

“Branded in China”

A study on brand origin effect on the
Swedish smartphone market

Keywords

Country-of-origin, brand origin, brand association, product knowledge, brand image

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Presented

May 29, 2017

Abstract

Along with the economic development of China, an increasing amount of Chinese companies have expanded internationally. Many of them have entered the Swedish market, trying to establish their brands to new consumers. At the same time, international marketing research has suggested that global brands should pay attention to the country-of-origin effect, as it conformably affects how consumers evaluate brands. The purpose of this study is to provide a deeper understanding of country-of-origin effect, by investigating the brand origin effect, a branch that has emerged as a consequence of globalization. Our study tests the brand origin effect on brand associations for Chinese brands on the Swedish smartphone market. Additionally, we also test for consumers' product knowledge as a moderating variable

A qualitative focus group is first conducted, followed by a quantitative questionnaire-based experiment with 208 valid responses. Five brand association dimensions, quality, innovation, CSR, prestige, and safety and integrity are tested with three different brand origins: China, Japan, and Germany. Lastly, we conduct follow-up interviews with respondents as well as two experts within our research field to further understand the results.

The results show that a Chinese brand origin does affect brand association dimensions in terms of quality, CSR, and safety and integrity negatively. Furthermore, lower product knowledge shows larger brand origin effect on brand association for all dimensions except for innovation and safety and integrity. The results empirically support that brand origin does affect brand association, and that product knowledge is moderating the relationship between brand origin effect and three of the brand association dimensions.

Acknowledgements

Writing our thesis, we have been lucky enough to have had great support from various individuals, who has contributed enormously in facilitating the process of completing our thesis.

Many thanks to Magnus Söderlund, professor in consumer behavior at SSE, Vanesa Pesqué-Cela, visiting researcher at Stockholm China Economic Research Institute, and Tony Fang, professor of business administration at Stockholm University, for providing valuable and relevant insights to our thesis. We would also like to thank Nina Åkestam and Emelie Fröberg who have been incredibly helpful with SPSS. Thank you for taking the time to help us out when we needed it the most.

We would also like to give special thanks to our amazing tutor Sara Melén. Thank you for the support throughout the entire writing process.

In addition, many thanks to those students that took part in our focus group discussions, in alphabetical order:

Agnes Magnusson

Lilian Ivstam

Astrid Liljemark

Natalie Stenvall

Axel Ahlin

Olle Norén

Björn Nilsen

Tina Dalaei

Gustav Tillman

Veronica Nelson

Hugo De Geer Wikner

Victor Hesse

John-Edward Olingsberg

And finally, thank you to all friends and family for all the love and support.

Victor Bao and Isabella Wang

Stockholm, Sweden 2017

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Definitions

Brand association: Anything that the consumer connects to the brand. (Aaker 1996)

Brand image: A consumer's general brand perception. (Keller 1993)

Brand Origin: The place, region or country to which the brand is perceived to belong by its target consumers. (Thakor 1996, p.27)

Brand origin effect: Any effect caused by brand origin.

Country-of-origin (COO): The national origin of products. (Samiee 1994)

Country-of-origin effect (COE): Any effect caused by country-of-origin. (Samiee 1994)

CSR: The continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large. (World Business Council for Sustainable Development 2008)

Innovation: The creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market-driven products and services. (Du Plessis 2007, p.3)

Product knowledge: The level of knowledge consumers has about a certain product, as perceived by the consumers themselves. (Maheswaran 1994)

Prestige: An element that satisfies an emotional desire for a consumer in terms of a product's subjective benefits that could be viewed as a signal of status. (Vigneron and Johnson 1999)

Quality: The degree of which the product attributes of a specific product satisfies the wants of a specific consumer. (Gilmore 1974)

Safety and integrity: In this thesis, defined as the feeling of personal integrity, trustworthiness toward a brand and the absence of danger, risk or threat when using a product or service.

1. Introduction

1.1 Background

Along with globalization and digitalization marketers have over the last years constantly been reshaping their ways of doing business and creating marketing strategies. As companies grow, they are expanding into markets outside of their national borders faster than ever. Furthermore, many companies are international right from the start (Chetty and Campbell-Hunt 2004). It is thus important and challenging for organizations to catch up, understand, rethink and practice the latest within the field of international marketing and consumer behavior, in order to successfully implement a working marketing strategy.

According to Kelly (2015), some of the most common mistakes include not doing enough research and calculations on foreign markets, and thus not knowing how their brand will be perceived internationally. In consequence, companies too often fail in adapting their sales and marketing channels according to the behavior of each market. In order to prevent companies from entering new markets unwittingly, marketers are in constant need of updated information, data and research.

One of the most researched subjects for within international marketing has been the country-of-origin effect on consumer behavior (Al-Sulaiti and Baker). Previous research proves that country associations lead to consumer bias, which originates in how a consumer perceives the image of a country. Many global companies have for a long time already been taking country-of-origin effect to their advantage, i.e. IKEA and Volvo emphasizing their Swedish heritage. As an increasing amount of companies are expanding globally, this is thus a concept that international marketers find to be interesting and increasingly relevant, and which we are choosing to study.

1.2 Problem area

As companies are becoming more international, their production-, design- and management departments are spread out in different geographical areas globally. As a result, the definition of country-of-origin is divided into several terms such as country-of-design, country-of-manufacturing, and brand origin. What has previously been researched about country-of-origin is therefore not always applicable to modern global companies,

since they are no longer located in only one area. In this paper, we will, therefore, focus on the brand origin effect on brand association.

The understanding country-of-origin effect is important for the increasing amount of Chinese companies that are moving from traditional manufacturing, focusing more on innovation and creating their own brands. Many of these companies are aiming to expand internationally, trying to establish their own brands in foreign markets (Beebe et al. 2006). According to The Economist (2015), China as a nation is still heavily associated with low-cost and low-quality, which to some extent overshadows the increasing amount of innovation and creativity that has increased in the recent years. As Chinese brands now enter international markets, many marketers are struggling with the negative image of China, relative to more developed countries, which may hold brands back.

On the Swedish market, Chinese brands like Huawei, OnePlus, and Alibaba are a relatively new phenomenon. They are expected to increase in number and grow in size in the near future along with the economic development of China. With this in mind, it is highly relevant and important, for marketers to research and understand what effect brand origin has for Chinese brands on consumer behavior in international markets. Previous research about country-of-origin effect is covering a certain amount of industries and markets for certain time periods, such as TVs and automobiles (Han and Qualls 1985). In this paper, we will research the brand origin effect in a new context, focusing on Chinese smartphone brands on the Swedish market.

Looking at the methodology of previous studies, we identify an issue in how research surveys have been conducted. In many cases, the country-of-origin of a product or service is (too) clearly emphasized in the given scenarios and questions. In Han (1989) and (Qualls 1985) respondents are asked to rate their perceived quality depending on different country-of-origin, comparing them side-by-side. In another research paper by Gudero (2001), respondents are asked to consciously name their ideal preferred country-of-origin for a product. In consequence, this will lead to cognitive bias, making the survey less realistic, and the results misleading (Varkatzas and Ambler (1999).

Moreover, there are many additional brand association dimensions that need to be studied, such as prestige, innovation, CSR, and safety and integrity. These are dimensions

that are important and relevant for the modern-day marketer. To our knowledge, these dimensions have not yet been tested in a research context like ours.

When studying the brand origin effects on brand association, many previous researchers compare the effects between different demographic groups, such as age and gender. However, it has for many decades been suggested that marketers should not base their marketing strategies on descriptive factors, as these are not efficient predictors of consumer behavior (Haley 1968). Instead, we propose that the level of product knowledge could be an interesting aspect to investigate. There is previous research indicating that consumers' evaluations of products can differ in terms of how they process the information, based on their level of product knowledge (e.g. Maheswaran 1994).

1.3 Delimitation

In order to formulate a feasible research question, we will in this thesis focus on studying the brand origin effect of Chinese brands in the Swedish market. To ensure comparability between different brand origins, we thus chose smartphone, a widely used and manufactured product category.

We find this choice arguable since an increasing number of smartphone manufacturers have emerged in China, which are currently entering foreign markets (e.g. OnePlus, Huawei, OPPO, Vivo). Chinese smartphone brands are estimated to account for 50% of the global market in 2017. According to TrendForce (2017), strong performances from Chinese smartphone brands are taking them closer to global market leaders, Samsung and Apple.

In contrast to products such as cars and beers with a longer history, smartphone brands do not have a distinct cultural or national heritage, since it is a relatively new product category. This makes it a suitable product category to compare between different brand origins. In addition, smartphones have many different product attributes that could be evaluated by consumers.

1.4 Research question

With our thesis, we aim to examine the brand origin effect on brand association, focusing on Chinese brands on the Swedish smartphone market. In order to study this research question more comprehensively, we will additionally test product knowledge as a moderator. Our research question will thus be:

- **What is the brand origin effect on brand associations for Chinese brands on the Swedish smartphone market?**

1.5 Expected contribution

With the divergence of our problem area and delimitations, we aim to contribute theoretically and managerially to research and organizations.

1.5.1 Theoretical contribution

In contrast to previous research that has been conducted regarding country-of-origin effect (Dinnie 2004), we firstly examine the Chinese brand origin effect on brand association for the Swedish market. Secondly, we chose to extend the tested brand associations by including prestige, CSR, innovation, and safety and integrity, which will add an explorative and relevant dimension to existing research. Furthermore, we could with our research design reveal, if and how consumers' level of product knowledge has an impact when evaluating brand associations. With this new context, our study aims to contribute to the international marketing- and consumer behavior field.

Although we chose a specific product category and market in this study, our research design and estimation procedures will to some extent be applicable to other industries and markets. Our chosen research question consequently allows us to provide new and relevant empirical results, filling a missing research gap that researchers and organizations could demand and need.

1.5.2 Managerial contribution

Organizations could use our results to help calculate the competitive advantages or disadvantages, in terms of brand origin effect when entering foreign markets. The results of our study could moreover contribute to organizations in their international

segmentation strategies, as the brand origin effect might show distinct differences among consumers. In example, if the brand origin positively affects consumers' association of perceived quality in a certain market, firms could calculate market-specific degree of premium pricing, solely based on its brand origin. If the results show that there is no significant brand origin effect, marketers better take this in mind and adapt accordingly.

2. Theoretical Background

The theoretical framework section is dedicated entirely to review relevant marketing theories in the fields of international marketing and consumer behavior, which will serve as prerequisite for our study. In the following section, we will present the vast research made in the field of country-of-origin and finally, how it relates to brand origin. In 2.1 we will be introducing the research on country-of-origin, and then move into brand origin in section 2.2. Section 2.3 will deal with brand association. Finally, in section 2.4, we will introduce our conceptual framework and hypotheses, which will be the foundation for our research.

2.1 Country-of-origin

The fact that country-of-origin has an effect on the product evaluation among consumers is a long-established fact (Han 1989). The research on country-of-origin is thus rather mature. Ever since Schooler (1965) concluded that the national origin of a product has a significant effect on product evaluation, the subsequent research has all shown that country-of-origin does play an important role in how the consumers perceive a brand (Papadopoulos 1993). In the minds of the consumers, the origin of the product acts as an information cue that to help them evaluate a product (Baker and Currie, 1993; Lin and Sternquist 1994).

2.1.1 Definition of country-of-origin

The definitions of country-of-origin usually vary depending on the research being done. The first to introduce the concept of country-of-origin was Schooler (1965). In his paper, he refers to the country-of-origin as the national origin of products. A similar definition is the one made by Nagashima (1977), who simply refers to country-of-origin as the labeling "made in".

Another important definition of country-of-origin worth mentioning, is the one where research is making a distinction between the country-of-origin, as in the country of design (COD), country of manufacturing (COM) and country of assembly (COA). This distinction is first made in the research article by Papadopoulos (1993). In this article, he claims that the term country-of-origin is misleading, as research earlier assumed that the entire process of creating a product was limited to only one country.

Due to the vast increase in globalization during the recent decades (Chao 1993), the definition of country-of-origin is quite troublesome, as many so-called hybrid products pass many countries before reaching its final market (Usunier 2006). In result, the country-of-origin can be hard to determine. The ambiguous definitions of the term make it difficult to understand the exact effect that country-of-origin can have on brand association.

2.2 Brand origin

2.2.1 Definition of Brand origin

In recent years, a new branch within the field of country-of-origin has emerged, as a result of the increasing number of hybrid products. This, in turn, has created a change in what consumers define as country-of-origin. Instead of determining country-of-origin on a product level, the consumers are now more inclined to assess on a brand level. Rather than evaluating the product origin, larger focus is now put on the brand origin (Thakor 1996; Lim and O'Cass 2001). A study made by Thakor and Lavack, (2003) also concludes that a so-called information hierarchy exists, explaining that consumers are primarily influenced by the country of the brand origin, and less affected by the country of manufacture or "made in" factor.

The confusion regarding how the country-of-origin should be defined is prompting further research on brand origin. In Thakor (1996), they define the brand origin as "the place, region or country to which the brand is perceived to belong by its target consumers" (p.27). This location can be different from the actual or perceived country of manufacture. In addition, they highlight the fact that it is the perceived brand origin that should be in focus rather than the actual origin. This is viewed as an alternative way of evaluating the effect of the country origin, which better explains the complexity of defining the country

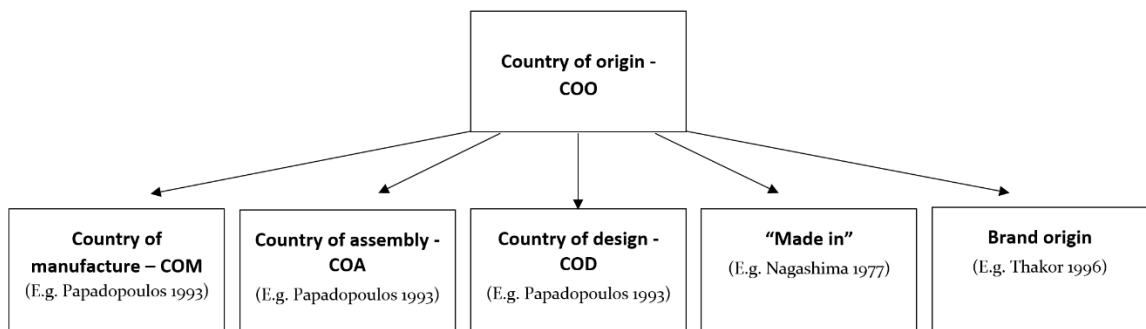
origins of a product. In example, iPhones are manufactured in China, but consumers still consider the product to be an American product since the brand is American. The “made in” label is thus not an appropriate indication as to how consumers may perceive the origin of the brand or product.

2.2.2 Brand origin in Context

The literature on country-of-origin is quite extensive, with many different concepts. A summary of the various definitions can be seen below in Figure 1. In our thesis, we will refer to the country-of-origin effect as the brand origin effect, as it more accurately reflects the way that the consumers perceive the country-of-origin. In case of this research study, we are going to use the definition from Thakor (1996). However, the brand origin, defined as the place perceived by the consumer will not be differing from the actual origin in our study. Since the quantitative survey in this study will provide information about the origin of the brand, there will be no difference between perceived and actual brand origin.

Figure 1

Summary of the concept of country-of-origin in literature



2.3 Brand Association

2.3.1 Definition of Brand Association

Brand association refers to anything that the consumer connects to the brand (Aaker 1996). These associations will then help the consumers to remember and process relevant information that will enable them to make a purchase decision (Aaker 1996; George, et al. 2000). According to Keller (1993), there are different levels of abstraction for various brand association. In his study, he introduces a conceptual model of brand association, by dividing it into three different groups based on level of abstraction.

On the first level of abstraction, we find brand attributes. This group consists of the tangible and intangible attributes that make up the product features. The second level is the customer benefits (Keller 1993). This level relates to the consumers' individual valued benefits from the use of the attributes. Finally, the third level of abstraction is brand attitude. It is seen as a function of the associated brand attributes and customer benefits (Keller 1993). Brand attitude can be described as a multiplicative function that, apart from the extent to which consumers believe a brand has certain attributes and benefits, also consider whether these attributes and benefits are positive or negative for a consumer.

The brand associations can, in turn, be of different levels of importance, based on strength, favorability, and uniqueness. Strength relates to how strongly the brand association dimension is linked to a particular brand. Favorability is the degree to which consumers find that the brand association dimension is favorable for a certain product category or brand. Finally, uniqueness describes how divergent a particular brand association dimension is for a brand in a certain product category. These levels of importance are factors that will determine consumers' overall perceptions of a brand.

2.3.2 Brand association and brand image

A concept that closely relates to brand association is brand image. In Keller (1993), brand image is defined as a consumer's general brand perception. It is generally accepted to connect brand image to the associative network memory model, which explains how the consumers' perceptions of a brand are related to the associations in their memory. Keller also concludes that different brand associations have a cause-and-effect relationship with brand image, which is further confirmed by Faircloth et al. (2001). Simply put, a change in brand association results in a change in brand image. We will elaborate on this relationship and its implications further in our discussion.

2.4 Product knowledge

A lot of research show that consumers' knowledge and experience regarding a product could impact the way a product is evaluated (Fu & Elliott 2013). Maheswaran (1994) defines product knowledge as the knowledge that consumers have regarding a certain product. In this thesis, we will define product knowledge as the level of knowledge consumers have about a certain product, as perceived by the consumers themselves.

According to Alba (1983), people with higher levels of product knowledge are able to recall more total information about explicit product features, compared those with lower levels of product knowledge. Moreover, Maheswaran (1994) suggests that a consumer's product knowledge acts as a moderating variable for country-of-origin in product evaluation. In his study, Maheswaran found that when product attributes are explicit, consumers with high product knowledge tend to rely more on these attributes rather than country-of-origin, when evaluating products.

2.4 Hypothesis development

2.4.1 Brand origin effect on brand association

We want to test the effect brand origin will have on brand association in terms of our chosen dimensions. In Samiee (1994) it was concluded that brands associated with a certain country, could either positively or negatively affect consumers' perceptions of a brand. In addition, Han (1989) and Schooler (1965), also suggest that country-of-origin has an effect when consumers evaluate brands. This leads us to our first hypothesis:

H1: Brand origin will have a significant effect on consumer's brand association in terms of our chosen brand association dimensions

2.4.2 Brand association dimensions

To test our research question, we identify five brand association dimensions: quality, innovation, CSR, prestige, and safety and integrity. Based on Keller's theoretical definition of brand association, the term in itself is determined by the consumers' own perceptions of brand attributes, consumer benefits, and brand attitude. Testing for brand association dimensions will, therefore, test consumers' perceptions. In this thesis, the use of the terms quality, innovation, CSR, prestige, and safety and integrity will refer to consumers' perceptions rather than objective measures. These brand association dimensions are selected because they are considered to have theoretical and managerial relevance for our research field.

Quality

In our study, we refer to quality as the degree to which the product attributes of a specific product satisfy the wants of a specific consumer (Gilmore 1974). The quality dimension of brand association shows to be affected by country-of-origin, according to various studies

(Wang and Lamb 1980; Bilkey and Nes 1982). This dimension is therefore relevant when testing for the brand origin effect as well. Previous studies that have tests country-of-origin and brand origin show that the quality differs, depending on country-of-origin (Bilkey and Nes 1982).

Chinese companies are still considered low-quality compared to other more developed countries (The Economist 2015). In addition, since the smartphone market today, consists of brands primarily originating from more developed countries. Our hypothesis will thus be:

H2a: Swedish consumers will rate a brand originating from China lower in quality, compared with brands from other countries.

Innovation

In this thesis, innovation is referred to as the creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market-driven products and services (Du Plessis 2007, p.3).

Innovation is an important dimension for all companies, in order to be competitive (Pauwels et al. 2004). Adding innovation as a brand association will provide a new and interesting insight to research on the brand origin effect. Furthermore, innovation has been included in as a dimension in many other marketing research studies, although not in the field of brand origin (Aaker 1996).

The reason why this is relevant in the context of brand origin is that China had, and still has an image of being good at "copying, absorbing and adapting existing technology and knowledge from around the world" rather than inventing new innovations, according to (Roth et al. 2015). The hypothesis will thus be:

H2b: Swedish consumers will rate a brand originating from China lower in innovation, compared with brands from other countries.

CSR

In our thesis, corporate social responsibility (CSR) will refer to "the continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the workforce and their families, as well as of the local community and society at large" (World Business Council for Sustainable

Development 2008). CSR has gained much attention in recent years within the academic world and it is generally agreed that the importance of CSR in the management of business-society relationship is increasing (Klein and Dawar 2004; Porter and Kramer 2006). Moreover, CSR has been proven to be especially important and valuable for global organizations, and for defining global reputation and brand (Valor 2005; Lewis 2003).

We are including this dimension as it provides a new and highly relevant perspective on how brand origin might affect the brand association dimension, and in turn also the perceived brand image. China is becoming more globally integrated, and its corporations are gaining more economic and social influence. Thus, much attention is being put on CSR among Chinese companies, often from a critical perspective including business scandals, food scares, labor- and environmental issues (Ip 2009). Our hypothesis will thus be:

H2c: Swedish consumers will rate a brand originating from China lower in CSR, compared with brands from other countries.

Prestige

In this thesis, prestige is referred to as an element that satisfies an emotional desire for a consumer, in terms of a product's subjective benefits that could be viewed as a signal of status (Vigneron and Johnson 1999). Apart from consumer benefits that originate from the physical features of a product, hedonic motivators are as equally important and relevant for marketers to keep in mind, according to Arnold and Reynolds (2003). Research tells that consumers often tend to evaluate products and services in terms of emotional consumer benefits, such as social belongingness and identity. Since research suggests that prestige is directly related to symbolic and hedonic value (Vigneron and Johnson 1999), we have therefore chosen to include this as a dimension. Moreover, recent marketing research (Matarazzo and Resciniti 2013) includes prestige as a dimension when studying country-of-origin effect. This makes it interesting and relevant to test this brand association in a new research context such as ours.

Many reports have revealed that international brands are perceived more prestigious compared with local brands among Chinese retail consumers (Deloitte 2010). At the same

time, Chinese brands are not considered very prestigious by international consumers (Fan 2006). Bearing this in mind, our hypothesis will thus be:

H2d: Swedish consumers will rate a brand originating from China lower in prestige, compared with brands from other countries.

Safety and integrity

We define safety and integrity as the feeling of personal integrity, trustworthiness toward a brand and the absence of danger, risk or threat when using a product or service. Similar to prestige, this is also a dimension that focuses on the emotional consumer benefits of buying certain brands. This dimension is especially interesting to consider due to the political views in China regarding censorship and privacy concerns, that are to a great extent different from the ones in Sweden. Just like CSR, this is a dimension that has most likely been affected by international media reports (Ip 2009). The increasing amount of Chinese firms that enter the Swedish market is often portrayed by Swedish media in a skeptical way, often remarking risking our national security and personal integrity (Palmstierna and Dreyer 2009; Nordlund 2017). Due to this, our hypothesis will thus be:

H2e: Swedish consumers will rate a brand originating from China lower in safety and integrity, compared with brands from other countries.

2.4.3 Product knowledge - a moderator variable

In order to further deepen the analysis of the effect of brand origin, we choose to include a moderator variable: product knowledge. This variable can provide our study with more interesting insights as to how brand origin can affect the brand association dimensions, depending on consumers' level of product knowledge. As mentioned earlier, previous research shows that consumers with high product knowledge tend to rely more on information regarding actual features in order to assess a product. Those with lower levels of product knowledge will rely to a greater extent on country-of-origin (Maheswaran 1994; Alba 1983). Our hypothesis will thus be:

H3: Product knowledge moderates brand origin effect on brand association dimensions when product knowledge is low, but not when it is high.

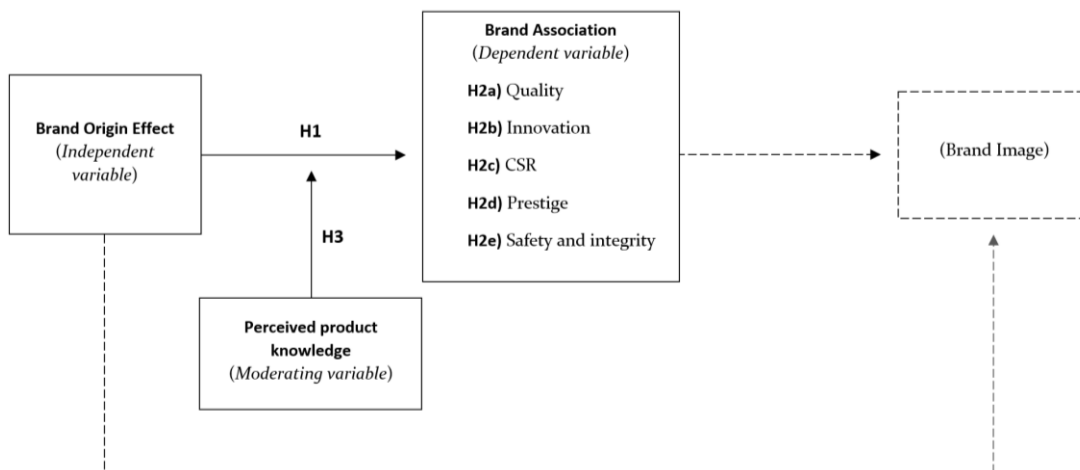
2.4.4 A new conceptual framework

We are suggesting a new conceptual framework of brand association that builds upon the previous research conducted. As can be seen in Figure 2 below, the brand origin effect variable is chosen as the independent variable, in which we suggest, will affect the dependent variable, brand association in terms of our chosen dimensions. In our study, we also add product knowledge as a moderating variable, which we believe will moderate the relationship between brand origin and brand association dimensions when product knowledge is low.

Furthermore, based on the previous study conducted by Keller (1993) and Faircloth et al. (2001) regarding the linkage between brand association to brand image, we will later add brand image into our discussion. The reason why we choose to include brand image in our model is that we believe that it will further increase the depth of the discussion. It will also serve as a useful term to explain the relevance of our research in terms of managerial- and theoretical implications, as well as suggestions for future research. To describe the relationship in short, brand origin effect affects the brand associations, which in turn affects the brand image. (See figure 2)

Figure 2

A new hypothesized conceptual framework



3. Methodology

3.2 Study Approach

Our study approach is divided into three sections: a qualitative pre-study that was conducted using a focus group to better understand how consumers relate and perceive the concept of brand origin. This is continued by a quantitative study using a questionnaire with an experimental approach, which is based on the results of the pre-study as well as previous research. In this study, we will thereby include both primary and secondary data. By combining both data sources, our findings and conclusions are likely to become more accurate and valid, according to Yin (2003) and Kumar (2005). After analyzing the data, we will conduct follow-up interviews with a second focus group as well as an expert within relevant research fields, Professor Fang. The main purpose is to get a deeper and more dynamic understanding of the results.

3.2.1 Methodological triangulation

When it comes to collecting our own, primary data, we will use two methods, quantitative and qualitative. The purposes of using mixed methods, so-called triangulation, are many and widely recommended by various researchers. Jick (1979) argue that triangular methods allow researchers to become more confident in their results, as they are able to stimulate the development of creative data collecting methods. This could result in deeper and better data, in the synthesis, or integration of theories, and in discovering contradictions. Furthermore, using two different data collecting methods allows complementation of the weaknesses of each method, which makes it appealing to a variety of research areas (Bryman 2006).

3.2.2 Qualitative pre-study

The purpose of the qualitative pre-study is to give us indications on how the respondents would think and respond to the quantitative survey. The focus group is conducted using a semi-structured approach. We use this method because this allows us to ask pre-determined key questions to make sure that we cover topics that are relevant, while allowing open discussion (Gill et al 2008). The responses we receive serve as prerequisite when framing our theoretical concepts and designing our quantitative study, in terms of

which brand association dimensions and brand origins to test. The whole pre-study is recorded, in order to ensure validity and reliability. (Appendix A)

The topics that are discussed include the importance of different brand association dimensions, favourability of different brand origins and the overall image of China and Chinese brands.

3.2.2 Quantitative study

In order to separate out the effect of brand origin on brand associations, we decide to design our quantitative survey as an experiment, consisting of respondents being randomly assigned to one of three identical surveys. The only difference is the brand origin of the smartphone, which can be Chinese, German or Japanese. We make sure to not specifically highlight the brand origin. Instead, we let it be a natural piece of information incorporated in the scenario, mentioning the brand origin only once. By conducting an experiment with a more realistic scenario, we are avoiding cognitive bias (Vakratsas and Ambler 1999). (See Appendix B)

We base our choice of countries on how well they represent different cultures as well as economic and political differences (Meyer 2014; Ralston et al. 2008), which are also confirmed in our pre-study. Japan is a country that all participants in our focus group named when asking discussing technological products. Germany is chosen to represent the Western world and is, similarly to Japan, also well known for technology. However, neither Japan nor Germany currently has any strong smartphone brands that could potentially cause bias to the data (IDC Worldwide Quarterly Mobile Phone Tracker 2017). In addition, according to (WESP, United Nations 2014), Germany and Japan could be classified as developed countries and China as a developing country, which also makes it interesting for us to compare.

3.2.3 Follow-up interviews

After analyzing our data, we will present the results to another focus group as well as an expert in cross-cultural management and Chinese business studies, Tony Fang, Professor of Business Administration at Stockholm University. By conducting follow-up interviews we could discuss the results and get a deeper understanding of the reasoning behind the

data. The interviews follow the same semi-structured method as for the pre-study. All the follow-up interviews are recorded. (See Appendix C).

3.3. Sampling design

3.3.1 Sampling targets

Collecting empirical data, we choose to sample students from our own university, due to practical limitations. However, a lot of previous research in recent years regarding country-of-origin effect has arguably used student samples when collecting data. There are several reasons for this. Firstly, students are expected to easily understand the purpose of the study, and could give more detailed and specific responses when answering questions. These responses would thus be more useful. Moreover, a younger generation of consumers could be viewed as the first global consumer segment, due to their exposure to the Internet and social media. As a consequence, students are also perceived to have developed more diverse perspectives, according to Knight and Kim (2007).

3.3.2 Qualitative pre-study and follow-up interviews

The data for our pre-study and follow-up interviews are collected through in-depth interviews with two focus groups. The students are chosen due to their demographic backgrounds such as gender, academic year and if they come from big or smaller cities. We include both bachelor- and master students within different academic fields.

3.3.3 Quantitative survey

The data for the quantitative survey is collected through an online questionnaire created with the survey software Qualtrics. The sampling technique chosen is the non-probability quota sampling, emphasizing students from our own university. The survey is then randomly distributed through a variety of channels in school and online.

3.4 Sample Description

Within our first focus group, we have three female and four male students, three students growing up in big cities and four in smaller towns. There were three different academic years represented, including both bachelor and master. Participants in the follow-up interview group are similar in terms of demographics when comparing it to the pre-study.

Looking at our quantitative study, out of the total of 304 completed questionnaires, 211 responses remain after canceling out non-student responses, and those responses that are not correctly answering the two control questions at the end of the questionnaire. An additional three responses are removed to adjust for univariate and multivariate outliers. This leaves us with a total of 208 effective answers.

Among these effective responses, the distribution between the groups in the independent variable (brand origin) is even (See Table 1 below). Overall, we received 104 female responses (50%), 103 male respondents (49.5%) and 1 other respondent (0.5%). In addition, the distribution of gender is approximately even across the independent variable groups (China, Germany, and Japan)

Table 1

Sample distribution between the independent variable groups

<i>Brand Origin</i>	<i>N</i>	<i>Percentage</i>
China	70	33.65%
Germany	68	32.69%
Japan	70	33.65%
Total	208	100%

3.5 Measurement

The level of measurement of our quantitative study that we use in our questionnaire is ordinal measurement (Sommer). In each of the questions about brand associations and product knowledge, the respondents are asked to rate the questions on a scale from 0 to 7. With this level of measurement, we cannot for sure meet the requirement of equal intervals between the numbers, as we are measuring a consumer experience and perception (Sommer). It is hence difficult to determine if the difference between 1 and 2 is the same as for 6 and 7. However, we could assume that the intervals are equal in order to use the more powerful statistical procedures available for means and standard deviations, making these values interpretable. In consequence, we could compute an average of these variables to interpret our data when continuing with the analysis.

To ensure validated measurements, we are in this thesis grounding our concepts and the measurements of these, based on previous research. The questions in the focus groups and experiment are taken, or similar to questions from previous research studies regarding country-of-origin effect.

3.6 Data analysis and tests

After collecting the answers using Qualtrics, we import the questionnaire responses from our account. The imported data set has one row of data corresponding to each individual questionnaire response, which is then exported into IBM SPSS Statistics 23 for further data analysis.

For the three different scenarios, we create a new variable called brand origin. Each country is assigned a corresponding value in order to separate the different groups. Next, we compute new index variables using the mean of responses for each brand association as well as product knowledge. We thus create six new index variables: quality, innovation, CSR, prestige, safety and integrity, and product knowledge. To ensure the reliability we use Cronbach's alpha.

In order to test our hypotheses across all our three groups of our independent variable, brand origin, on our dependent brand association variables, we use a one-way multivariate analysis of variance (MANOVA). The significance level is set to be ($p < 0.05$), and we use Wilk's lambda as the test statistic for significance. To determine which of the groups of the independent variable (brand origin) that show significant results, we perform a Tukey post hoc test using univariate tests to check the pairwise comparisons for the brand origin effects on each of the dependent brand association variables.

To test if low product knowledge moderates the relationship between brand origin and brand association dimensions, we use Hayes bootstrapping, moderation model 1 from Hayes Process Procedure, which we install in SPSS. Brand origin is set as the independent variable; brand association dimensions are the outcome variable and product knowledge is the moderator. Each brand association variable is tested separately with a 95% confidence interval.

3.7 Reliability and validity

We are using Cronbach's alpha to check for internal consistency and reliability for our index variables (See Appendix D). The alpha values for all brand association variables are above 0.75, suggesting a high internal consistency, which means that the measures are reliable. For product knowledge, the alpha value is lower ($\alpha = 0.67$), but still acceptable as the alpha value is above 0.60 (Nunnally Bernstein 1994; Hinton 2004).

The measures we use to control the level of validity of our questionnaire are content validity and construct validity. In ensuring the content validity, we make sure that our judgment of intended-to-measure features: brand origin, brand association dimensions, product knowledge are grounded on theory that is relevant for our research. This is done by researching the scientific definitions, previous research methods and results. To further ensure the content validity, we also conduct a qualitative pre-study with a focus group, which is recorded. As mentioned before, the focus group act as a prerequisite for the formation of our quantitative questionnaire. Furthermore, before the final questionnaire is distributed, revisions are made based on feedback from our supervisor as well as other individuals with relevant academic backgrounds. Based on these assurances, content validity can be assumed.

In order to determine the construct validity of our study, we will look at the degree to which our study actually estimates the underlying theoretical construct it is supposed to measure, in our case, brand origin effect. The construct validity, which is brand origin, is taken into consideration during the design of the quantitative survey, as the only changing factor between the different scenarios. To ensure validated measurements, we ground our concepts and the measurements of these in the questionnaire, based on previous research and used questions. Moreover, we include two control questions in the end of the questionnaire to ensure that all respondents have read and understood the information provided. With everything else constant, we could then directly analyze the difference in the theoretical construct, the brand origin effect.

3.7.1 Control and adjusting to meet the assumptions for MANOVA

In order to conduct a MANOVA, we make sure that our variables meet the assumptions to perform a MANOVA. The assumption of homogeneity of variance-covariance is checked

using Box's M test of Equality Covariance Matrices. Levene's test for equality of error variances ($p > 0.05$) confirms an equal error in variance among all the dependent variables. Additionally, variables are normally distributed. This is checked using histograms as visual indication, and data for skewness and kurtosis. Furthermore, we use the Shapiro-Wilk test to confirm that we have multivariate normality as well ($p > 0.05$). Next, we use boxplots and quartiles to identify and remove two univariate outliers, one for CSR and one for quality. One multivariate outlier is detected and removed using the Mahalanobis distance ($p < 0.05$).

The assumption for moderate multicollinearity is met as results show that the Variance inflation factor for all the dependent variables is moderately correlated ($1 < VIF < 5$) (e.g. Rogerson, 2001). Finally, we meet the assumption of linearity between each dependent variable. Results from the scatterplot matrix and correlation tables show a linear relationship between each pair of the dependent variables. We thus meet all the assumptions needed to conduct a MANOVA. (See Appendix E)

4. Results and analysis

In this section, we will present the results following the research and the hypotheses presented in the previous sections.

4.1 Brand origin effect on brand association

A Box's M test shows that ($p > 0.05$), we could, therefore, reject the null hypothesis of equal covariance matrices across groups. From the multivariate test, we use the Wilks lambda, as our samples sizes are equal. Results show that there are significant differences on brand association variables based on brand origin. ($F(10, 402) = 3.39, p < .05$; Wilk's $\Lambda = 0.85$, partial $\eta^2 = 0.08$). We can, therefore, conclude that hypothesis H₁, that brand origin will have a significant effect on consumer's brand association, in terms of our chosen brand association dimensions, is supported.

4.2 Brand origin effect on each brand association dimensions

Following the multivariate test (MANOVA) from section 4.1 being significant, we proceed to conduct a post hoc Tukey test, to test for the brand origin effect on each of the

dependent variables. Because the assumption of homogeneity of variance-covariance is met – we choose to use the Tukey HSD post hoc procedure. The univariate tests show that the hypotheses for H2a, H2c, and H2e are supported.

4.2.1 A brand from China is rated lower in quality compared to other countries

The results from the test of Between-Subjects Effects suggest that brand origin has a significant effect on the quality dimension ($F(2,205) = 6.12, p < 0.05$, partial $\eta^2 = 0.06$).

Moving on to the Tukey post hoc test results, we conclude that only brand origin from China has a significant effect on quality, when it is compared pairwise to Japan and Germany at ($p < 0.05$). There is no significant effect in between Japan and Germany ($p > 0.05$). This suggests that a brand origin from China has a significant effect on quality.

Looking at the means in Table 2 below, we can see that China score a lower mean compared with both Germany and Japan respectively. Our hypothesis H2a, that Swedish consumers will rate a brand originating from China lower in quality, compared with brands from other countries (Germany and Japan) is thus supported.

Table 2

Significant difference among groups of independent variables on CSR

<i>Brand origin</i>	<i>M</i>	<i>SD</i>
China	4.90	1.05
Germany	5.43	0.89
Japan	5.37	0.96

**p < 0.05*

4.2.2 Innovation of brands does not differ depending on brand origin

The results from the test of Between-Subjects Effects results suggest that brand origin does not have a significant effect on the innovation dimension ($F(2,205) = 2.59, p = 0.08$, partial $\eta^2 = 0.03$). Our hypothesis H2b that Swedish consumers will rate a brand originating from China lower in innovation, compared with brands from other countries (Germany and Japan) is therefore not supported.

4.2.3 A brand from China is rated lower in CSR compared to other countries

The results from the test of Between-Subjects Effects suggested that brand origin does have a significant effect on the CSR dimension ($F(2,205) = 10.71$, $p < .05$, partial $\eta^2 = 0.09$).

Moving on to the Tukey post hoc test results, we conclude that only brand origin from China has a significant effect on CSR when it is compared pairwise to Japan and Germany at ($p < 0.05$). There is no significant effect in between Japan and Germany ($p > 0.05$). This suggests that a brand origin from China does have a significant effect on CSR. Looking at the means in Table 3 below, we can see that China score a lower mean compared with both Germany and Japan respectively. Our hypothesis H2c that Swedish consumers will rate a brand originating from China lower in CSR, compared with brands from other countries (Germany and Japan) is thus supported.

Table 3

Significant difference among groups of independent variables on CSR

<i>Brand origin</i>	<i>M</i>	<i>SD</i>
China	3.89	1.14
Germany	4.70	0.98
Japan	4.36	0.97

** $p < 0.05$*

4.2.4 Prestige of brands does not differ depending on brand origin

The results from the test of Between-Subjects Effects results shows that brand origin does not have a significant effect on the prestige dimension ($F(2,205) = 2.59$, $p = 0.08$, partial $\eta^2 = 0.03$). Our hypothesis H2d that Swedish consumers will rate a brand originating from China lower in prestige, compared with brands from other countries (Germany and Japan) is therefore not supported.

4.2.5 A Chinese brand is rated lower in safety and integrity compared to other countries

The results from the test of Between-Subjects Effects suggested that brand origin does have a significant effect on the safety and integrity dimension ($F(2,205) = 3.25$, $p < .05$, partial $\eta^2 = 0.04$). Moving on to the Tukey post hoc test results, we conclude that only brand origin from China has a significant effect on safety and integrity when it is

compared pairwise to Germany at ($p < 0.05$). There is no significant effect between Japan and China, or between Japan and Germany ($p > 0.05$). This suggests that a brand origin from China does have a significant effect on safety and integrity in pairwise comparison with brand origin from Germany, but not when compared with brand origin from Japan. Looking at the means in Table 4 below, we can see that China still score the lowest mean compared with Germany as well as with Japan.

Our hypothesis H2e that Swedish consumers will rate a brand originating from China lower in safety and integrity, compared with brands from other countries (Germany and Japan) is thus partially supported.

Table 4

Significant difference among groups of independent variables on CSR

<i>Brand origin</i>	<i>M</i>	<i>SD</i>
China	4.67	1.21
Germany	5.20	1.31
Japan	4.88	1.16

** $p < 0.05$*

To summarize the hypotheses H1 and H2a-e, the results from MANOVA show that there is a significant effect of brand origin on brand associations in our case, with a significance level ($p < 0.05$). Hypothesis H1 is therefore accepted. Furthermore, the results show that three out of five dependent variables (brand association dimensions) are significantly affected by brand origin. These dimensions are quality, CSR, and safety and integrity, that all show a lower mean score for the Chinese brand compared with the German and Japanese brands. Results suggest that hypothesis H2a, H2c, H2e are supported, and hypothesis H2b and H2d for innovation and prestige is rejected.

4.3 Product knowledge as moderating variable

In this section, we will present the results of the test for the effect of brand association, based on brand origin when moderated by product knowledge. The test used is Hayes bootstrapping, moderation model 1 (Hayes and Matthes, 2009).

When checking the interaction effect between brand origin and low product knowledge for separate brand association dimensions, the results show a significant result for quality, CSR, and prestige. It does not show any significant results for innovation, or safety and integrity. (See Table 5 below)

Table 5

Interactions effect for low level of product knowledge

Variable	b	t	p	95% CI	
				LLCI	ULCI
Quality	0.24	2.11	0.04	0.02	0.47
CSR	0.31	2.49	0.01	0.07	0.56
Prestige	0.36	2.34	0.02	0.06	0.66
Innovation	0.27	1.76	0.08	-0.03	0.57
Safety and integrity	0.04	0.27	0.79	-0.25	0.33

* $p < 0.05$

When product knowledge is high, there is an insignificant relationship between brand origin and all the brand association dimensions, in terms of quality, CSR, prestige, innovation, and safety and integrity. (See Table 6 below)

Table 6

Interactions effect for high level of product knowledge

Variable	b	t	p	95% CI	
				LLCI	ULCI
Quality	0.22	1.90	0.59	-0.08	0.44
CSR	0.15	1.25	0.22	-0.09	0.40
Prestige	0.14	0.91	0.36	-0.16	0.44
Innovation	0.13	0.87	0.39	-0.02	0.43
Safety and integrity	0.16	1.14	0.25	-0.12	0.45

* $p < 0.05$

In conclusion, there is a relationship between brand origin and brand associations in terms of dimensions, quality, CSR and prestige for low product knowledge. Our hypothesis H₃ that product knowledge moderates brand origin effect on brand association dimensions when product knowledge is low, but not when it is high, is thus partially supported.

In the table below, all hypothesis outcomes are summarized. (See Table 7)

Table 7

Summary of hypotheses outcomes

<i>Hypotheses</i>	<i>Outcome</i>
H1: Brand origin will have a significant effect on consumer's brand association in terms of our chosen brand association dimensions	Supported
H2a: Swedish consumers will rate a brand originating from China lower in quality, compared with brands from other countries.	Supported
H2b: Swedish consumers will rate a brand originating from China lower in innovation, compared with brands from other countries.	Not supported
H2c: Swedish consumers will rate a brand originating from China lower in CSR, compared with brands from other countries.	Supported
H2d: Swedish consumers will rate a brand originating from China lower in prestige, compared with brands from other countries.	Not supported
H2e: Swedish consumers will rate a brand originating from China lower in safety and integrity, compared with brands from other countries.	Partially supported
H3: Product knowledge moderates brand origin effects on brand association dimensions when product knowledge is low, but not when it is high.	Partially supported

5. Discussion and conclusions

This study is aimed to further broaden the understanding of brand origin effect on brand associations on the Swedish smartphone market. In the following section, our results from our qualitative and quantitative surveys have been evaluated, explained and discussed.

5.1 Brand origin has a significant effect on brand association

Our first hypothesis that brand origin will have a significant effect on consumer's brand association in terms of our five chosen brand association dimensions, has been empirically supported. This result has been rather expected as there has been extensive research within this field of research before that all confirmed a brand origin effect when evaluating brands and products (Han 1989; Schooler 1965).

What has been especially interesting to find is that brand origin still has acted as a relevant information cue, in a situation that more closely resembled a real-life scenario, using a methodology such as ours, where brand origin has not been emphasized. Furthermore, these results have also supported a significant brand origin effect when it came to the chosen delimitations of our research question, suggesting that consumers will perceive and evaluate brands of Chinese origin differently from other countries on the Swedish smartphone market.

5.1.1 Significant brand origin effect for quality, CSR and safety and integrity

Looking at our results for the brand origin effect on specific brand association dimensions, they have suggested that brand origin has a significant effect on quality, CSR and partially safety and integrity. Furthermore, the results have also shown that brands of Chinese origin are perceived to be worse in regards to these brand association dimensions, compared with Germany and Japan.

These findings have been in coherence with previous research, stating that products and brands of less developed countries are generally rated lower in terms of quality, compared to developed countries (Wang and Lamb 1983; Elliott and Cameron 1994). Moreover, results from our pre-study have also indicated that Chinese products have generally been perceived as low in quality. Considering the fact that China is still seen as a less developed country, and adding that Chinese companies are still associated with low-quality products (The Economist 2015), these results are reasonable.

As for safety and integrity, brand origin effect has only been significant when comparing China and Germany. The reason behind this could be that consumers, in general, are more likely to rate their safety and integrity based on the geographical and cultural distance to other countries (Craig and Douglas 2005). Germany is geographically, culturally and politically much closer to Sweden compared with China and Japan. Moreover, there are, and have for a longer time been many well established German brands on the Swedish market relative to Chinese as well as Japanese brands. In our pre-study, participants have mentioned that they did not know, nor have they used any Chinese brands before. Moreover, some were skeptical towards Chinese smartphone brands, as they might be

connected with the Chinese government. The safety and integrity dimension that our respondents have rated could thus be explained by these facts and empirical results.

What could give us a deeper understanding of the results is a study by Tse and Gorn (1993), which have suggested that brand origin is used more extensively as an information cue when it negatively affects the overall brand evaluation. An example of this in our study could be the international media reporting on China with regards to environmental issues, working conditions and political issues (Ip 2008; Zhang 2016). Moreover, Fang and Chimenson (2017) have argued that Swedish media often portray Chinese society and companies in an obsolete way, based on old perceptions and stereotypes. These negative reportings of China could explain why China has been rated lower on brand associations compared with Germany and Japan. The fact that these information cues have been negative, the overall evaluation has, as a consequence, possibly resulted in a more extensive brand origin effect for Chinese brands.

5.1.2 Insignificant brand origin effect for innovation and prestige

According to our results, brand origin did not affect innovation or prestige. We find these results interesting, as it contradicts indications from our qualitative study and Roth et al. (2015), both stating that Chinese brands have the image of not being innovative compared with other countries. The explanation for this contradiction between our qualitative and quantitative studies could possibly be explained by cognitive bias (Varkatzas and Ambler 1999). In contrast to the focus-group interviews, the respondents of the quantitative questionnaire did not have to consciously compare innovation between different brand origins.

Furthermore, research has shown that due to globalization, digitalisation and as a result, a more diffuse distribution of knowledge and innovation globally (Ernst 2002), the brand origin could be of less importance when evaluating innovation for smartphone brands, as innovation is not as concentrated to certain areas of the world as before. This could partly explain the results from our study.

Looking at prestige, our result is interesting as it contradicts previous studies, suggesting that brand origin does play a role in rating the prestige for brands (Nagashima 1970). The brand origin effect has also been indicated in our pre-study, where respondents stated

that brands of Chinese origin would be considered low in prestige. A possible explanation could be that brand association dimensions are evaluated differently between product categories (Low and Lamb 2000). The smartphone industry could thus be a category where brand origin does not give any indication as to how prestigious a brand is, in contrast to categories like automobiles or watches. For these categories, research has shown that German and Swiss brand origin respectively, have been considered the most prestigious (Roth and Romeo 1992; Dubois and Czella 2002).

5.2 Moderating effect for quality, CSR, and innovation

Our results have suggested that low product knowledge moderates the relationship between brand origin effect and brand association dimensions, quality, CSR, and prestige, but not for safety and integrity, or innovation. At the same time, high levels of product knowledge did not moderate the relationship between brand origin and brand association. Thus, these results have partially confirmed our hypotheses and previous research (Maheswaran 1994; Alba 1983).

A possible explanation for this result could be that Chinese companies, with their brands and products, are relatively new on the Swedish market, compared to Japanese and German brands. This has also been brought up during the focus group discussion: the participants stressing the fact that they possessed little knowledge about Chinese companies. Their opinions about Chinese brands have consequently been based upon their general knowledge and image regarding China, in accordance to Alba (1983).

We have now looked specifically at each of the brand dimensions, and discussed the explanation behind each result:

Quality

From our results from H2a, we knew that brand origin affects quality. The reason why brand origin effect on quality has been moderated by product knowledge could be explained by the number of tangible attributes provided in the scenario. As these attributes could give indications on the product quality, high knowledgeable respondents have possibly, according to Maheswaran (1994) and Alba (1983), processed and used these attributes to a larger extent, when evaluating the quality of the brand. On the contrary,

low knowledgeable respondents have relied less on the tangible attribute information provided in the scenario, and consequently, based their evaluation of quality more on brand origin, which our results also suggested.

Prestige

As mentioned, prestige has not been affected by brand origin effect. However, our results have suggested that consumers with low product knowledge regarding smartphones, to a larger extent, have evaluated prestige based on brand origin. A possible explanation to this could be that low knowledgeable consumers have a mindset, where the origin of prestigious brands is more concentrated to certain areas of the world, such as the Western world and Japan. In contrast, our results suggest that consumers with high product knowledge do not evaluate prestige based on brand origin. They are possibly more aware of the variety of smartphone brands available on the market in terms of geographical scope. In addition, what makes a brand or a product prestigious is subjective. For consumers with high product knowledge, what amounts to prestige could be based on other factors compared to those with low product knowledge.

CSR

Even though no product attributes in our scenario could indicate the CSR of the brand, it is still a more concrete and measurable dimension, compared with more subjective measures such as innovation, and safety and integrity. Most companies have actual policies, regulations, and reports regarding CSR available, which consumers could gain indications and knowledge from. This could explain why low levels of product knowledge have moderated the relationship between brand origin effect and CSR. If consumers are more knowledgeable about a product category, they will to a larger extent recall and process the concrete information they possess, as in information regarding CSR. Consumers with higher product knowledge will consequently depend less on brand origin when evaluating CSR.

Safety and integrity, and innovation

According to our results, brand origin effect on innovation, and safety and integrity has not been moderated by product knowledge. An explanation for this could be that the scenario provided in our questionnaire, did not give any indications regarding these two

dimensions, in terms of information regarding product attributes. Even if a consumer had possessed high product knowledge, the brand origin effect would not differ when evaluating innovation, and safety and integrity, due to lack information regarding these dimensions. In these cases, brand origin has become a more important information cue for consumers with high product knowledge (Maheswaran 1994; Alba 1983).

5.3 Brand association relationship to brand image

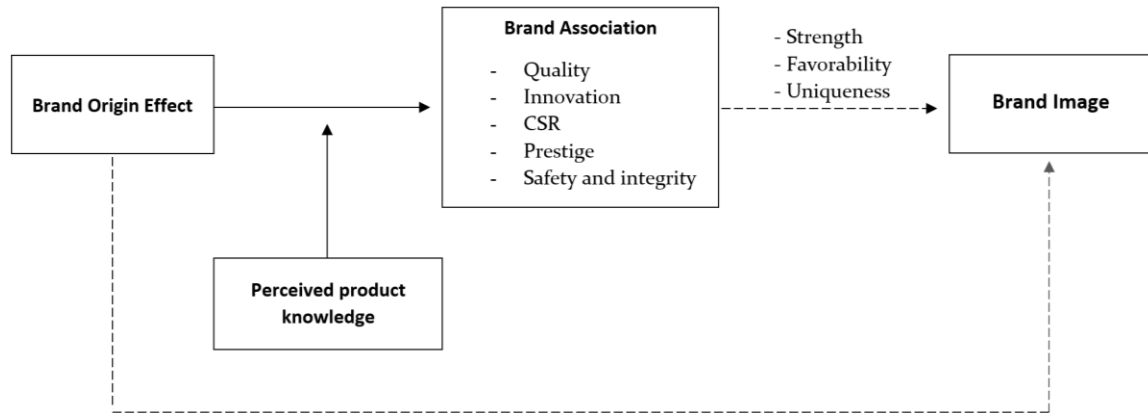
To get a deeper understanding of the results and future implications of our research question, we have acknowledged the relationship between brand association and brand image: the overall perception that a consumer develops about a brand. Previous research has told us that brand associations are related to brand image in a cause-and-effect relationship (Keller 1993; Faircloth et al. 2001). Furthermore, it is important to consider that the strength, favorability, and uniqueness of the brand association determines how it affects brand image (Keller 1993), all of which we have now discussed in the following sections.

In our questionnaire, quality has been rated the most important brand association dimension ($M = 6.67$, $SD = 1.15$) and CSR as the least important ($M = 4.58$, $SD = 1.74$) when looking for a smartphone (See Appendix F). However, our measures of level of importance should only be seen as an example and indication to explain the relationship between brand association and brand image, as we have not extensively measured the levels of importance. There is much more to be investigated regarding this topic.

The levels of importance are nevertheless crucial to bear in mind when elaborating the results of our research question. Even though our results have suggested that brand origin significantly affected CSR, the low level of importance of this dimension for smartphones, have suggested that consumers' perceptions of the brand image would not be as affected by CSR. This has further indicated that despite a lower rating in CSR for Chinese smartphone brands, it would not affect the brand image to the same extent as the quality dimension would have. (See Figure 3)

Figure 3

Visualization of relationship between brand origin, brand association, and brand image.



5.4 Implications

5.4.2 Theoretical implications

In terms of theoretical implications, our research has added new and interesting content to a rather mature research within the international marketing- and consumer behavior field. The results from our research have extended the existing research within country-of-origin in terms of brand origin effect (Thakor 1996; Lim and O’Cass 2001). Furthermore, we have tested for brand association dimensions that have already been researched in the field of country-of-origin, such as quality. What has made our study unique is that we have added new dimensions that, according to our results, have proven to be affected by brand origin. Moreover, our study has also extended the research in terms of research methods. Rather than letting consumers compare countries explicitly, our research has proven that brand origin does have a significant effect on brand association, even when using an experimental approach such as ours.

The results obtained about how low product knowledge have moderated the relationship between brand origin and brand association, confirmed previous studies regarding product knowledge and country-of-origin effect (Maheswaran 1994).

5.4.1 Managerial implications

The managerial implications that follow from this study, are especially relevant to those Chinese companies that are looking to build their brand and expand to the Swedish

market. Since it is important to be aware of which brand association dimensions that are affected by Chinese brand origin, our results should serve as a platform in which they can then design an effective marketing strategy. As the results have shown, Chinese companies that wish to enter the Swedish smartphone market must take into account that their brand origin could be a disadvantage to them, in terms of how consumers perceive the quality, CSR, and safety and integrity.

In conjunction with this, it is crucial for marketers to understand the relationship between their brand associations and brand image, and specifically find out which brand associations dimensions that affect brand image the most (and least). Even if both quality and CSR were negatively affected by a Chinese brand origin, consumers rated quality a more important dimension when buying a smartphone. Marketers should, in consequence, emphasize this hierarchy of importance between brand association dimensions and brand image.

Moreover, as our study has also indicated that companies also need to consider the level of product knowledge for their target groups and segments. The need to consider the effects of brand origin could depend on the consumers' level of product knowledge about smartphones. Since quality, prestige, and CSR, in our study, have been moderated by product knowledge, marketers should adapt their strategies accordingly.

5.5 Critique and Limitations

Even though we have aimed to design our experiment to resemble a more realistic scenario in terms of brand origin as an information cue, it is still important to consider that this study can still be subject to cognitive bias. Furthermore, the experiment format in itself could have affected the respondents' processing of information. Our chosen brand associations were set, which to some degree have forced the respondents to focus on certain brand association dimensions, in contrast to a real-life situation.

Using only a smartphone to examine how consumers respond to brand origin effect has limited the immediate applicability of our findings, since evaluation of products can differ depending on product category (Low and Lamb 2000). In example, the fact that a product could be either high or low involvement, transformational or informational (Percy and

Donovan 1991) could possibly have affected the way consumers consider brand origin, or moreover which dimensions they find the most important.

The product knowledge measure should also be critically reviewed as we have let the respondents judge their own product knowledge, which is a rather subjective measure. Due to the experiment approach in our study, we have not been able to objectively determine the respondent's actual product knowledge as we have primarily aimed to identify the brand origin effect. In addition, the internal consistency of the product knowledge index variable should also be mentioned ($\alpha = 0.67$). This should be considered when interpreting the results that followed from the product knowledge measure.

Finally, our sampling target should also be critically evaluated since we used only student samples in our empirical data collection. This needs to be taken into account as using only student respondents could have affected the outcome of the results. However, many previous studies have used students sampling, and it is still considered to be useful as guidelines and indications for the general population (e.g. Iacob 2014)

5.6 Future research

As for future research, it would be interesting to extend our experiment, to study the brand origin effect on brand association and brand image, for different product categories. By comparing how consumers perceive different brand association dimensions, and test the importance of these, depending on brand origin and product category, we could get a deeper and more dynamic research study that could provide more useful and applicable insights.

Furthermore, as Chinese brands have been starting to expand their own local brands to international markets, the image of China as a production country will change. In the future, Swedish consumers will be increasingly exposed to Chinese brand and, consequently, become more knowledgeable about Chinese brands. As Alba (1983) concluded, the level of knowledge impacts on how much and what kind of information a customer recalls and evaluates. Considering this change in knowledge about China and Chinese brands, it would be interesting to test how brand origin effect on brand association changes.

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APPENDIX A – Qualitative pre-study

The participants in the pre-study were initially given the following scenario:

“You are looking for a new smartphone, and are doing some research to look at different alternatives when it comes to brands and models.”

Part 1. The participants were then asked the following questions:

- Where and how do you look for information, regarding smartphones?
- Which factors do you find most important when evaluating the alternatives?
- Would you consider buying a smartphone from a brand you have not previously used?
- What made you buy the smartphone you are using today?

Part 2. The participants were asked to rank and discuss the following smartphone brand origins, according to which they would prefer:

- USA
- Brazil
- South Korea
- China
- Sweden

They were then asked to rank and discuss the same brand origins, according to the following brand association dimensions:

- Price (cheap – expensive)
- Quality (highest – lowest)
- CSR (most – least responsible)
- Innovation (most – least innovative)

Part 3. The participants were lastly asked questions regarding their attitude towards China, Chinese brands, and smartphones:

- Could you name any Chinese smartphone brands? Which ones?
- Do you think Chinese brand origin is beneficial or not for smartphones?
- Is this different for other product categories?
- What are your general attitudes toward China and Chinese companies?
- Will the image of China change in the future? How?

Main findings:

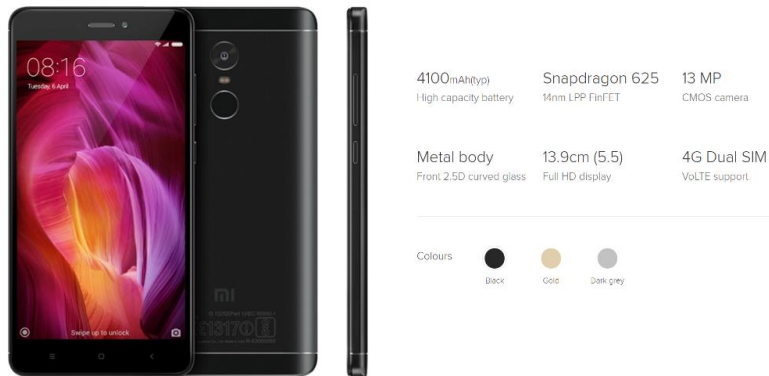
- Brand origin, did affect how they rated different brand association dimensions. It was easy for them to motivate their choices.
- Most could not name or were knowledgeable about Chinese brands in general.
- Many associated Chinese companies with bad working conditions, poor quality and as not being very concerned about CSR in general.
- USA and Japan were the countries that many named, when talking about technological advanced products and good quality.

APPENDIX B – Quantitative survey

Scenario - Please read this text carefully

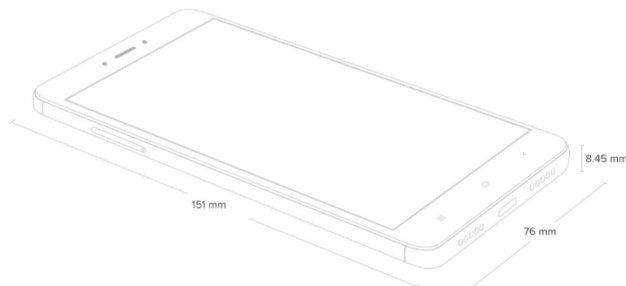
You are looking for a new smartphone. After doing some research, you come across brand XY.

Brand XY is a new brand from XX that is looking to enter the Swedish market in the near future. The first phone that they are planning to launch is their latest model XY1. The model has the following features and specifications:



Dimensions

Height: 151mm
Width: 76mm
Thickness: 8.45mm
Weight 165g



Buttons



☐ Yes, I have read this text scenario carefully to answer questions that follow.

INNOVATION

Q1 How innovative do you think that the brand is? (o = Not at all innovative, 7 = Very innovative)

Q2 How innovative do you think the customer service is for this brand? (o = Not at all innovative, 7 = Very innovative)

Q3 How innovative do you think the brand's marketing activities towards customers are? (o = Not at all innovative, 7 = Very innovative)

CSR

Q5 How would you rate the working conditions of the company? (o = Very bad conditions, 7 = Very good conditions)

Q6 How would you rate the company's concern for equality and inclusiveness? (o = Not at all concerned, 7 = Very concerned)

Q7 How would you rate the company's concern for environmental sustainability? (o = Not at all concerned, 7 = Very concerned)

QUALITY

Q11 How durable would you rate a phone of this brand? (o = Not at all durable, 7 = Very durable)

Q12 How would you rate the quality of the design on a phone of this brand? (o = Very bad design quality, 7 = Very good design quality)

Q13 How would you rate the overall quality of a phone of this brand? (o = Very bad overall quality, 7 = Very good overall quality)

PRESTIGE

Q15 How would you rate the trendiness of a phone of this brand? (o = Not at all trendy, 7 = Very trendy)

Q16 On a scale, what status would a phone of this brand give you in society? (o = No status at all, 7 = A lot of status)

SAFETY AND INTEGRITY

Q18 How high would you rate the trustworthiness of this brand? (o = Not at all trustworthy, 7 = Very trustworthy)

Q19 How safe would you feel using this brand? (o = Not at all safe, 7 = Very safe)

Q20 How would you rate the feeling of integrity of a phone of this brand? (o = Very low, 7 = Very high)

PRODUCT KNOWLEDGE

Q22 How would you rate your knowledge of smartphone specifications in general? (o = Not at all knowledgeable, 7 = Very knowledgeable)

Q23 Please rate how well you remember the product features? (o = Not well at all, 7 = Very well)

IMPORTANCE

Q4 How important is innovation to you when you consider a phone? (o = Not at all important, 7 = Very important)

Q7 How important is CSR to you when you consider purchasing a smartphone? (o = Not at all important, 7 = Very important)

Q14 How important is quality to you when you consider purchasing a phone? (o = Not at all important, 7 = Very important)

Q17 How important is prestige to you when you consider purchasing a smartphone? (o = Not at all important, 7 = Very important)

Q21 How important is safety and integrity to you when you consider a phone? (o = Not at all important, 7 = Very important)

DEMOGRAPHICS

Q23 How old are you?

Q24 What is your gender?

Q25 What is your primary occupation?

CONTROL QUESTIONS

Q26 What country did the brand originate from?

Q27 You just answered a survey about?

APPENDIX C – Qualitative follow-up interviews

Part 1. The participants were initially presented to the quantitative questionnaire, and asked how they believe the result would look like and why.

Part 2. The participants were presented with our empirical results, and asked to comment on and discuss the following questions:

- Why do you think the results came out like this?
- Would the results have looked differently with a different product category?
- Why do you think China is generally rated lower compared with other countries?

Main findings:

- Since Chinese brands are new on the Swedish market, they are hence evaluated based on China as a country, and not the brand itself.
- When evaluating Chinese brands, you are at the same time evaluating Chinese society and culture, which is very different from Sweden.
- The image of China will change in the future along with its economic, cultural and political power.

APPENDIX D— Cronbach's Alpha Values

Table 1

Summary of Cronbach's Alpha values for index variables

<i>Variable</i>	<i>Cronbach's alpha (α)</i>
Innovation	0.82
CSR	0.78
Quality	0.75
Prestige	0.77
Safety and integrity	0.81
Product knowledge	0.67

APPENDIX E— Meeting Assumptions for MANOVA

Table 1

Test of Equality of Covariance Matrices

Box's M	30.90
F	0.99
df1	30
df2	132972.75
Sig.	.48

Table 2

Levene's Test of Equality of Error Variances

<i>Variables</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
Quality	0.55	2	205	0.58
Innovation	0.50	2	205	0.61
CSR	1.03	2	205	0.36
Prestige	1.17	2	205	0.31
Safety and integrity	1.08	2	205	0.34

Normal distribution

We first checked histograms as visual indication for normal distribution. Next, we checked our data for skewness and kurtosis. The variable was a little skewed and kurtosis, but it did not differ significantly from normality as the z-value was in between +1.96 and -1.96. Furthermore, we tested if the assumption of multivariate normality was met. As it is not possible to directly test the multivariate normality, we used the Shapiro-Wilk test of normality to test the normality of all the dependent variables for the groups in our independent variable brand origin, which showed non-significant results ($p > 0.05$) Thus, we accept the null hypothesis of normality. The data is therefore approximately normally distributed for all our variables. (See table 3 on the next page)

Table 3*Test of Normality*

<i>Dependent Variable</i>	<i>Country</i>	<i>Skewness</i>	<i>SD Error</i>	<i>Z-value</i>	<i>Kurtosis</i>	<i>SD Error</i>	<i>Z-value</i>	<i>Shapiro-Wilk</i>		
								<i>Statistic</i>	<i>df</i>	<i>Sig.</i>
Quality	China	0.09	0.29	0.30	0.07	0.57	0.12	0.99	70	0.62
	Germany	0.15	0.29	0.52	-0.64	0.57	-1.11	0.97	68	0.08
	Japan	0.09	0.29	0.33	-0.20	0.57	-0.35	0.98	70	0.30
Innovation	China	0.25	0.29	0.87	0.19	0.57	0.34	0.97	70	0.11
	Germany	-0.34	0.29	-1.16	-0.50	0.57	-0.87	0.97	68	0.16
	Japan	-0.29	0.29	-1.01	0.49	0.57	0.86	0.98	70	0.22
CSR	China	-0.09	0.29	-0.30	0.42	0.57	0.74	0.98	70	0.26
	Germany	-0.13	0.29	0.74	0.85	0.57	1.47	0.97	68	0.17
	Japan	-0.13	0.29	-0.44	0.15	0.57	0.26	0.99	70	0.59
Prestige	China	0.41	0.29	1.42	-0.04	0.57	-0.08	0.97	70	0.07
	Germany	0.13	0.29	0.46	0.10	0.57	0.18	0.97	68	0.10
	Japan	-0.17	0.29	-0.61	0.09	0.57	0.16	0.97	70	0.08
Safety and integrity	China	0.03	0.29	0.09	0.28	0.57	0.50	0.98	70	0.26
	Germany	-0.52	0.29	-1.80	0.36	0.57	0.63	0.97	68	0.07
	Japan	0.38	0.29	1.31	0.06	0.57	0.11	0.98	70	0.28

Removing outliers

We also tested the dependent variables for univariate outliers by identifying the first and third quartiles in each of the dependent variables in SPSS as well as possible outliers using boxplots. However, the measure of outliers in SPSS is using a value of ($g=1.5$), a value suggested by Tukey (1977) that has become a standard for detecting outliers. However, (Hoaglin et al. 1986) began to criticize this measure and Hoaglin and Iglewicz (1987) suggested that the value should be 2.2 instead. Therefore, we did calculations in excel using this value ($g=2.2$) instead to find outliers. We identified two outliers, one for CSR and one for quality, which we removed from the dataset. Next, we adjusted for multivariate outliers using the Mahalanobis distance. We detected one outlier which had $p<0.001$, we removed it from the dataset as well.

Table 4
Test for Outliers

Variable	Q ₁	Q ₃	<i>g</i>	Q ₃ -Q ₀	<i>g'</i>	Lower	Upper	Number of Outliers
Quality	4.67	6.00	2.20	1.33	2.93	1.73	8.93	1
CSR	3.67	5.00	2.20	1.33	2.93	0.73	7.93	1
Prestige	3.50	5.00	2.20	1.50	3.30	0.2	8.30	None
Innovation	3.33	5.17	2.20	1.83	4.03	-0.70	9.20	None
Safety	4.00	5.67	2.20	1.67	3.67	0.33	9.33	None

* $g = 2.2$

Table 5
Test for Outliers

Variable	Q ₁	Q ₃	<i>g</i>	Q ₃ -Q ₀	<i>g'</i>	Lower	Upper	Numbers of Outliers
Quality	4.67	6.00	1.50	1.33	2.00	2.67	8.00	1
CSR	3.67	5.00	1.50	1.33	2.00	1.67	7.00	7
Prestige	3.50	5.00	1.50	1.50	2.25	1.25	7.25	4
Innovation	3.33	5.17	1.50	1.83	2.75	0.58	7.92	2
Safety	4.00	5.67	1.50	1.67	2.50	1.50	8.17	2

* $g = 1.5$

Multicollinearity

The dependent variables were tested for multicollinearity. Results showed that the Variance inflation factor for all the dependent variables were moderately correlated ($1 < VIF < 5$) (Minitab 17). The assumption moderate multicollinearity has thus been met.

Table 6

Multicollinearity

		<i>Collinearity Statistics</i>	
<i>Variables</i>		<i>Tolerance</i>	<i>VIF</i>
Innovation	CSR	0.70	1.42
	Quality	0.60	1.67
	Prestige	0.73	1.37
	Safety	0.58	1.74
CSR	Innovation	0.67	1.49
	Quality	0.60	1.66
	Prestige	0.69	1.44
	Safety	0.58	1.73
Quality	Innovation	0.64	1.58
	CSR	0.67	1.49
	Prestige	0.70	1.43
	Safety	0.66	1.52
Prestige	Innovation	0.67	1.50
	Quality	0.60	1.66
	CSR	0.67	1.50
	Safety	0.57	1.75
Safety and integrity	Innovation	0.65	1.55
	Quality	0.70	1.44
	Prestige	0.70	1.43
	CSR	0.68	1.47

Linearity

The assumption of linearity between each dependent variable was tested using a scatterplot matrix as well as checking the correlations in a table. The results showed that there is a linear relationship between each pair of the dependent variables. We have met the assumption of linearity.

Table 7

Correlations

<i>Variable</i>	<i>Innovation</i>	<i>CSR</i>	<i>Quality</i>	<i>Prestige</i>	<i>Safety</i>
Innovation	-				
CSR	.504	-			
Quality	.449	.452	-		
Prestige	.481	.417	.437	-	
Safety	.453	.442	.573	.428	-

APPENDIX F— Means and Standard deviation for Importance

Table 1

Importance

<i>Variable</i>	<i>M</i>	<i>SD</i>
Quality	6.67	1.15
Innovation	5.77	1.49
Safety and integrity	5.64	1.62
Prestige	4.80	1.98
CSR	4.58	1.74