell phone category, no

matter if the brand originates from neighboring countries or from different continents. However, their level of BORA scores does differ by their demographic characteristics. As assumed, income, cosmopolitanism, age and gender were found to relate to BORA. The majority of obtained results confirmed my fundamental predispositions, so I am able to make some conclusions regarding a demographic description of someone who should be knowledgeable about brand origin. Results reveal that young women, who have higher income and cosmopolitanism tendencies, scored the highest at brand origin recognition in Slovenia.

The reviewed literature explains that the relationship between education and income in relations to brand origin recognition, indicates a greater awareness about foreign cultures and increased cosmopolitanism. In Slovenia, the relationship between education and BORA scores was found insignificant, however the affiliation between income and BORA was supported, meaning that higher income leads to greater recognition of global cell phone brands and vice versa. Besides, the association between education and income was found to be related to cosmopolitanism level. People with better education and higher income have more opportunities to purchase foreign products, as they frequently travel abroad and are more acquainted, as well as culturally open to foreign brands.

Age, in addition to gender, is a demographic characteristic of brand origin recognition that demonstrates the most contradictory results across the studied cases and my own research. While variable gender (women) was found to be significant in both international studies, which were taken as a predisposition for this study (Samiee et al., 2005; Almani et al., 2011), as well as in this research, same cannot be claimed for the variable age. Samiee et al. (2005) and Almani et al. (2011) analysis showed insignificant relationship between age and BORA, for both foreign and local regions. My research's results revealed significant relationship between age and not only general BORA scores, but also Asian and European cell phone brands. Only exception, which was not supported, was the relationship between age and $BORA_{AM}$. Namely, younger women reached the highest BORA scores, even though the literature reveals that older women are usually the one with the best knowledge of accurate brand origins.

When it comes to the daily usage of the Internet, the present study shows that this characteristic does not correlate to the level of BORA scores, contrary to Almani et al. (2011) hypotheses. An insignificant relationship was found between Internet usage and the recognition of general, foreign and local brands, meaning that the obtained knowledge of people that surf the Internet daily for several hours does not differ to those visit the Internet for less than two hours daily. The literature demonstrates this by stating that individuals who spend a lot of time on global websites come across websites and communicate with people beyond their borders, making it easier to obtain knowledge of local and foreign brand origins. As previously mentioned, the results might differ if I would have enquired about the content of their searches, instead of the intensity. This would give me a better understanding

and enabled me to implicate which search engines or social media platforms should be used to target consumers and improving their cell phone brand origin knowledge.

If I summarize my findings of my post hoc research though three regions, I can state that only gender has a significant relationship with $BORA_{AM}$, while variables education, income, age and daily Internet usage did not correlate. Concerning Asian cell phone brands, age and gender related to $BORA_{AS}$. On the other hand, education, income and the Internet usage did not show association with Asian region. As far as the local region is concerned, $BORA_{EU}$ supported hypotheses regarding income, age and gender. Yet again, education level and daily Internet usage were found insignificant. As so many hypotheses in post hoc analyses were rejected, I can say that this research has given too strong of an emphasis on the demographics variables, as they are not the only determinant of consumer's final assessment and purchase decision. The literature also identifies other extrinsic cues such as price or the place of purchase, which also affect the perceived quality of the product and their purchase, that could be used in further studies of this content.

All closing arguments that I have made on account of the accepted or rejected hypotheses serve as a response to specified objectives from the introduction of this thesis. Both education and income have a strong relationship with cosmopolitanism. Same goes for the variables income, cosmopolitanism, age and gender in relation to BORA. Only education and daily Internet usage have not meet the requirement to be statistically significant, therefore their hypotheses cannot be supported. My main conclusion persists that Slovenians are in fact able to recognize 47% of cell phone brand origins present in our market, with culturally opened privileged younger females being the most knowledgeable. Nevertheless, it has been presented that Slovenians have moderate general knowledge of cell phone brands origins, in comparison to studies by Samiee et al. (2005) with 35.0% classification rate and Almani et al. (2011) with 50.3%.

The results of thesis are exposed to some limitations that might weaken the relevance of the findings. One of such limitations might be my use of the Samiee et al. (2005) study and its definition of BORA. Other sources have used dependent variable brand ownership instead of brand origin, which would have probably lead to different results in the study. Additionally, this study focuses only on a single product category. Concentration on brands by only one product category can cause incorrect assumptions if the respondents have limited knowledge of the particular product. Another limitation might have been the length of the survey, especially the first question, as respondents' weariness may have skewed the accuracy of some chosen answers. The last limitation of the study is that two out of eight hypotheses were not supported, whereas there were more statistically insignificant results in post hoc analysis. As a result, there is still a need to conduct further research in this matter. Several sources have confirmed how BORA affects purchase, however this concept still remains disregarded in practice, and therefore requires additional studies in order to be able to fully explore its advantages.

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# APPENDIXES

# TABLE OF APPENDIXES

## APPENDIX A: List of frequently used abbreviations

Table 1. Fequently used abbreviations

| Item abbreviation | Meaning |
|---|---|
| R&D | research and development |
| BORA | brand origin recognition accuracy |
| $BORA_{AM}$ | American brands' origin recognition accuracy |
| $BORA_{AS}$ | Asians brands' origin recognition accuracy |
| $BORA_{EU}$ | European brands' origin recognition accuracy |
| COO | country-of-origin |
| COD | country-of-design |
| COM | country-of-manufacture |
| COB | country-of-brand |
| COS | cosmopolitanism |
| UOI | use of Internet |
| CAN | Canada |
| CHN | China |
| FIN | Finland |
| FRA | France |
| GER | Germany |
| JPN | Japan |
| NLD | Netherlands |
| SKR | South Korea |
| SWE | Sweden |
| TWN | Taiwan |
| USA | United States of America |

**APPENDIX B: Questionnaire in Slovene language**

Tina Zajc, pod mentorstvom prof. dr. Irene Vida, pripravljam magistrsko delo z naslovom: **An analysis of cell phone brand origin recognition accuracy in Slovenia / Analiza pravilnega poznavanja države izvora blagovnih znamk mobilnih telefonov v Sloveniji**. V empiričnem delu želim preučiti, kateri dejavniki vplivajo na poznavanje države izvora blagovnih znamk v mobilni tehnologiji, zato vas vljudno prosim za pomoč z izpolnitvijo vprašalnika. Izpolnjevanje anketnega vprašalnika je prostovoljno in traja približno 5 minut. Vaši odgovori so anonimni in zaupni ter jih ne bo mogoče identificirati, ko bom podatke analizirala in o njih poročala. Prosim vas, da le iskreno izrazite svoje mnenje in odgovorite na vsa vprašanja. Nekatere trditve se vam bodo zdele podobne, vendar niso enake, zato ocenite vsako posebej. Prosim vas, da pri vsakem vprašanju označite oziroma zapišete le en odgovor.

---

1. Določite državo izvora vsaki izmed spodaj naštetih blagovnih znamk:

| | Finska | Francija | Japonska | Južna Koreja | Kanada | Kitajska | Nemčija | Nizozemska | Švedska | Tajvan | ZDA | Ne vem | Nič od navedenega |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcatel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Apple | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Asus | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Blackberry | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Caterpillar | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Ericsson | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| HTC | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Huawei | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Lenovo | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| LG | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Microsoft | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Motorola | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Nokia | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Phillips | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sagem | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Samsung | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Siemens | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sony | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

2. Prosim označite vaše strinjanje z naslednjimi trditvami:

| | Sploh se ne strinjam<br>1 | Ne strinam se<br>2 | Niti se ne strinjam niti se strinjam<br>3 | Strinjam se<br>4 | Popolnoma se strinjam<br>5 |
|---|---|---|---|---|---|
| Uživam v izmenjavi idej z ljudmi iz drugih kultur in držav. | ○ | ○ | ○ | ○ | ○ |
| Zanimajo me ljudje, ki živijo v drugih državah. | ○ | ○ | ○ | ○ | ○ |
| Ljudje iz drugih kultur se mi zdijo navdihujoči. | ○ | ○ | ○ | ○ | ○ |

3. Označite približni čas, ki ga dnevno namenite za brskanje po Internetu:

◯ Manj kot 1 ura
◯ 1 do 2 uri
◯ 2 do 3 ure
◯ 3 do 4 ure
◯ 4 do 5 ur
◯ 5 ur ali več

4. Zapišite število držav, ki ste jih obiskali v zadnjem letu:

[ ] držav

5. Zapišite število tujih jezikov, katere tekoče govorite, pišete in berete:

[ ] tujih jezikov

6. Zapišite mesečni prihodek vašega gospodinjstva:

[ ] EUR

7. Kakšna je vaša najvišja dosežena formalna izobrazba:

◯ Osnovna šola ali manj
◯ Poklicna šola (2 ali 3 letna strokovna šola)
◯ Štiriletna srednješolska izobrazba
◯ Diplomant-ka višje šole, visoke šole, univerzitetna izobrazba
◯ Magisterij, specializacija, doktorat

8. V katero starostno skupino spadate?

◯ Manj kot 18 let
◯ Od 18 do 24 let
◯ Od 25 do 34 let
◯ Od 35 do 44 let
◯ Od 45 do 54 let
◯ 55 let ali več

9. Označite vaš spol:

◯ Moški
◯ Ženski

**APPENDIX C: Questionnaire in English language**

Tina Zajc, under the mentorship of prof. dr. Irena Vida, am preparing a master's thesis entitled: **An analysis of cell phone brand origin recognition accuracy and Slovenia** / **Analiza pravilnega poznavanja države izvora blagovnih znamk mobilnih telefonov v Sloveniji**. In the empirical part, I would like to examine the determinants of knowledge of the country of origin brands in mobile technology, therefore I kindly ask for your help by completing this questionnaire. Filling out the questionnaire is voluntary and lasts for about 5 minutes. Your responses are anonymous, confidential and cannot be identified, when I'll analyze and report the data. I kindly ask you to honestly express your views and answer all of the questions. You might find some of the arguments as similar, but they are not identical, so please evaluate each one individually. For each of the questions, choose or write down only one answer.

---

1. Choose each brand's country-of-origin:

| | Finland | France | Japan | South Korea | Canada | China | Germany | Netherlands | Sweden | Taiwan | USA | Don't know | Not listed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alcatel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Apple | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Asus | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Blackberry | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Caterpillar | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Ericsson | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| HTC | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Huawei | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Lenovo | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| LG | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Microsoft | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Motorola | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Nokia | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Phillips | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sagem | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Samsung | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Siemens | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sony | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

2. Please mark to what extend to you agree with the following statements:

| | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I enjoy exchanging ideas with people from other cultures or countries. | ○ | ○ | ○ | ○ | ○ |
| I am interested in learning more about people who live in other countries. | ○ | ○ | ○ | ○ | ○ |
| I find people from other cultures stimulating. | ○ | ○ | ○ | ○ | ○ |

3. Please indicate the approximate time that you spend browsing the Internet everyday:

- ○ Less than 1 hour
- ○ 1 to 2 hours
- ○ 2 to 3 hours
- ○ 3 to 4 hours
- ○ 4 to 5 hours
- ○ 5 hours or more

4. Please write the number of foreign countries that you have visited in the last year:

[ ] countries

5. Please write the number of foreign languages that you are reasonably proficient in speaking, reading and writing:

[ ] foreign languages

6. Please indicate your approximate total family monthly income:

[ ] EUR

7. Please select one of the below categories, which reflects your highest attained level of education:

- ○ Primary school or less
- ○ Vocational school (2 or 3 years)
- ○ High school (4 years)
- ○ Associate's, Bachelor's degree (1st Bologna level)
- ○ Masters (2nd Bologna level), Specialization, Doctorate

8. Please select your age from below categories:

- ○ Under 18 years old
- ○ 18 – 24 years old
- ○ 25 – 34 years old
- ○ 35 – 44 years old
- ○ 45 – 54 years old
- ○ 55 years old or over

9. Please mark your gender:

- ○ Male
- ○ Female

**APPENDIX D: Means and Frequencies**

Table 2. Frequencies, Percentage, Means and Standard Deviation for Cosmopolitanism

| Cosmopolitanism | I enjoy exchanging ideas with people from other cultures or countries. | | I am interested in learning more about people who live in other countries. | | I think that people from other cultural areas are interesting. | |
|---|---|---|---|---|---|---|
| | **Frequency** | **%** | **Frequency** | **%** | **Frequency** | **%** |
| 1 - Strongly disagree | 5 | 2,42 | 3 | 1,45 | 2 | 0,97 |
| 2 - Disagree | 10 | 4,83 | 6 | 2,90 | 12 | 5,80 |
| 3 - Neither agree nor disagree | 42 | 20,29 | 37 | 17,87 | 81 | 39,13 |
| 4 - Agree | 94 | 45,41 | 108 | 52,17 | 80 | 38,65 |
| 5 - Strongly agree | 56 | 27,05 | 53 | 25,60 | 32 | 15,46 |
| | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| | **3,9** | **0,94** | **3,98** | **0,83** | **3,62** | **0,85** |

Table 3. Cronbach's Alpha Based for Cosmopolitanism

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| ,797 | ,799 | 3 |

**Inter-Item Correlation Matrix**

| | COS1 | COS2 | COS3 |
|---|---|---|---|
| COS1 | 1,000 | ,648 | ,494 |
| COS2 | ,648 | 1,000 | ,567 |
| COS3 | ,494 | ,567 | 1,000 |

## APPENDIX E. Hypotheses Testing Output

Table 4. Hypothesis $H_1$ Output

**Group Statistics**

| | EDUCATION LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | higher education | 145 | ,4678 | ,22929 | ,01904 |
| | lower education | 62 | ,4750 | ,21064 | ,02675 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | ,449 | ,503 | -,212 | 205 | ,832 | -,00721 | ,03398 | -,07419 | ,05978 |
| | Equal variances not assumed | | | -,219 | 124,888 | ,827 | -,00721 | ,03284 | -,07219 | ,05778 |

Table 5. Hypothesis $H_{1A}$ Output

**Group Statistics**

| | EDUCATION LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAM | higher education | 145 | ,5862 | ,22442 | ,01864 |
| | lower education | 62 | ,5677 | ,20864 | ,02650 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAM | Equal variances assumed | ,764 | ,383 | ,554 | 205 | ,581 | ,01846 | ,03336 | -,04731 | ,08424 |
| | Equal variances not assumed | | | ,570 | 123,479 | ,570 | ,01846 | ,03240 | -,04566 | ,08259 |

Table 6. Hypothesis $H_{1B}$ Output

**Group Statistics**

| | EDUCATION LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAS | higher education | 145 | ,3796 | ,28794 | ,02391 |
| | lower education | 62 | ,3873 | ,28323 | ,03597 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. ference | Lower | Upper |
| BORAAS | Equal variances assumed | ,005 | ,945 | -,176 | 205 | ,860 | -,00767 | ,04348 | -,09340 | ,07805 |
| | Equal variances not assumed | | | -,178 | 117,135 | ,859 | -,00767 | ,04319 | -,09321 | ,07787 |

Table 7. Hypothesis $H_{1C}$ Output

**Group Statistics**

| | EDUCATION LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAEU | higher education | 145 | ,4378 | ,27084 | ,02249 |
| | lower education | 62 | ,4705 | ,25496 | ,03238 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAEU | Equal variances assumed | 1,337 | ,249 | -,809 | 205 | ,419 | -,03269 | ,04040 | -,11234 | ,04695 |
| | Equal variances not assumed | | | -,829 | 122,034 | ,409 | -,03269 | ,03943 | -,11074 | ,04536 |

Table 8. Hypothesis $H_2$ Output

**Group Statistics**

| | INCOME | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | higher income | 157 | ,4850 | ,22747 | ,01815 |
| | lower income | 50 | ,4228 | ,20510 | ,02901 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | ,809 | ,370 | 1,722 | 205 | ,087 | ,06217 | ,03610 | -,00901 | ,13335 |
| | Equal variances not assumed | | | 1,817 | 90,543 | ,073 | ,06217 | ,03422 | -,00581 | ,13014 |

Table 9. Hypothesis $H_{2A}$ Output

**Group Statistics**

| | INCOME | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAM | higher income | 157 | ,5936 | ,21888 | ,01747 |
| | lower income | 50 | ,5400 | ,21853 | ,03090 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAM | Equal variances assumed | ,067 | ,795 | 1,509 | 205 | ,133 | ,05363 | ,03553 | -,01642 | ,12368 |
| | Equal variances not assumed | | | 1,511 | 82,661 | ,135 | ,05363 | ,03550 | -,01698 | ,12424 |

Table 10. Hypothesis $H_{2B}$ Output

**Group Statistics**

| | INCOME | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAS | higher income | 157 | ,3961 | ,29584 | ,02361 |
| | lower income | 50 | ,3374 | ,24953 | ,03529 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAS | Equal variances assumed | 2,738 | ,100 | 1,265 | 205 | ,207 | ,05865 | ,04635 | -,03274 | ,15004 |
| | Equal variances not assumed | | | 1,381 | 96,608 | ,170 | ,05865 | ,04246 | -,02562 | ,14292 |

Table 11. Hypothesis $H_{2C}$ Output

**Group Statistics**

| | INCOME | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAEU | higher income | 157 | ,4661 | ,26882 | ,02145 |
| | lower income | 50 | ,3896 | ,25070 | ,03546 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAEU | Equal variances assumed | ,940 | ,333 | 1,779 | 205 | ,077 | ,07645 | ,04297 | -,00827 | ,16117 |
| | Equal variances not assumed | | | 1,845 | 87,759 | ,068 | ,07645 | ,04144 | -,00591 | ,15881 |

Table 12. Hypothesis $H_3$ Output

**Group Statistics**

| | EDUCATION LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| COS LEVEL | higher education | 145 | ,7379 | ,44128 | ,03665 |
| | lower education | 62 | ,6129 | ,49106 | ,06236 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| COS LEVEL | Equal variances assumed | 9,651 | ,002 | 1,804 | 205 | ,073 | ,12503 | ,06929 | -,01159 | ,26165 |
| | Equal variances not assumed | | | 1,728 | 105,091 | ,087 | ,12503 | ,07234 | -,01840 | ,26845 |

Table 13. Hypothesis $H_4$ Output

**Group Statistics**

| | INCOME | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| COS LEVEL | higher income | 157 | ,7389 | ,44067 | ,03517 |
| | lower income | 50 | ,5800 | ,49857 | ,07051 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| COS LEVEL | Equal variances assumed | 11,042 | ,001 | 2,149 | 205 | ,033 | ,15885 | ,07391 | ,01312 | ,30458 |
| | Equal variances not assumed | | | 2,016 | 74,957 | ,047 | ,15885 | ,07879 | ,00189 | ,31582 |

Table 14. Hypothesis $H_5$ Output

**Group Statistics**

| | COS LEVEL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | high cosmopolitanism | 145 | ,4869 | ,22851 | ,01898 |
| | low comopolitanism | 62 | ,4303 | ,20729 | ,02633 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | 2,887 | ,091 | 1,676 | 205 | ,095 | ,05657 | ,03375 | -,00996 | ,12311 |
| | Equal variances not assumed | | | 1,743 | 126,408 | ,084 | ,05657 | ,03245 | -,00765 | ,12079 |

Table 15. Hypothesis $H_6$ Output

**Group Statistics**

| | AGE | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | younger consumers | 65 | ,4234 | ,20560 | ,02550 |
| | older consumers | 142 | ,4913 | ,22860 | ,01918 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | 2,187 | ,141 | -2,045 | 205 | ,042 | -,06788 | ,03320 | -,13334 | -,00243 |
| | Equal variances not assumed | | | -2,127 | 137,011 | ,035 | -,06788 | ,03191 | -,13099 | -,00478 |

Table 16. Hypothesis $H_{6A}$ Output

**Group Statistics**

| | AGE | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAM | younger consumers | 65 | ,5569 | ,17851 | ,02214 |
| | older consumers | 142 | ,5915 | ,23565 | ,01978 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAM | Equal variances assumed | 5,342 | ,022 | -1,054 | 205 | ,293 | -,03463 | ,03286 | -,09941 | ,03016 |
| | Equal variances not assumed | | | -1,166 | 160,480 | ,245 | -,03463 | ,02969 | -,09325 | ,02400 |

Table 17. Hypothesis $H_{6B}$ Output

**Group Statistics**

| | AGE | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAS | younger consumers | 65 | ,3317 | ,28187 | ,03496 |
| | older consumers | 142 | ,4049 | ,28573 | ,02398 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | CMean Difference | Std. Error Difference | Lower | Upper |
| BORAAS | Equal variances assumed | ,053 | ,818 | -1,717 | 205 | ,087 | -,07317 | ,04261 | -,15718 | ,01084 |
| | Equal variances not assumed | | | -1,726 | 125,740 | ,087 | -,07317 | ,04239 | -,15706 | ,01073 |

Table 18. Hypothesis $H_{6C}$ Output

**Group Statistics**

| | AGE | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAEU | younger consumers | 65 | ,3822 | ,26604 | ,03300 |
| | older consumers | 142 | ,4775 | ,26147 | ,02194 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAEU | Equal variances assumed | ,002 | ,961 | -2,423 | 205 | ,016 | -,09538 | ,03937 | -,17301 | -,01776 |
| | Equal variances not assumed | | | -2,407 | 122,256 | ,018 | -,09538 | ,03963 | -,17383 | -,01694 |

Table 19. Hypothesis $H_7$ Output

**Group Statistics**

| | GENDER | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | female | 107 | ,3662 | ,18961 | ,01833 |
| | male | 100 | ,5810 | ,20308 | ,02031 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | 2,812 | ,095 | -7,871 | 205 | ,000 | -,21483 | ,02729 | -,26864 | -,16102 |
| | Equal variances not assumed | | | -7,853 | 201,258 | ,000 | -,21483 | ,02736 | -,26877 | -,16089 |

Table 20. Hypothesis $H_{7A}$ Output

**Group Statistics**

| | GENDER | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAM | female | 107 | ,4822 | ,20550 | ,01987 |
| | male | 100 | ,6860 | ,18259 | ,01826 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAM | Equal variances assumed | ,091 | ,763 | -7,521 | 205 | ,000 | -,20376 | ,02709 | -,25717 | -,15035 |
| | Equal variances not assumed | | | -7,552 | 204,487 | ,000 | -,20376 | ,02698 | -,25696 | -,15056 |

Table 21. Hypothesis $H_{7B}$ Output

**Group Statistics**

| | GENDER | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAS | female | 107 | ,2712 | ,25024 | ,02419 |
| | male | 100 | ,5003 | ,27495 | ,02749 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAS | Equal variances assumed | 3,339 | ,069 | -6,275 | 205 | ,000 | -,22909 | ,03651 | -,30106 | -,15711 |
| | Equal variances not assumed | | | -6,255 | 199,788 | ,000 | -,22909 | ,03662 | -,30130 | -,15687 |

Table 22. Hypothesis $H_{7C}$ Output

**Group Statistics**

| | GENDER | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAEU | female | 107 | ,3445 | ,23667 | ,02288 |
| | male | 100 | ,5579 | ,25193 | ,02519 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAEU | Equal variances assumed | 1,067 | ,303 | -6,284 | 205 | ,000 | -,21341 | ,03396 | -,28037 | -,14646 |
| | Equal variances not assumed | | | -6,271 | 201,582 | ,000 | -,21341 | ,03403 | -,28052 | -,14631 |

Table 23. Hypothesis $H_8$ Output

**Group Statistics**

| | UOI | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORATOTAL | frequent Internet user | 70 | ,4833 | ,21836 | ,02610 |
| | modest Internet user | 137 | ,4631 | ,22639 | ,01934 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORATOTAL | Equal variances assumed | ,103 | ,748 | ,613 | 205 | ,541 | ,02015 | ,03287 | -,04466 | ,08495 |
| | Equal variances not assumed | | | ,620 | 143,623 | ,536 | ,02015 | ,03249 | -,04406 | ,08436 |

Table 24. Hypothesis $H_{8A}$ Output

**Group Statistics**

| | UOI | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAM | frequent Internet user | 70 | ,6029 | ,18176 | ,02172 |
| | modest Internet user | 137 | ,5693 | ,23626 | ,02018 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAM | Equal variances assumed | 6,786 | ,010 | 1,040 | 205 | ,300 | ,03351 | ,03224 | -,03005 | ,09708 |
| | Equal variances not assumed | | | 1,130 | 173,833 | ,260 | ,03351 | ,02965 | -,02501 | ,09204 |

Table 25. Hypothesis $H_{8B}$ Output

**Group Statistics**

| | UOI | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAAS | frequent Internet user | 70 | ,3983 | ,28687 | ,03429 |
| | modest Internet user | 137 | ,3735 | ,28604 | ,02444 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAAS | Equal variances assumed | ,010 | ,919 | ,589 | 205 | ,556 | ,02478 | ,04207 | -,05816 | ,10772 |
| | Equal variances not assumed | | | ,589 | 138,745 | ,557 | ,02478 | ,04211 | -,05847 | ,10803 |

Table 26. Hypothesis $H_{8C}$ Output

**Group Statistics**

| | UOI | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| BORAEU | frequent Internet user | 70 | ,4500 | ,27779 | ,03320 |
| | modest Internet user | 137 | ,4464 | ,26080 | ,02228 |

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| BORAEU | Equal variances assumed | 1,104 | ,295 | ,093 | 205 | ,926 | ,00365 | ,03917 | -,07359 | ,08088 |
| | Equal variances not assumed | | | ,091 | 131,602 | ,927 | ,00365 | ,03999 | -,07545 | ,08275 |