

## Sources of brand equity in China: The role of brand *mianzi* and brand popularity

### Abstract

International marketers face a challenge in applying Western-derived theory in emerging markets such as China where there has been rapid economic growth and socio-cultural transition. This study develops “culturally contextualized” determinants of brand equity in China. A qualitative approach consisting of 30 interviews revealed two new factors linking to brand equity: brand popularity and brand *mianzi*. A quantitative questionnaire survey with a sample of 321 Chinese smartphone users was conducted to test the hypotheses.

The quantitative study’s findings further revealed that brand popularity and country of origin image affect brand loyalty, brand awareness, perceived quality and brand *mianzi*.

Additionally, the effects of brand popularity and country of origin image on brand equity were mediated by the four determinants. Finally, brand *mianzi* was found to be the second most important determinant of brand equity after brand loyalty, highlighting the importance of cultural factors in branding activities in emerging markets.

**Key words:** Brand equity; Chinese culture; Brand *Mianzi*; Brand popularity; country of origin.

## 1. Introduction

Building strong brand equity is crucial for multinational corporations (MNCs) to achieve and maintain competitive advantage (Chabowski, Samiee, & Hult, 2013; Yang, Sonmez, Li, & Duan, 2015; Zhang, van Doorn, & Leeflang, 2014), especially for those that have operations in emerging markets. The competitive landscapes in those markets could be tougher than the developed ones, and there are distinctive consumer cultures and brand preferences (Heinberg, Ozkaya, & Taube, 2017). Moreover these consumer cultures and preferences particularly those in China are in constant transition (Leung, 2008), creating uncertainty for foreign MNCs (Stallkamp, Pinkham, Schotter, & Buchel, 2017). Customer based brand equity (CBBE), defined as “the differential effect of brand knowledge on consumer response to the marketing of the brand” (Keller, 1993), is one of the widely used tools for predicting consumer behavior (Cobb-Walgren, Ruble, & Donthu, 1995; Pappu, Quester, & Cooksey, 2007; Park & Srinivasan, 1994). Over the years various approaches to measure brand equity have been developed and various dimensions have been subsequently operationalized by different authors (e.g. Atilgan, Aksoy, & Akinci, 2005; Buil, de Chernatony, & Martinez, 2008; Pappu et al., 2007; Yasin, Noor, & Mohamad, 2007; Yoo & Donthu, 2001). The major CBBE models such as Aaker’s (1996) and Keller’s (1993) models were both developed in the US, which may limit their applications in emerging markets such as China.

It has been noted that consumers in emerging markets are different from those in developed markets due to a variety of cultural and socio-economic factors (e.g. Christensen, Siemsen, & Balasubramanian, 2015; Maheswaran & Shavitt, 2000; Michaelidou, Christodoulides, Cadogan, & Veloutsou, 2015; Morgeson III, Sharma, & Hult, 2015). Specifically, the way consumers evaluate different brands and subsequently their loyalty may

differ across cultures (Ettenson, 1993). Zhang et al. (2014) show that brand equity has a greater role in the West than in the East, yet Eastern consumers have higher loyalty intentions. Thus, we can expect that the sources of brand equity and loyalty in Eastern contexts may be different from Western contexts. However, to date, limited research attention has been devoted to critically examine the application of CBBE in China, despite its increasing importance for global market and MNCs (Leung, 2008).

This study seeks to uncover some of the culturally-specific dimensions of brand equity in China. A qualitative methodology based on in-depth interviews was adopted to inform the development of a conceptual model and the main questionnaire survey with a sample of Chinese smartphone consumers. The in-depth interview method was adopted as it yields a deeper understanding of the consumers' own perceptions, opinions, judgement, and feelings about brands. Its findings provide basis for developing a conceptual model for empirical test through the quantitative survey. The study has focused on smartphone brands since it is a very popular product among Chinese consumers, which is the world's largest smartphone consumer market (Reuters, 2015).

This study also attempts to make contributions to the international business literature by adapting CBBE in China. First, our qualitative interview findings indicate that three factors are highly relevant for consumers when selecting a smartphone brand in China: brand popularity, country of origin and brand *mianzi*. Second, we conceptualize brand *mianzi* as the new dimension of CBBE while brand popularity and country of origin as the key antecedents. Finally, our quantitative data results verify this conceptual model, which provides important implications for international business managers to adapt their marketing strategies.

## 2. Literature review and hypothesis development

### 2.1. Brands in the Chinese cultural context

Consumer culture theory proposes that a brand is a specific, cultural and symbolic form that consumers use to interpret and organize the world (Arnould & Thompson, 2005; Cayla & Arnould, 2008). The meaning of the same brand therefore differs across cultural contexts (Eckhardt & Houston, 2002). Cayla and Arnould (2008) pinpoint the broad differences between Western and non-Western cultural contexts, and suggest that Western branding models and principles cannot be used to explain brands in Asia. Cayla and Eckhardt (2008) have illustrated some peculiarities of the way branding strategies are constructed in the Asian world. Eckhardt and Houston (2002) have shown that the way the brand meaning is interpreted by Chinese consumers, even in the case of a globally renown brand such as McDonald's, is highly entwined with local cultural values and the peculiar transitional context which reveals tensions between traditional/national ways of interacting and new ideas and ways of interacting. On the same lines Zhou and Belk (2004) reveal that Chinese consumers' understandings of global and local television and print advertising, is either driven by the desire for global cosmopolitanism and status goods for the sake of *mianzi* (prestige face), or it is motivated by a more nationalistic desire to invoke Chinese values that are seen as local in origin.

With reference to the specific role that brands play for the Chinese consumers, Tse (1994) has underlined that Chinese consumers attach utmost importance to the social function of the brand which are much more important to Chinese consumers than to Western ones. The author refers to the brand social function to signify that Chinese consumers use brand names as an instrument to build their social relationships, for instance to delimit in-group and out-group boundaries or to communicate their social status. The importance of material

possession in developing social relationships and gaining social status seems to be linked to the historical development of brands in the country (Ahuvia & Wong, 1998; Wang & Lin, 2009), since for a long time they have served as symbols of status when families' wealth and position was highly uncertain (Hamilton & Lai, 1989). The usage of brands to express social identity is also linked to the Chinese highly collectivist culture characterized by strong interdependences among members belonging to the same group (Tu, 1985) and by a great emphasis placed on the recognition of social positions and the protection of one's dignity (Buckley, Clegg, & Tan, 2006). These arguments have been further supported by Zhan and He (2012), who have identified three psychological traits – namely value consciousness, susceptibility to normative influence, and the need for uniqueness, which have an impact on Chinese consumers' attitude and purchase intention towards luxury brands. Tong and Hawley (2009) reveal that some brand equity dimensions such as perceived quality and brand awareness appear to be non-influential for the sportswear consumers in China. Despite these evidences, extant research on the brand equity in China has relied on existing multi-dimensional brand equity measures, without taking into account of the specificities of the Chinese context (Lehmann, Keller, & Farley, 2008; Liaogang, Chongyan, & Zi'an, 2007; Tong & Hawley, 2009).

## *2.2. Brand equity measures and cross-country validity*

Scholars have devoted a great deal of attention to the notion of brand equity considering its relevance in stimulating purchasing intentions (Cobb-Walgreen et al., 1995) as well as in generating financial returns (Aaker & Jacobson, 1994). There have been two main perspectives on brand equity: a financial approach discussing how to estimate the financial value of the brand for the firm (Simon & Sullivan, 1993), and a consumer-based approach

which evaluates the brand on the basis of consumers' knowledge and the consequent relations they establish with brand (Aaker, 1991; Keller, 1993). This latter view is the most widely adopted one in marketing studies.

Brand equity studies have been also classified on the basis of the recommended measurement methods: some authors have proposed direct and mainly unidimensional measures, which assess brand equity considering the immediate various attributes constituting its meaning. These authors attempted to separate the overall brand value from the product value or the symbolic value from the product-related value (Leuthesser, Kohli, & Harich, 1995; Park & Srinivasan, 1994; Vázquez, Del Rio, & Iglesias, 2002). However, there is wide consensus among scholars on the usage of multi-dimensional and indirect measures which assess brand equity through multiple dimensions and/or behavioral outcomes (Christodoulides, Cadogan, & Veloutsou, 2015). This latter and richer stream of research has proposed various dimensions as constituting the CBBE (for a complete review see Christodoulides & De Chernatony, 2010). Among these different proposals, scholars have most widely adopted the brand equity dimensions as conceptualized by Aaker (1991), which include: *brand awareness*, *brand associations*, *perceived quality*, and *brand loyalty*. With these four dimensions, Aaker (1991) develops the idea that the better the brand knowledge held by consumers the more positive will be their reactions to the brand and consequently the higher the brand equity. Following this logic, consumers' capability of recognizing or recalling a brand in a certain product category - also known as *brand awareness* - represents the preliminary dimension of brand equity. All the meanings constituting consumers' brand knowledge (i.e. the way people think about a brand abstractly) will represent the so-called *brand associations*. Consumers' evaluations of the product's features and performance constitute the *perceived quality* dimension. Finally, *brand loyalty* expresses consumers' attachment to and intention to repurchase the same brand.

These dimensions have been subsequently operationalized by different authors (e.g. Atilgan et al., 2005; Buil et al., 2008; Pappu, Quester, & Cooksey, 2005; Yasin et al., 2007; Yoo & Donthu, 2001) and attempts have been made to adapt them to different contexts such in the cases of specific equity measures developed for green brands (Chen, 2010), online brands (Christodoulides & de Chernatony, 2004) or business-to-business brands (Coleman, de Chernatony, & Christodoulides, 2011).

Despite the widespread utilization of Aaker's brand equity scale, a main issue has been pointed out in relation to their cross-country application, since most of the brand equity studies have only focused on a single country (Christodoulides et al., 2015). Among the few studies that have applied the Aaker's scales to multiple countries none is free of problems. Most importantly for an international business perspective, when one Western and one Eastern country (Yoo & Donthu, 2001) or multiple European countries (Christodoulides et al., 2015) were involved in the study the measures applied have failed to discriminate among some theoretically distinguished concepts (i.e. brand awareness and brand associations) or have shown relevant variations across countries.

A fundamental implication of these incongruences would be that, in contrast to widespread academic and managerial practices of adopting the same brand equity measures across different nations, brand equity may actually be culture-specific (Christodoulides et al., 2015; Kocak, Abimbola, & Özer, 2007). This is also in line with Fischer, Völckner, and Sattler (2010) who found that the importance of brands themselves and their functions for consumer decision making vary substantially across countries with consumers from certain nations, such as Japan, attributing a higher relevance to brands in relation to their *social demonstrance* function rather than their risk reduction function. In addition to this, Strizhakova, Coulter, and Price (2008) found that also the different dimensions of brand

meanings (i.e. quality, values, personal identity, and traditions) assume different importance to consumers across countries, so that, for instance, identity-related and traditions-related meanings are more important in the U.S. than in emerging markets.

These evidences lead to the consideration that an adaptation of the brand equity construct and its measures is needed depending on the specific country/cultural context of reference. In order to develop an adaptation to the Chinese context of the brand equity construct and its measures we have compared, in the same Chinese context, the relevance of some traditional brand equity dimensions with other new dimensions that we have identified from a qualitative study involving 30 Chinese users of smartphone brands. Details about this preliminary study can be found in Appendix 2. The qualitative interview findings indicate that three factors are highly relevant for consumers when selecting a smartphone brand: brand popularity, country of origin and brand *mianzi*. As detailed in the next section we expect that the identified contextualized brand equity dimensions will explain the brand equity evaluations in China better than some other traditional dimensions.

### *2.3. Hypothesis development*

#### *2.3.1. Brand popularity*

Based on the analysis of interviews, it appears that Chinese consumers tend to choose *popular* brands. More specifically, the meaning associated with brand popularity emerging from interviews referred to a consumer's assessment of the level of diffusion or popularity of a brand in society, namely the number of people who are buying the same smartphone brand/model. Brand popularity can be considered as a cultural factor because its importance may derive from Chinese people's respect for social norms and group conformity (Markus & Kitayama, 1994; Triandis, 1995). Furthermore, the Chinese culture is highly collectivist meaning that there is strong interdependence among its group members (Tu, 1985). In

Chinese society the social pressure to conform to the group would ‘urge’ consumers to make decisions that might not necessarily reflect individuals’ private opinion. Additionally, following others’ behavior may reduce uncertainty. Social influence scholars point out that when individuals are uncertain about a situation they observe what other people do and imitate their behavior (Asch, 1951). Accordingly, Chinese people observe what other people do or buy and follow the behavior or the norms accepted by the majority in order to join them, establish harmony and sense of community (Hsu, 1948). Consequently, the more a product or brand is chosen by consumers, the more it becomes popular in society. As Chinese consumers dislike deviating from the group (Markus & Kitayama, 1994), as brand popularity increases, the loyalty attached the brand that has become the brand chosen by the society members increases, too. Thus, we hypothesize the following:

**H1a.** Brand popularity has a positive influence on brand loyalty.

The fact that more and more people purchase a specific brand also increases its visibility and it may be easier for consumers to recall and recognize a brand when they see it into the shops or in the streets. For instance, the iPhone is sometimes called a “street phone” in large cities for its common sightings in the streets (Wakabayashi, 2016). Thus, we expect that:

**H1b.** Brand popularity has a positive influence on brand awareness.

Additionally, the more people buy the same brand the more other people believe that the brand being purchased is of good quality. Research in other contexts has established that the number of download counts, an indicator of polarity, may indicate perceived quality and reliability for software products (Hanson & Putler, 1996). Accordingly, the more people buy the same smartphone brand, the more other people believe that this brand must of good

quality otherwise not so many people would want to buy it. Therefore, we can also hypothesize the following:

**H1c.** Brand popularity has a positive influence on perceived quality.

On the other side, the more a brand is popular in a specific society or an individuals' social circle, the more people will reduce risks. In particular, purchasing a popular brand will reduce the risk of losing face, while at the same time the popularity of the brand may bring prestige and positive impression to its owner. Thus:

**H1d.** Brand popularity has a positive influence on *mianzi*.

### 2.3.2. *Country of brand origin*

The country of origin of a brand is the stereotypical image of the country where a brand is believed to originate (Bilkey & Nes, 1982). Many consumers use these stereotypical associations to assess products (Yasin et al., 2007). Country of brand origin is known to originate associations with a specific source country in consumers' minds (Aaker, 1991; Keller, 1993), regardless of where the product is actually produced (Diamantopoulos, Florack, Halkias, & Palcu, 2017). Previous studies have indicated that country of origin signals the value of a brand, serves a cue for product quality, helps to reduce consumer perceived risk and facilitates purchase decision (e.g. Bloemer, Brijs, & Kasper, 2009; Chao & Gupta, 1995; Costa, Carneiro, & Goldszmidt, 2016; d'Astous & Ahmed, 1999; Verlegh & Steenkamp, 1999). Particularly in the emerging countries, it is found that country-of-origin strongly influences brand distinctiveness, awareness, and loyalty (Sharma, 2010; Yasin et al., 2007). Comparing consumer behavior differences between the developed and emerging countries, Sharma (2010) reveal that consumers in the emerging countries such as China and India have stronger preference to products originated from developed countries. Therefore,

we hypothesize that country of origin has a positive impact on brand loyalty. For example, if consumers perceive the country from which the brand originates as modern and technologically advanced, they will be less reluctant to switch to a brand from a country that does not excel in such a product category according to consumers' stereotypical perceptions. Thus, consumers will keep buying the product and brands originating from a country that they perceive to be superior in terms of technological advancement. Thus:

**H2a.** Country of brand origin has a positive influence on brand loyalty.

Previous research has established that country of origin has a significant effect on brand awareness/associations, however they did not really explain why (Yasin et al., 2007). In this study we argue that young Chinese people are particularly attentive to any new technology or innovation coming from technologically advanced countries, about which they have a positive perception. Young Chinese consumers are increasingly aware of the smartphone brands and models originating from these countries. Additionally, many smartphone manufacturers also offer various technological products (e.g. ipad, camera, television) which may enhance consumer's knowledge of the country of origin and at the same time consumers' knowledge of these brands. The country of origin can be an important driver of interest towards the brand, which may enhance brand recall and recognition. Thus, we hypothesize:

**H2b.** Country of brand origin has a positive influence on brand awareness

Country of origin influences consumers' perception of quality of products (e.g. Heslop, Liefeld, & Wall, 1987; Kaynak & Cavusgil, 1983). Chinese consumers favor Western brands because they believe they have high standards of quality. This perception is due to frequent product safety issues which, together with lax government supervision, have pushed Chinese consumers away from certain domestic products (Qiu & Zhao, 2011). Chinese consumers

have typically been wary about items manufactured in their home country; as a consequence, many Chinese consumers are willing to pay a premium for foreign brands to ensure quality (e.g. infant formula) (Qiu & Zhao, 2011). Therefore, the foreign country of origin of a brand influences Chinese consumers' perception of quality.

**H2c.** Country of brand origin has a positive influence on perceived quality.

Brand names, especially foreign brand names, are appealing to the Chinese for the status that these brands provide to the consumer (Lai & Zaichkowsky, 1999). In this study we argue that the foreign country of origin of a brand will impact the capacity of the brand to enhance Chinese consumers' *mianzi*, namely their social status and make them feel proud and honored. Thus, we hypothesize:

**H2d.** Country of brand origin has a positive influence on brand *mianzi*.

### 2.3.3. *Brand loyalty*

Brand loyalty is another component of the CBBE model (Aaker, 1991; Keller, 1993) and it is defined as “a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having potential to cause switching behavior” (Oliver, 1997).

Loyalty is mainly derived from a positive evaluation of the brand image and from previous experiences. Loyal consumers are willing to pay a higher price and will first choose the brand which they are loyal to, and they will not consider buying a competing brand if their favorite brand is available at the store (Beatty, Homer, & Kahle, 1988). Many researchers (e.g. Yasin et al., 2007; Yoo, Donthu, & Lee, 2000) have stressed the importance of brand loyalty in the formation of brand equity; in Yoo et al. (2000) and in Yasin et al.

(2007) research brand loyalty resulted to be the dimension which contributed the most to establishing brand equity. Chinese consumers tend to be more brand loyal than Western consumers (Yau, 1988); thus, we expect that loyalty to a smartphone brand is positively related to brand equity.

**H3.** Brand Loyalty has a positive influence on brand equity.

#### 2.3.4. *Brand awareness*

Brand awareness refers to an assessment of a consumer's capability to recognize or recall a brand or logo from memory among other competing brands (Keller, 1993) or as a member of a certain product category or service (Aaker, 1991). Rossiter and Percy (1987) related it to the strength of the brand node in memory, as reflected by consumers' ability to identify the brand under different conditions. Some scholars refer to brand awareness in terms of 'familiarity' with a brand (Hoyer & Brown, 1990; Jacoby, Szybillo, & Busato-Schach, 1977; Macdonald & Sharp, 2000). Besides, Keller (1993) and Yoo and Donthu (2001) suggest that brand recognition and brand recall are the most important dimensions to measure brand awareness.

Scholars in marketing have found that brand with high awareness are more likely to enter into the consumer's consideration set of brands for possible purchases (Nedungadi, 1990) and have proved the impact of brand awareness on brand equity (Park & Srinivasan, 1994; V. Srinivasan, Park, & Chang, 2005). Tolba and Hassan (2009) found that the dimension of brand equity which had the highest correlation with repurchase intention was brand awareness when they researched the US automotive market.

However, Yasin et al.'s (2007) study on electrical appliances in Malaysia found that brand awareness contributes least to brand equity, which is in line with the findings of H.-b.

Kim, Gon Kim, and An (2003) for luxury hotels. Although in both studies brand awareness positively influenced the formation of brand equity, Tong and Hawley (2009) found that brand awareness did not contribute to brand equity for branded sportswear goods in China. In this study we hypothesize that brand awareness contributes to establishing brand equity. The more consumers can recall a smartphone brand from memory, the higher will be the equity of the brand. So our hypothesis is:

**H4.** Brand awareness has a positive influence on brand equity.

#### *2.3.5. Perceived brand quality*

Perceived quality is generally defined as “the customer’s judgment of the overall excellence, esteem, or superiority of a brand (with respect to its intended purposes) relative to alternative brand(s)” (Netemeyer et al., 2004). According to Aaker (1991), perceived quality has a lot of advantages for consumers and firms; firstly, it gives consumers a good reason to buy the brand; secondly, it contributes to increase the differentiation of the brand with other competing brands; thirdly, it helps firms to charge a premium price; fourthly, it enables brand extension. Personal product experiences, unique needs, and consumption situations may influence the consumer’s subjective judgement of quality (Yoo et al., 2000). Therefore, high perceived quality would drive a consumer to choose a specific brand rather than other competing brands. Previous studies found support for the relationship between perceived quality and brand equity (Yoo & Donthu, 2001; Yoo et al., 2000), while H.-b. Kim et al. (2003) found that the perceived quality of hotels is the dimension of brand equity which contributes the most to the formation of brand equity. In contrast with these findings, (Tong & Hawley, 2009)) found that perceived quality did not have a direct significant influence on brand equity in the sportswear industry in China. In this study we believe that the perceived quality of a smartphone brand will affect brand equity. For instance, smartphone brand’s

quality will be judged based in terms of its features such as durability, resistance, performance, and safety. The higher consumer overall evaluation of the quality of a smartphone brand, the higher will be the brand's equity. Thus, we hypothesize:

**H5.** Perceived quality has a positive influence on brand equity.

### 2.3.6. *Brand Mianzi*

*Mianzi* or Face is a concept that is peculiar to Chinese culture and implies consciousness of glory and shame and it represents the individual's reputation and social position in others' eyes (Hu, 1944). *Mianzi* stands for "the kind of prestige that is emphasized ...a reputation achieved through getting on in life, through success and ostentation", while face is "the respect of a group for a man with a good moral reputation: the man who will fulfill his obligations regardless of the hardships involved, who under all circumstances shows himself a decent human being" (Hu, 1944). On the one hand, Chinese consumers try to increase or maintain their reputation (*mianzi*) in front of socially and culturally significant others; on the other hand, they try to defend or save face (Bao, Zhou, & Su, 2003).

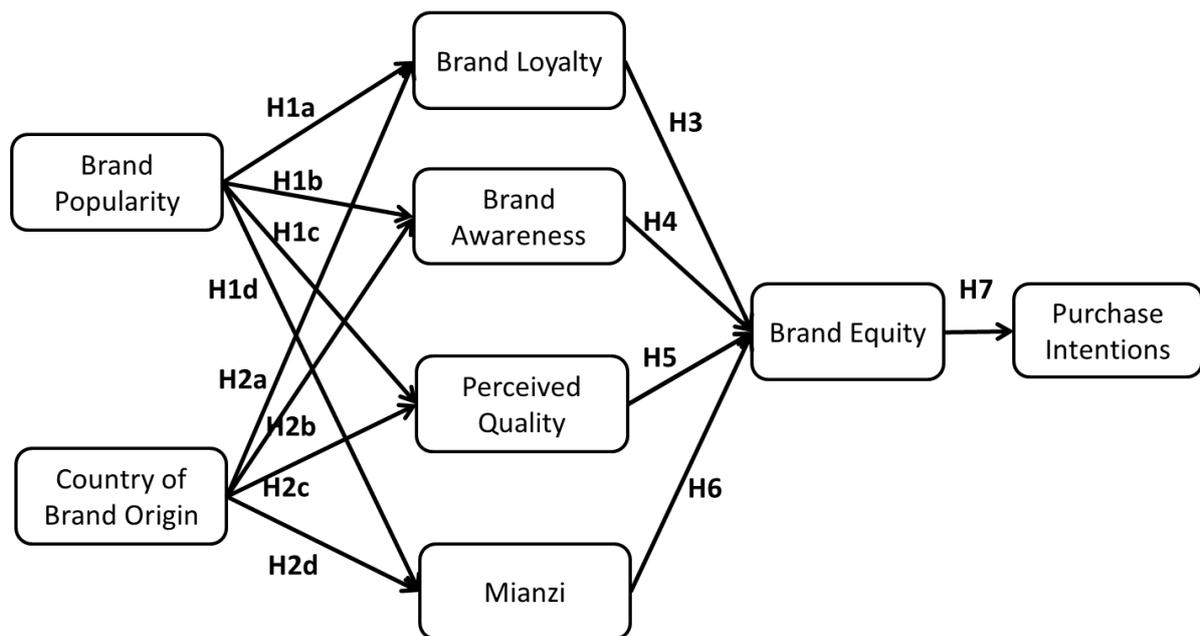
The findings from the qualitative study highlight that the capacity of a brand to enhance Chinese consumers' *mianzi* is not only important to improve the consumer's reputation in front of significant others, but rather it is also associated with feelings of dignity, honor, and pride. Briefly, Chinese consumers may add value to a brand name because of its capacity to enable them to gain *mianzi*, namely to make them feel special and be accepted and recognized by others, hence the construct of brand *mianzi*. Some brands may thus foster feelings of pride and vanity in Chinese consumers and leads them to believe that they can enhance their social position. If a brand can enable an individual to achieve such goals in life, its brand equity will be very high.

**H6.** *Brand Mianzi* has a positive influence on brand equity.

Finally, scholars have demonstrated the role of brand equity on purchase intention in different studies (Cobb-Walgren et al., 1995; A. J. Kim & Ko, 2012). Thus, following this literature we argue that the higher the equity of a brand the more consumers will want to purchase that brand. Thus, we hypothesize as follows:

**H7.** Brand equity has a positive influence on purchase intention.

Figure 1 summarizes the conceptual framework with hypotheses.



**Figure 1.** Theoretical framework

### 3. Methodology

#### 3.1. Preliminary study, pilot test, scale development

As mentioned above we conducted a preliminary qualitative study to investigate young Chinese consumers' purchase and repurchase intentions of smartphone brands, which consisted of 30 face-to-face interviews with Chinese consumers of smartphones. A detailed explanation of the interview process is contained in Appendix 2. Following the interviews new constructs emerged, namely brand *mianzi* (6 items) and brand popularity (4 items). Churchill (1979) suggests using qualitative methods to develop new scales; accordingly, interviews were used to develop the items for brand *mianzi* (6 items) and brand popularity (4 items). The items were subsequently tested with experts, namely two experienced academics with PhDs in marketing and information systems.

The questionnaire was pilot tested with a sample of 117 respondents, including Chinese undergraduate and postgraduate students. This pilot test was particularly important to refine the new scales that were developed for this study. As a result of the pilot test some items were rephrased and others were dropped.

Following the pilot study, the data were tested for reliability as well as convergent and discriminant validity, testing Cronbach alpha, item to total correlations, exploratory factor analysis using Varimax rotation, as recommended by Anderson and Gerbing (1988).

The exploratory factor analysis removed items that had factor loadings below 0.50, high cross loadings above 0.40 and commonalities lower than 0.30. Cronbach's alpha values for the scales developed which loaded below the threshold of 0.70 were also removed (Bagozzi & Yi, 1988). In total, 2 items were removed. The table including the final constructs and items adopted in the study can be observed in Appendix 1.

### *3.2. Measures and Sample selection and research instrument*

The questionnaire was divided into two parts and was preceded by an introduction that explained the purpose of the study and ensured the confidentiality of the responses provided. The first contained the key constructs of the study while in the second part respondents have to indicate their socio-demographic details. The questionnaire adopted a 7 point Likert scale, where 1 indicates strongly disagree, 4 indicates neither agree nor disagree, and 7 indicates strongly agree.

Constructs from existing studies were adopted wherever possible. Perceived quality and brand equity were measured with items used by Yoo and Donthu (2001). Purchase intention was adapted from Dodds, Monroe, & Grewal (1991) (4 items). This study targets young Chinese consumers owning a smartphone brand. The rationale for focusing on young consumers of smartphone lies in the fact that the importance of young people as a target group in the mobile phone industry is widely acknowledged. Nokia, for instance, first tested new innovations such as the digital camera among young customers (Wilska, 2003). We choose to focus on China because it is the biggest country for smartphone sales and expected growth (Reuters, 2015) and no study has investigated Chinese consumers' repurchase intention of smartphone brands. Thus, a prerequisite to participate to the survey was to be in the age-range 18-25.

Following the backward translation method, the questionnaire was created in English and then translated into Chinese (Mandarin) by a Chinese native speaker with English proficiency. Subsequently, the questionnaire was retranslated in English by another bilingual

Chinese speaker. No differences were found between the first and the last version of the questionnaire.

### *3.3. Data collection and profile of respondents*

An online questionnaire was created and hosted on the professional online survey website Sojump (www.sojump.com), which is very popular in China. The link to the questionnaire hyperlink was sent to smartphone users through some popular smartphone online forums, such as cnmo.com, which is the largest integrated smartphone forum in China, and imobile.com.cn which is the largest smartphone website in China, gfan.com, which is the largest Android smartphone online forum in China, and weiphone.com, which is the largest iOS online forum in China. After a period of one month a total of 357 questionnaires were collected, however 36 questionnaires were removed from the dataset because not being filled properly or due to missing data, which gives 321 usable questionnaires.

Table 2 provides information about the profile of the respondents. All respondents were comprised between 18 and 25 years old and 64% are female while 36% were males and mostly in higher education. Their family monthly incomes were well spread across different income levels.

-----**ADD TABLE 1 HERE**-----

### *3.4. Data analysis*

Partial least squares structural equation modelling (PLS-SEM) was applied to estimate the model. The software application used is Smart PLS 2.0 (Beta) M3 (Ringle, Wende, & Will, 2005). PLS-SEM is a suitable technique for prediction-oriented research (Henseler, Ringle, & Sinkovics, 2009), because its objective is to maximize the explained variance of

the dependent constructs (Hair, Ringle, & Sarstedt, 2011). Moreover, PLS-SEM has the advantage of not holding the distributional assumption of normality, making less demand on measurement scales, being able to work with much smaller as well as much larger samples (Hair et al., 2011).

## 4. Results

### 4.1. Measurement model evaluation

To assess convergent validity, analysis determined that each indicator loaded significantly on the constructs they were intended to represent. As shown in Table 2, all the constructs' average variance extracted (AVE) values are well above the minimum threshold of 0.5 (Henseler et al., 2009). Also, all the indicators exhibit significant standardized loadings above 0.7 ( $p < 0.001$ , Table 3), demonstrating construct item reliability (construct item loadings in Table 3). Similarly, the model constructs attained high Cronbach's alpha ( $\alpha$ ) and composite reliability ( $\rho$ ) values greater than 0.9, implying satisfactory internal consistency.

-----**ADD TABLE 2 HERE**-----

The Fornell and Larcker (1981) criterion was applied to test for discriminant validity. The results were shown in Table 3, which shows that the square root of each construct's AVE was greater than its correlation with each of the remaining constructs, indicating that the constructs exhibit discriminant validity.

-----**ADD TABLE 3 HERE**-----

### 4.2. Structural model evaluation

In PLS-SEM, the central criterion for the evaluation of the structural model is the variance explained ( $R^2$ ).  $R^2$  values of 0.19, 0.33 or 0.67 for endogenous latent constructs of the structural model are described as weak, moderate or substantial (Chin, 1998). As shown in Table 4, the model explains 67.7% of the variance in brand equity and 53.7% of variance in purchase intention, showing substantial and moderate explanatory power; and  $R^2$  values for the remaining endogenous latent constructs (i.e. brand loyalty, brand awareness, perceived quality and *mianzi*) are above 0.33, which are at moderate level (Chin, 1998).

To assess the predictive validity of the structural model, the Stone-Geisser's  $Q^2$  Test (Geisser, 1974; Stone, 1974) was applied. We used the blindfolding procedure to compute the cross-validated redundancy measure  $Q^2$ . Values of  $Q^2$  greater than zero suggest that the exogenous constructs have predictive relevance (Chin, 1998). As shown in Table 4, all  $Q^2$  values range significantly above zero, thus demonstrating the model's high predictive power.

-----**ADD TABLE 4 HERE**-----

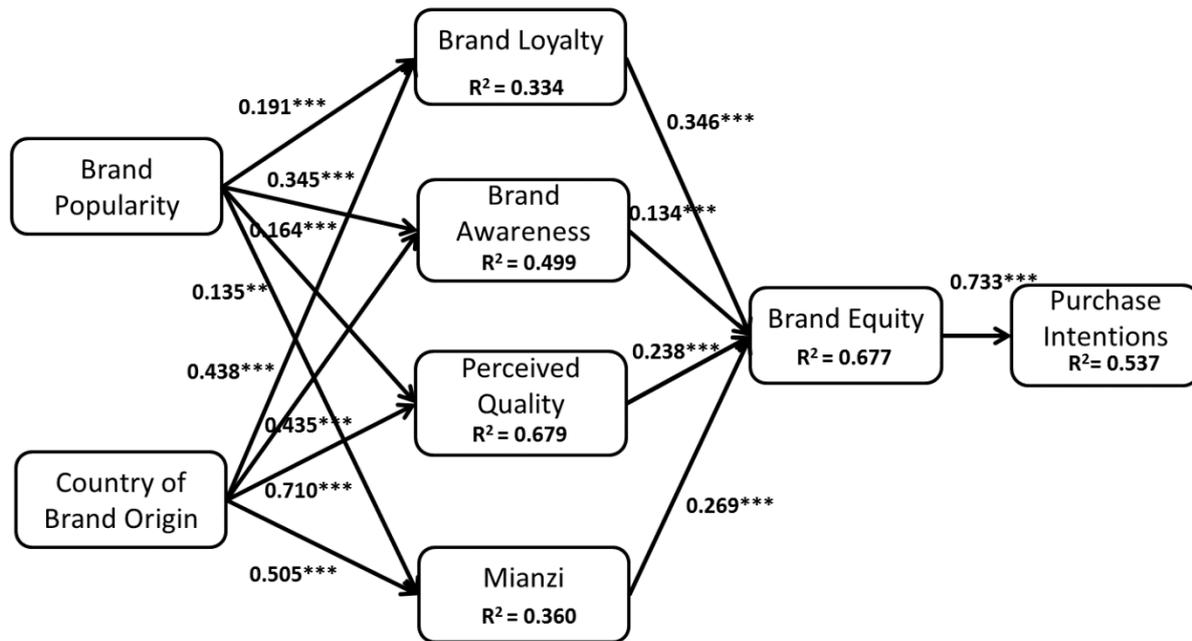
In running the bootstrap analysis, we followed the procedure suggested by Hair et al. (2011), using 5,000 subsamples. An examination of the estimates of path coefficients and t values indicated that all the hypothesized relationships were statistically significant (Table 4 and Figure 2).

The results show that brand popularity had positive and significant effects on brand loyalty (H1a), brand awareness (H1b), perceived quality (H1c) and brand *mianzi* (H1d). The results also show country of origin image had positive and significant effects on brand loyalty (H2a), brand awareness (H2b), perceived quality (H2c) and brand *mianzi* (H2d).

As hypothesized, it was found that brand loyalty (H3), brand awareness (H4), perceived quality (H5) and brand *mianzi* (H6) had positive and significant effects on brand equity. The

effect of brand *mianzi* was stronger than that of brand awareness and perceived quality. Finally, also as can be expected, the results show that brand equity has a strong effect on purchase intention, supporting H7.

-----ADD TABLE 5 HERE -----



**Figure 2.** The structural model results. \*\*Significant at  $p < 0.01$ , \*\*\*significant at  $p < 0.001$ .

#### 4.3. Mediation test

We tested whether the four determinants of brand equity in our study (brand loyalty, brand awareness, perceived quality, and brand *mianzi*) performed a mediating role on the relationship between brand popularity and brand equity, and between country of origin and brand equity. We used the bootstrapping procedure as suggested by Zhao, Lynch, and Chen (2010) and the results were shown in Table 6. According to Hair, Black, Babin, and Anderson (2010), a mediation effect can be established if the indirect effect is significant. Only one indirect effect was insignificant, which is on the path of “brand popularity -> brand

awareness -> brand equity” and the 95% confidence interval includes zero (-0.346, 0.438), all the remaining 7 indirect effects were significant, with a 95% confidence interval excluding zero. Thus, we can conclude that both the effects of brand popularity and country of origin on overall brand equity were mediated through the four brand equity determinants.

-----ADD TABLE 6 HERE -----

## 5. Discussion

Both researchers and managers at MNCs face a challenge in applying western-derived theory in China where rapid economic growth, social transition, and a unique culture shape consumer behavior (Heinberg et al., 2017; K. Leung, 2008; Sharma, 2010; Stallkamp et al., 2017). In particular, each time scholars have attempted to develop a CBBE framework, they took an etic approach, namely advocate the advantages of examining differences by using previously established universally valid brand equity measurement (although most studies are based in one country only) (Maheswaran & Shavitt, 2000). This study adopts an emic approach, suggesting that brand equity frameworks should be adapted to the country’s culture (Maheswaran & Shavitt, 2000). In this study we investigated how Chinese consumers make sense of brand equity and we developed some specific measures that suit the Chinese context (i.e. brand *mianzi*, brand popularity). We proposed that the newly developed brand equity “culturally contextualized” (Eckhardt & Houston, 2002) dimensions that explain brand equity in China better than the traditional brand equity dimensions.

### 5.1. Theoretical implications

Findings show that brand *mianzi*, a construct that we created drawing from interview findings, namely the perceived capacity of a brand to enhance an individual social reputation but also to provide him/her with positive feelings of dignity, honor, and pride, is a very

important determinant of brand equity in China. *Brand mianzi* was actually the second strongest determinant of brand equity after brand loyalty, and this result underlines how cultural values are important influencers of people perception of brands value. This result shows that in China brand *mianzi* is much more important than perceived quality or brand awareness in influencing people evaluation of the added value of brands.

This study has also underlined the importance of brand popularity (another concept that we developed from interviews) in Chinese society, namely the degree to which a brand is popular/spread in society. Brand popularity was found to be a significant predictor of all of the determinants of brand equity (brand awareness, perceived quality, and brand loyalty). The concept of brand popularity is peculiar to Chinese culture, because when a reference group establishes a brand or product as the normative standard, all other people will be less likely to deviate from the norm and they would prefer to conform to the group's decision (Yau, 1988) and buy the same brand. While in individualist countries consumers attempt to establish a unique personality and image that may deviate from the masses, in collectivist countries consumers tend to conform and adopt the brands that are more diffused and popular in society. The more a brand becomes diffused and popular the more other people would want to buy the same product or brand. Chinese consumers often endeavor to conform to group norms and therefore tend to purchase the same brand or product other members of the group recommend or buy. Findings show that if a brand is popular, it is also more easily to be recalled and recognized (brand awareness), is perceived to be of high quality, and also affects brand loyalty and brand *mianzi*.

This study also underlines the importance of country of origin as an influencer of the sources of brand equity. This finding supports the results of Yasin et al.'s (2007) study on electrical appliances, however we also found that country of origin predicts brand *mianzi* and

perceived quality (not tested in previous studies), which advances the literature on country of origin's effect.

The findings further indicate that both the effects of brand popularity and country of origin on overall brand equity were mediated through brand loyalty, brand *mianzi*, perceived quality and brand awareness. As mentioned above, brand loyalty resulted to be the strongest determinant of brand equity, which supports previous findings (Yasin et al., 2007; Yau, 1988). This result stresses the importance of loyalty, which can be explained by the fact that Chinese consumers tend to be more brand loyal than Western consumers (Yau, 1988). Beyond the fact that some consumers are loyal to the brand we should add that for smartphones they may also be locked into a specific operating systems, which makes it difficult to switch to another one because of the amount of time and effort that would be needed to learn the new operating system. Future research could investigate the importance of switching cost in the decision to remain loyal to a particular smartphone operating system.

We found that brand awareness was the determinant with the least predicting power of the dependent variable. This finding is in line with Yasin et al. (2007) and H.-b. Kim et al. (2003) researches. Consumers in China are becoming more and more knowledgeable of brands and they clearly recall and recognize most of them but this is not a particularly important aspect for them to assess their value. The perceived added value of the brand is more socially derived, and it stems from the widespread use of the brand in the reference group of a consumer or in society (brand popularity). What matters the most in Chinese society is the capacity of the brand to provide *mianzi*, honor and positive feelings (esteem) to his owner.

Finally, we found that brand equity influences purchase intention, which is in line with previous studies' findings (Cobb-Walgren et al., 1995; A. J. Kim & Ko, 2012). Thus, the

stronger the added value provided by the name of the brand to a smartphone, the higher will be consumers' willingness to buy it.

### *5.2. Managerial implications*

Some important managerial implications can be drawn from this study's findings. First, findings of this study can be particularly important for smartphone companies operating in China. For example, it is evident that a socially accepted and highly reputed smartphone brand can be particularly important to keep customers loyal and gain market share. If young Chinese people observe that people in their reference group are buying the same brand, which is considered source of social benefits - such as prestige and a signal of social status - they would not want to miss out and so they will be buying the same smartphone brand even if they may not need it. In this sense, technological products are not only evaluated for their technical performance or usefulness, but rather for the social image that they can project to important others. Thus, technological products that are conspicuously consumed, such as smartphone brands, not only serve and satisfy functional needs (e.g. making a telephone call or browsing the internet) but increasingly social image and status needs (communicating status and improving self-esteem through an improved social image). Accordingly, technology manufactures whose products are conspicuously consumed must take into account these needs and provide products that are perceived as stylish and fashionable so that young Chinese consumers would want to buy them. A conspicuously consumed technological product should be thought as a fashion accessory, similarly to a Gucci or a Louis Vuitton purse. Thus, more effort should be spent by technological companies in communicating the lifestyle of smartphone brand owners and the status benefits it provides rather concentrating only on the technological functions and features (like they have done in the past). To achieve those goals, more money should be invested in local celebrity endorsements through Chinese

social media, where nowadays the younger population search information on brands. Additionally, some smartphone brands could partner with popular fashion designers or fashion brands to develop aesthetic features inspired by a collection or a fashion style (e.g. Burberry).

Additionally, the country of origin seems to be a very important determinant of brand equity in this study. Chinese consumers have positive perceptions of products and brands originating from foreign countries, especially Western countries. Therefore, we recommend companies to exploit this strength and communicate it more clearly the origin of their brand. We also recommend brands to careful select the countries in which their products are produced as scholars suggest that consumers develop stereotypical perceptions on products based on the country of origin. It is important to mention that some smartphone companies are designed in a country but manufactured in a different one, which is the case of Apple that is designed in US and manufactured in China. Although we did not investigate the influence of country of manufacturing in this study, in order to not create confusion in customers' eyes, it would be probably better to manufacture the product in the same country in which the company originates unless consumers have negative perceptions about the quality of manufacturing in that country. Thus, countries perceived as highly advanced from a technological standpoint (e.g. Germany, South Korea, Japan, US) (FutureBrand, 2014) should be chosen for both the design and manufacturing of high quality and expensive technological products such as smartphone brands.

### *5.3. Limitations and Future research*

Although this can be considered the first of a sequence of studies that will research the importance of culturally-specific CBBE measures, this study is not extent from limitations. First, we have tested our model in China. Future studies could test the same model in other

countries that share cultural similarities with China (e.g. Confucianism). With this study we did not aim to develop a universally valid brand equity measurement, rather we stress that cultural specificities can inform the development of brand equity dimensions. Accordingly, we view measures of CBBE as country-specific, which can be bound to a particular culture or country.

Moreover, in this study we have focused on one product category only, smartphones. Future research should also test our model with other products (e.g. car brands) and technologies (e.g. smartwatches, photo cameras, and so on). If we consider that brand *mianzi* is linked with appearance and image, we can argue that its influence could be even higher for less complex and more conspicuously consumed products like clothing, cars and watches. Thus, future research could also investigate the difference between different product types.

Additionally, most of the participants in this study were young consumers and owned popular smartphone brands (e.g. Apple, Samsung). People in different age groups and owning a less popular smartphone brand might use a different set of criteria when they have to choose among different smartphone brands, such as usefulness or product's performance.

Finally, research could test our model in the service sector. Services are intangible and non-visible; for instance, education is a service. Western universities are very popular in China and many Chinese families are increasingly sending their kids in British and American universities to study for their degree. Some Western Universities can be considered as brands that can increase the student as well as the family's *mianzi* in front of others although education is not a material possession like a smartphone brand.

**On behalf of all authors, the corresponding author states that there is no conflict of interest.**

## References

- Aaker, D. A. (1991). *Managing Brand Equity*. New York, N.Y.: Free Press.
- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38(3): 103.
- Aaker, D. A., & Jacobson, R. (1994). The financial information content of perceived quality. *Journal of Marketing Research*, 31(2): 191-201.
- Ahuvia, A., & Wong, N. (1998). The effect of cultural orientation in luxury consumption. *Advances in Consumer Research*, 25: 29-32.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two Step Approach. *Psychological Bulletin*, 103(3): 411-423.
- Arnould, E. J., & Thompson, C. J. (2005). Consumer culture theory (CCT): Twenty years of research. *Journal of consumer research*, 31(4): 868-882.
- Atilgan, E., Aksoy, S., & Akinci, S. (2005). Determinants of the brand equity: A verification approach in the beverage industry in Turkey. *Marketing Intelligence & Planning*, 23(3): 237-248.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1): 74-94.
- Bao, Y., Zhou, K. Z., & Su, C. (2003). Face consciousness and risk aversion: do they affect consumer decision-making? *Psychology & Marketing*, 20(8): 733-746.
- Beatty, S. E., Homer, P., & Kahle, L. R. (1988). The involvement-commitment model: Theory and implications. *Journal of Business Research*, 16(2): 149-167.
- Bilkey, W. J., & Nes, E. (1982). Country-of-origin effects on product evaluations. *Journal of International Business Studies*, 13(1): 89-100.
- Bloemer, J., Brijs, K., & Kasper, H. (2009). The CoO-ELM model: A theoretical framework for the cognitive processes underlying country of origin-effects. *European Journal of Marketing*, 43(1/2): 62-89.
- Buckley, P. J., Clegg, J., & Tan, H. (2006). Cultural awareness in knowledge transfer to China—The role of guanxi and mianzi. *Journal of World Business*, 41(3): 275-288.
- Buil, I., de Chernatony, L., & Martinez, E. (2008). A cross-national validation of the consumer-based brand equity scale. *Journal of Product & Brand Management*, 17(6): 384-392.
- Cayla, J., & Arnould, E. J. (2008). A cultural approach to branding in the global marketplace. *Journal of International Marketing*, 16(4): 86-112.
- Cayla, J., & Eckhardt, G. M. (2008). Asian brands and the shaping of a transnational imagined community. *Journal of Consumer Research*, 35(2): 216-230.
- Chabowski, B. R., Samiee, S., & Hult, G. T. M. (2013). A bibliometric analysis of the global branding literature and a research agenda. *Journal of International Business Studies*, 44(6): 622-634.
- Chao, P., & Gupta, P. B. (1995). Information search and efficiency of consumer choices of new cars: Country-of-origin effects. *International Marketing Review*, 12(6): 47-59.
- Chen, Y.-S. (2010). The drivers of green brand equity: green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2): 307-319.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2): 295-336.

- Christensen, L. J., Siemsen, E., & Balasubramanian, S. (2015). Consumer behavior change at the base of the pyramid: Bridging the gap between for-profit and social responsibility strategies. *Strategic Management Journal*, 36(2): 307-317.
- Christodoulides, G., Cadogan, J. W., & Veloutsou, C. (2015). Consumer-based brand equity measurement: Lessons learned from an international study. *International Marketing Review*, 32(3/4): 307-328.
- Christodoulides, G., & de Chernatony, L. (2004). Dimensionalising on-and offline brands' composite equity. *Journal of Product & Brand Management*, 13(3): 168-179.
- Christodoulides, G., & De Chernatony, L. (2010). Consumer-based brand equity conceptualization and measurement: A literature review. *International journal of research in marketing*, 52(1): 43-66.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 16(1): 64-73.
- Cobb-Walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand equity, brand preference, and purchase intent. *Journal of advertising*, 24(3): 25-40.
- Coleman, D., de Chernatony, L., & Christodoulides, G. (2011). B2B service brand identity: Scale development and validation. *Industrial Marketing Management*, 40(7): 1063-1071.
- Costa, C., Carneiro, J., & Goldszmidt, R. (2016). A contingent approach to country-of-origin effects on foreign products evaluation: Interaction of facets of country image with product classes. *International Business Review*, 25(5): 1066-1075.
- d'Astous, A., & Ahmed, S. A. (1999). The importance of country images in the formation of consumer product perceptions. *International Marketing Review*, 16(2): 108-126.
- Diamantopoulos, A., Florack, A., Halkias, G., & Palcu, J. (2017). Explicit versus implicit country stereotypes as predictors of product preferences: Insights from the stereotype content model. *Journal of International Business Studies*, 1-14.
- Diamantopoulos, A., Schlegelmilch, B., & Palihawadana, D. (2011). The relationship between country-of-origin image and brand image as drivers of purchase intentions: a test of alternative perspectives. *International Marketing Review*, 28(5): 508-524.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3): 307-319.
- Ettenson, R. (1993). Brand Name and Country of Origin Effects in the Emerging Market Economies of Russia, Poland and Hungary. *International Marketing Review*, 10(5):, Permanent link to this document: <http://dx.doi.org/10.1108/02651339310050057>.
- Eckhardt, G. M., & Houston, M. J. (2002). Cultural paradoxes reflected in brand meaning: McDonald's in Shanghai, China. *Journal of International Marketing*, 10(2): 68-82.
- Fischer, M., Völckner, F., & Sattler, H. (2010). How important are brands? A cross-category, cross-country study. *Journal of Marketing Research*, 47(5): 823-839.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
- FutureBrand (2014). Country Brand Index 2014-15. Available at: [http://www.futurebrand.com/uploads/CBI-14\\_15-LR.pdf](http://www.futurebrand.com/uploads/CBI-14_15-LR.pdf).
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1): 101-107.
- Hair, J. F., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis: a global perspective* (7th ed., Global ed. ed.). Upper Saddle River, N.J London: Pearson.

- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, 19(2): 139-152.
- Hamilton, G. G., & Lai, C.-k. (1989). *Consumerism Without Capitalism: Consumption and Brandnames in Late Imperial China*: Institute of Governmental Affairs, University of California, Davis, Research Program in East Asian Business and Development.
- Hanson, W. A., & Putler, D. S. (1996). Hits and misses: Herd behavior and online product popularity. *Marketing Letters*, 7(4): 297-305.
- Heinberg, M., Ozkaya, H. E., & Taube, M. (2017). The influence of global and local iconic brand positioning on advertising persuasion in an emerging market setting. *Journal of International Business Studies*, 1-14, doi:10.1057/s41267-017-0071-2.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in International Marketing* (Vol. 20, pp. 277-319). Bingley, UK: Emerald Group.
- Heslop, L. A., Liefeld, J. P., & Wall, M. (1987). An experimental study of the impact of country-of-origin information. *Marketing*, 8, 179-185.
- Hoyer, W. D., & Brown, S. P. (1990). Effects of brand awareness on choice for a common, repeat-purchase product. *Journal of consumer research*, 17(2): 141-148.
- Hsu, F. L. (1948). *Under the ancestors' shadow; Chinese culture and personality*. New York: Columbia University Press.
- Hu, H. C. (1944). The Chinese Concepts of "Face". *American Anthropologist*, 46(1): 45-64.
- Jacoby, J., Szybillo, G. J., & Busato-Schach, J. (1977). Information acquisition behavior in brand choice situations. *Journal of Consumer research*, 3(4): 209-216.
- Karjaluoto, H., Karvonen, J., Kesti, M., Koivumäki, T., Manninen, M., Pakola, J., . . . Salo, J. (2005). Factors affecting consumer choice of mobile phones: two studies from Finland. *Journal of Euromarketing*, 14(3): 59-82.
- Kaynak, E., & Cavusgil, S. T. (1983). Consumer attitudes towards products of foreign origin: do they vary across product classes? *International Journal of Advertising*, 2(2): 147-157.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1): 1-22.
- Kim, A. J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65(10): 1480-1486.
- Kim, H.-b., Kim, G. W., & An, J. A. (2003). The effect of consumer-based brand equity on firms' financial performance. *Journal of consumer marketing*, 20(4): 335-351.
- Kocak, A., Abimbola, T., & Özer, A. (2007). Consumer brand equity in a cross-cultural replication: An evaluation of a scale. *Journal of Marketing Management*, 23(1-2): 157-173.
- Kvale, S. (2008). *Doing Interviews*. London: Sage.
- Lai, K. K.-Y., & Zaichkowsky, J. L. (1999). Brand imitation: do the Chinese have different views? *Asia Pacific Journal of Management*, 16(2): 179-192.
- Lehmann, D. R., Keller, K. L., & Farley, J. U. (2008). The structure of survey-based brand metrics. *Journal of International Marketing*, 16(4): 29-56.
- Leung, K. (2008). Chinese culture, modernization, and international business. *International Business Review*, 17(2): 184-187.
- Leuthesser, L., Kohli, C. S., & Harich, K. R. (1995). Brand equity: the halo effect measure. *European Journal of Marketing*, 29(4): 57-66.

- Liaogang, H., Chongyan, G., & Zi'an, L. (2007). Customer-based brand equity and improvement strategy for mobile phone brands: Foreign versus local in the Chinese market. *International Management Review*, 3(3): 76-83.
- Macdonald, E. K., & Sharp, B. M. (2000). Brand awareness effects on consumer decision making for a common, repeat purchase product: A replication. *Journal of business research*, 48(1): 5-15.
- Maheswaran, D., & Shavitt, S. (2000). Issues and New Directions in Global Consumer Psychology. *Journal of Consumer Psychology*, 9(2): 59-66.
- Markus, H. R., & Kitayama, S. (1994). A collective fear of the collective: Implications for selves and theories of selves. *Personality and Social Psychology Bulletin*, 20(5): 568-579.
- Michaelidou, N., Christodoulides, G., Cadogan, J. W., & Veloutsou, C. (2015). Consumer-based brand equity measurement: lessons learned from an international study. *International Marketing Review*, 32(3/4): 307-328.
- Morgeson III, F. V., Sharma, P. N., & Hult, G. T. M. (2015). Cross-national differences in consumer satisfaction: mobile services in emerging and developed markets. *Journal of International Marketing*, 23(2): 1-24.
- Nedungadi, P. (1990). Recall and consumer consideration sets: Influencing choice without altering brand evaluations. *Journal of consumer research*, 17(3): 263-276.
- Netemeyer, R. G., Krishnan, B., Pullig, C., Wang, G., Yagci, M., Dean, D., . . . Wirth, F. (2004). Developing and validating measures of facets of customer-based brand equity. *Journal of Business Research*, 57(2): 209-224.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York: Irwin/McGraw-Hill.
- Pappu, R., Quester, P. G., & Cooksey, R. W. (2005). Consumer-based brand equity: improving the measurement-empirical evidence. *Journal of Product & Brand Management*, 14(3): 143-154.
- Pappu, R., Quester, P. G., & Cooksey, R. W. (2007). Country image and consumer-based brand equity: relationships and implications for international marketing. *Journal of International Business Studies*, 38(5): 726-745.
- Park, C. S., & Srinivasan, V. (1994). A Survey-Based Method for Measuring and Understanding Brand Equity and Its Extendibility. *Journal of Marketing Research*, 31(2): 271-288.
- Reuters (2015). China smartphone sales fall for first time - Gartner. August 20, 2015/1:55 PM
- Ringle, C. M., Wende, S., & Will, A. (2005). SmartPLS 2.0 (M3). Retrieved 20 July, 2014, from <http://www.smartpls.de>
- Rossiter, J. R., & Percy, L. (1987). *Advertising and promotion management*: McGraw-Hill Book Company.
- Sharma, P. (2010). Country of origin effects in developed and emerging markets: exploring the contrasting roles of materialism and value consciousness. *Journal of International Business Studies*, 42(2): 285-306.
- Simon, C. J., & Sullivan, M. W. (1993). The measurement and determinants of brand equity: A financial approach. *Marketing science*, 12(1): 28-52.
- Srinivasan, N., Jain, S. C., & Sikand, K. (2004). An experimental study of two dimensions of country-of-origin (manufacturing country and branding country) using intrinsic and extrinsic cues. *International Business Review*, 13(1): 65-82.

- Srinivasan, V., Park, C. S., & Chang, D. R. (2005). An approach to the measurement, analysis, and prediction of brand equity and its sources. *Management Science*, 51(9): 1433-1448.
- Stallkamp, M., Pinkham, B. C., Schotter, A. P. J., & Buchel, O. (2017). Core or periphery? The effects of country-of-origin agglomerations on the within-country expansion of MNEs. *Journal of International Business Studies*, 1-25.
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society. Series B (Methodological)*, 111-147.
- Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Strizhakova, Y., Coulter, R. A., & Price, L. L. (2008). Branded products as a passport to global citizenship: Perspectives from developed and developing countries. *Journal of International Marketing*, 16(4): 57-85.
- Tolba, A. H., & Hassan, S. S. (2009). Linking customer - based brand equity with brand market performance: A managerial approach. *Journal of Product & Brand Management*, 18(5): 356-366.
- Tong, X., & Hawley, J. M. (2009). Measuring customer-based brand equity: empirical evidence from the sportswear market in China. *Journal of Product & Brand Management*, 18(4): 262-271.
- Triandis, H. C. (1995). *Individualism & collectivism*. Westview press.
- Tsai, S.-p. (2011). Fostering international brand loyalty through committed and attached relationships. *International Business Review*, 20(5): 521-534.
- Tse, D., K. (1994). Understanding Chinese people as consumers: Past findings and future propositions. In M. H. Bond (Ed.), *Handbook of Chinese Psychology*. New York: Oxford University Press.
- Tu, W.-m. (1985). Selfhood and otherness in Confucian thought. *Culture and self: Asian and Western perspectives*, 231, 231-251.
- Vázquez, R., Del Rio, A. B., & Iglesias, V. (2002). Consumer-based brand equity: Development and validation of a measurement instrument. *Journal of Marketing management*, 18(1-2): 27-48.
- Veale, R., & Quester, P. (2009). Do consumer expectations match experience? Predicting the influence of price and country of origin on perceptions of product quality. *International Business Review*, 18(2): 134-144.
- Verlegh, P. W., & Steenkamp, J.-B. E. (1999). A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, 20(5): 521-546.
- Vishwanath, A., & Goldhaber, G. M. (2003). An Examination of the Factors Contributing to Adoption Decisions among Late-Diffused Technology Products. *New Media & Society*, 5(4): 547-572.
- Wang, C. L., & Lin, X. (2009). Migration of Chinese consumption values: traditions, modernization, and cultural renaissance. *Journal of Business Ethics*, 88(3): 399-409.
- Wakabayashi, D. (2016). Can Apple's Tim Cook Keep the iPhone Buzzing in China? *The Wall Street Journal*, Jan. 25, 2016 9:25 p.m.
- Wilska, T.-A. (2003). Mobile Phone Use as Part of Young People's Consumption Styles. *Journal of Consumer Policy*, 26(4): 441-463.
- Yang, D., Sonmez, M., Li, Q., & Duan, Y. (2015). The power of triple contexts on customer-based brand performance—A comparative study of Baidu and Google from Chinese netizens' perspective. *International Business Review*, 24(1): 11-22.
- Yasin, N. M., Noor, M. N., & Mohamad, O. (2007). Does image of country - of - origin matter to brand equity? *Journal of Product & Brand Management*, 16(1): 38-48.

- Yau, O. H. (1988). Chinese cultural values: Their dimensions and marketing implications. *European journal of Marketing*, 22(5): 44-57.
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1): 1-14.
- Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(2): 195-211.
- Zhan, L., & He, Y. (2012). Understanding luxury consumption in China: Consumer perceptions of best-known brands. *Journal of Business Research*, 65(10): 1452-1460.
- Zhang, S., van Doorn, J., & Leeftang, P. S. H. (2014). Does the importance of value, brand and relationship equity for customer loyalty differ between Eastern and Western cultures? *International Business Review*, 23(1): 284-292.
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2): 197-206.
- Zhou, N., & Belk, R. W. (2004). Chinese consumer readings of global and local advertising appeals. *Journal of Advertising*, 33(3): 63-76.

**Table 1.** Profile of respondents

Profile category		Count	Percentage (%)
Gender	Male	116	36.1
	Female	205	63.9
Education	Up to secondary school	9	2.8
	University first degree	294	91.6
	Post-Graduate degree	18	5.6
Monthly income (CNY)	Up to 2,000	13	4.0
	2,001 – 4,000	60	18.7
	4,001 – 7,000	87	27.1
	7,001 – 10,000	69	21.5
	Over 10,000	92	28.7

**Table 2.** Convergence validity

	AVE	Composite Reliability	Cronbach's Alpha
Brand Awareness	0.769	0.930	0.900
Brand Equity	0.868	0.963	0.949
Brand Loyalty	0.867	0.951	0.923
Brand Popularity	0.864	0.962	0.947
Country of Origin	0.854	0.972	0.966
<i>Mianzi</i>	0.830	0.967	0.959
Perceived Quality	0.802	0.960	0.951
Purchase Intention	0.925	0.980	0.973

**Table 3.** Fornell and Larcker's test

	1	2	3	4	5	6	7	8
1 Brand Awareness	<b>0.877</b>							
2 Brand Equity	0.563	<b>0.932</b>						
3 Brand Loyalty	0.443	0.726	<b>0.931</b>					
4 Brand Popularity	0.622	0.582	0.470	<b>0.930</b>				
5 Country of Origin	0.654	0.662	0.559	0.637	<b>0.924</b>			
6 <i>Mianzi</i>	0.395	0.676	0.663	0.457	0.591	<b>0.911</b>		
7 Perceived Quality	0.675	0.707	0.607	0.616	0.814	0.582	<b>0.896</b>	
8 Purchase Intention	0.451	0.733	0.764	0.545	0.627	0.612	0.690	<b>0.962</b>

Note: Boldface numbers on the diagonal are the square root of the average variance extracted.

**Table 4.** Explained variance ( $R^2$ ) and the prediction relevance ( $Q^2$ ) test.

	$R^2$	$Q^2$
Brand Loyalty	0.334	0.689
Brand Awareness	0.499	0.598
Perceived Quality	0.679	0.715
<i>Mianzi</i>	0.360	0.754
Brand Equity	0.677	0.754
Purchase Intention	0.537	0.845

**Table 5.** Hypotheses test results

		Path coefficient	<i>t</i> -value	Supported?
H1a	Brand Popularity -> Brand Loyalty	0.191	3.612***	Yes
H1b	Brand Popularity -> Brand Awareness	0.345	5.382***	Yes
H1c	Brand Popularity -> Perceived Quality	0.164	3.537***	Yes
H1d	Brand Popularity -> <i>Mianzi</i>	0.135	2.439**	Yes
H2a	Country of Origin -> Brand Loyalty	0.438	8.318***	Yes
H2b	Country of Origin -> Brand Awareness	0.435	6.734***	Yes
H2c	Country of Origin -> Perceived Quality	0.710	16.740***	Yes
H2d	Country of Origin -> <i>Mianzi</i>	0.505	9.468***	Yes
H3	Brand Loyalty -> Brand Equity	0.346	6.360***	Yes
H4	Brand Awareness -> Brand Equity	0.134	2.899***	Yes
H5	Perceived Quality -> Brand Equity	0.238	4.614***	Yes
H6	<i>Mianzi</i> -> Brand Equity	0.269	4.946***	Yes
H7	Brand Equity -> Purchase Intention	0.733	24.194***	Yes

Notes: \*\*Significant at  $p < 0.01$ ; \*\*\*Significant at  $p < 0.001$ .

**Table 6.** Mediation test results

	Indirect Effect	<i>t-value</i>	Bootstrapped Confidence Interval		Mediation effect?
			95% LL	95% UL	
Brand Popularity -> Brand Loyalty -> Brand Equity	0.066	3.004**	0.023	0.109	Yes
Brand Popularity -> Brand Awareness -> Brand Equity	0.046	0.231	-0.346	0.438	No
Brand Popularity -> Perceived Quality -> Brand Equity	0.039	2.602**	0.01	0.068	Yes
Brand Popularity -> <i>Mianzi</i> -> Brand Equity	0.036	2.421*	0.007	0.066	Yes
Country of Origin -> Brand Loyalty -> Brand Equity	0.152	5.052**	0.093	0.21	Yes
Country of Origin -> Brand Awareness -> Brand Equity	0.058	2.65**	0.015	0.101	Yes
Country of Origin -> Perceived Quality -> Brand Equity	0.169	4.225**	0.091	0.247	Yes
Country of Origin -> <i>Mianzi</i> -> Brand Equity	0.136	5.225**	0.085	0.187	Yes

Notes: \*\* $p < 0.01$ , \* $p < 0.05$ ; LL = Lower Limit, UL = Upper Limit.

## Appendix 2. Construct Measures

Item description and sources	
<b><i>Brand Awareness (Yoo &amp; Donthu, 2001)</i></b>	
BA1	I can recognize smartphone brand X among other competing brands.
BA2	I am aware of smartphone brand X.
BA3	Some characteristics of smartphone brand X come to my mind quickly.
BA4	I can quickly recall the symbol or logo of smartphone brand X.
<b><i>Mianzi (gaining capacity, new scale)</i></b>	
MZ1	Smartphone brand X enabled me to gain mianzi
MZ2	Smartphone brand X increased my face in front of others
MZ3	Smartphone brand X fulfilled my needs of vanity and pride
MZ4	Smartphone brand X enabled me to get easily accepted in social groups
MZ5	Smartphone brand X can help me to show to others that I am special
MZ6	I can feel proud of myself if I owned smartphone brand X
<b><i>Country of Origin (Yasin et al., 2007)</i></b>	
COO1	The country from which brand X originates is a country that is innovative in manufacturing
COO2	The country from which brand X originates is a country that has high level of technological advance
COO3	The country from which brand X originates is a country that is good in designing
COO4	The country from which brand X originates is a country that is creative in its workmanship
COO5	The country from which brand X originates is a country that has high quality in its workmanship
COO6	The country from which brand X originates is a country that is prestigious
<b><i>Brand Loyalty (Yoo &amp; Donthu, 2001)</i></b>	
LOY1	I consider myself to be loyal to the smartphone brand X
LOY2	Smartphone brand X would be my first choice
LOY3	I will not buy another brand if smartphone brand X is available at the store
<b><i>Brand Equity (Yoo &amp; Donthu, 2001)</i></b>	
BE1	It makes sense to buy X instead of any other brand, even if they are the same.
BE2	Even if another brand has the same features as X, I would prefer to buy X.
BE3	If there is another brand as good as X, I prefer to buy X.
BE4	If another brand is not different from X in any way, it seems smarter to purchase X.
<b><i>Purchase Intention (Dodds, Monroe, &amp; Grewal, 1991)</i></b>	
PI1	If I were going to purchase a smartphone, I would consider buying this brand.
PI2	If I were shopping for a smartphone brand, the likelihood I would purchase this brand is high.
PI3	My willingness to buy this smartphone brand would be high if I were shopping for a smartphone.
PI4	The probability I would consider buying this smartphone brand is high.
<b><i>Brand Popularity (New scale)</i></b>	
POP1	This smartphone brand is a popular one in my country

- POP2 This smartphone brand name is famous.  
POP3 Many people in China buy this smartphone brand.  
POP4 Most of my friends own this smartphone brand.

***Perceived Quality (Dodds et al., 1991; Yoo & Donthu, 2001)***

- QUA1 The likely quality of smartphone brand X is extremely high  
QUA2 The likelihood that smartphone brand X would be functional is very high  
QUA3 The likelihood that smartphone brand X is reliable is very high  
QUA4 The workmanship of smartphone brand X would be very high  
QUA5 Smartphone brand X would seem to be durable  
QUA6 The likelihood that smartphone brand X is dependable would be very high
-

## **Appendix 2**

### **Methodology of preliminary study**

The in-depth interview method was adopted as it can yield a deeper understanding of the participants' perceptions (Creswell, 2007) about smartphone brands and how the value added provided by these. This method will further shed light on consumers' underlying motives, perceptions, experiences, and attitudes toward smartphone brands.

As it is nearly impossible to investigate all categories of adopters, we focused on young Chinese consumers and particularly Chinese students studying for their master degree. We chose this sample group because university students are considered as early adopters of mobile phones (Leung & Wei, 1999; Vishwanath & Goldhaber, 2003) and the importance of young people as a target group in the mobile phone industry is widely acknowledged. Nokia, for instance, first tested new innovations such as the digital camera among young customers (Wilska, 2003). In order to take into account the influence of price and income levels on consumer decision making (Karjaluoto *et al.*, 2005), participants with different family income levels, as shown in Table 3, were contacted: from low (5 participants with family income lower than 10,000 Renminbi (Chinese currency, RMB) per month), medium (11 participants with family income between 10,000 and 20,000 RMB), high (12 participants with income over 20,000 RMB), to very high income levels (2 participants with family income over 40,000 RMB). Moreover, an equal number of female and male participants were selected to control potential gender differences (14 females *vs.* 16 males).

A total of 30 face-to-face interviews were conducted over six months, mainly in Mandarin Chinese. Most of the themes identified in this study emerged in the first 24 interviews;

however, we decided to conduct an additional 6 interviews to determine if variations in the interpretation of the phenomenon would offer new opportunities for theorization (Patton, 2002). Interview questions primarily explored experience and use of smartphone, and reasons for adoption, brand meaning and purchase intentions. The total number of interviews was judged as sufficient for reaching theoretical saturation as additional interviews added no new insight (Kvale, 2008; Strauss & Corbin, 1998).

The semi-structured interviews lasted from 40 to 55 minutes and were recorded digitally, transcribed, and translated into English by one research assistant who was a native Chinese speaker, owned a Ph.D. and was familiar with interviewing techniques and qualitative research methods. The participants' profile is displayed in Table 7 below.

For data analysis, open and axial coding techniques were adopted (Strauss & Corbin, 1998). Open coding was used to shed light on the properties and dimensions of concepts in transcripts. Axial coding was used for relating concepts/categories to each other and in turn identifying higher levels categories (Strauss & Corbin, 1998). While some of the codes were theory driven, others were data driven, as in previous scholarly works (Fereday and Muir-Cochrane, 2006; Dey *et al.*, 2013). For instance, based on the current literature on Chinese culture, *a priori* codes such as “*brand mianzi*” and “brand popularity” were created, while others (e.g. brand loyalty) were contrasted with existing academic literature. Hence, the analysis moved back and forth between theories and data. In order to ensure coding consistency, three Ph.D. students and two academics from different disciplinary areas (e.g. marketing, management, information systems, and sociology) who did not participate in the research project were contacted to examine the codes produced. This triangulation technique ensured credibility by reducing bias and manual errors, as suggested by relevant literature (Haring, 2008).

**Table 7.** Interviewees’ profile

<b>Code</b>	<b>Age group</b>	<b>Gender</b>	<b>Education level</b>	<b>Area from China</b>	<b>Family monthly income (in RMB)</b>
P1	23-25	Male	Postgraduate	South	10,000 - 20,000
P2	23-25	Male	Postgraduate	South	> 20,000
P3	23-25	Male	Undergraduate	North	10,000 - 20,000
P4	26-30	Female	Postgraduate	South	< 10,000
P5	23-25	Male	Undergraduate	North-West	< 10,000
P6	23-25	Male	Postgraduate	South	< 10,000
P7	26-30	Male	Postgraduate	Hong Kong	> 20,000
P8	23-25	Female	Postgraduate	South	> 20,000
P9	23-25	Female	Postgraduate	South	10,000 - 20,000
P10	18-22	Male	Postgraduate	South	> 20,000
P11	18-22	Female	Postgraduate	South	> 20,000
P12	18-22	Female	Postgraduate	North	10,000 - 20,000
P13	18-22	Female	Undergraduate	South	> 20,000
P14	18-22	Female	Undergraduate	South	10,000 - 20,000
P15	18-22	Male	Postgraduate	South	> 20,000
P16	18-22	Male	Postgraduate	South	< 10,000
P17	18-22	Female	Undergraduate	South	10,000 to 20,000
P18	18-22	Female	Postgraduate	South	> 20,000
P19	18-22	Male	Undergraduate	South	> 40,000
P20	23-25	Female	Postgraduate	South	> 20,000
P21	23-25	Male	Postgraduate	North	10,000 - 20,000
P22	23-25	Female	Postgraduate	North	10,000 - 20,000
P23	23-25	Male	Postgraduate	South	> 40,000

P24	23-25	Male	Postgraduate	North	10,000 - 20,000
P25	23-25	Female	Postgraduate	North	< 10,000
P26	23-25	Male	Undergraduate	North	>20,000
P27	23-25	Female	Undergraduate	North	10,000 - 20,000
P28	23-25	Female	Postgraduate	North	>20,000
P29	23-25	Male	Postgraduate	North	>20,000
P30	26-30	Male	Postgraduate	South	10,000 - 20,000

---

## Findings

### *Brand Mianzi*

*“I began to use [Smartphone Brand Name] because of the influence of my friends. Sometimes, using an expensive Smartphone brand will be a symbol of following the fashion, and it can help to show to others that I am special and I will feel proud of myself.” (ID 1)*

*“..Besides, I do not want any other people to look down upon me, when I was using [Smartphone Brand Name] to make phone calls, I always felt a little bit uncomfortable and embarrassed in front of others. I felt I needed to make sure that others respect me. So I bought one to show them my personality.”(ID 2)*

*I cannot allow myself to be looked down upon by others, and want to keep up with the majorities to be fashionable... I am accustomed to the brand and the operating system, and I want to purchase it [the brand] again. However, if the one I had used brought me bad impression, I will change my purchase intention ... (ID8)*

*If I own a [Smartphone Brand Name], it won't make me lose face, and it fulfils my little vanity and makes my temperament outstanding as well. (ID 13)*

*[International Smartphone Brand Name] as a large international brand can help gain more mianzi than a Chinese local smartphone brand... I will definitely choose a large international brand in order to gain more mianzi (ID28)*

### *Brand Popularity*

*The popularity of a brand is very important to me. Once a Smartphone brand is accepted by most consumers, it would become a very popular product among all Chinese people, and you can see almost everyone has one on the street. (ID 1)*

*When I see that many people are using a specific smartphone brand, I know it should be good, otherwise, it won't be so popular (ID6)*

*The first time I purchase Apple only because I am focusing on the brand, which is popular and with high reputation. (ID 7)*

*... if the brand is popular and most people are using it, there should be some reasons... I will think this brand has a good reputation because a lot of people are buying the same brand (ID8)*

*"In my opinion, if a brand is popular and most people are using it, there should be some reasons that so many people buy it, I will consider the brand is certainly good while a lot of people buy the same. (ID 9)*

*If a brand has a large consumer base, I would consider buying it, as to me popularity stands for reliable and good quality product (ID14)*

*I feel very happy that many of my friends are using the same smartphone brand. Because you will see many of my friends accepting it, approving it, and indicating that this brand is really good. I am very glad that I have made right decision to buy this smartphone brand. (ID 15)*

...