
Article:
Heinberg, M orcid.org/0000-0003-2850-1862, Ozkaya, HE and Taube, M (2018) Do corporate image and reputation drive brand equity in India and China? - Similarities and differences. Journal of Business Research, 86. pp. 259-268. ISSN 0148-2963

https://doi.org/10.1016/j.jbusres.2017.09.018

DO CORPORATE IMAGE AND REPUTATION DRIVE BRAND EQUITY IN INDIA AND CHINA? - SIMILARITIES AND DIFFERENCES

Abstract

Corporate signals, such as corporate image and corporate reputation, are potentially effective tools to alleviate consumer uncertainty about brands in emerging markets and may therefore enhance product brand equity. However, most studies targeting the effects of corporate signals are set in developed countries and also fail to compare different emerging markets to explore possible moderators to these relationships. We argue that the perceived uncertainty towards brands differs between emerging markets and that this difference is shaped by the institutional background in the country. This, in turn, influences the effectiveness of corporate signals. Using structural equation modelling, the study analyses large consumer samples from China and India. We discover that corporate image is a more effective signal in China than in India. Moreover, we find that corporate reputation mediates the corporate image – product brand equity relationship in emerging markets. Notably, the importance of the mediation depends on the country setting.

Keywords: Signaling theory; Corporate Image, Corporate Reputation; Brand Equity; China; India.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1. Introduction

Consumer uncertainty is the foundation of signalling theory (Connelly et al., 2011), and it is ubiquitous in emerging markets. Frequent product quality scandals (Anderlini, 2011) and emerging market consumers' increased need for the social signalling function of brands (Eckhardt & Bengtsson, 2010) contribute to an enhanced level of consumer uncertainty towards brands there. One important method to alleviate uncertainty by consumers is the utilization of corporate signals such as corporate image (CI) and corporate reputation (CR) (Ali et al., 2015; Bartikowski & Walsh; 2011). Despite this, CI and CR related studies building on signalling theory have often been tested in the low-risk/ low-uncertainty, developed country environment, where markets are relatively well regulated (e.g., Fombrun & Shanley, 1990; Walsh et al., 2009b; notable exceptions include Wang et al., 2006; Fong et al., 2013). Accordingly, Connelly et al. (2011) question the logic as to why consumers in such a low-risk environment should invest the cognitive effort of searching for and interpreting signals. Thus, we argue that emerging markets provide a better context to study consumer uncertainty and signalling theory.

More importantly, due to the differences in their institutional contexts, comparing major emerging markets (e.g., China, India) is highly important. Marketing literature recognizes China and India as the two major emerging economies (Peng et al., 2008) but treats them as one entity, e.g., representing the BRICs, or emerging markets (e.g., Khavul, 2010; Sharma, 2011) (with Johnson & Tellis, 2008 as a notable exception). To address this issue, this study examines the how consumers in China and India differ in terms of utilizing corporate signals (e.g., CI, CR) to decrease uncertainty.

Initial evidence indicates that a corporate signal's strength deviates between countries (e.g., Walsh & Bartikowski, 2013). However, the literature is again dominated by developed country studies (e.g., Souiden et al., 2006, Walsh & Bartikowski, 2013). Culture is used to

explain the cross country differences (e.g., Jin et al., 2008). However, when Bartikowski et al. (2011) compare uncertainty avoidance as a cultural moderator to the corporate reputation – brand loyalty relationship, they only observe weak empirical support that indicates an alternative explanation. Therefore, other reasons besides culture may influence the effectiveness of corporate signals. Institutional context differs significantly among emerging markets which would contribute to the perceived uncertainty of consumers. However, these differences have not been examined as reasons of cross-country differences in corporate signalling effects. To address this issue, we argue that consumers in China and India differ in terms of utilizing corporate signals (e.g., CR and CI) to decrease uncertainty due to institutional differences.

Corporate image and corporate reputation are highly important corporate signals. However, product brand equity (PBE), which is one of the key measures to determine the strength of a product brand (Aaker, 1991; Keller, 1993), has been overlooked in the literature as a potential consequence of CI and CR signals of companies. Additionally, the literature that tests both effects of CI and CR simultaneously is underdeveloped (de Leaniz & del Bosque Rodríguez, 2016). Employing signalling theory, we argue that CI and CR are central to build PBE in emerging markets like China and India. The key reason is that CI and CR help to alleviate consumer uncertainty about the product brand (Erdem et al., 2006).

Accordingly, the main research question of this study is as follows: "How and why do consumers in China and India differ in terms of utilizing corporate signals (CI/CR) when they make product related decisions (PBE)?"

2. The corporate image and reputation signalling model

Signalling theory, originating in economics (e.g., Shapiro, 1983), has been used frequently in the business arena (e.g., Yang & Mai, 2010; Bartikowski et al., 2011). The general signalling

process is divided into five main sub-parts: sender, signal, receiver, signal interpretation, and feedback (Connelly et al., 2011). The key idea concerning the CI/CR signal from the sender's side is that the sunk costs of image and reputation building are compensated for by improved sales (Shapiro, 1983). From the receivers' side, the reason to engage in the cognitive effort of interpreting signals is pre-purchase uncertainty (Walsh et al., 2009b). In our model (Figure 1) the sender is the corporation, the signals are CI and CR. Receivers are the consumers and they interpret the corporate signals. If the signal helps them decrease uncertainty, they provide feedback to the corporation; for example, in consumers' preference of one product over the other. This idea is encompassed in the product brand equity construct (PBE).

[Insert Figure 1 about here]

3. Hypotheses development

Product brand equity is the difference that the consumer perceives between the focal brand and a counterpart of an identical unbranded product (Aaker, 1991). In other words, brand equity is the consumer preference for one brand over a potential alternative (Çifci et al., 2016). As such, brand equity can be viewed as a feedback from consumers to companies and it has been used frequently as a dependent variable in research based on signalling theory (e.g., Yoo et al., 2000; Yoo & Donthu, 2001). Naturally, consumers lack information about the quality or social prestige value of a product/brand and are thus uncertain about their product choice. As a result, they look for signals like product price or warranty to alleviate this uncertainty (Erevelles et al., 2001). Also the creation/maintenance of the image of a corporation is a potential signal for consumers (Fombrun & Shanley, 1990; Walsh et al., 2009b).

A company targets key stakeholders with deliberate image-building efforts (e.g., using advertisements and PR campaigns) to create a favourable corporate image. For product brand equity, the key stakeholders are potential and actual customers (Walker, 2010) and they

are thus the target of corporate branding endeavours to raise the corporate image (Abratt & Kleyn, 2012). Naturally, stakeholders act as co-creators, as they may accept or adapt the projected image (Hatch & Schultz, 2010). As such, CI is their perceived impression at a point in time, which is strongly connected to corporate communications efforts (Fombrun, 1996). Taking the image that is projected by the company as a signal, consumers are able to resolve information asymmetries about a company's products (Connelly et al., 2011).

Consumers' uncertainty persists along different stages of the purchase and usage process. First, uncertainty prevails in the pre-purchase process about product quality (Kirmani & Rao, 2000) or related attributes, such as product reliability (Wiener, 1985). Second, uncertainty about credence attributes of products or a product's long-term effects continues to exist after consumption (Erdem & Swait, 1998). For example, the consumer is unable to judge if a company uses all available measures to prevent contamination of a product. Third, uncertainty might also exist about the social prestige value of the brand. Consumers that are inexperienced with the brand might be uncertain how their own image or prestige will be affected by their usage of this brand. Moreover, consumers are unsure if a potential scandal of the brand may decrease the social prestige of the brand and possibly also their own personal prestige. These uncertainties are especially vital in emerging markets, where quality scandals and the importance of social signalling increase these two latter forms of consumer uncertainty (Anderlini, 2011; Eckhardt & Bengtsson, 2010).

Corporate signals, like the corporate image, may help alleviate consumer uncertainty because the investment in building an image creates sunk costs for the company, and these costs would be lost in the case of a brand scandal or an unfulfilled promise. Corporate signals have an asymmetrical character in terms of costs and durability (Hall, 1993). It is relatively time-consuming and expensive to build a corporate image, but it can be lost over night and a loss can even be triggered by minor incidents. This makes breaking the CI promise especially

risky and costly for companies. This, in turn, decreases uncertainty for the consumer about product attributes, such as quality or the future social prestige of the brand, and may induce the consumer to choose the product with an established corporate image over others. Thus, we hypothesize:

H1: CI has a positive effect on PBE.

Corporate image and corporate reputation have been identified as the two most important corporate signals, yet empirical studies usually only include them separately (de Leaniz & del Bosque Rodríguez, 2016). Despite some confusion concerning the differentiation and definition of both concepts, the relationship between both constructs has been asserted frequently in the literature (e.g., Abratt & Kleyn, 2012; Gray & Balmer, 1998; Walsh et al., 2009b); yet the empirical evidence of initial studies is weak (de Leaniz & del Bosque Rodríguez, 2016; Nguyen & Leblanc, 2001; Souiden et al., 2006).

Both corporate image and corporate reputation are connected to sunk costs and they are, therefore, signals that a company sends which have the potential to alleviate consumer uncertainty and enhance brand equity. However, two key differences have been noted in the literature: first, there is the time component. Gray and Balmer (1998) argue that a corporate reputation is the "result of consistent performance, reinforced by effective communication" (697) and thus needs time to develop. Corporate image, in contrast, could be shaped more quickly through advertisements and PR campaigns (Balmer, 1998). Therefore, some have argued that the consistent impressions created by the corporate image shape the corporate reputation (Alessandri, 2001). This time component of the creation of corporate image and reputation also has an important consequence on the robustness of the corporate signal. According to Markwick and Fill (1997), "reputations are more durable than images" (398).

Second, there is a difference in the amount of influence other stakeholders have. CI is mainly "built through a co-ordinated image-building campaign" (Gray & Balmer, 1998: 696), organized by marketers and PR specialists with the goal of creating an attractive image of a firm (Fombrun, 1996). As such, CI is mainly influenced by the firm. Additionally, the targeted stakeholder, in our case the consumer, acts as a co-creator of corporate image (Hatch & Schultz, 2010). In contrast, in order to create a sound corporate reputation, a "company also has to meet the expectations of its employees, investors, as well as the communities it serves." (Fombrun, 1996: 60). Next to company strategy, financial analysts, the media, and the company workforce can contribute to a corporate reputation (Fombrun & Shanley, 1990); hence, external stakeholders have more sway to shape CR as compared to CI. Similar to CI, consumers again co-create CR, as they can accept, or adapt these conveyed information (Balmer, 2012; Hatch & Schultz, 2010).

A recent debate focuses on the relationship between corporate image and corporate reputation (e.g., Walsh et al., 2009b). Although we acknowledge the possibility of a two-way interaction between CI and CR (Markwick & Fill, 1997; Nguyen & Leblanc, 2001), we view CR as the mediator to the CI – PBE relationship. There are two reasons for this notion. First, the time component implies this direction. As the corporate image helps to build corporate reputation over time, corporate image acts as an antecedent (Alessandri, 2001). Second, CI is mainly formed by the corporate communications and consumer perceptions thereof, whereas CR is also strongly shaped by other external stakeholders. The way consumers see the company (CI) is, therefore, one factor of the broader CR approach that includes other stakeholders, like employees or investors, and contributes to the corporate reputation. Therefore, CI would influence CR. Due to these reasons and preliminary results mentioned in the literature (de Leaniz & del Bosque Rodríguez, 2016; Souiden et al., 2006), we propose:

H2: CR mediates the effect from CI on PBE.

Having developed a signalling framework for the CI → CR → PBE relationship, we next introduce differences in the perceived uncertainty towards brands in emerging markets as a moderator to these relationships. While prior research has discussed that the effects of corporate image and corporate reputation might differ depending on the country (Bartikowski et al., 2011; Souiden et al. 2006; Walsh & Bartikowski, 2013), it is unclear what factors cause this difference and if the country setting also influences the mediated CI – PBE relationship.

According to the logic of signalling theory, consumer uncertainty serves as the precondition for consumers to fall back on company signals (Connelly et al., 2011). Therefore, country differences in consumer uncertainty towards brands may be an explanation for the country moderation. We argue that these differences in consumer uncertainty are caused by the different institutional settings in India and China, (e.g., regarding the rule of law and effective external monitoring mechanisms of businesses) and lead to an increased consumer uncertainty towards brands in China.

Due to its history, India has a relatively efficient judiciary system, whereas China has a relatively less effective rule of law and the state only has a weak ability to enforce the legal regime (Estrin & Preveszer, 2011). Additionally, while India has received praise for legal and regulatory reforms instituted after 1991, China's comprehensive efforts to revise its laws and regulations have been curtailed by its relatively weak law enforcement (Peng et al., 2008). Accordingly, China has been ranked significantly lower in terms of the rule of law (Worldbank, 2015) and the political and regulatory environment than India (Asian Corporate Governance Association, 2014). Therefore, Shah et al. (2014) argued that the institutional setting in China "cannot play an effective role in restricting the behaviour of producers and sellers" (221). This creates an institutional context where firms have less to lose (e.g., facing penalties from surveillance authorities) but more to gain (e.g., increased profits) through

operations that put consumers at risk. Thus, risk and uncertainty are higher for consumers in China.

Next to efficient government regulation, trust in companies may be facilitated by effective external monitoring mechanisms of businesses like media or NGOs. Media help uncover quality scandals and NGOs could serve as trusted independent examiners of product quality. Therefore, an institutional environment where free press and NGOs help monitor and control company action could facilitate consumer confidence. In China, the government closely monitors NGOs and the press (Reporters without borders, 2016), whereas India has a free press and vigilant NGOs act as checks and balances for companies (Khanna & Palepu, 2010). Therefore, the institutional setting of India leaves consumers with less uncertainty (Shah et al., 2014). Consequently, consumers in China have a higher propensity to value company signals to alleviate their perceived uncertainty towards brands. We hypothesize:

H3: The effect of CI on PBE is stronger in China than in India.

Because of the relationship between corporate image and corporate reputation, we expect that corporate reputation is a mediator in both countries. The "importance of an intermediate variable in explaining the total effect" (Rucker et al., 2011: 361) can be inferred from partial versus full mediation. Full mediation implies that the mediator completely accounts for the underlying process, whereas partial mediation suggests that the independent variable itself is still of considerable importance to induce the outcome. Building on this idea, we assert that the importance of the corporate reputation mediator might differ between China and India, because of more diversity of effective CR sources in India. Effective source diversity signifies the existence of various signal sources other than the firm itself (e.g., NGOs, media, etc.) that can create effective signals for the consumers in that market.

CI is mainly formed by company communication and then co-created by the targeted stakeholder, whereas CR is more shaped by other external stakeholders' assessment of the company (Fombrun, 1996). Consequently, reputation can originate from multiple sources like NGOs (e.g., consumer organisations, labour unions), other businesses (e.g., financial analysts) or free media. We argue that consumers choose to follow signals from these sources rather than the firms themselves, as long as these signals are credible. Corporate reputation better represents the reality of a corporate signal than a corporate image, as long as it is freely created in an environment, without state influence or guidance. Hence, CR is a more robust signal and consumers naturally choose stronger versus weaker signals to alleviate uncertainty (Lampel & Shamsie, 2001). In an institutional environment that allows free media and NGOs, consumers thus rely on CR as their main corporate signal. Consequently, we argue that in India, where NGOs and free media are reliable sources for consumers, corporate reputation by and large explains the corporate signalling relationship. As a result, in the institutional environment of India, corporate image is not the first signal of choice for consumers. As a company's branding and communication efforts intent to form the corporate image, it is a less robust signal than corporate reputation, which is shaped by multiple sources including the firm, NGOs, and the media. Consequently, we argue that due to its central role in signalling, CR fully explains the signalling relationship between CI and PBE in India. Following Rucker et al. (2011), the higher importance of the intermediate corporate reputation variable in explaining the total effect may lead to full mediation.

In China, however, consumers have less trust in the institutional environment (Edelman trust barometer, 2015). Although there also is a diversity of sources to create a corporate reputation, the dominant role of the government/party in China makes other sources less effective. For example, the number and quality of independent financial analysts is slowly improving in China, but modified audit opinions and government interference still

endure (Chen et al., 2016). As previously discussed, NGOs and media also enjoy less freedom and are, therefore, less effective in monitoring businesses. Consequently, consumers are more reliant on intentional and corporate controlled image signals. Hence, CI plays a relatively more important role in China. Accordingly, due to its non-central role in signalling, we argue that CR only partially explains the signalling relationship between CI and PBE in China. Following Rucker et al. (2011), the lower importance of the intermediate corporate reputation variable in explaining the total effect may lead to partial mediation. We hypothesize:

H4a: There is a full mediation of the CI – PBE relationship by CR in India.

H4b: There is a partial mediation of the CI – PBE relationship by CR in China.

4. Methodology

4.1. Sampling and data collection

The overwhelming majority of corporate signalling studies have been conducted in developed countries (Wang et al., 2006). However, developed countries may not be the right place to concentrate these efforts, since Western consumers enjoy a relatively secure shopping environment and, therefore, might not feel an urgent need to look for signals to decrease uncertainty in the beginning. Hence, an emerging market setting is more appropriate for corporate signalling studies. We selected China and India for this research because they are the most important emerging markets in terms of the size and growth prospects of their middle classes. However, studies that compare both countries are scarce. As outlined above, both countries have unique institutional environments, which may explain differences in perceived uncertainty towards brands and differences in effective source diversity. Moreover, China and India score relatively similar in terms of uncertainty avoidance (Hofstede, 2001), which eliminates uncertainty avoidance as an alternative explanation for our results.

In China, we selected three major, developed cities that are spread across different regions for our data collection (i.e., Beijing representing North China, Shanghai for East China, and Chengdu for South China). These cities include two of the most developed megacities of China (Beijing and Shanghai), and Chengdu as a regional economic powerhouse. Due to budget constraints, we only selected one city in India for the study. We chose Bangalore for its sizable middle class population. We selected real consumer goods for the survey because of consumers' generally high familiarity and the importance of brands in this category. Using desk and field research, we identified possible brands for our study across a wide range of consumer goods categories and finally identified brands to represent daily consumer goods from the toiletries and the beverage segments. These segments were chosen for theoretical and practical reasons. The theoretical reason is that a degree of unobserved quality still remains even after purchase of these products. For example, the customer can assess some of the quality aspects of a shampoo or facial cream; however s/he cannot be sure if quality inspection is carried out properly or if the ingredients are used as stated. Thus, the corporate signals remain important even after purchase. The practical reason is that our pre-study revealed that these product categories offer a sufficient number of brands with which consumers are familiar. Our own initial brand list was complemented by brands that locals suggested in pilot focus group interviews. Finally, we selected 36 consumer good brands in China and 55 in India for this study.

A second pre-test (n=23 in China and n=30 in India) validated consumers' familiarity with the pre-selected brands. Our sample includes a total of 1180 valid responses in China which were about equally distributed among cities, product categories, and brands. The second sample, collected in India, contains 554 valid responses.

Cluster sampling was used and the age range of respondents was limited to the consumption savvy population between 18 and 45. Trained interviewers conducted face to

face interviews at respondents' homes, based on a standardized questionnaire. In China, respondents were randomly selected using data from the registration office. Using the inhabitant list of each of the three cities, randomized clusters were identified with the help of a specific counting procedure (Kumar, 2000). The same procedure was applied in India, based on postal codes and street names. Every respondent was only questioned about one brand, in order to limit their fatigue (Zhou et al., 2010). Overall, the samples in both countries compare very well in terms of their demographics (age, gender, and education (Table 1)). Since Bangalore is known as one of the high tech centres in India, income there is higher than in our Chinese sample.

[Insert Table 1 about here]

4.2. Measurement

All measurements in our study are based on previous research (Table 2). We used seven point Likert-type scales, ranging from 1 (strongly disagree) to 7 (strongly agree). In order to ensure idiomatic equivalence, we used the translation-back-translation approach (Kumar, 2000). First, PBE was measured according to Yoo et al. (2000). Afterwards, respondents were asked to select a firm or corporate brand that stands behind the product brand from a list of 10 firms. After the selection, respondents were told to "Please think of [Corporate Brand] as the brand behind [Product Brand]", while the interviewer inserted the correct corporate brand. The survey then covered the corporate brand, measuring CI building on a scale from Verhoef et al. (2007). Finally, consumer-based CR was measured using a recent scale developed by Walsh and Beatty (2007) and Walsh et al. (2009a). The original scale encompassed five dimensions: customer orientation, good employer, reliable and financially strong company, product and service quality, and social and environmental responsibility. According to signalling theory, consumer uncertainty is the precondition for consumers to look out for company signals. However, the product and service quality items imply that consumers are knowledgeable

about the general level of quality of products/services of a company and thus do not align well with signalling theory. Hence, in order to use the theory in a prudent way, we excluded the product and service quality items from the CR scale. Additionally, validity and reliability considerations forced us to drop the social and environmental responsibility items. A possible reason for the lack of fit might be that respondents in emerging markets were not familiar with the concept of corporate social responsibility, as emerging market firms to date hardly make use of this instrument (Xu, 2011). Additionally, we included only one item that targeted the financial health of the company. Walsh and Beatty (2007) have designed the scale as a reflective measurement construct; therefore deleting individual items does not hurt the reliability of the scale (Lee & Cadogan, 2013).

[Insert Table 2 about here]

We tested our scales rigorously for validity, reliability and possible biases. Factor loadings and construct reliability measures are in an acceptable range for the individual countries, as well as in the combined sample (Bagozzi & Yi, 1988; Hair et al., 2010). The average variance extracted (AVE) easily exceeded the threshold of .5, supporting convergent validity (Bagozzi & Yi, 1988). The correlation matrix and AVEs indicate discriminant validity and nomological validity of the measures according to the Fornell-Larcker-criterion (Table 3). Finally, the measurement model displays acceptable fit values (Table 4) (Hu & Bentler, 1999).

[Insert Table 3 about here]

Our goal is to compare path estimates in two different countries. Therefore, it is essential to establish measurement invariance before conducting structural equation modelling. We followed the stepwise procedure of Steenkamp and Baumgartner (1998) and compared if the fit of an unconstrained measurement model was significantly better than increasingly constrained multi-group models. With this analysis we established configural invariance,

partial metric invariance and partial scalar invariance (Table 4). Therefore, our model estimates can be meaningfully compared between China and India.

[Insert Table 4 about here]

Using appropriate questionnaire design, we tried to limit common method bias. We ran the partial correlation procedure, where a marker variable acts as a surrogate for common method variance (Podsakoff et al., 2003). According to Lindell and Whitney (2001), this marker variable has to be theoretically unrelated to at least one construct in the study. We used items from the local identities scale, which measures how much respondents respect their local traditions (Zhang & Khare, 2009). The local identity construct had good reliability. Such a social identity is theoretically unrelated to the other constructs measuring brand or corporate perceptions, so it was a reasonable choice to act as a marker variable. Taking the lowest correlation between the marker variable and a construct from our model as an estimate for common method variance (Lindell & Whitney, 2001), we reached new estimates for CMV adjusted correlations. All significant correlations remained significant and dropped only slightly in size after correcting for the potential correlation inflation from common method variance (e.g., path coefficients for the combined sample: CI with PBE: .443 (instead of .500 without correction for CMV), CI with CR: .660, (instead of .695); CR with PBE: .447 (instead of .503)). Moreover, we ran our models and retested the hypotheses while controlling for CMV with the help of the marker variable. All hypotheses could still be accepted. Therefore, we gained support that common method testing did not bias our results. Additionally, we checked the variance inflation factor to test for multicollinearity. We reached a value of 1.93, which is well below the cut-off point of 10 (Hair et al., 2010).

As our sampling procedure of 36 brands in China and 55 brands in India may have resulted in a hierarchical structure of the data, we checked the intra-class correlation (the ratio of the group level variance to the total variance) of the final dependent variable, PBE. Our

results showed that 6.6% of the variance was caused by the group level; this value is far below the value of 10%, which is normally considered as the starting point for multilevel modelling (Hox, 2010). This implies that the individual effects are only marginally influenced by brand-level variance; therefore, the hierarchical data structure does not bias standard error estimates and a multilevel modelling technique is not required (Hox, 2010; Ozkaya et al., 2013).

Finally, we have included a number of control variables to eliminate possible confounding effects. First, we have accounted for the respondents' age and effects of product category differences (toiletries vs. beverage segment), and found neither significant effects on dependent variables, nor changes to our hypothesized relationships. Consequently, these variables do not have an impact on our proposed model and there is no need to consider them further in our analyses. Second, we investigated effects of two dummy variables, Control Identical Brand and Control Correct Identification. The former dummy variable accounts for differences in branding strategy. Some of the product brands share an identical name with the corporate brand (e.g., L'Oréal). In this case, the corporate signal might be easily transferable to the product brand and thus have a stronger effect. The latter dummy variable controls for differences in consumer initial knowledge. As indicated above, we asked consumers to identify the corporate brand behind the product brand from a list of 10 brands. More than 57% of consumers chose the correct corporate brand. The dummy variable thus accounts for possible differences of consumers that have initially misattributed the brand.

5. Results

According to our theoretical reasoning, Indian consumers perceive less uncertainty towards brands compared to Chinese consumers. To initially test if this proposition holds, we measure the level of consumer trust towards brands in both countries (measured with the item, "I

definitely trust [brand]" at the onset of both studies). Trust and perceived uncertainty share a strong negative correlation (e.g., Morgan & Hunt, 1994). The reason for not directly measuring perceived uncertainty is that consumers might not be able to quantify their uncertainty perception on a scale. The mean value of trust in China is significantly lower ($p<.001$) than the mean value in India. Therefore, we gain support for the notion that the level of uncertainty towards brands is higher in China than in India. Additionally, when ran a chi-square test to investigate if the percentage of initially correctly identified corporate brands is higher in China than in India. According to our argument, China leaves consumers with more uncertainty than India. Hence, Chinese consumers are expected to invest more efforts to identify company signals and thus should be better at matching corporate brands to product brands. Again, this initial test is supported ($p<.001$).

The calculations of the structural equation model were conducted using Mplus and a maximum likelihood estimator. When only modelling the direct effect of corporate image to product brand equity (Model 1), the effect is significant with a strong effect size of above .5 for the standardized coefficient in the total sample, therefore we gain support for hypothesis 1. We test the mediation hypothesis (H2) with the help of a bootstrap mediation test (Cheung, 2007; Hayes, 2013; MacKinnon, 2008). We reach a significant indirect effect with the size of .267 for the relationship from CI to PBE for the combined emerging market sample (.201 in China and .326 in India, respectively). The mediation is confirmed by the 5% Bootstrap confidence intervals of the total sample [.198; .338], as well as in China [.101; .313], and in India [.244; .494]. All intervals clearly exclude zero, which substantiates the mediation effect. A χ^2 difference test between model one (direct effect only) and model two (including the mediator) displays an increasingly better fit for model two. Therefore, we receive additional support for hypothesis 2 (Table 5). H3 posits that the effect of corporate image is stronger in China than in India. A multi-group analysis reveals support for this hypothesis, both for the

direct effect model and when including the mediator. The bootstrap analysis clearly excludes zero and, therefore, grants additional support. As already tested for H2, the mediation is supported in China and India. To investigate the nature of the mediation effect, it is important to compare the direct effect after the inclusion of the mediator (Zhao et al., 2010). For India, the direct effect ceases to cross the significance threshold after including the mediator (indicating full mediation). In contrast, in China the link displays a strong effect size of .804 and continues to be significant (indicating partial mediation). Therefore, H4 also gains support. To confirm the substance of our results, we ran the same tests with only those participants that have identified the corporate brand correctly. Despite some slight changes in results, we still find support for all hypotheses.

[Insert Table 5 about here]

6. Discussion and implications

This study examines the following research question: "How and why do consumers in China and India differ in terms of utilizing corporate signals (CI/CR) when they make product related decisions (PBE)?" Pursuing this research question provides several theoretical contributions related to signalling theory. First, it shows that in emerging markets, consumers utilize corporate signals such as CI and CR when making product decisions. This is a significant contribution since corporate signalling research to this point has mainly ignored how emerging markets consumers value signals like corporate image or reputation for guidance in their purchasing decisions. Second, the study contributes to theory by explaining how and why these differences exist. Our findings indicate that the reason for dissimilar effects of corporate signals (CI/CR) between countries is not cultural differences (as argued by previous studies) but institutional context related differences. Third, we contribute by explaining why CR mediates CI and PBE differently in China and India. Our findings

indicate that source diversity explains these differences and may also help explain some of the previous findings in the literature (e.g., Souiden et al., 2006). Key managerial implications of this study are that companies should rely on both CR and CI, but should adjust their dose according to the institutional setting in each country. We discuss these contributions in the following paragraphs.

Overall, our research demonstrates that emerging markets deserve the special attention of signalling research, not only due to their vast market sizes, but also due to their different characteristics that provide unique contexts for theory testing. The high uncertainty context originating from frequent product quality scandals (Anderlini, 2011) and a relative inexperience with modern forms of branding (Tian & Dong, 2011) leaves emerging market consumers unsure of which brands to choose. As a result, consumers value signals like corporate image or reputation for guidance in their purchasing decisions. Corporate signalling research to this point, however, has mainly ignored emerging markets (e.g., Fombrun & Shanley, 1990; Walsh et al., 2009b). One vital consequence of the emerging market setting in this study is to select Product Brand Equity as the dependent variable; this dependent variable was ignored by earlier corporate signalling research. Previous studies set in developed markets (e.g., Brown & Dacin, 1997; Gürhan-Canli & Batra, 2004) are often concerned with product evaluations, which is a more narrow concept than brand equity (Keller, 1993). Brand equity has been noted to directly translate into a revenue premium for companies because it contains a behavioural component next to the cognitive dimensions (Yoo & Donthu, 2001). Brand equity thus better captures the different forms of consumer uncertainty which are present in emerging markets. These go beyond the more cognitive assessments of pre-purchase quality uncertainty, but also include more normative and affective assessments like uncertainty about the social prestige value of brands (Eckhardt & Bengtsson, 2010; Tian & Dong, 2011). Therefore, we perceive brand equity as a more suitable dependent variable for

consumer related corporate signalling studies in emerging markets.

Moreover, we explore the conditions under which the importance of corporate signals varies. Previous studies have used cultural differences as the primary explanation for dissimilar effects of corporate signals between countries. Especially differences in uncertainty avoidance were stressed as the essential cultural moderator (Bartikowski et al., 2011; Jin et al., 2008). We argue that there are other factors explaining these dissimilar effects between countries. By choosing two countries that are comparable in uncertainty avoidance (Hofstede, 2001), we eliminate the alternative cultural explanation. Building on signalling theory, we explain dissimilar effects of corporate signals with institutional differences and find empirical support. Consequently, the institutional background in emerging markets creates unique levels of consumer uncertainty. China has a more government-controlled institutional environment with less independent external monitoring mechanisms of businesses and a less effective rule of law. This institutional environment leaves consumers with more uncertainty. Our results demonstrate that consumers in China are more reliant on corporate image than consumers in India while evaluating a product's brand equity. Our research, therefore, contributes to studies that seek to explain the dissimilar effects of corporate signals across countries. We confirm findings from Walsh and Bartikowski (2013) that the comparative importance of corporate signals is not universal across countries and extend the previous findings by providing a theoretical explanation for the reasons for these differences. Previous studies have suggested a cultural moderator (e.g., Bartikowski et al., 2011; Jin et al., 2008); however, according to our results, a cultural moderator does not sufficiently explain country differences.

In studies focusing on corporate signals, the relationship between CI and CR has only been covered superficially. We thus substantiate these preliminary results concerning the corporate reputation mediator. Previous studies have either not clearly differentiated between

CI and CR (e.g., Souiden et al. (2006) find an effect size >.9 between both constructs), or have not tested the mediation relationship (de Leaniz & del Bosque Rodríguez, 2016). Importantly, the boundary condition for the mediation has not been analysed. We thus add to the literature that the nature of the mediation depends on effective source diversity to establish a robust corporate reputation. CR is influenced by multiple other stakeholders like NGOs (e.g., consumer organisations, labour unions), other businesses (e.g., financial analysts), or free media. These sources enjoy more freedom in some emerging markets like India and are thus more credible for consumers. Therefore, our findings help explain the results of Souiden et al. (2006), who could only accept their hypothesis concerning differences in the consequences of CI, but not for differences concerning consequences of CR when comparing two developed countries.

Companies in emerging markets face the challenge of how to build their product brand equity in a globalising business world. Our study argues that corporate image and reputation are key instruments to tackle this challenge. Previous research has ascribed more negative associations to corporate image, as it is closer associated with corporate branding efforts. CI even has been connected to manipulations, falsehood, and fabrication (e.g., Bernstein, 1984; Grunig, 1993; Rindova, 1997). Compared to this, a corporate reputation has been considered to be more favourable, as it is "not directly under anyone's control, it is difficult to manipulate" (Fombrun, 1996: 59). As a result, managerial implications of previous studies mainly stressed the positive effects of corporate reputation building and neglected the positive effects of corporate image investments. Our research demonstrates that this negative connotation of CI is not justified, as the corporate image as a company signal helps to alleviate uncertainty and increase a product's brand equity. Therefore, even in a less favourable institutional environment, where the effectiveness of CR is curtailed, companies have a way to alleviate consumer uncertainty and enhance product brand equity by building a

strong corporate image. In emerging markets like China where the institutional environment curtails the usefulness of other stakeholders delivering company information, companies should particularly hone their corporate image to enhance their products' brand equity. Investments into CI are a signal to consumers that is recognized, valued, and used in consumer decision processes. This importance of CI in comparison to CR has not been recognized by previous studies focusing on perceived uncertainty (e.g., Gürhan-Canli & Batra, 2004, Walsh et al., 2014). Moreover, CI is also an important contributor to CR in emerging markets where the institutional environment provides trust to consumers. However, as long as the institutional environment of a country permits a trustworthy monitoring role to external stakeholders like NGOs and media, corporate reputation is more decisive, as it is a more robust signal. Hence, in an environment of effective source diversity, the corporate reputation should receive profound management attention. The co-creational role of external stakeholders has to be recognized and ties to them need to be built carefully as they have a direct impact on consumer behaviour.

We encourage future research to further develop the boundary conditions of CI and CR. Next to the institutional background in a country and the diversity of CR sources, other moderators may induce consumers to prefer the one signal to the other. These might be connected to the consumers, the corporation, or the nature of the product.

Additionally, our study's limitations provide avenues for future research. First, both corporate image and corporate reputation were measured based on consumer perceptions in recognition of the central role perceptions play in consumer decision making (Yoo et al., 2000). A more objective measure of CI and CR, for example in terms of company expenditure for these signals could substantiate our results. Second, this study examines the effects of broader constructs such as CI and CR that have larger brand and stakeholder scopes on a narrower construct - PBE. However PBE also may affect CI and CR which would create

a feedback loop. Future studies may examine this customer feedback loop (CR/CI=>PBE=> CR/CI) via a longitudinal study based on the change in these effects over time. Additionally, we encourage future studies that manipulate company signals in an experimental setting to provide more insights concerning the possible two-way interaction of CI and CR. Third, it is not possible to control for measurement error with our single item trust measure. We thus encourage future studies to rely on multi-item scales. Moreover, the link between an uncertain context and the general level of brand trust warrants a more careful investigation. Finally, we have limited our investigation to middle class consumers in emerging markets. Future research could investigate emerging market consumers below the middle class, because their perception of uncertainty might differ from the respondents in our study.

References

Aaker, D. A. (1991). Managing brand equity: capitalizing on the value of a brand name. New York: Free Press.

Abratt, R., & Kleyn, N. (2012). Corporate identity, corporate branding and corporate reputations: reconciliation and integration. European Journal of Marketing, 46(7), 1048–1063.

Alessandri, S. W. (2001). Modeling corporate identity: a concept explication and theoretical explanation. Corporate Communications, 6(4), 173–182.

Ali, R., Lynch, R., Melewar, T. C., & Jin, Z. (2015). The moderating influences on the relationship of corporate reputation with its antecedents and consequences: a meta-analytic review. Journal of Business Research, 68(5), 1105–1117.

Anderlini, J. (2011). Lipton tea faces safety scandal in China. http://www.ft.com/intl/cms/s/0/378f686e-0c55-11e1-8ac6-00144feabdc0.html#axzz2ZIKzGjcB (Accessed 17 July 2013).

Asian Corporate Governance Association. (2014). CG Watch 2014 - Market Rankings. http://www.acga-asia.org/public/files/CG_Watch_2014_Key_Charts_Extract.pdf (Accessed 19 August 2016).

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, 16(1), 74–94.

Balmer, J. M. (1998). Corporate identity and the advent of corporate marketing. Journal of Marketing Management, 14(8), 963–996.

Bartikowski, B., & Walsh, G. (2011). Investigating mediators between corporate reputation and customer citizenship behaviors. Journal of Business Research, 64(1), 39–44.

Bartikowski, B., Walsh, G., & Beatty, S. E. (2011). Culture and age as moderators in the corporate reputation and loyalty relationship. Journal of Business Research, 64, 966–972.

Bernstein, D. (1984). Company image and reality: a critique of corporate communications. Eastbourne, East Sussex: Holt, Rinehart & Winston.

Brown, T. J., & Dacin, P. A. (1997). The company and the product: corporate associations and consumer product responses. Journal of Marketing, 61(1), 68–84.

Chen, J., Ding, R., Hou, W., & Johan, S. (2016). Do financial analysts perform a monitoring role in China? Evidence from modified audit opinions. Abacus, 52(3), 473–500.

Cheung, M. W. (2007). Comparison of approaches to constructing confidence intervals for mediating effects using structural equation models. Structural Equation Modeling, 14(2), 227–246.

Çifci, S., Ekinci, Y., Whyatt, G., Japutra, A., Molinillo, S., & Siala, H. (2016). A cross validation of Consumer-Based Brand Equity models: driving customer equity in retail brands. Journal of Business Research, 69(9), 3740–3747.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: a review and assessment. Journal of Management, 37(1), 39–67.

de Leaniz, P. M. G., & del Bosque Rodríguez, I. R. (2016). Corporate image and reputation as drivers of customer loyalty. Corporate Reputation Review, 19(2), 166–178.

Eckhardt, G. M., & Bengtsson, A. (2010). A brief history of branding in China. Journal of Macromarketing, 30(3), 210–221.

Edelman. Trust barometer 2015. http://www.edelman.com/insights/intellectual-property/2015-edelman-trust-barometer/global-results/ (Accessed 15 February 2016).

Erdem, T., & Swait, J. (1998). Brand equity as a signaling phenomenon. Journal of Consumer Psychology, 7(2), 131–157.

Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as signals: a cross-country validation study. Journal of Marketing, 70(1), 34–49.

Erevelles, S., Roy, A., & Yip, L. S. (2001). The universality of the signal theory for products and services. Journal of Business Research, 52(2), 175–187.

Estrin, S., & Prevezer, M. (2011). The role of informal institutions in corporate governance: Brazil, Russia, India, and China compared. Asia Pacific Journal of Management, 28(1), 41–67.

Fombrun, C. (1996). Reputation. Boston: Harvard Business School Press.

Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. Academy of Management Journal, 33(2), 233–258.

Fong, C.-M., Lee, C.-L., & Du, Y. (2013). Target reputation transferability, consumer animosity, and cross-border acquisition success: a comparison between China and Taiwan. International Business Review, 22(1), 174–186.

Gray, E., & Balmer, J. M. (1998). Managing corporate image and corporate reputation. Long Range Planning, 31(5), 695–702.

Grunig, J. E. (1993). Image and substance: from symbolic to behavioral relationship. Public Relations Review, 19(2), 121–139.

Gürhan-Canli, Z., & Batra, R. (2004). When corporate image affects product evaluations: the moderating role of perceived risk. Journal of Marketing Research, 41(2), 197–205.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). Multivariate data analysis: a global perspective. Upper Saddle River NJ: Prentice Hall.

Hall, R. (1993). A framework of linking intangible resources and capabilities to sustainable competitive advantage. Strategic Management Journal, 14(8), 607–618.

Hatch, M. J., & Schultz, M. (2010). Toward a theory of brand co-creation with implications for brand governance. Journal of Brand Management, 17(8), 590–604.

Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis. New York, London: The Guilford Press.

Hofstede, G. H. (2001). Cultures' consequences: comparing values, behaviors, institutions and organizations across nations. Thousand Oaks CA: Sage Publications.

Hox, J. J. (2010). Multilevel analysis: techniques and applications. New York: Taylor & Francis.

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Structural Equation Modeling: 6(1), 1–55.

Jin, B., Yong Park, J., & Kim, J. (2008). Cross‐cultural examination of the relationships among firm reputation, e‐satisfaction, e‐trust, and e‐loyalty. International Marketing Review, 25(3), 324–337.

Johnson, J., & Tellis, G. J. (2008). Drivers of success for market entry into China and India. Journal of Marketing, 72(3), 1–13.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. Journal of Marketing, 57(1), 1–22.

Khanna, T., & Palepu, K. G. (2010). Winning in emerging markets: a road map for strategy and execution. Cambridge, MA: Harvard Business Review Press.

Khavul, S., Peterson, M., Mullens, D., & Rasheed, A. A. (2010). Going global with innovations from emerging economies: investment in customer support capabilities pays off. Journal of International Marketing, 18(4), 22–42.

Kirmani, A., & Rao, A. R. (2000). No pain, no gain: a critical review of the literature in signaling unobservable product quality. Journal of Marketing, 64(2), 66–79.

Kumar, V. (2000). International marketing research. Upper Saddle River, NJ: Prentice Hall.

Lampel, J., & Shamsie, J. (2000). Critical push: strategies for creating momentum in the motion picture industry. Journal of Management, 26(2), 233–257.

Lee, N., & Cadogan, J. W. (2013). Problems with formative and higher-order reflective variables. Journal of Business Research, 66(2), 242–247.

Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. Journal of Applied Psychology, 86(1), 114–121.

MacKinnon, D. P. (2008). Introduction to statistical mediation analysis. New York: Taylor & Francis.

Markwick, N., & Fill, C. (1997). Towards a framework for managing corporate identity. European Journal of Marketing, 31(5/6), 396–409.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. Journal of Marketing, 58(July), 20–38.

Nguyen, N., & Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. Journal of Retailing and Consumer Services, 8, 227–236.

Ozkaya, E. H., Dabas, C., Kolev, K., Hult, G. T. M., Dahlquist, S. H., & Manjeshwar, S. A. (2013). An assessment of hierarchical linear modeling in international business, management, and marketing. International Business Review, 22(4), 663–677.

Peng, M. W., Wang, D. Y. L., & Jiang, Y. (2008). An institution-based view of international business strategy: a focus on emerging economies. Journal of International Business Studies, 39(5), 920–936.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903.

Reporters without borders (2016). World press freedom index. https://rsf.org/en/ranking (Accessed 20 August 2016).

Rindova, V. P. (1997). The image cascade and the formation of corporate reputations. Corporate Reputation Review, 1(2), 188–194.

Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: current practices and new recommendations. Social and Personality Psychology Compass, 5(6), 359–371.

Shah, R., Gao, Z., & Mittal, H. (2014). Innovation, entrepreneurship, and the economy in the US, China, and India: historical perspectives and future trends. Academic Press.

Shapiro, C. (1983). Premiums for high quality products as returns to reputations. Quarterly Journal of Economics, 98(4), 659–679.

Sharma, P. (2011). 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.

Souiden, N., Kassim, N. M., & Hong, H.-J. (2006). The effect of corporate branding dimensions on consumers' product evaluation: a cross-cultural analysis. European Journal of Marketing, 40(7/8), 825–845.

Steenkamp, J.-B. E., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. Journal of Consumer Research, 25(1), 78–90.

Tian, K., & Dong, L. (2011). Consumer-citizens of China: the role of foreign brands in the imagined future China. London and New York: Routledge.

Verhoef, P. C., Langerak, F., & Donkers, B. (2007). Understanding brand and dealer retention in the new car market: the moderating role of brand tier. Journal of Retailing, 83(1), 97–113.

Walker, K. (2010). A systematic review of the corporate reputation literature: definition, measurement, and theory. Corporate Reputation Review, 12(4), 357–387.

Walsh, G., & Bartikowski, B. (2013). Exploring corporate ability and social responsibility associations as antecedents of customer satisfaction cross-culturally. Journal of Business Research, 66(8), 989–995.

Walsh, G., Bartikowski, B., & Beatty, S. E. (2014). Impact of customer-based corporate reputation on non-monetary and monetary outcomes: the roles of commitment and service context risk. British Journal of Management, 25(2), 166–185.

Walsh, G., & Beatty, S. E. (2007). Customer-based corporate reputation of a service firm: scale development and validation. Journal of the Academy of Marketing Science, 35(1), 127–143.

Walsh, G., Beatty, S. E., & Shiu, E. M. (2009a). The customer-based corporate reputation scale: replication and short form. Journal of Business Research, 62(10): 924–930.

Walsh, G., Mitchell, V.-W., Jackson, P. R., & Beatty, S. E. (2009b). Examining the antecedents and consequences of corporate reputation: a customer perspective. British Journal of Management, 20(2), 187–203.

Wang, Y., Kandamully, J. A., Lo, H.-P., & Shi, G. (2006). The roles of brand equity and corporate reputation in CRM: a Chinese study. Corporate Reputation Review, 9(3), 179–197.

Wiener, J. L. (1985). Are warranties accurate signals of product reliability? Journal of Consumer Research, 12(2), 245–250.

Worldbank (2015). Worldwide governance indicators. http://data.worldbank.org/data-catalog/worldwide-governance-indicators (Accessed 20 August 2016).

Xu, T. (2011). Firms blamed for weak CSR. Global times. http://www.globaltimes.cn/NEWS/tabid/99/ID/683032/Firms-blamed-for-weak-CSR.aspx (Accessed 13 February 2013).

Yang, J., & Mai, E. (2010). Experiential goods with network externalities effects: An empirical study of online rating system. Journal of Business Research, 63(9-10), 1050–1057.

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.

Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. Journal of Business Research, 52(1), 1–14.

Zhang, Y., & Khare, A. (2009). The impact of accessible identities on the evaluation of global versus local products. Journal of Consumer Research, 36(3), 524–537.

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, L., Yang, Z. & Hui, M. K. (2010). Non-local or local brands? A multi-level investigation into confidence in brand origin identification and its strategic implications. Journal of the Academy of Marketing Science, 38(2), 202–218.

Figure 1: Conceptual framework

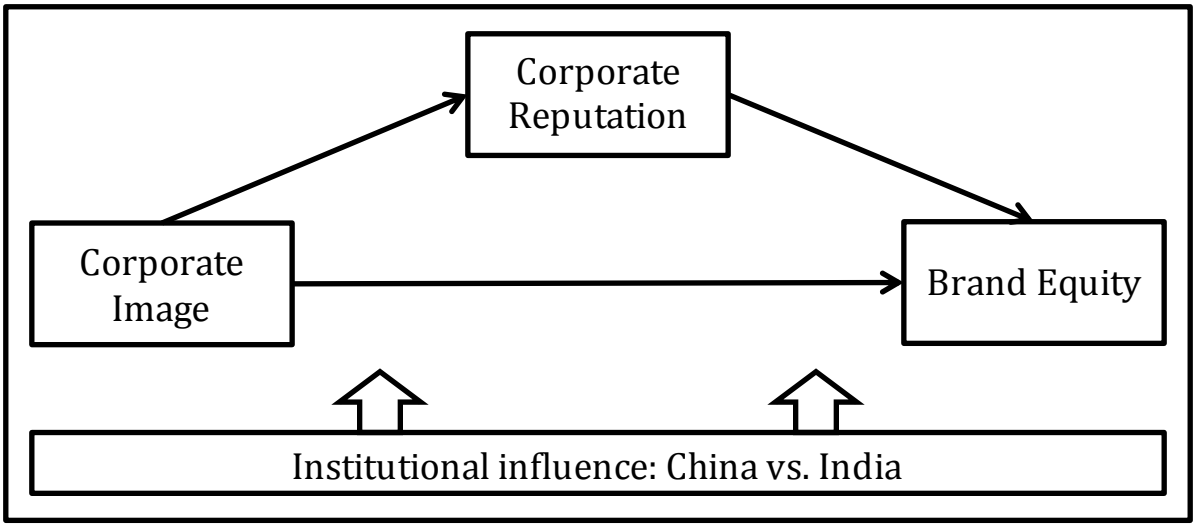

Table 1: Sample characteristics

Category	India (n = 554)	China (n = 1180)
Average age	31.5	33.1
Female respondents	59.2%	57.6%
Education		
Primary/middle school	6.3%	10.6%
High school	60.1%	61.1%
B.A./M.A./Ph.D.	33.5%	28.0%
other		0.3%
Monthly household income (in RMB) [in Rupees]*		
(<3000) [< 30,000]	6.9%	14.5%
(3001-6000) [30,001 – 60,000]	47.1%	58.4%
(6001-9000) [60,001 – 90,000]	14.3%	19.2%
(>9000) [> 90,000]	12.6%	7.2%
n.a.	19.1%	0.7%

* at the time of study, according to IMF WEO data, 1 $intl equalled to 3.5 RMB [17.6 Rupees] (PPP)

Table 2: Measurement model

Construct and item wording		**Total** λ	**India** λ	**China** λ
Corporate Image (Verhoef et al., 2007; acc. to Keller, 1993)	**CA / CR**	.849 /.853	.850 /.857	.839 /.844
[Corporate brand] is a strong brand.		.704	.679	.704
[Corporate brand] is favourable to me.		.751	.776	.743
[Corporate brand] is a unique brand.		.789	.750	.797
[Corporate brand] has a positive image.		.828	.885	.780
Corporate Reputation (Walsh et al., 2009a)		.889 /.890	.895 /.899	.883 /.884
[Corporate brand] has employees who treat customers courteously.		.734	.695	.743
[Corporate brand] has employees who are concerned about customers' needs.		.768	.878	.712
[Corporate brand] is concerned about its customers.		.713	.711	.704
[Corporate brand] looks like a good company to work for.		.755	.772	.740
[Corporate brand] seems to treat its people well.		.783	.830	.758
[Corporate brand] seems to have excellent leadership.		.745	.778	.713
[Corporate brand] looks like it has strong prospects for further growth.		.627	.526	.698
[Corporate brand] tends to outperform competitors.		excluded due to bad fit		
[Corporate brand] seems to recognize and take advantage of market opportunities.		excluded due to bad fit		
Product Brand Equity (Yoo et al., 2000)		.845 /.855	.687 /.752	.899 /.900
Even if another brand has same features as [product brand], I would prefer to buy [product brand].		.702	.362	.835
If there is another brand as good as [product brand], I prefer to buy [product brand].		.861	.799	.885
If another brand is not different from [product brand] in any way, it seems smarter to purchase [product brand].		.854	.818	.876

λ = standardized factor loadings (CFA); CA=Cronbach's Alpha; CR=Composite reliability

Table 3: Correlation matrix

		Total sample			India			China		
		1	2	3	1	2	3	1	2	3
1	Corporate Image	**.597**	.483	.250	**.607**	.399	.091	**.579**	.515	.457
2	Corporate Reputation	.695***	**.539**	.256	.632***	**.567**	.248	.718***	**.523**	.333
3	Product Brand Equity	.500***	.503***	**.667**	.302***	.498***	**.541**	.676***	.577***	**.750**

AVEs are on the diagonals, values below are correlations, values above squared correlations

Table 4: Cross-cultural measurement invariance

Model	$\chi 2$	(df)	$\Delta\chi 2$	(Δdf)	p-value	RMSEA	SRMR	CFI	Equality Supported
a) Baseline Multigroup model	1139.214	(148)	-		-	.088	.048	.926	-
b) Full metric invariance	1368.509	(162)	229.295	(14)	< .001	.093	.086	.910	no
c) Partial metric invariance	1145.559	(157)	6.345	(9)	.705	.085	.050	.927	yes
d) Partial scalar invariance	1151.378	(162)	5.819	(5)	.324	.084	.050	.926	yes

Table 5: Path coefficients

Effect	Total sample			India			China			Difference Test (India-China)			Bootstrap (1000), 5% confidence interval	Hypotheses
	B	beta	p	B	beta	p	B	beta	p	B	beta	p	B	
Model 1														
Corporate Image➔Product Brand Equity	.619	.503	***	.356	.336	***	1.008	.677	***	-.652	-.341	***	[-.817; -.498]	H1
Control Identical Brand➔Product Brand Equity	.086	.048	†	-.026	-.012	n.s.	.027	.014	n.s.	-.053	-.026	n.s.	[-.344; .202]	
Control Correct Identification➔Product Brand Equity	.096	.068	**	.106	.085	†	.015	.009	n.s.	.092	.076	n.s.	[-.072; .223]	
Model 2														
Corporate Image➔Product Brand Equity (direct)	.356	.287	***	.009	.008	n.s.	.804	.540	***	-.795	-.796	***	[-1.052; -.577]	H4
Corporate Image➔Corporate Reputation	.742	.696	***	.667	.629	***	.772	.717	***	-.105	-.088	†	[-.226; .016]	
Corporate Reputation➔Product Brand Equity	.359	.309	***	.524	.519	***	.260	.188	***	.264	.331	**	[.064; .443]	
Corporate Image➔Product Brand Equity (indirect)	.267	.215	***	.350	.326	***	.201	.135	***	.149	.191	†	[-.002; .291]	H2
Corporate Image➔Product Brand Equity (total)	.623	.502	***	.359	.334	***	1.005	.675	***	-.646	-.341	***	[-.801; -.483]	H3
Control Identical Brand➔Product Brand Equity	.068	.039	n.s.	-.037	-.016	n.s.	.007	.004	n.s.	-.043	-.020	n.s.	[-.325; .212]	
Control Identical Brand➔Corporate Reputation	.040	.020	n.s.	.025	.011	n.s.	.065	.049	*	-.040	-.038	n.s.	[-.216; .140]	
Control Correct Identification➔Product Brand Equity	.108	.077	***	.094	.075	n.s.	.025	.015	n.s.	.070	.061	n.s.	[-.073; .212]	
Control Correct Identification➔Corporate Reputation	-.036	-.030	n.s.	.024	.019	n.s.	-.048	-.040	n.s.	.072	.059	n.s.	[-.029; .178]	
Coefficient of determination	Model 1	Model 2		Model 1	Model 2		Model 1	Model 2						
R^2 Product Brand Equity	.261	.308		.120	.283		.458	.473						

Note: B = unstandardized slope estimate; beta = standardized slope estimates; p = p-value; † p<.1; * p<.05; ** p<.01; *** p<.001; n.s. = not significant.